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Mindfulness Meditation Among Survivors of Intimate Partner Violence in a Community Program

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Walden University
2019

Abstract

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MA, Southern Oregon University, 2005

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Dissertation Submitted in Partial Fulfillment

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Abstract

This study aimed to assess the impact of an Mindfulness-based stress reduction (MBSR) intervention in a program serving women who survived Intimate partner violence (IPV). The biopsychosocial model, formulated by Engel, was the theoretical basis of this study. The impact of the MBSR intervention was assessed by qualitatively evaluating researcher notes and 5 participants' journals and reflections, and quantitatively evaluating 16 participants' self-reported stress, mindfulness, well-being, and optimism before and after the intervention. The themes that emerged from the qualitative data included participants' feelings of relaxation or balance, improved self-awareness, mindfulness exercises becoming easier over time, and improved intentionality. The Kentucky Inventory of Mindfulness Skills (KIMS) self-report inventory was used to assess participants' mindfulness. The KIMS instrument is composed of four subscales: observe, describe, act, and accept. There were significant improvements in the describe and accept dimensions of mindfulness from pretest to posttest, after Bonferroni adjustment. The subscale describe measures how well the participants report being able to describe, identify, or observe mental phenomena in a nonjudgmental manner. There were no significant differences from pre to posttest on stress, well-being, and optimism, a non-equivalent dependent variable not expected to change as a result of the intervention, as optimism is presumed to be a stable personality trait. This study may provide a valuable link to the development of coping and treatment strategies for IPV survivors that can be integrated into therapy programs and individual treatment.

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Dedication

This dissertation is dedicated to my deceased, father and mother, Antonio H. Moreno and Mary Louise Moreno (I know they would have been very proud of my accomplishments); also my husband, Roberto Hernandez Garcia, my daughter, Kathalina McGinnis Green, and my son Charles E. Adams, for all their support and encouragement.

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Chapter 1: Introduction to the Study

Introduction

In the United States, intimate partner violence (IPV) is a major public health concern because not only does it have an impact on all family members, but it also affects community, medical, and societal expenditures (Black, 2011; Centers for Disease Control and Prevention [CDC], 2014; Finkelhor, Turner, & Hamby, 2011; Hamby et al., 2011; Insana, Foley, Kolko, & McNeil, 2013; Levendosky, Lannert, & Yalch, 2012). Insana et al. (2013) noted that children exposed to IPV may also experience adverse functioning in later life. Also, women who have been victims of IPV reported high rates of depression, anxiety, PTSD, substance abuse, and suicide attempts. Furthermore, children who were exposed to IPV had higher rates of internalizing and externalizing behaviours, depressive symptoms, conduct problems, and attention problems (Levendosky et al., 2012). Hamby et al. (2011) noted that exposure to violence occurs in a wide array of family relationships that includes more than two parents and extends to noncustodial parents, stepparents, boyfriends or girlfriends of parents, and other in-home caregivers such as grandparents. Stewart, MacMillan, and Wathen (2012) also noted that IPV is associated with problems such as depression, anxiety disorders, PTSD, chronic pain, eating disorders, sleep disorders, psychosomatic disorders, alcoholism and substance abuse suicide, self-harm behaviors, personality disorders, nonaffective psychosis, and health risk behaviors. Because of the link of IPV to so many health and mental health consequences, Stewart et al. suggested that IPV has an impact on mental health professionals and affects public

policy, clinical research, and educational programs. Thus, IPV is linked to a range of emotional mental health problems among women and children who are exposed.

Women who are victims of IPV use more health care, mental health, outpatient hospitals, and primary services than non-IPV women, increasing health care consumption and expenditures (Black, 2011). Children who are exposed to violence in the home and community are also at-risk for significant mental, physical, and emotional trauma that can have lasting negative effects into adulthood (Finkelhor et al., 2011; Hanby et al., 2011; Insana et al., 2013; Levendosky et al., 2012). Also, according to the CDC's (2014) IPV survey, sexual assault, IPV and other sexual crimes occur among females before age 25 and women, more often than men tend to be physically, mentally, and emotionally impacted by sexual crimes during their lifespans. Thus, IPV not only affects victims directly, but also has a rippling effect on families, communities, and health care and is a prevalent and serious public health concern.

Mindfulness-based stress reduction (MBSR) has been demonstrated to be effective in reducing PTSD symptoms among individuals experiencing IPV (Kimbrough, Magyari, Langenberg, Chesney, & Berman, 2010). MBSR has been incorporated into acceptance and commitment therapy (ACT), which may be combined with cognitive-behavioral therapy, behavioral therapy, and mindfulness training (Davis & Hayes, 2011). It has also been integrated into dialectical behavioral therapy (DBT), which uses mindfulness skills to treat those with borderline personality disorder and recently has been adapted to treating individuals with trauma (Kimbrough et al., 2010). These therapeutic approaches all incorporate mindfulness as a component of intervention in

changing cognitions and behavior to improve mental health and well-being in a variety of populations and settings (Desrosiers, Vine, Klemanski, & Hocksema, 2013; Hill & Updegraff, 2012; Lee, Zaharlick, & Akers, 2009).

The concept of MBSR is rooted in mindfulness, which is a Buddhist practice derived from various Eastern spiritual practices, such as Zen, Vipassana, Vajrayana, and others (Kabat-Zinn, 2005). Kabat-Zinn (2005) described the practice of mindfulness as a practice of being aware of one's own experience moment by moment. In other words, it is the art of paying attention to what is happening in a particular moment and becoming grounded and focused in the present instead of ruminating about the past or worrying about the future. Mindfulness is being introspective about one's present personal emotional and mental experiences, devoid of attachment to judgment yet paying attention in the present moment. Practioners posit that the practice of mindfulness, by continuously bringing one's attention back to the breath and the present moment, facilitates focused awareness, thereby increasing well-being and reducing stress (Davis & Hayes, 2011). This is achieved through individuals reducing stress by focusing on the present moment and continuously bringing the mind back to the breath and the moment. In doing so, practitioners develop a habit of mindfulness that is posited to reduce stress by limiting or redirecting anxious or rueful thinking, which may exacerbate stress (Davis & Hayes, 2011; Kabat-Zinn, 2005). This has been asserted by Davis and Hayes (2011), who found that paticipants who underwent MBSR training showed improvement on measures of empathy, emotional regulation, reactivity and response flexibility, and compassion, as well as stress and anxiety.

The purpose of this study was to provide an evaluation of an existing program by using secondary data from an evaluation of a community program that implemented a mindfulness intervention among survivors of IPV. Data were collected from an MBSR program conducted at a local women's shelter by a licensed mental health care provider knowledgable about MBSR and IPV. The shelter offers ongoing classes to survivors of IPV as a means to increase mindfulness, reduce stress, and increase well-being in this population.

For this current study, an evaluation of the program's effectiveness used a mixed methods approach to assess the impact of MBSR on participant self-reported mindfulness, stress, and well-being by analyzing participant data prior to and post participation in the MBSR course. Program evaluation data consisted of qualitative data (participant reflections) and quantitative assessment of changes in mindfulness, stress, and well-being from pre to post intervention. The MBSR curriculum consisted of a 4-week program to train participants in the practice of mindfulness using a standardized curriculum that had been validated across diverse settings in the literature, such as domestic violence shelters (Hughes & Rasmussen, 2010), foster care homes (Jee et al., 2015), and university counseling centers (Murphy, 2006), and with populations such as veterans (Oman & Bormann, 2014), cancer outpatients (Speca, Carlson, Goody, & Angen, 2000), and patients with anxiety (Vøllestad et al., 2011).

Background of the Study

There is growing evidence to suggest that MBSR can be a useful intervention with workers at risk of burnout in high-stress occupations, such as health care, policing,

teaching, and social services, as well as survivors of trauma such as IPV (Kabat-Zinn, 2005; Steward et al., 2012; Vøllestad et al., 2011). Vøllestad et al. (2011) examined the effect of MBSR on patients with anxiety disorder and found that participants who completed treatment improved significantly in all outcome measures, showing changes in acute anxiety symptoms as well as worry and trait anxiety. Steward et al. (2012) discussed the use of cognitive trauma therapy for IPV victims but noted that there were no studies conducted on the success of treatment.

Davis and Hayes (2011) noted that MBSR might facilitate well-being while helping to reduce negative emotions and ruminations. Williams (2010) reviewed several articles regarding the benefits of mindfulness training and improved mood change and concluded that there were significant enhancements in cognitive and emotional processes as a result of mindfulness training. The benefits included better working memory, lower emotional stress, decreased anxiety and depression, and increased well-being (Desrosiers et al., 2013; Williams, 2010). Desrosiers et al. (2013) investigated the effect of mindfulness on aspects of mental well-being such as cognitive health and emotional well-being. They recruited 187 adult participants who self-reported a history of depression and anxiety disorders. At the conclusion of the study, participants reported having less rumination, depression, and anxiety symptoms. The practice of MBSR can have a positive effect on an indiviual's well-being while decreasing anxiety and psychological distress, as suggested by Hill and Updegraff (2012), who found that results from mediational models are consistent with the proposition that mindfulness reduces emotional lability by increasing emotion differentiation and improving emotion

regulation. However, mindfulness may affect emotion regulation through other factors present in emotion regulation as well. In fact, emotion regulation mediated the relationship between self-reported mindfulness and negative (trend) and positive emotion differentiation. Emotion regulation difficulties also mediated the relationship between self-reported mindfulness and negative emotional lability, but not positive emotional lability (p. 87).

Meditation has been described by researchers as a mind and body encounter that heightens the individual's condition of relaxation and mindfulness (Oman & Bornmann, 2014; Sansone & Sansone, 2009; Williams et al., 2014). Meditation involves relaxation techniques and being aware and paying attention to what is going on internally and externally without any judgment brought about by the individual's thoughts or emotions (Sansone & Sansone, 2009). According to Lee, Zaharlick, and Akers (2009), 100 participants with history of trauma and PTSD were recruited from a housing program for mothers with substances abuse issues. Out of the 100 participants recruited, 60 participants were randomly selected into an experimental group, with the remaining 40 participants in a control group. The design of the study was longitudinal; however, the researchers were interested in researching mindfulness meditation (MM) as an intervention that can be effective at a low cost in the treatment of trauma victims. The researchers noted that previous studies indicated that participants who practiced MM showed significant decreases in PTSD symptoms, avoidance, hyperarousal symptoms, and negative emotions, along with significant increases in positive emotions such as joy, as well as significantly increased levels of mindfulness (Lee, Ng, Leung, & Chan, 2009).

Vujanovic et al. (2011) also found that MM in the treatment of PTSD had numerous benefits among veterans presenting with PTSD according to the Veterans Affairs (VA) Office of Inspector General. Through practicing meditation, an individual's awareness of the present moment was increased as negative judgment of self decreased. In other words, with the practice of mindfulnesss over time, participants reported increased self-awareness and ability to stay in the moment, which were associated with reduced stress and increased well-being. This allowed participants to engage in therapy more fully and accept PTSD symptoms in a nonjudgmental way, which was associated with a decline in psychological distress (Delizonna et al., 2009).

Hill and Updegraff (2012) provided information on mindfulness training and its effectiveness in emotion regulation. Hill and Updegraff also noted that MBSR had benefits similar to those of DBT. The authors looked for a direct correlation of well-being with the practice of DBT in 96 individuals with borderline personality disorder, bipolar disorder, and other personality disorders at a large Midwestern university, finding a significant correlation (Hill & Updegraff, 2012). Participants reported lower levels of emotional reactiveness and being more aware of feelings of sadness, fearfulness, nervousness, happiness, peacefulness, and other emotions. Thus, there seems to be evidence of the effectiveness of MBSR across a number of studies in faciliating mindfulness, reducing stress, and increasing well-being.

Jensen, Vangkilde, Frokjaer, and Hasselbalch (2012) found that MBSR was highly correlated with improvements in attention as well as lower stress. Participants who practiced MBSR showed significant improvement in visual working memory

competence, conscious perception, attention, and mindfulness levels. Lee et al. (2009) stated that meditation can provide significant mood improvement for female trauma survivors when it is practiced on a regular basis. Vujanovic et al. (2011) provided information that focused on how to incorporate MM along with other clinical practices in the treatment of PTSD, in particular for the population of veterans with PTSD. The authors compared several mindfulness treatments and their results for various mental disorders (Vujanovic et al., 2011). These included the ACT. For this practice, therapists trained clients to become aware of their thoughts, emotions, and memories, and to observe these without passing any judgment. ACT has been effective in treating persons exhibiting psychotic symptoms, anxiety and depression, substance abuse, and social phobias; this treatment is brief.

An assessment of the effect of MBSR among survivors of IPV can inform the development of interventions to support survivors of IPV. It can also provide a foundation for further research on IPV victims in relation to mindfulness, stress levels, and well-being. Because IPV affects communities and families as well as individual victims, the ripple effect of healing victims can carry over to their extended networks. As such, the current research has implications for community programs, future researchers, policymakers, and individuals experiencing IPV.

Problem Statement

Worldwide, IPV is a major public health problem affecting women more than men. It has repercussions in communities and among families in terms of damaging behavioral patterns that emerge from IPV victims (CDC, 2014; Steward, MacMillan, &

Wathen, 2012). Many studies have addressed mindfulness as a treatment for stress and trauma, such as those of Vujanovic et al. (2011), who examined PTSD among military veterans; Bermudez et al. (2013), who examined women with PTSD and a history of IPV; Carlson et al. (2003), who examined quality of life in breast and prostate cancer patients; and Earley et al. (2014), who examined child abuse survivors. Others have addressed how survivors of IPV cope and progress during recovery, but few studies have focused on stress of IPV survivors. The current study provided a secondary evaluation of an existing program and evaluated the benefits of an MM intervention for women who survived IPV by focusing specifically on improvements in stress level, mindfulness, and well-being. Jensen et al. (2012) found that MBSR is highly correlated with improvements in attention as well as lower stress, yet to date, there remains a dearth of knowledge in regard to how IPV survivors cope with stress. This study addressed this gap in the literture by examining MM and stress among these survivors. More specifically, the primary goal of the current research was to evaluate the effectiveness of a MBSR program in a community-based organization serving women who had experienced IPV. The study focused on improvements in stress level, reported level of self-awareness in daily activities, and positive emotional self-regulation from pre to post intervention.

Purpose of the Study

The goal of this study was to evaluate the effectiveness of a MBSR program in a community-based organization serving women who had experienced IPV by assessing qualitative and quantitative changes in participants from pre to post intervention using a structured and validated MBSR program, with data provided from an evaluation of an

existing program. The study examined the effectiveness of MBSR, an MM intervention for women who have survived IPV. A mixed methods approach with a quantitative quasi-experimental design was applied using a nonequivalent dependent variable (NEDV) to evaluate the effectiveness of MBSR over a 4-week program, assessing changes in quantitative measures of stress, mindfulness, and well-being among program participants. As such, the present study may inform interventions by demonstrating linkage between MBSR programs in the community and increased mindfulness and well-being as well as stress reduction in a community setting. Futhermore, the results of the study may have positive implications for future interventions to reduce stress and improve mindfulness and well-being. Changes in these domains are associated with improvements in health, function, and daily functioning (Desrosiers et al., 2013; Kabat-Zinn, 2005; Vujanovic et al., 2011). It can also provide a foundation for further research on IPV victims, stress, meditation, and coping strategies. Because IPV affects communities and families as well as individual victims, the ripple effect of healing can carry over to their extended networks.

Significance of the Study

The potential contributions of the present study include providing knowledge for MBSR therapy programs, therapists, and treatment centers. The results of this study are important to the counseling profession and related fields because of the impact that IPV has on emotional well-being and stress levels. The present study may also provide a foundation of knowledge about IPV and stress for future studies and may influence policies and practices of institutions such as university campuses, treatment centers, and

therapists' private practices, as well as secondary educational institutions and programs. For the public at large, the outcome of this research may inform political leaders of the need for educational programs and health care services for survivors of domestic violence. MBSR may also be integrated into educational programs promoting awareness of stress, IPV, and mindfulness. Implications for positive social change may extend to the individual, community, and public levels. It is important for counselors to be aware of how residual stress from IPV shapes cultural and subcultural influences as well as how this may affect their clients and the overall community. This information may benefit not only those in the counseling profession, but also other professionals, such as social workers, nurses, psychologists, and educators.

Research Design

This study employed a mixed methods approach with a quantitative quasi-experimental design using a nonequivalent dependent variable (NEDV; Cook & Campbell, 1979; Coryn & Hobson, 2011). Specifically, a quasi-experimental design was selected for the quantitative portion of the study because the participants in this study could not be randomly assigned to groups to test the effects of the intervention by comparing participants receiving the MBSR intervention with a control group not receiving the intervention. Thus, an NEDV was included in the design to increase internal validity because a control group was not feasible (e.g., Coryn & Hobson, 2011). Because a control group or a nonequivalent comparison group was not feasible, an NEDV was included in which the NEDV was conceptually unrelated to the dependent variables (stress, mindfulness, and well-being) and was not expected to change as a result of the

intervention (Cook & Campbell, 1979; Coryn & Hobson, 2011). For this study, the NEDV was a standardized measure of optimism because the construct was not expected to change as a result of the intervention. Optimism is conceptualized as a measure of personality that is hypothesized to be a relatively stable and enduring attribute of a person and is unlikely to change as a result of an intervention (e.g., Scheier & Carver, 1987). Quantitative data captured in the study addressed the benefits of the MM techniques course for participants by comparing pre- and postintervention scores. This study focused on the effectiveness of the MBSR intervention to facilitate improvements in participants' lives as conceptualized within the biopsychosocial model, by assessing changes in stress, mindfulness, and well-being from the beginning to the completion of a 4-week course in MM in a community-based program for women experiencing IPV.

Qualitative methods were used in this study in addition to quantitative methods (Campbell & Stanley, 1963, 1966). The qualitative data consisted of participant reflections over the course of the intervention, which were summarized and analyzed for thematic content using a generic qualitative coding technique (Tracy, 2013). A qualitative approach is appropriate when the research involves the perceptions and subjective experiences of participants in regard to a specific phenomenon (Merriam, 2014). One of the goals of this study was to understand participants' perceptions of the benefits and challenges associated with the course in MM, so a qualitative component was appropriate. The qualitative data were analyzed using generic qualitative coding, which involved identifying units of meaning that were relevant to the qualitative research question (i.e., perceived benefits and challenges) and then organizing those units of

meaning into common themes (Tracy, 2013). A narrative was constructed that described each theme and included direct quotes from participant responses that supported or conflicted with the theme.

The themes that emerged from the qualitative analysis were used to clarify the quantitative findings as well as provide rich description and insights into the impact of the program on the participants, particularly in terms of stress, mindfulness, and well-being. Triangulating the qualitative and the quantitative method allowed for convergent validation of the findings (Tashakkhori & Teddlie, 2003). Specifically, I compared the themes that emerge from the qualitative analysis with the quantitative results and described how the qualitative results were consistent (or inconsistent) with the quantitative results.

Research Questions and Hypotheses

The key research questions guiding this study were the following:

RQ1: Among a sample of female IPV survivors who participated in a 4-week course in mindfulness meditation techniques, are there benefits or improvements in stress, mindfulness, and well-being from pre to post intervention?

$H_0$1: From pre to post intervention, there will be no difference in stress.

H_A1: From pre to post intervention, a majority of participants will report an improvement in stress reduction.

$H_0$2: From pre to post intervention, there will be no difference in mindfulness.

H_A2: From pre to post intervention, a majority of participants will report significant improvement in mindfulness.

H_03: From pre to post intervention, there will be no difference in well-being.

H_A3: From pre to post intervention, a majority of participants will report a significant improvement in well-being.

H_04: From pre to post intervention, there will be no difference in optimism.

H_A4: From pre to post intervention, a majority of participants will report greater optimism.

RQ2: What are the benefits and challenges that female IPV survivors perceive from participation in a 4-week course in mindfulness meditation, as captured in participants' written reflection?

Theoretical Base

The biopsychosocial model, formulated by Engel, posited that there may be more variables causing human disease than can be explained by the traditional biomedical model, which was popular during the mid-20th century (Borrell-Carrió et al., 2004; Friedman & Downey, 2012; Suls & Rothman, 2004). According to Engel, clinicians may gain a holistic understanding of patient disease by focusing on the biological, psychological, and social aspects of illness (Borrell-Carrió et al., 2004). In more recent years, researchers have used the biopsychosocial model to investigate other relational aspects of human suffering, such as dysfunctional marital interactions, marital hostility,

interpersonal patterns, and physical and emotional well-being (Wood, 2011). The biopsychological model was appropriate for the present study, because it explains the connection between physical, social, and mental well-being, which may help to explain the way in which mindfulness benefits individuals. Specifically, the biopsychosocial model was appropriate for the current study because of its emphasis on the mind, body, and social integration aspect of MBSR. As posited by Davis and Hayes (2011) and Sansone and Sansone (2009), MBSR relies heavily on increasing mindfulness through greater awareness of breath and the somatic aspects of being in one's body, grounded in the present moment, and interacting with people in situations in the moment instead of reacting and projecting based on conditioned responses. Within this study, I investigated the effects of participation in a 4-week MBSR course. Specifically, I explored whether there is an increase in mindfulness and improvements in stress level and well-being from pre to post intervention.

Assumptions

The study was centered on the following assumptions: Because IPV can be perceived as traumatic and demeaning, it may be likely that participants were hesitant to provide clear and honest answers, but one assumption was that participants were truthful. Another assumption was that participants would attend most sessions and would complete the required questionnaires and interviews in a timely manner. Another assumption was that participants would have the verbal ability to articulate the effect of mindfulness on the course of treatment and outcome of MBSR on their lives.

Limitations

The study was dependent on the following limitations:

One limitation for this research was limited generalizability due to this being a small-scale evaluation of one program in one city with a limited number of participants. The planned sample size for this study (assuming a medium effect size of 0.50, a power level of .80, and a significance level of .05) was 34 participants (Cohen, 1992).

A second limitation was that response bias could have influenced participants' responses to the self-report measures. Specifically, participants might choose to answer the questions in a socially desirable manner or in a way that served to confirm the hypotheses of the study. In order to mitigate the threat of response bias, participants were assured that their participation was voluntary and that their responses would be kept confidential, which would shield them from any potential retaliation for their responses.

Another threat to any longitudinal study is attrition. Participants may drop out before the intervention is completed, which can lead to attrition bias if dropouts differ from participants who completed the program. Every effort was made to retain participants by engaging participants through the program content.

Delimitations

The study was subject to the following delimitations:

A delimitation was that this study was not a randomized controlled study. This means that no strong inferences can be made as to the effectiveness of an MBSR intervention in the general population of IPV survivors. Additionally, the study involved a small sample of participants in one program within one community and might not be

representative of survivors of IPV or programs or communities elsewhere.

Definition of Terms

Intimate partner violence (IPV): Any psychological, sexual, or physical harm by an intimate partner or spouse (Steward, MacMillan, & Wathen, 2012).

Mindfulness: The practice of mindfulness as a practice of being aware of one's own experience moment by moment; the art of paying attention to what is happening in a particular moment (Kabat-Zinn, 2005).

Mindfulness-based stress reduction (MBSR): A program that is composed of eight weekly sessions in which individuals take part in various types of meditation techniques (Lamothe, Rondeau, Malboeuf-Hurtubise, Duval, & Sultan, 2016). This program has been effective in managing stress, illness, and psychological difficulties (Lamothe et al., 2016).

Posttraumatic stress disorder (PTSD): A condition that includes symptoms such as anxiety, flashbacks, avoidance, or hyperarousal after a traumatic event (Lee, Zaharlick, & Akers, 2009).

Summary

IPV is a major public health concern because it has an impact on families, as well as on community and societal expenditures (Black, 2011; CDC, 2014; Finkelhor, Turner, & Hamby, 2011; Hamby et al., 2011; Insana, Foley, Kolko, & McNeil, 2013; Levendosky, Lannert, & Yalch, 2012). According to the CDC (2014), sexual assault and IPV tend to occur to females before age 25, and more women than men tend to be physically, mentally, and emotionally impacted by these crimes during their lifespan

(CDC, 2014). Exposed children are also at risk for mental, physical, and emotional trauma that can extend into adulthood (Finkelhor et al., 2011; Hamby et al., 2011; Insana et al., 2013; Levendosky et al., 2012). While MBSR has proven to be an effective treatment for stress and trauma, it may have potentially positive coping benefits for IPV survivors (Kimbrough et al., 2010). Within Chapter 1, I discuss the research that supports the use of MBSR for those who suffer from stress- or trauma-related symptoms and outline the need to examine the gap in the literature on IPV victims' stress and the use of MBSR. In Chapter 2, I examine the literature on IPV, MBSR, and stress in more detail and provide scholarly findings in the field in support of the present study. In Chapter 3, I detail the methodology and research design.

Chapter 2: Literature Review

Introduction

In the United States, IPV is a major public health concern because it has an impact not only on all family members in affected households, but also on community, medical, and societal expenditures (Black, 2011). Women who are victims of IPV use more health care, mental health, outpatient hospital, and primary services than women who are not IPV victims because IPV creates emotional trauma and bodily damage and is damaging to women's overall health (Levendosky, Lannert, & Yalch, 2012), increasing health care consumption and expenditures (Steward, MacMillan, & Wathens, 2012). Children who are exposed to violence in the home and community are also at risk for significant mental, physical, and emotional trauma that can have negative effects into adulthood (Hamby, Finkelhor, Turner, & Ormrod, 2011). Thus, IPV not only affects victims directly, but also has a rippling effect on families, communities, and health care and is a prevalent and serious public health concern.

Many studies have addressed how survivors of IPV cope and progress during recovery, but few studies have focused on stress in IPV survivors. The present study addressed this gap in the literature by examining MM and stress among these survivors. More specifically, the primary goal of the present research was to evaluate the effectiveness of an MBSR program in a community-based organization serving women who had experienced IPV. The present study may provide a valuable link to the development of coping and treatment strategies for IPV survivors that can be integrated into therapy programs and individual treatment. It may also provide a foundation for

further research on IPV victims, stress, meditation, and coping strategies. Because IPV affects communities and families as well as individual victims, the ripple effect of healing victims may carry over to their extended networks.

In this chapter, I examine the effectiveness of MBSR by reviewing current peer-reviewed articles based on the effectiveness of MBSR programs in reducing PTSD symptoms among individuals experiencing IPV and other traumas. Kimbrough et al. (2010) found that MBSR was an effective treatment for those with PTSD as a result of childhood sexual abuse. Many other scholars have also found that MBSR has been effective for various types of trauma recovery, in application in the psychotherapy setting, and for improving self-regulatory behaviors (Davis & Hayes, 2011; Jensen et al., 2012; Lee, Zaharlick, & Akers, 2009; Murphy, 2006; Vujanovic, Niles, Pietrefesa, Schmertz, & Potter, 2011). In this chapter, I also examine the literature on IPV and stress in more detail and provide scholarly findings in support of the present study.

Literature Search Strategy

I obtained the literature compiled for this review through comprehensive online library search methods. A librarian also assisted in determining the best search methodology and helped to generate ideas regarding keywords to search. Among the journal databases searched, those that generated the most applicable results were SAGE, JSTOR, EBSCO, Wiley, and Elsevier. I accessed a multitude of other databases in the search process as well. Prior to generating search results, I selected the peer-reviewed feature, ensuring that all of the literature generated would fit this designation.

I reviewed current literature containing empirical research in the relevant areas, which appeared in a wide range of publications, such as *Cognitive Therapy and Research, Psychological Bulletin, Journal of Health and Social Behavior, Journal of Aggression, Conflict and Peace Research*, and *Journal of Aggression, Maltreatment & Trauma.* I identified articles through searches conducted through Google Scholar with a preference for peer-reviewed journals and through Internet search engines such as Google and Scirus, with a filter applied for peer-reviewed journals. Once I identified key authors in this way, I reviewed the corpus of their work for other relevant research, and other works cited by those authors were similarly reviewed. Additionally, I reviewed identified journals, especially in specifically themed issues, for other relevant work.

Background

The biopsychosocial model (BPS) of health and well-being asserts that biological, psychological, and social processes are associated with physical health and illness in a holistic way (Suls & Rothman, 2004). This model has enabled practitioners to approach treatment options on multiple levels (Suls & Rothman, 2004). Proponents of this model assert that stress, social support, and emotions are linked to the management of physical illness (Borrell-Carrió, Suchman, & Epstein, 2004; Friedman & Downey, 2012; Suls & Rothman, 2004). Like biopsychosocial approaches that incorporate the psychological and social into factors that influence well-being, MBSR has been linked to improvements in emotion regulation, has interpersonal benefits, and is holistic and integrative in approach (Davis & Hayes, 2011). Those participants who had higher trait mindfulness levels showed less emotional stress in response to relationship conflict and showed less anger

and anxiety (Davis & Hayes, 2011). Other studies have confirmed these findings (Hill & Updegraff, 2012; Jensen et al., 2012; Vøllestad et al., 2011; Vujanovic et al., 2011).

Literature Review Related to Key Concepts and Variables

Mindfulness and Mindfulness-Based Stress Reduction (MBSR)

Mindfulness originates from Buddhist practice derived from various Eastern spiritual traditions, such as, Zen, Vipassana, Vajrayana, and others (Kabat-Zinn, 2005). These spiritual traditions and the practices associated with them have been practiced for hundreds of years and only recently have become known in the West. Kabat-Zinn (2005) described the practice of mindfulness as a practice of being aware of one's own experience moment by moment. In other words, it is the art of paying attention to what is happening in a particular moment. Davis and Hayes (2011) defined *mindfulness* "as a moment-to-moment awareness of one's experience without judgment" (p. 198), which is a state of mind. While meditation practices can enhance moment-to-moment awareness, mindfulness can be obtained without meditation practices by practicing staying in the present moment or engaging in tasks that refocus an individual to stay aware of the present moment. Mindfulness is being introspective about one's present personal emotional and mental experiences, devoid of attachment to judgment yet paying attention in the present moment. When mindfulness is combined with meditation, the benefits are numerous, such as reduction in stress, anxiety, depression, and other psychological disorders. This yields higher self-awareness and well-being, as well as improved mental clarity (Davis & Hayes, 2011; Sansone & Sansone, 2009).

MBSR has been demonstrated to be effective in reducing PTSD symptoms among survivors of childhood sexual abuse (Kimbrough et al., 2010). In a study with 27 adult survivors of child sexual abuse conducted over the course of 24 weeks, assessments of depressive symptoms, PTSD, anxiety, and mindfulness were performed at baseline and at 4, 8, and 24 weeks, respectively. At 8 weeks, average depressive symptoms were reduced by 65%, and of three PTSD symptom criteria, symptoms of avoidance or numbing were significantly reduced (Kimbrough et al., 2010). The researchers also showed that MBSR was effective in reducing depression, distress, and anxiety; improving sleep; and reducing somatic complaints (Kimbrough et al., 2010). Across multiple studies conducted on MBSR, researchers have found similar results (Chambers, Lo, & Allen, 2008; Desrosiers et al., 2013; Oman & Bornmann, 2014; Sansone & Sansone, 2009).

Current research on MBSR. In an 8-week MBSR exercise, participants with mood disorders reported a reduction in rumination and depressive episodes (Chambers et al., 2008; Davis & Hayes, 2011). In one MBSR study, randomly assigned participants were measured for anxiety and depression by a functional magnetic resonance image (fMRI) after watching depressing movies. The researchers found that the participants who engaged in 8-week MBSR training showed less signs of anxiety and depression compared to the control group. Hence, Davis and Hayes (2011) concluded that the 8-week course in MBSR might substantiate positive well-being while helping to eliminate negative emotions and ruminations. In another study, participants' pre and post scores were compared after an 8-week course in MM, and the researchers found that the participants' post scores for depression, anxiety, psychological distress, and physical

ailments were lower than their pre scores (Davis & Hayes, 2011). Williams (2010) reviewed several articles regarding the benefits of mindfulness training and improved mood change. After extensive review of the articles, the author concluded that there were significant enhancements in cognitive and emotional processes following short mindfulness trainings. For example, participants were able to talk about past emotional experiences without being overwhelmed. The benefits were more significant for those who engaged in an 8-week course; these participants showed better working memory competence and lower emotional stress (Williams, 2010). Other benefits included decreased anxiety and depression and increased well-being (Desrosiers et al., 2013; Williams, 2010). Therefore, findings appear to indicate consistently that the practice of MBSR can have a positive effect on an individual's well-being while decreasing his or her anxiety and psychological distress (Davis & Hayes, 2011; Hill & Updegraff, 2013; Sansone & Sansone, 2009).

MBSR and trauma. Sansone and Sansone (2009) reported that many of their patients were survivors of physical and emotional abuse who tended to be fixated on past traumas. Moreover, past traumas can be correlated with depression and low self-esteem. The researchers described meditation as a mind and body encounter that heightens the individual's condition of relaxation and mindfulness (Oman & Bornmann, 2014; Sansone & Sansone, 2009; Williams et al., 2014). The researchers reported that a number of ways to meditate exist; the appropriate method depends on the individual's preferences. For example, some individuals prefer to sit in a quiet, relaxing place and focus on their breathing. By focusing on their breathing, individuals are able to be present and stay in

the moment. However, more seasoned meditation practitioners are able to transcend to a more heightened relaxation (Sansone & Sansone, 2009). In this state of relaxation, some meditators search for higher level consciousness outside normal consciousness. Still other meditators practice meditation to gain clarity concerning their life goals and tend to ask important life questions in the hope that during their heightened states they will attain answers to their questions.

Another side of mindfulness is being aware and paying attention to what is going on internally and externally without any judgment brought about by one's emotions or culture (Sansone & Sansone, 2009). For example, through mindfulness, individuals may pay attention to what they are experiencing in a difficult situation and accept what the outcome might be without any judgment. In other words, individuals may accept the "nowness" of an event.

For trauma victims, a positive self-image is often replaced by negative behaviors with recurring maltreatment (Sansone & Sansone, 2009). According to Lee et al. (2009), meditation practices taught to trauma victims with a long-term history of PTSD resulted in positive emotional improvement. In this study, the researchers looked at the effectiveness of a 6-week meditation program (Lee et al., 2009). Female trauma survivors were recruited for this study. A total of 100 women were randomly assigned to experimental and control groups; 60 women were assigned to an experimental group, and 40 to a control group. At the end of the 6-week meditation program, both the participants and therapists were assessed on the participants' mental performances. Posttreatment scores showed significant decreases in PTSD symptoms, avoidance, hyperarousal

symptoms, and negative emotions, while there were significant increases in positive emotions such as love and joy, including significantly increased levels of mindfulness (Lee et al., 2009; Lee, Ng, Leung, & Chan, 2009).

Benefits of mindfulness meditation. Research by Vujanovic et al. (2011) suggests that there may be numerous benefits associated with the practice of MM among individuals with PTSD. First, by practicing MM on a regular basis, a person can enhance his or her awareness of the present moment, thereby decreasing any negative judgment of self. In other words, the person becomes aware that any trauma-related triggers are fleeting thoughts and feelings. For this the person with PTSD may be able to engage in therapy and can accept PTSD symptoms in a nonjudgmental way, which, with regular practice, can lead to a decline in psychological distress (Delizonna et al. 2009). With regular practice of MM, patients can also cope with distressing situations by changing ruminative thinking to focusing on the present moment (Vujanovic et al., 2011).

Research on MM and its benefits for stress reduction is extensive. Davis and Hayes's (2011) systematic review of more than 39 studies provided empirical evidence of the benefits of MM for psychotherapists during interactions with their clients (Davis & Hayes, 2011). In a study by Grepmair et al. (2007), two groups of psychotherapists were assessed for mindfulness client interactions. One group received 1-hour meditation training 5 days each week for a total of 2 months, while the other group did not receive any training. A total of 124 clients were randomly assigned to groups (i.e., the meditation group and the nonmeditation group). At the end of the study, the clients in the meditating

group reported greater therapy satisfaction and improved state of mind (Davis & Hayes, 2011; Grepmair et al., 2007).

The benefits of MM for therapists include regulation of emotions, decreased reactivity to client responses, and interpersonal and intrapersonal responses. The main results for therapists include decreased reactivity and increased interpersonal and intrapersonal plasticity, improved well-being, decreased stress and anxiety, and greater compassion and empathy during sessions with clients. Both therapists and clients have reported positive outcomes of MM (Davis & Hayes, 2011; Fauth et al., 2007; Wexler, 2006). Therefore, there is evidence of the effectiveness of mindfulness-based practices for both practitioners and clients. The implications for the present study are that mindfulness training could have favorable outcomes for participants, although mindfulness technique training has not been previously studied in relation to victims of interpersonal violence in terms of understanding improvements in mindfulness, stress level, and well-being.

Chambers and Allen (2008) assessed the results of an MM coaching program, focusing on 20 novice meditators who were assessed pre/post a 10-day MM program. At the end of the program, the participants who received coaching indicated significant improvements in mindfulness, working memory, sustained attention, depressive symptoms, and rumination as compared to a group whose members did not receive any mindfulness guidance (Chambers & Allen, 2008). The major purpose of this study was to investigate the "impact of intensive mindfulness practice on cognitive processes, executive cognition, and affect" (Chambers & Allen, 2008, p. 315). The researchers

compared results in two groups: one whose members completed the MM program, and another whose members did not receive MM instructions. The results indicated numerous psychological improvements for the MM group, as indicated by the group's self-report scales. The results of this study suggest that there are benefits from the practice of MM. Such benefits include improvement in "working memory capacity and sustained attention" (Chambers & Allen, 2008, p. 319). The study also suggested enhancement in affective functioning. Chambers and Allen suggested that there was potential evidence that MM could be used as an intervention in a wide range of psychological studies.

There are significant benefits in health due to MBSR programs (Grossman, Niemann, Schmidt, & Walach, 2004; Nila Holt, Ditzen, & Aguilar-Raab, 2006). Grossman et al. (2004) reviewed both published and unpublished studies related to the efficacy of MBSR programs in relation to various health issues. Out of 64 empirical studies, only 20 met the authors' criteria for appropriate significance. The studies included populations dealing with a wide variety of medical diagnoses, such as depression, pain, heart disease, and anxiety. The overall results were significantly positive, suggesting that MBSR may help to alleviate or help individuals to cope with a broad range of medical dysfunctions. "A single, relatively brief and cost-effective program that can potentially be applied to a range of chronic illnesses and is able to effect a positive shift in fundamental perspectives toward health and disease should be of great interest," Grossman et al. wrote (p. 35). MBSR appears to be an effective intervention program, as suggested by the above studies. These studies indicated that MBSR was particularly beneficial for individuals experiencing depression and anxiety. As Grossman

et al. explained, “the literature seems to clearly slant toward support for basic hypotheses concerning the effects of mindfulness on mental and physical well-being” (p. 40). The authors of this article suggest that MBSR intervention programs have high potential for helping many individuals learn to cope with prolonged illnesses and stress.

Hawley, Schwartz, Bieling, Irving, Corcoran, Farb, Anderson, and Segal (2014) looked at the effects of treating patients with depressive and rumination symptoms with mindfulness-based cognitive therapy (MBCT) and MBSR. They also investigated whether MBCT and MBSR would have long-term effects in the prevention of relapse. In this study 32 individuals with reoccurring depressive moods were treated with either MBCT or MBSR in an outpatient clinic. The results show that there was a decreased in rumination as the result of formal mindfulness practices. “An increasing awareness exists among healthcare professionals that mindfulness-based approaches are particularly effective in terms of alleviating depressive symptoms and preventing relapse once remission has been achieved” (Hawley et al., 2014, p. 1). This article is relevant to this research because it shows that the practice of mindfulness is an important component for sustaining a healthy disposition for individuals experiencing depressive and rumination symptoms. This article substantiates the research of this study that suggests that MBSR will be effective in reducing depression and rumination symptoms in IPV survivors (Hawley et al., 2014).

Hill and Updegraff (2012) provided information on mindfulness training and its effectiveness on emotional regulation. The article described Dialectical Behavioral Therapy (DBT) as one of the many mindfulness-based therapies that has benefited many

clients experiencing anxiety, depression, and other emotional issues. This article also referenced MBSR as having similar benefits as DBT. The authors looked for a direct correlation of well-being with the practice of DBT in individuals with borderline personality disorder, bipolar disorder, and other personality disorders, and found a significant correlation (Hill & Updegraff, 2012). The researchers found that a correlation existed between mindfulness and effective emotional regulation (Hill & Updegraff, 2012). Participants evidenced lower levels of emotional reactivity and reported being more aware of feelings of sadness, fearfulness, nervousness, happiness, peacefulness, and other positive and negative emotions. As a result, the researchers concluded that mindfulness practice can improve emotion regulation.

Jensen et al. (2012) found that MBSR is highly correlated with improvements of attention as well as lowering stress. In this study, the researchers tested the "effects of MBSR on attention in meditation novices" (p. 108). The researchers randomly assigned participants to four groups that consisted of various stress reduction intervention techniques, including MBSR, non-mindfulness stress reduction (NMSR), incentive instructions, and an inactive control group (Jensen et al., 2012). The researchers hypothesized an improvement in sustained and selective attention, as well as improved vigilance for the MBSR group. The selection attention for the MBSR group showed greater improvement than the other three groups. The MBSR group also showed significant improvement in visual working memory competence, conscious perception, improvements in attention, and increase in mindfulness levels.

MBSR and Trauma/PTSD

There is a substantial amount of trauma associated with IPV, especially in regards to children who witness it (Bayarri, Ezpeleta, & Granero, 2011). Bayarri et al. examined effects between IPV and child psychopathology. One hundred and sixty-six children between the ages of 4 – 17, who were exposed to IPV, were interviewed and assessed for functional impairment. The children's mothers were also interviewed regarding any changes in their children's behaviors after being exposed to IPV. According to the participants' self-reports, boys who were victims of IPV were negatively impacted and showed more mood problems than boys who witnessed IPV (Bayarri et al., 2011). However, regardless of the children's age and sex, more victims of IPV reported being negatively impacted by exposure to IPV. Children who are exposed to IPV, whether as a victim or witness, reported having some degree of psychopathology and are at risk for developing psychological problems (Bayarri et al., 2011). Therefore, it is imperative that children have a good quality of mother/child relationship and social support system. Bayarri et al. suggested that early prevention and intervention, and/or treatment would help to prevent/reduce the risk of children experiencing psychological problems due to exposure to IPV. Thus, IPV affects not only the victims directly, but has a rippling effect on families with children, communities, and health care and is a prevalent, and serious public health concern.

In keeping with the theme of trauma, mindfulness interventions have proven highly successful in regards to children, as well. Earley, Chesney, Frye, Greene, Berman, and Kimbrough (2014) reported that childhood sexual abuse (CSA) survivors are at a

greater risk for showing signs of PTSD, anxiety and mood disorders, identity disorders, cognitive and emotional disturbances, and interpersonal problems. In order to address these, the researchers set out to determine if there were long-term positive effects on the behaviors of CSA survivors once they had been introduced to, and partook in, MBSR interventions. During their 2.5-year follow-up after an MBSR program, the researchers found that 73% of CSA survivors returned for a one-time MBSR session for depression, issues with PTSD, anxiety, and mindfulness training (Earley et al., 2014). The researchers concluded that MBSR is beneficial for CSA survivors. In the past, CSA survivors have been known to have difficulty of continuing long-term changes in behaviors. The data collected showed that MBSR is an effective intervention treatment for those recovering from CSA. Similar to Lee et al. (2008), Earley et al. were able to assert that MBSR possesses elements of mental and emotional rehabilitation, which are particularly effective in bringing positive change to those who have undergone trauma at some point in their lives.

Abuse does not only occur in the home, with a great deal of it being experienced by youth in foster care. Because of this, Jee et al. (2015) recruited 42 participants from foster care to investigate whether MBSR could benefit traumatized youth in foster care. At the end of the trial, the participants self-reported lower stress levels and higher mindfulness, which was reflected by the qualitative data, which captured higher self-awareness and the ability to manage stress successfully (Jee et al., 2015). Jee et al. concluded that the pilot study was successful, as participants self-reported lower levels of anxiety and stress. Participants also self-reported being more mindful and overall well-

being. Adolescents in foster care are a critical point in life, which is why it is important that they receive the help they need should they find themselves in an abusive situation. In order to maintain the mental health and well-being of those who do suffer from abuse, the MBSR can have a positive effect on their quality of life.

PTSD is a tragic condition that causes a great deal of suffering to the individual with it and those around them. Before Earley et al.'s findings, Dutton, Bermudez, Matas, Majid, and Myers (2013) set out to determine whether MBSR could be used to treat African American women with PTSD and a history of IPV. The researchers proposed that a MBSR intervention would be extremely beneficial as a program for low income African American women in lieu of very expensive therapy to which they may not have access. The researchers proposed that a similar MBSR program will be beneficial for low-income African American women with a history of IPV, because MBSR is a low-cost effective program that does not require a licensed therapist and mental health setting to conduct the mindfulness-based intervention curriculum (Robb et al., 2013). The researchers' findings substantiated their hypothesis that conducting a MBSR intervention program for low-income African American women with a history of IPV was feasible for this population (Robb et al., 2013). In this pilot study, 70% of the participants completed at least five classes. The researchers noted that for this population the dropout rate was higher for CBT as compared to the drop-out rate for MBSR. As an extension of the previous study, Bermudez, Benjamin, Porter, Saunders, Myers, and Dutton (2013) put their theory to use and established a MBSR intervention for 10 low income women with a history of IPV. For a 15-month period, Bermudez et al. (2013) collected data on these

women at four separate intervals. The data particularly focused on participants' struggles around meditation practices, their expectations around personal improvement, as well as interpersonal improvement. At the end of the study the researchers concluded that the participants benefited from the course in MBSR. The participants self-reported having greater "[s]erenity, awareness, emotion regulation, self-compassion, increase socialization, assertive communication, improved quality of relationships, and overcoming interpersonal traumas…" (Bermudez et al., 2013, p. 107). The researchers found that the participants anticipated helping other women with history of IPV, and were positive about their own future personal growth.

Fifty female participants with history of trauma participated in a 4-6 week MBSR program at a community health center (Gallegos, Lytle, Moynihan, & Talbot, 2015). Several psychological measures were used to assess any significant decreases in stress, depression, anxiety, emotional dysregulation, posttraumatic stress disorder. The researchers also investigated whether there were any increases in mindfulness as well. Blood samples were collected to assess any changes in inflammatory biomarkers. At the end of the pilot study the researchers found evidence "that MBSR may be an effective intervention to improve emotion regulation and immune function" (p. 6). According to Gallegos et al. (2015) there is evidence that high levels of interpersonal trauma exist among low-income women from urban communities. "Psychological distress may be amplified by the process of inflammation, as pro-inflammatory cytokines induce depressive symptoms and increase anxiety (Maes & Bonaccorso, 2004)" (p. 1). Women with history of stress are at-risk for developing inflammatory conditions, which can lead

to many serious medical problems. Gallegos et al. concluded that future studies are needed to explore the benefits of MBSR in minimizing trauma and other psychological dysfunctions. The participants who participated in the MBSR program showed an increase in mindfulness and emotion regulation, while there was a decrease in depression, anxiety, worry, rumination, and PTSD symptoms. The MBSR program showed significant results and therefore should be further examined as a positive resource for individual with history of interpersonal violence, including victims of IPV (Gallegos et al., 2015).

Kearney, McDermott, Malte, Martinez, and Simpson (2013) examined 47 veterans with symptoms of posttraumatic stress disorder. The 47 participants were randomized into three treatment groups; 22 were randomized to treatment as usual (TAU), and 22 to TAU and MBSR. The groups were assessed at baseline and at a four-month follow-up. The participants were all assessed pre and post for PTSD, depression, and mental health-related quality of life (HRQOL), respectively. Randomized veterans who were assigned to MBSR had significant improvement in mental HRQOL and PTSD symptoms at the four-month follow-up. Kearney et al. (2013) found that veterans who took part in MBSR reported improvement in mindfulness skills as compared with those assigned to TAU. There was significant improvement in mental HRQOL, but this waned at the four-month follow-up (Kearney et al., 2013). The information found in this article validates my hypotheses that from pre to post intervention, there will be improvements in stress, self-awareness in daily activities, and positive emotional self-regulation for those IPV participants who participate in the eight-week course in MBSR.

Desrosiers et al. (2013) examined mindfulness and its relationship to mental health in a clinical setting. One hundred eighty-seven participants seeking treatment for mood and anxiety problems were recruited from a clinic in Connecticut. Desrosiers et al. found that the practice of mindfulness significantly improved symptoms of depression and anxiety. The researchers of this study investigated mindfulness in relationship to rumination, worry, and non-acceptance. Participants completed questionnaires on anxiety and mood regulation, which indicated that "rumination significantly mediated associations between mindfulness and both anxiety and depression when examined through simple mediation analysis" (p. 658).

Nila et al. (2014) were investigating whether MBSR can have positive effects on distress tolerance (DT). Forty-nine participants were recruited for this online longitudinal study. Twenty participants were accessed before and after their training in MBSR and compared to 29 participants from a control group. The experimental group self-reported higher levels in mindfulness, DT, along with resilience. Some other positive results included alleviation of negative conditions that could ameliorate psychopathologies, and promote future positive mental health.

Carmody and Baer (2007) investigated the efficacy of a MBSR program in increasing mindfulness and improvements of psychological and medical well-being. The researchers screened the participants for stress associated with illness, pain, and anxiety (Carmody & Baer, 2007). At the end of an 8-week course, the pre and post MBSR results showed a significant improvement in mindfulness and well-being. MBSR has shown to be helpful in other fashions outside of psychological well-being, as well. Robb, Benson,

Middleton, Meyers, and Hebert (2015) investigated whether or not there was positive correlation between MBSR teachers and the effects that they would have on health. During this study, teachers received trainings and certification in mindfulness training, wherein they learned meditation to reduce stress, anxiety, depression, and risky negative health behaviors (Robb et al., 2015). Upon the completion of the study, Robb et al. found that there was indeed a positive correlation between MBSR and overall health ratings, similar to those found by Carmody and Baer (2007).

Summary

In summary, the evidence for the effects of MM indicated that MBSR courses can be beneficial for survivors of IPV who suffer from stress and want to rebuild their self-esteem and gain new life skills. Studies have demonstrated that MBSR can be an effective treatment for stress caused by various conditions including trauma, PTSD, anxiety, and substance abuse (Carmody & Baer, 2007; Hill & Updegraff, 2012; Jensen et al., 2012; Lee et al., 2009; Vujanovic et al., 2011). This study examined MBSR in the context of those recovering from IPV. How these survivors perceive their stress levels, mindfulness, and well-being can provide valuable information on how IPV survivors learn coping skills in recovery as well as the efficacy MBSR can have for those who experienced IPV.

Chapter 3: Research Method

Introduction

The study provided a secondary evaluation of an existing program. The evaluation examined the benefits of an MM intervention for women who had survived IPV. Data were collected from an MBSR program conducted at a local women's shelter. The shelter offered ongoing classes to survivors of IPV as a means to rebuild their self-esteem and gain new life skills. An MBSR course was offered to assist survivors in improving their lives along several dimensions; the study evaluated the program's effectiveness by analyzing participant data prior to and post participation in the MBSR course.

Setting

The participants for this research took part in the intervention through a program offered by a local crisis center for women. The program was facilitated by a local licensed psychotherapist. The facilitator was skilled in teaching mindfulness-based classes. The facilitator had a local practice that focused on interventions for crises such as IPV and other family issues. The facilitator had been licensed in the State of Oregon since 2002. The mindfulness-based meditation course is an example of a course that the program offered to assist survivors. With permission from the program director, I used the secondary data from the program evaluation to investigate the impact of the intervention. The deidentified data were collected by the program and had no direct role in the implementation of the program or the data collection.

Research Design and Rationale

Research Questions

The key research questions guiding this study were the following:

RQ1: Among a sample of female IPV survivors who participated in a 4-week course in mindfulness meditation techniques, are there benefits or improvements in stress, mindfulness, and well-being from pre to post intervention?

$H_0$1: From pre to post intervention, there will be no difference in stress.

H_A1: From pre to post intervention, a majority of participants will report an improvement in stress reduction.

$H_0$2: From pre to post intervention, there will be no difference in mindfulness.

H_A2: From pre to post intervention, a majority of participants will report significant improvement in mindfulness.

$H_0$3: From pre to post intervention, there will be no difference in well-being.

H_A3: From pre to post intervention, a majority of participants will report a significant improvement in well-being.

$H_0$4: From pre to post intervention, there will be no difference in optimism.

H_A4: From pre to post intervention, a majority of participants will report greater optimism.

RQ2: What are the benefits and challenges that female IPV survivors perceive from participation in a 4-week course in mindfulness meditation, as captured in participants' written reflection?

Quantitative data were gathered to address Research Question 1. This allowed me to investigate the effectiveness and results of the program numerically. Participants were asked about any significant changes in their levels of stress, mindfulness, well-being, and optimism (Murphy, 2006). Qualitative data were gathered to address RQ2. Qualitative data focused on participants' reports of the key effects of the intervention and how participants perceived their experience during the course. Participants were asked about their personal experience of the MBSR course, such as what they found challenging, helpful, or beneficial, and if they anticipated continuing with mindfulness practices in the future.

Research Design

This study employed a mixed methods approach with a quantitative quasi-experimental design using a nonequivalent dependent variable (NEDV). Quantitative data were captured in this study to address the benefits of the MM techniques course for participants by comparing pre- and postintervention scores. This portion of the study focused on the effectiveness of the MBSR intervention to facilitate improvements in participants' lives as conceptualized within the biopsychosocial model, by assessing changes in stress, mindfulness, and well-being from the beginning to the completion of the 4-week course in MM. Additionally, an NEDV was included to improve the internal validity of the study because a control group was not feasible (e.g., Coryn & Hobson,

2011). The NEDV in this study was optimism, which is conceptually unrelated to the dependent variables (stress, mindfulness, and well-being) and was not expected to change because of the intervention (Cook & Campbell, 1979; Coryn & Hobson, 2011). The quantitative data were analyzed using paired *t* tests (Stevens, 2009; Tabachnik & Fidell, 2013). This analysis was conducted to assess changes in measures of stress, mindfulness, and well-being from pre to post program participation. The NEDV of optimism was also measured and analyzed to determine if there were any changes from pre to post program participation.

Qualitative data focused on participants' reports of the key effects of the intervention and how participants perceived their experience during the course. A qualitative component is appropriate when the research involves the perceptions and subjective experiences of participants regarding a specific phenomenon (Merriam, 2014). Participants' perspectives and experiences were collected to lend additional depth to the study; to this end, I used qualitative data to bolster the findings by providing convergent evidence pertaining to the key constructs of stress, mindfulness, and well-being. Content analysis was conducted on participant reflections and observational data for the qualitative component of this research. I compared the patterns of qualitative themes with the quantitative results. Additionally, I integrated quotes and qualitative observations with quantitative results to strengthen and explain the trends presented in the numerical data (Creswell, 2003).

Role of the Researcher

This study provided a secondary evaluation of an existing program. I evaluated the benefits of an MM intervention for women who had survived IPV. I applied a quantative approach to evaluate the effectiveness of MBSR over a 4-week program to assess changes in quantitative measures of stress, mindfulness, and well-being among program participants; additionally, I described emergent themes in qualitative data collected over this period. The study may provide a valuable link to the development of coping and treatment strategies for IPV survivors that can be integrated into therapy programs and individual treatment. It may also provide a foundation for further research on IPV victims, stress, meditation, and coping strategies. Because IPV affects communities and families as well as individual victims, the ripple effect of healing victims can carry over to their extended networks.

Methodology

Participant Selection Logic

The participants for this research were recruited for the intervention through a local crisis center for women. I evaluated the benefits of an MM intervention for women who had survived IPV. Data were collected from an MBSR program conducted at a local women's shelter. The shelter offered ongoing classes to survivors of IPV as a means to rebuild their self-esteem and gain new life skills. A power analysis was conducted using G*Power 3.1.9.2 (Faul, Erdfelder, Lang, & Buchner, 2007) in order to determine the appropriate sample size needed for the quantitative analysis. For a paired *t* test, assuming a moderate effect size of 0.5, a generally accepted power of .80, and a significance level

of .05 for each test, the desired sample size to achieve statistically valid results is 34 participants.

Instrumentation

The following questionnaires were used for the quantitative portion of this study: the Kentucky Inventory of Mindfulness (KIMS), the Perceived Stress Scale (PSS), the Scales of Positive and Negative Experience (SPANE), and the revised Life Orientation Test (LOT-R). Each of these assessments was administered at two points in time, such that a preintervention score and a postintervention score were accessed. Each of these data sources is detailed further below.

The Kentucky Inventory of Mindfulness Skills (KIMS). The Kentucky Inventory of Mindfulness Skills (KIMS) self-report inventory was used to assess participants' mindfulness. The KIMS assessment contains 39 Likert-scale items and was used to assess participants' mindfulness skills (Baer, Smith, & Allen, 2006). The KIMS instrument is composed of four subscales: Observe, Describe, Act, and Accept. Cronbach's alpha coefficients were evaluated using the guidelines suggested by George and Mallery's (2003) rules of thumb. Reliability for the Observe subscale (.91) is excellent. For the Describe subscale, reliability is good (.84). Reliability is acceptable for the Act subscale (.76). Concurrent validity for KIMS is also confirmed and correlates significantly with the Mindfulness Attention Awareness Scale (Baer et al., 2006).

The Perceived Stress Scale (PSS). The PSS was used to measure stress reduction (Cohen & Williamson, 1988). The PSS is a 10-item questionnaire that assesses individuals' feelings and thoughts over the preceding month (Cohen, 1994). Items on the

PSS are rated on a scale in which 0 = *never*, 1 = *almost never*, 2 = *sometimes*, 3 = *fairly often*, and 4 = *very often*. The PSS-10 questions are easy to understand, and this questionnaire has been used in community samples associated with junior high school education and health-related services (Cohen et al., 1988; Cohen, Kamarck, & Mermelstein, 1983). For example, items included the following: "In the last month, how often have you been upset because of something that happened unexpectedly?" and "In the last month, how often have you felt nervous and stressed?" Cohen et al. (1983) found the reliability to be acceptable, with a Cronbach's alpha of .78. Validity for the PSS has also been confirmed, where concurrent validity has been demonstrated with regard to other instruments that measure stress, such as the Job Responsibilities Scale of life event scales (Cohen et al., 1983).

The Scales of Positive and Negative Experience (SPANE). Using the SPANE, the participants reported what they were "doing and experiencing during the past four weeks" (Diener et al., 2009). The SPANE is often used to measure positive and negative emotional changes. The SPANE (short scales) inventory consists of 12 items: six items represent positive emotions, while the other six items represent negative emotions (Diener et al., 2009). These aspects of the scale are referred to as the SPANE-P for positive experiences, and the SPANE-N for negative experiences. Positive and negative emotional responses were scored separately. Participants reported their experiences using a scale from 1 (*very rarely or never*) through 5 (*very often or always*).

Diener et al. (2009) analyzed the positive and negative scales of the SPANE separately to assess reliability. The SPANE-P yielded an eigenvalue above 1.0 (3.69),

yielding 61% of the variance of the principle axis factor analysis. The items had factor loading ranging from .58 to .81. The SPANE-N had an eigenvalue of 3.19, with a variance of 53% measured. The items had factor loadings ranging from .49 to .78. Diener et al. (2009) reported an inverse correlation for positive and negative measures: $r = -.60$ ($N = 682$, $p < .001$), indicating that the two scales had convergent validity. The scale's developers concluded that SPANE "performed well in terms of reliability and convergent validity with other measures of emotion, well-being, happiness, and life satisfaction" (Diener et al., 2009, p. 153).

Revised Life Orientation Test (LOT-R). The NEDV (i.e., optimism) was measured using the LOT-R (Scheier, Carver, & Bridges, 1994). The LOT-R consists of 10 items: six of the items are used to calculate an optimism score, and the remaining four items are filler questions. Respondents answer each item using a 5-point scale ranging from 0 = *strongly disagree* to 4 = *strongly agree*. Scheier et al. (1994) demonstrated that the LOT-R has adequate internal reliability (.78) and test-retest reliability coefficients ranging from .56 to .79. Additionally, the LOT-R has been shown to have good convergent and discriminant validity with conceptually related personality constructs such as neuroticism and self-esteem (Scheier et al., 1994).

Reflection narratives. Participants completed reflection narratives at the conclusion of the 4-week intervention. Participants provided written responses to the following open-ended questions: What did you find challenging, helpful, or beneficial? Do you anticipate continuing with mindfulness practices in the future? Do you find improvement in stress reduction and well-being, and positive mood enhancement?

Procedures

The practice of MBSR has been well documented for its therapeutic benefits, which include relief from chronic pain, depression, mood disorders, stress, anxiety, and many more psychological disorders (Murphy, 2006). Because MBSR is not connected to any particular religion, Murphy (2006) pointed out that MBSR can be an appropriate tool for use in conjunction with other clinical treatments.

Participants were recruited to the 4-week program from a local women's crisis center. Participants were given a paper-and-pencil survey containing the KIMS, PSS, SPANE, and LOT-R instruments. Participants were given an identification number in order to identify their survey responses. After completing the surveys, the participants began the program.

The 4-week program, which was based on the MM program designed and practiced by Dr. Jon Kabat-Zinn, had the following features:

1. Women were recruited from a local women's crisis center. The number of participants depended upon the women who were available for crisis intervention classes and support group meetings.
2. The women were informed about a 4-week course on MBSR. The women met for 1 hour per week for a total of 4 weeks at the center.
3. A facilitator was trained in MBSR used the MBSR curriculum as follows:

   Session 1: In this session, the instructor and participants were introduced to each other. All participants were asked to say one to two positive things about themselves and were asked what they wanted to accomplish by way of the

course. The participants were given a workbook with instructions on meditation practices and homework, which they were to follow each week and bring to each class session.

In the first session, participants were introduced to MBSR practices, followed by a brief "grape-eating" exercise. During this exercise, participants were instructed about being aware of moment-by-moment details, such as the texture, smell, and taste involved in the eating of the grape. After the grape-eating exercise, the participants were briefed about their experience, and another brief presentation on mindfulness followed.

4. Finally, the participants were instructed to be on the floor while the instructor guided them on a 20- to 30-minute body scan meditation. Before adjourning, the participants were instructed about the week's assignments, which included performing body-scan meditations and an eating meditation, practicing being in the moment while doing domestic chores and so forth, and keeping a journal to record their experiences.
5. Homework was assigned each week to ensure that participants practiced MBSR every day of the week.

At the end of the final session of the program, the participants were again given a paper-and-pencil survey containing the KIMS, PSS, SPANE, and LOT-R instruments. In addition, participants were provided written responses to the open-ended reflection narrative questions. After completing the survey, participants were given a debriefing that explained the purpose of the study and were thanked for their participation.

Data Analysis Plan

Quantitative analysis. Data for all quantitative measures were entered into SPSS version 22.0 (IBM Corp., 2013) for statistical analysis. Composite scores for each dependent variable were calculated according to the instructions of each instrument developer (i.e., by summing the scores of the individual items, or by taking the average of the items). The data were screened for accuracy, missing data and outliers. The accuracy of the data were checked by examining frequency distributions and ensuring that all responses fall within the possible range of values. Cases with missing data were excluded listwise for each analysis. Standardized values were examined to test for the presence of outliers. Standardized values were created for each composite score, and scores that have standardized values that fall above 3.29 or below -3.29 were excluded from the analyses (Tabachnick & Fidell, 2012). Descriptive statistics, including means and standard deviations, were computed for continuous variables. Frequencies and percentages were computed for categorical variables.

In order to ensure the reliability of the composite (dependent) measures, Cronbach's alpha tests of reliability and internal consistency were conducted on each of the composite measures. Cronbach's alpha provides the mean correlation between each pair of items and the number of items in the measure (Brace, Kemp & Snelgar, 2006). George and Mallery (2010) suggest the following guidelines for evaluating Cronbach's alpha: > .9 Excellent, > .8 Good, > .7 Acceptable, > .6 Questionable, > .5 Poor, < .5 Unacceptable. If any measure failed to achieve acceptable reliability, inter-item correlations were examined. Items with low or negative correlations with the other items

in the measure were removed to improve the reliability of the measure. If a measure still failed to achieve acceptable reliability after removing problematic items, the measure was not be included in the analysis.

The present quantitative data analysis was designed to address the research questions 1 and 2, which asked the following:

RQ1: Among a sample of female IPV survivors who participated in a 4-week course in mindfulness meditation techniques, are there benefits, or improvements in stress, mindfulness, and well-being, from pre to post intervention?

$H_0$1: From pre to post intervention, there will be no difference in stress.

H_A1: From pre to post intervention, a majority of participants will report an improvement in stress reduction.

$H_0$2: From pre to post intervention, there will be no difference in mindfulness.

H_A2: From pre to post intervention, a majority of participants will report significant improvement in mindfulness.

$H_0$3: From pre to post intervention, there will be no difference in well-being.

H_A3: From pre to post intervention, a majority of participants will report a significant improvement in well-being.

$H_0$4: From pre to post intervention, there will be no difference in optimism.

H_A4: From pre to post intervention, a majority of participants will report greater optimism.

RQ2: What are the benefits and challenges that female IPV survivors perceive from participation in a 4-week course in mindfulness meditation, as captured in participants' written reflection?

These research questions were addressed by conducting four paired *t* tests. A paired *t* test is appropriate when comparing two scores that are repeated measures, such as in a pretest vs. posttest design (Morgan, Leech, Gloekner, & Barrett, 2007). In this study, the participants' scores on each dependent variable prior to the MM intervention were compared to their scores on the same variable after the intervention. The dependent variables were stress, mindfulness, well-being, and optimism. The first three dependent variables were analyzed to test research hypotheses 1-3, and optimism was analyzed as a NEDV to test research hypothesis 4.

Prior to analysis, the assumptions of the paired *t* test were assessed for each dependent variable. The paired *t* test assumes that the dependent variable is measured on an interval or ratio scale, the dependent variable is normally distributed, and the pairs of scores are independent of one another (Pallant, 2007). The composite scores were measured on a ratio scale, so this assumption was met. Normality was assessed using the Kolmogorov Smirnov test (Howell, 2010).

The results of each *t* test were interpreted based on the calculated t-value and corresponding p-value. The significance level (alpha) for each test will be .05, using a

one-tailed test. If the calculated p-value is less than .05, the null hypothesis will be rejected.

Qualitative analysis. A content analysis, following the methods of Bruan & Clarke (2006), was utilized to assess the participants open-ended responses (i.e., responses on the reflection narrative) to gain an overall understanding of the data. The researcher then organized meaning into common themes, this data was added and organized in the results section, along with narratives from participants.

I compared the themes that emerge from the qualitative analysis with the quantitative results. I assessed and described how the qualitative results were consistent with the quantitative results and described discrepancies between the qualitative and quantitative results.

Threats to Validity

A potential threat to external validity is the fact that participants in this study were selected from a group of people participating in the 4-week intervention. Therefore, the results of this study may not generalize to people who had not voluntarily elected to participate in the intervention. Potential threats to internal validity included maturation, history, and attrition. Maturation refers to natural changes to the participants over time outside of the study intervention that may have affected their responses. History refers to events that participants experience outside of the study that may have affected their responses. Since there was no control group for this study, these can be viewed as limitations of the design. Attrition refers to the possibility that some participants dropped out of the study in a way that systematically may influence the results. A potential threat

to statistical conclusion validity is low statistical power resulting from a small sample size. In order to account for this potential threat, a power analysis was conducted in order to determine the minimum sample size needed to obtain statistically valid results.

Issues of Trustworthiness

Lincoln and Guba (1985) outline four criteria for trustworthiness in qualitative research: credibility, transferability, dependability, and confirmability. Credibility means establishing confidence in the accuracy or truth of the findings. Credibility was ensured through referential adequacy (Lincoln & Guba, 1985). This involved setting aside a portion of the data to be analyzed only after developing preliminary findings based on the remaining data. Transferability means establishing the applicability of the findings to other contexts. Transferability was ensured by providing detailed descriptions of the study context, including research setting and participants. Dependability means establishing the replicability of the findings. Dependability was ensured by providing detailed documentation of all methodological procedures associated with the study so that other researchers can replicate these procedures. Finally, confirmability refers to the extent that the findings are not influenced by researcher bias. To ensure confirmability, I disclosed their beliefs and assumptions in the narratives from participants. This helped identify any potential biases that might influence the interpretation of participants' responses.

Ethical Procedures

Secondary data was collected on the effectiveness of MBSR over a 4-week program at a local community women crisis center. A local licensed psychotherapist who

is skilled in teaching mindfulness-based classes implemented the mindfulness-based stress reduction intervention. The participants for this research were recruited from the Mid Valley Women's Crisis Center with permission from the program director. This center offers ongoing classes to survivors of DV as a means to rebuild their self-esteem and gain new life skills. The MSBR classes were provided to women in the Transition Program by said therapist, while I conducted a program evaluation of data that were collected by the Center from the mindfulness program that was implemented by the licensed mental health professional, under the auspices of the Center. All deidentified data were collected by the center and released to me for research analysis, as per Walden IRB approval.

Summary

This chapter presented the research design and methodology for the proposed study. The proposed study employed a mixed methods design in order to (a) assess how the 4-week intervention affects measures of stress, mindfulness, and well-being, and (b) determined what benefits and challenges participants experience during the intervention. In addition to the design, this chapter described the details of the methodology, including participant selection, instrumentation, procedures, and data analysis techniques. Threats to validity and ethical procedures related to the study were also discussed. Chapter 4 presents the results of both the quantitative and qualitative analysis presented in this chapter.

Chapter 4: Results

Introduction

The purpose of this study was to investigate the benefits of an MM intervention for women who survived IPV. Applying a mixed methods approach, I was provided with deidentified data collected by the shelter for the purpose of program evaluation. The data were collected from an MBSR program conducted at a local women's shelter. The shelter offers ongoing classes to survivors of IPV as a means to rebuild their self-esteem and gain new life skills. The MBSR course was offered to assist survivors in improving their lives along several dimensions; the study evaluated the program's effectiveness by analyzing participant data prior to and post participation in the MBSR course. This study used a mixed methods design to examine the following questions.

Quantitative

RQ1: Among a sample of female IPV survivors who participated in a 4-week course in mindfulness meditation techniques, are there benefits, or improvements in stress, mindfulness, and well-being, from pre to post intervention?

$H_0$1: From pre to post intervention, there will be no difference in stress.

H_A1: From pre to post intervention, a majority of participants will report an improvement in stress reduction.

$H_0$2: From pre to post intervention, there will be no difference in mindfulness.

H_A2: From pre to post intervention, a majority of participants will report significant improvement in mindfulness.

H_03: From pre to post intervention, there will be no difference in well-being.

H_A3: From pre to post intervention, a majority of participants will report greater well-being.

H_04: From pre to post intervention, there will be no difference in optimism.

H_A4: From pre to post intervention, a majority of participants will report greater optimism.

RQ2: What are the benefits and challenges that female IPV survivors perceive from participation in a 4-week course in mindfulness meditation, as captured in participants' written reflection?

Qualitative

1. What did you find challenging, helpful, or beneficial?
2. Do you anticipate continuing with mindfulness practices in the future?
3. Do you find improvement in stress reduction and well-being, and positive mood enhancement?

Setting

The participants for my study took part in this intervention through a program offered by a local crisis center for women. The program was facilitated by a local licensed psychotherapist. The facilitator was skilled in teaching mindfulness-based

classes. The facilitator had a local practice that focused on crisis interventions for those affected by IPV and family issues. The facilitator had been licensed in the State of Oregon since 2002. The mindfulness-based meditation course was an example of a course that the program offered to assist survivors. Data were collected from the program evaluation to investigate the impact of the intervention. The deidentified data collected by the program were provided to me; I had no direct role in the implementation of the program or the data collection.

Demographics

The participants for this research were recruited from the a local women's crisis center with permission from the program director. The center offers ongoing classes to survivors of domestic violence as a means to rebuild their self-esteem and gain new life skills. MSBR classes were provided to women in the center's Transition Program. The center serves victims of domestic violence, sexual assault, stalking, and human trafficking. The program's focus is Marion County, but it handles 24-hour hotline calls from across the country. Staff at the center are happy to help with general information about abuse, and they refer victims of domestic abuse to a local program if they have questions about court processes, law enforcement, and other legal matters.

During the last fiscal year, the center responded to more than 22,000 contacts to the Marion program. Every year, the center houses about 200 individuals in a shelter for a number of shelter nights. The center's demographics closely follow those of Marion County. Approximately 65-70% of the center's clients are Caucasian, 15-20% are Latina, and the remaining clients identify as other ethnicities or as two or more ethnicities.

Data Collection

The data for this research were collected by shelter staff from women who were participating in an MBSR program conducted at a local crisis center for women. Shelter staff collected the program evaluation data from participants and provided the deidentified data for analysis. I evaluated the benefits of an MM intervention for women who had survived IPV using these deidentified quantitative and qualitative data. The shelter offers ongoing classes to survivors of IPV as a means to rebuild their self-esteem and gain new life skills.

The following questionnaires were used for the quantitative portion of this study: the KIMS, the PSS, the SPANE, and the LOT-R. Each of these assessments was administered at two points in time; a preintervention score and a postintervention score were assessed.

Qualitative Results

Out of a total of 29 participants, only five women participating in the MBSR program agreed to release their journal entries; these journal entries were used for the qualitative analysis. I read through the participants' journals, took notes during the MBSR classes, and read through reflection questions to extract common themes that emerged from the three MBSR classes. During qualitative analysis, I followed the analysis procedures outlined in Braun and Clark's (2014) description of thematic analysis. Specifically, the steps involved in the qualitative analysis included reading and rereading the journal entries, assigning initial codes to the data, organizing the codes into themes, reviewing and revising the themes, refining and defining each theme, and writing

a report of the results. First, my personal observations are reported, then the common themes extracted from the qualitative data are described.

Researcher's Personal Observations

Group 1.

9/12/17. It was expected that 15 women would be participating; however, only five women showed up. The assistant director stated that the center had advertised MBSR through printed flyers. There was a possibility of another woman joining the class the next week (she wanted to be here today, but it was her son's birthday). The assistant director reported that class participation could vary due to the community's needs. Many women in the shelter are transient, with length of stay varying from person to person. However, shelter staff expressed that MBSR appeared to be a good fit for their program and indicated that they could appreciate the benefits of offering ongoing MBSR courses in the future (depending on the results of the current classes).

I met with the MBSR therapist before class. She was skilled in the practice of MBSR. The women started coming in. We started a few minutes late due to some printing issuing with the first lesson. I had an assistant copy Lessons 1-3 from the book *Mindfulness: An Eight-Week Plan for Finding Peace in a Frantic World* by Mark Williams and Danny Penman.

Once everyone had settled in, the participants were given information regarding the MBSR program. They were informed that their identities would be kept confidential. One of the shelter's assistants was present for the entire class. The women were asked to introduce themselves and to say one to two things that they wanted to get out of the

program. A common answer was “getting rid of negative emotions.” Then the facilitator asked them to say 1 or 2 positive things about themselves. Everyone had something positive to say but later reported that it was hard to remain positive, as most of the time they resorted to negative thinking and experienced stress about mundane things.

Grape exercise: 15 minutes. Most participants said that the grape-eating exercise forced them to focus and be aware of the present moment. One woman expressed that this would be a great practice to do for every meal! Everyone’s comments were different about the experience, with experiences ranging from disgust in chewing to wonderful feelings of taste, texture, smell, and other sensations. One woman said with excitement, “The grape was so sweet!”

Body scan: 30 minutes. Again, participants’ comments varied. However, almost all agreed that staying focused was the hardest. They reported on how many thoughts kept running through their minds. Most said that this meditation was too long—one woman said that it was harder than she thought it would be, but she agreed to practice this exercise throughout the week and was determined to stay with mindfulness practice.

All participants filled out the preassessment questionnaires before leaving and were given homework and notebooks for journal entries.

9/19/17. Two participants were not present today, but one new participant was added to the group. She later said that she wanted to participate the previous week but had to take her son to a doctor’s appointment. She appeared to be happy about joining the group today. She also stated that she had never meditated but was willing to learn.

The new participant arrived 20 minutes early and was given the four prequestionnaires. The facilitator brought her up to speed on the meditation practices, and she was given the class materials as well as the homework and journaling assignments.

New meditations were added today: breath and body meditation, in conjunction with sitting meditation. Before proceeding with the new meditations, body scan was reintroduced for the benefit of the new participant. A participant asked if the grape meditation would also be practiced. The facilitator said that due to time, it would not be practiced today. Most of the participants expressed disappointment, so the facilitator asked if they would like to practice it again next week. They all said yes and appeared to be delighted.

After sitting meditation, the facilitator asked the participants about their feelings during the meditation. One participant said that it was hard to meditate at first, because she was feeling aches and pains. She said she felt better when the facilitator directed the group to let go of discomfort and stated that there was no right or wrong way to feel. She said that it was helpful to know that it was normal for thoughts to come and go. She repeated what the facilitator said about the importance of staying in the moment, noting that it was okay to acknowledge her feelings but not take them seriously.

One participant said that she felt a warm golden glow around her face and that the experience was very calming. Another participant agreed and added that she felt relaxed. She said that this was something that was hard for her to experience because she was always on the go. Someone else reported practicing meditation daily since the last class,

stating that she was able to be more focused. She reported not overreacting to daily hassles and feeling less stressed.

The facilitator asked about participants' homework experiences and journaling. Only one participant reported keeping up with the assignments. Other participants said that they forgot to do the assignments and meditations.

9/26/17. Only three participants showed up. Exercises included mindfulness movement and breathing meditation.

The participants reported that it was a challenge to practice MBSR outside the class but stated that they would continue to try. They reported keeping up with their journaling and said that this seemed to help them reflect on daily activities.

During the first exercise, one woman reported feelings of tightness around the jaw, then said that it was only after she relaxed that she became aware of the tightness. Another participant reported having distracting thoughts but stated that she was able to bring her mind back to the guided meditation.

All participants reported enjoying the classes and agreed that there was a lot more to MM. They said that it was a challenge but that they were embracing it as much as they could.

10/3/17. Three participants showed up; two had been regulars. After check in, a 22-minute YouTube video on MM was shown. Participants were informed of how to access MM on YouTube so that they could keep up with their practice.

One participant reported that she was not able to keep up with the practice because she was dealing with child welfare (her children were currently in foster care).

She said that she had been very busy preparing for court, meeting with her attorney, going to her children's visitations, and so on.

A second participant reported being more mindful and relaxed. She stated that she could already see positive results—engaging in less rumination, being more focused, and examining her thoughts without judgment.

A third participant reported that MBSR had helped her to be happy and experience less feelings of inadequacy. She worried less and was able to meditate more. She said that she was able to enjoy being retired and was being less judgmental of herself.

Postassessments were administered. The shelter assistant asked the participants if they would be willing to share their journals for the purpose of the study. She reminded them that their identities would remain anonymous; however, only two participants volunteered their journals. The assistant later made journal copies and released deidentified copies to me.

Group 2.

12/28/17. Six participants were present for the first class. Preassessments were first on the agenda. The purpose of the study and class curriculum were discussed with the participants.

The prompts used for introductions were the same as for the first group: Share two things you want to get out of MBSR classes, and say two positive things about yourself.

Participants commented on wanting to stop the chatter in their heads, be more focus, feel less anxious, be less negative, be able to follow through with goals, be more self-sufficient, and be less afraid.

Grape exercise: 15 minutes. When finished with this exercise, the participants were instructed to write about their experience in their journals. Afterward, they were instructed to share their experiences.

One participant commented that it was an "awesome experience." She commented on the color of the grape (different shades of green) and how sweet it tasted: "It tasted sweet and bitter at the same time. I found the texture very interesting, never noticed it before." Another participant commented, "I bet you could lose weight if you ate more mindfully."

Body scan: 30 minutes. Once again, when finished with this exercise, the participants were instructed to write in their journals. This group had a lot of questions about MBSR, so the remainder of the class was open to Q & A.

The participants were reminded to journal throughout the week. Homework was printed and given to them.

1/5/18. Only four participants presented today. Most of the class was spent on Q & A discussions. The participants had a lot of questions about their experiences; they wanted to know if it was normal for past traumas to reappear. Some expressed feelings of sadness, fear, and uncertainty. The facilitator explained that this was normal and asked them to write down all of their feelings in their journals. The facilitator answered all of the participants' questions and asked if they were ready to do some MBSR exercises, to

which they said yes. Sitting meditation was then introduced. After sitting meditation, the participants were assigned homework and reminded to write their experiences in their journals.

1/12/18. Two former participants showed to class, and two new participants were added to the group.

The MBSR course was explained to the new participants. Preassessments were administered. The exercises included: Breathing and Body meditation. Most women expressed having difficulty staying in the moment, but they all agreed to stay committed to the MBSR practice.

1/19/18. Today was the last week for the second class of MBSR. Only three participants attended, and one participant left early due to having a prior appointment.

A 22-minute YouTube video on MM was shown. Participants were informed how to access MM on YouTube so that they can keep up with mindfulness practice.

Participants reported that while it has been a challenge to practice daily, they can see improvements in their overall wellbeing. They reported being less stressed, being more focused, and having more clarity of mind. They also reported to continue with their practice, and post assessments were administered.

The shelter's assistant asked the participants if they would be willing to share their journals for the purpose of the study. The assistant reminded them that their identities would remain anonymous; however, only one participant volunteered her journal. The assistant made a copy for the purpose of this study. A copy of the participant's deidentified journal was then provided to me.

My observation: This group had a lot of questions making it difficult to stay on schedule with the practice of some exercises from the MBSR curriculum.

A revised flyer was posted within the shelter and around the community for the purpose of recruiting new MBSR participants for a third round of classes.

Group 3.

2/26/18. Sixteen participants presented for the first class.

The preassessments were first on the agenda. The purpose of the study and classes were explained to the participants; discussions followed.

Introductions. Similar to the first and second group: The participants shared two things they wanted to out get out of the MBSR classes and were encouraged to say two positive things about themselves.

Some participants responded about wanting to be less anxious and less stressed. One participant commented about wanting to learn how to meditate and three other participants agreed. Some of the participants wanted to learn to calm their minds down and have less rumination. Another participant said that she would like to be more confident, and to teach her children about meditation. And another participant said she wanted to be less negative, and to learn to turn negative thoughts into positive ones.

Raisin exercise: 15 minutes. When finished with this exercise the participants were instructed to write about their experiences in their journals. Afterwards they were instructed to share their thoughts with the class.

Several participants reported on their experience. One participant said: “it tasted so sweet.” Another participant said that it was difficult for her to keep the raisin in her

mouth for such a long time (it appeared to be a long time) and not swallow it. Two other participants agreed. Another participant said that she did not like raisins but in this meditation, she was surprise that it tasted so different, and actually enjoyed the taste. And another participant said she found the texture interesting and had never thought of a raisin as being so tasty. Finally, one participant commented that eating mindfully could be practiced for weight loss.

Body scan: 30 minutes. When the group finished with this exercise they were instructed to write in their journals.

At the end of class, the participants were reminded to journal throughout the week, and home work was assigned.

3/5/18.

Breath and body: 30 minutes. The class started on time. Not all 16 participants were on time. During this meditation late participants were entering and distracting the class. While Breath and Body meditation was in process, I was busy seating the participants who arrived late. Again, it was very distracting; the lights had been dimmed for this exercise making it hard for latecomers to adjust their vision. Some latecomers started moving their chairs and trying to get comfortable, all this was very distracting to the class.

After this exercise the participants were instructed to write about their experiences in their journals. Afterwards the participants were asked to share about their week's experiences. Most reported not having enough time to meditate or write in their journals; however, some said they would continue to try. One participant wanted to know how

long it takes to see results. The facilitator asked what kind of results she was looking for, to which the participant replied that she could not keep her mind from wondering. The facilitator explained that practicing mindfulness is a process, and that with more practice MM becomes easier.

Sitting meditation: 15 minutes. Sitting meditation was then introduced. After sitting meditation, the participants were assigned homework and reminded to write personal experiences in their journals.

3/12/18. Ten participants presented today.

Meditation: Strength: 12 minutes. After this meditation participants were invited to share their week's experiences. Most participants reported seeing some positive results, such as using deep breathing during a stressful situation. One participant reported using the breathing techniques while driving in heavy traffic. Most reported practicing breathing meditation in different situations. However, some participants reported that journaling is still a challenge because of their busy schedules.

Chocolate meditation: 10 min. Chocolate meditation was practiced twice per participants' request. They reported that this has been the best meditation so far.

The facilitator instructed them to inhale the chocolate's aroma. Break off a piece and inspect the piece before putting into their mouths. Then they were instructed to put the chocolate piece into their mouths, but only hold it there for a while before swallowing it. Next, they were asked to describe the smell and taste, and to name the ingredients in the chocolate. Questions for this exercise included: 'Was your mind wandering?' 'How did it taste while it was melting in your mouth?' 'Did the chocolate taste better than when

you eat it at a normal pace?' Several participants reported that it was an awesome experience and requested a second chocolate meditation exercise.

Breathing space meditation: 15 minutes.

Stability meditation: 16 minutes. Participants were reminded to journal throughout the week, and homework was assigned. Class adjourned.

Several participants lingered around with questions for the facilitator.

3/19/18. Ten participants attended the last class.

Clarity meditation: 12 minutes. After this meditation a 22-minute YouTube video on MM was viewed. Participants were reminded how to access MM on YouTube. The facilitator emphasized how important it is to keep up with their practice.

Exercise: Stretching without striving—Mindfulness movement meditation: 30 minutes. Participants were encouraged to keep practicing and were reminded that the more they practice, the easier it will be to clear the mind. Most participants reported that it was a challenge to practice MBSR daily but reported they would continue to try. The participants appeared inspired and most reported enjoying the classes. They wanted to know if there will be more upcoming MBSR classes. Several requested an MBSR refresher class within the next month or two.

Post assessments were administered. The shelter's assistant asked the participants if they would be willing to share their journals for the purpose of the study. She reminded them that their identities would remain anonymous; only two participants volunteered their journals. The assistant made deidentified journal copies for the purpose of this study. The copies were then released to me.

Questions asked to participants at the end of each MBSR class were:

1. What did you find challenging, helpful, or beneficial?

Some of their responses were, “Finding time for meditation”; “I am very busy”; “Doing other things rather than meditating”; and “When I meditate I am less stressed, I am able to be composed during a difficult conversation. I am able to accept myself. I feel centered.”

2. Did you find improvements in stress reduction and well-being, and positive mood enhancement?

All participants responded “yes.” They reported feeling less rattled, taking things one-at-a-time. They reported seeing improvement in sleep patterns, and overall positive mood enhancement. All of the participants reported that journaling was also beneficial because it helped them be reflective, and hence, slow down.

Common Themes

On subsequent readings of the qualitative data, four major themes began to emerge. These themes included (1) a feeling of relaxation or balance, (2) improved self-awareness, (3) experiences with the mindfulness exercises becoming easier over time, and (4) improved intentionality. The frequency of each of these themes (from 5 participant journals) appears in Table 1.

Table 1

*Frequency and Percentage of Participant Endorsement of Discrete Themes (*n = *5)*

	Participant endorsement	
Theme	*n*	%
Balance and relaxation	5	100
Improved self-awareness	5	100

Exercises became easier over time	3	60
Improved intentionality	3	60

Balance and relaxation. Participants whose responses eventually composed this theme responded that they felt an improved sense of relaxation, and were generally more balanced in their approaches to daily hassles. All five participants who provided journal entry data shared this experience. While some participants, like G1P4, simply responded that they "felt very relaxed," others, such as G1P2, compared their experiences before and after a body scan. "Before: tension and worry… After: let go of everything. I feel more balance." This participant felt that, following the exercise she was more relaxed, concluding that, "I feel ready for my day."

Similarly, G3PU had some difficulty opening her eyes following the exercise during week two. This participant felt that the mindfulness exercises allowed her "to shift behaviors from stress to relaxation; from fake hunger to relaxation; from anger to relaxation." This participant was able to take negative stimuli and redirect them to a place of balance and relaxation, stressing that "the goal is to 'tame the mind." G2P6 used the exercises in a similar way, and recalled an instance at a fundraiser that stood out as stressful. "I was making change at a fundraiser," reported G2P6. "It was a bake sale and many people were crowding the table and wanting to give me cash all at the same time." The participant stopped to perform some quick breathing exercises, and determined that, "I had to stay calm and carry on. I stopped, breathed, and made change." Though this was not an extraordinarily high-stress situation, it shows that the exercises were making pervasive changes in the participant's daily thought processes.

In another instance, G3PU reported an unexpected effect of the mindfulness training, focusing on the body scan meditation. This participant began by practicing the exercise at night, but found that it was more effective in the morning, helping to "start my day on [*sic*] a better mood." "Everything went good. I was not on [*sic*] a rush and I still feel calm," she continued. However, nearly one month into following the exercises, G3PU reported a night when she had trouble going to sleep. After considering what was different, G3PU realized that, "I could not go to bed because I did not do the meditation." After doing the exercise, this individual had a much easier time falling asleep "feeling better and more relaxed." Though G3PU felt that the exercise was helpful for falling asleep, she noted that it was more likely because of missing the exercise that morning, closing with "I feel better when I have time to meditate after I wake up. The morning meditation kind of balances my day.

Improved self-awareness. Participants who reported improved self-awareness tended to question themselves more, leading to the potential for self-improvement and a targeted assessment of their own needs. Data composing this theme was also present among all five of the participants who provided journal entry data. While some participants, including G3PU and G1P2, provided little information about this effect of the exercises, this was a prevalent theme in that each of the five journal entries contained support of improved self-awareness. G3PU simply mentioned the ability to "feel and 'taste' the raisin before slowly swallowing it," while G1P2 mentioned being "…more aware of my body." However, G1P2 expanded on this by clarifying that this awareness was accompanied by a better understanding of what her body needed. This allowed G1P2

to come to the realization that, “I had many distractions that I have been through.” G1P2 felt that tempering these distractions allowed for more control in life.

These individuals also tended to exhibit an improved sense of self-pride when evaluating their actions and personal histories. G1P4 wrote about her experiences with IPV, and during the mindfulness training began to consider what she had been though and how she triumphed at a young age:

> I really focused on how I was able to recover and go forward at that young age. I suddenly became aware of the incredible strength of the infant and young girl (ME!). I was filled with the deepest and most profound respect—almost awe.

Recounting these previous experiences and gaining new appreciation for herself, G1P4 concluded that, “Every day I feel stronger and more positive / proud of myself.” This suggested that the mindfulness training may have been having a lasting effect on this individual’s ability to appreciate their own accomplishments in a lasting and consistently improving way.

G3PU had a similar experience, after “taking some time for [themselves] to think.” G3PU pondered questions such as, “Why do I feel like this?” and “What can I do about it?” concluding that “When I feel bad my past tortures me so bad. Really I need to leave everything behind but is so difficult [*sic*].” This participant began to show improvement in an entry two days later, stating “I feel more aware of what happens during the day… I am starting to feel bad when I am procrastinating.” G3PU’s improved self-awareness lead them to be more aware of time spent procrastinating. By the journal entry 11 days later, this participant was making plans to work ahead of personal

deadlines, and was hopeful for future endeavors, relaying that "I hope that mindfulness helps me reach more awareness to face challenges instead of denying them like I did before."

Mindfulness exercises became easier over time. Participants who discussed practicing mindfulness between weekly sessions reported that both their in-lesson and out-of-lesson experiences with clearing their mind and maintaining focus became more natural over time. Three out of the five participants who provided journal entries reported this phenomenon. G2P6 noticed an increase in the ease of performing the mindfulness exercises by week two. Days later, she added that she had been better able to maintain mindfulness in daily life without actively trying. She reported that, "I have been more conscious of my breathing patterns and noticed times when I do not [breathe] very well." She noted times of stress or instances when she was focusing on a task as the most common moments when she would notice poor breathing patterns. She reported that she was actively performing grounding breathing techniques whenever she would notice poor breathing patterns, and that these improvements were helping her reduce her stress, even in stressful situations.

According to G3PU, at week two the relaxation exercise was easier to do. "My eyes closed all time [*sic*] this meditation made me relax faster." In this same week, she reported that, "It is interesting to note my mind wandered less or it was easier for me to bring it back to my breathing." This participant stood out from the others in the level of commitment to improving her meditation techniques, and by week four, she was practicing five days a week to increase meditation and concentrate on the breath." G3PU

also showed improvement with the techniques, but rather than improving them with practice, felt that adapting her routine was the best way to make mindfulness easier and more useful. She began by starting every day with mindfulness exercises, and by week three she reported that "Mindfulness is working great," and elaborated by reporting "Now I am learning to stay grounded. To hold myself together in stressful moments."

Improved intentionality. Shared among three of the participants who provided journal entry data, improved intentionality manifested most commonly as an active motion towards bettering oneself. G1P2 wrote in closing their final journal entry, "We take control over every situation [in] life…" going on to clarify that those roles may be mother, child, friend, or self. G3PU kept a more detailed chronology; this individual started with an anecdote in an entry following the first month of mindfulness training. While G3PU was not intentionally trying to enact change at the time, she reported that she was able to notice positive aspects to situations she originally would have considered negative. In her experience, "It was kind of sunny and suddenly started to rain. For me, rain is sad. But today it seemed different. I was actually enjoying the moment." This is the same participant who had an easier time with the exercises in subsequent journal entries throughout the course, and at one point had found herself being more intentional about her procrastination habit. She began to consistently assess her situation, and was more motivated to keep herself from straying from her duties. In one case, she wrote "I keep on telling myself 'you should be doing homework instead of doing what you are doing now.'" Later in the program, she was intentionally reminding herself to identify her thoughts and to stay grounded. At the close of her notes she also identified that she had a

plan for staying ahead of her duties during the next school term.

G2P6 showed the greatest amount of intentionality out of all five participants who provided journal entries. Following her experiences during week one, she recounted an instance where she had been doing yard work. She had planned on only doing a few yardwork chores, and realized, "I was [not] even going to break out my wheel barrow or any other [tool]. Why is that, I thought?" After identifying this shortcoming in her planned daily activities, she determined that she

> could apply this *intentional living* to my yard. So I changed my thinking, pulled my tools out, the shovel came out of the corner of the garage, I grabbed the small hand clippers, because no doubt [*sic*] there is always minor trimming to be done.

She reported that, "the remainder of my time in the yard I was fully engaged and fully intentional as I walked around gratefully covering and trimming the shrubs." For G2P6, the act of being intentional in her chores allowed her to better appreciate the end result. Later in the training, she recalled her thoughts about going to work one morning, writing about an itch in her throat and feeling the urge to stay home instead. Instead, she felt more determined to "push through to the end of the week," and show that she was worthy to "be counted amongst the ranks of the earning not in just their pay, but their honor, integrity, and respect." Her resolve caused her to be intentionally thankful for her job and to "honor that by continuously showing up."

Summary

The themes that emerged from the qualitative data included (1) a feeling of relaxation or balance, (2) improved self-awareness, (3) experiences with the mindfulness

exercises becoming easier over time, and (4) improved intentionality. In regards to the first theme, participants reported an improved sense of relaxation, and balance in their approaches to daily hassles. In regards to the second theme, participants reported questioning themselves more, creating a greater potential for self-improvement as they were able to focus on and assess their own needs. In regards to the third theme, participants reported that both their in-lesson and out-of-lesson experiences became more natural over time. Finally, in regards to the fourth theme, participants indicated that they took direct, purposeful actions towards bettering themselves.

Quantitative Results

The research questions for the MBSR quantitative analyses were the following:

RQ1: Among a sample of female IPV survivors who participated in a 4-week course in mindfulness meditation techniques, are there benefits, or improvements in stress, mindfulness, and well-being, from pre to post intervention?

$H_0$1: From pre to post intervention, there will be no difference in stress.

H_A1: From pre to post intervention, a majority of participants will report an improvement in stress reduction.

$H_0$2: From pre to post intervention, there will be no difference in mindfulness.

H_A2: From pre to post intervention, a majority of participants will report significant improvement in mindfulness.

$H_0$3: From pre to post intervention, there will be no difference in well-being.

H_A3: From pre to post intervention, a majority of participants will report greater well-being.

$H_0$4: From pre to post intervention, there will be no difference in optimism.

H_A4: From pre to post intervention, a majority of participants will report greater optimism.

RQ2: What are the benefits and challenges that female IPV survivors perceive from participation in a 4-week course in mindfulness meditation, as captured in participants' written reflection?

These research questions were addressed by conducting four paired *t* tests with a sample of (N=16) participants from a community of IPV shelter for quantitative analysis. Within the quantitative analysis, a paired *t* test was chosen as appropriate for comparing two scores that are repeated measures, such as in a pretest vs. posttest design (Morgan, Leech, Gloekner, & Barrett, 2007). In this study, the participants' scores on each dependent variable prior to the MM intervention were compared to their scores on the same variable after the intervention.

The quantitative analysis of this study consisted of (N = 16) participants who participated in a four-week course in MBSR classes. The following questionnaires were used for the quantitative portion of this study: the Kentucky Inventory of Mindfulness (Baer, Smith, & Allen, 2006), the Perceived Stress Scale (Cohen, 1994), and the Scales of

Positive and Negative Experience (Diener, & Biswas-Diener, 2009), and the revised Life Orientation Test (Scheier et al., 1994). Each of these assessments were administered at two points in time, a preintervention score and a postintervention score was assessed. Each of these data sources are detailed further below.

Results of the series of correlations, after a Bonferroni correction applied to reduce instances of Type I error resulted in six significant correlations (see Table 2). Most of these correlations existed between the subscales of the KIMS, and this series of correlations were all positive. Correlations between subscales of the KIMS were found between of awareness and observe subscales (r = 61), as well as the awareness and describe subscales (r = .67), and the awareness and accept subscales (r = 58). In addition, the KIMS accept subscale was significantly and inversely correlated to the perceived stress scale score (r = -.60), indicating that higher acceptance corresponded with lower stress. Finally, SPANE scores exhibited a positive correlation with the accept subscale of the KIMS (r = .65), but a negative correlation with the perceived stress scale score (r = -.86). Because the Cronbach's alphas for these scales were mostly higher than .70, many of the scales showed acceptable levels of reliability, contributing to the validity of these findings. However, the SPANE had a Cronbach's alpha of .63, which is questionable; thus the reader should take caution in interpreting the results of tests using this scale.

After applying a Bonferroni correction on the series of t tests, two scales exhibited significant differences from pre to post. The first of these scales was the describe subscale of the KIMS ($t(15) = -3.31$, p = .005). Observation of the means for pre (M = 26.1) and post (M = 28.4) indicated a significant increase in scores on the describe

subscale of the KIMS. Similarly, the accept subscale also exhibited a significant increase ($t(14) = -4.70$, $p < .001$), with an average pretest score of 27.8 and an average posttest score of 33.3. Table 3 contains the full results of this series of analyses, while Figures 1 through 7 include visual interpretations of each subscale's mean from pre and post.

Table 2

Means, Standard Deviations, Correlations, and Reliability Coefficients for Measures at Pretest

Scales	*N*	*M*	*SD*	1	2	3	4	5	6	7
Kentucky Inventory of Mindfulness										
1. Observe subscale	29	37.9	7.9	.77						
2. Describe subscale	28	25.3	6.4	.47	.88					
3. Awareness subscale	29	28.0	6.0	.61*	.67*	.75				
4. Accept subscale	28	28.7	7.7	.16	.38	.58*	.90			
5. Perceived Stress Scale	29	17.3	7.3	-.03	-.15	-.28	-.60*	.88		
6. Life Orientation Test (Revised)	29	16.1	3.7	.45	.03	.28	.43	-.48	.94	
7. SPANE	27	6.0	10.2	.19	.09	.41	.65*	-.86*	.49	.63

Note. Coefficient alpha estimates of reliability are on the diagonal.
*Significant at Bonferroni corrected $p < .001$.

Table 3

Paired Samples t *Tests Comparing Pretest and Posttest Scores of Study Measures (*N = *16)*

Scale	Pretest *M* (*SD*)	Posttest *M* (*SD*)	*t*	*df*	Sig.
Kentucky Inventory of Mindfulness					
Observe subscale	38.1 (7.9)	43.8 (11.0)	-2.5	15	.027
Describe subscale	26.1 (6.8)	28.4 (6.0)	-3.3	15	.005*
Awareness subscale	28.6 (6.3)	31.8 (4.7)	-3.0	15	.010
Accept subscale	27.8 (8.8)	33.3 (8.4)	-4.7	14	< .001*
Perceived Stress Scale	17.2 (7.8)	13.3 (6.1)	2.1	15	.057
Life Orientation Test (Revised)	16.2 (3.8)	16.9 (3.4)	-0.7	15	.502
SPANE	6.0 (10.2)	9.1 (5.5)	-2.1	14	.054

Note. N = number of participants who completed the posttest.
*Significant at Bonferroni-corrected alpha level of .007.

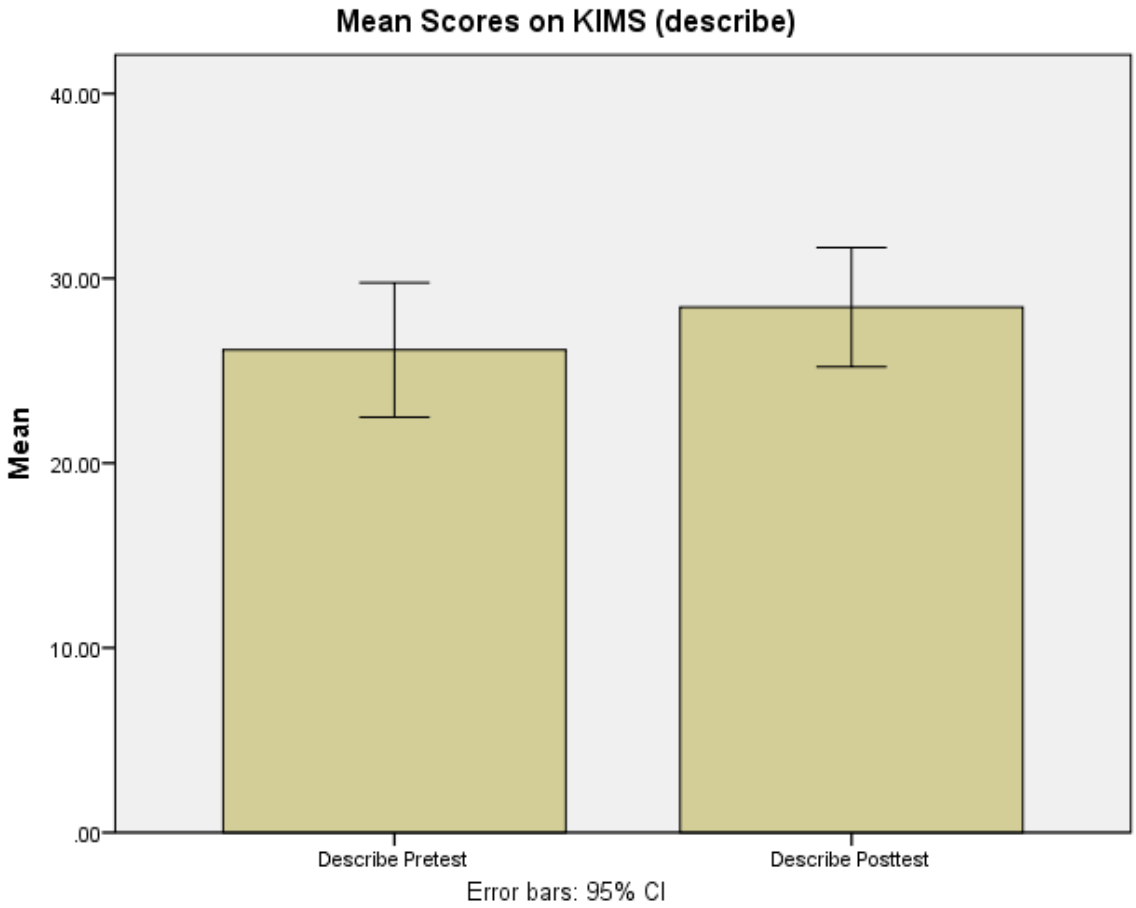

Figure 1. Mean scores and 95% confidence intervals on the KIMS (describe) among N = 16. $t(15) = -3.3$, $p = .005$.

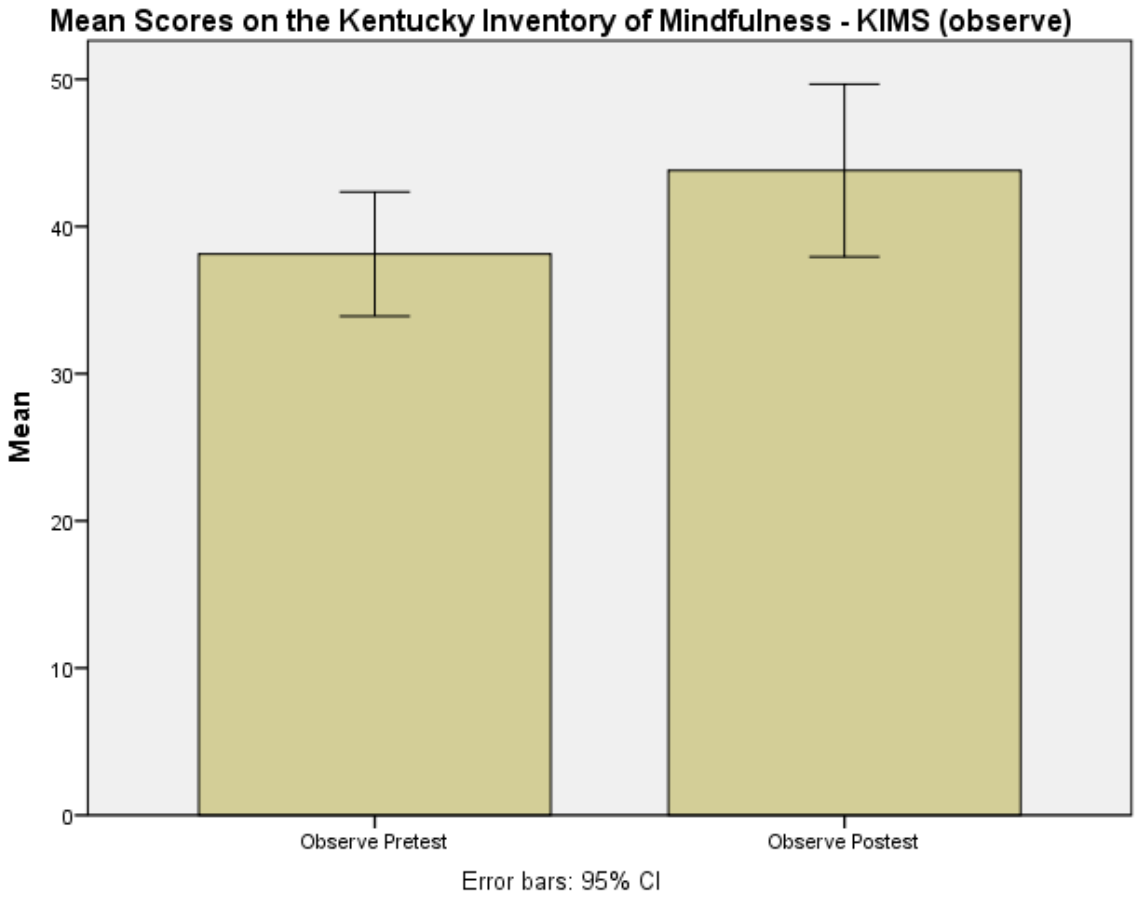

Figure 2. Mean scores and 95% confidence intervals on the KIMS (observe) among N = 16. $t(15) = -2.5$, $p = .027$.

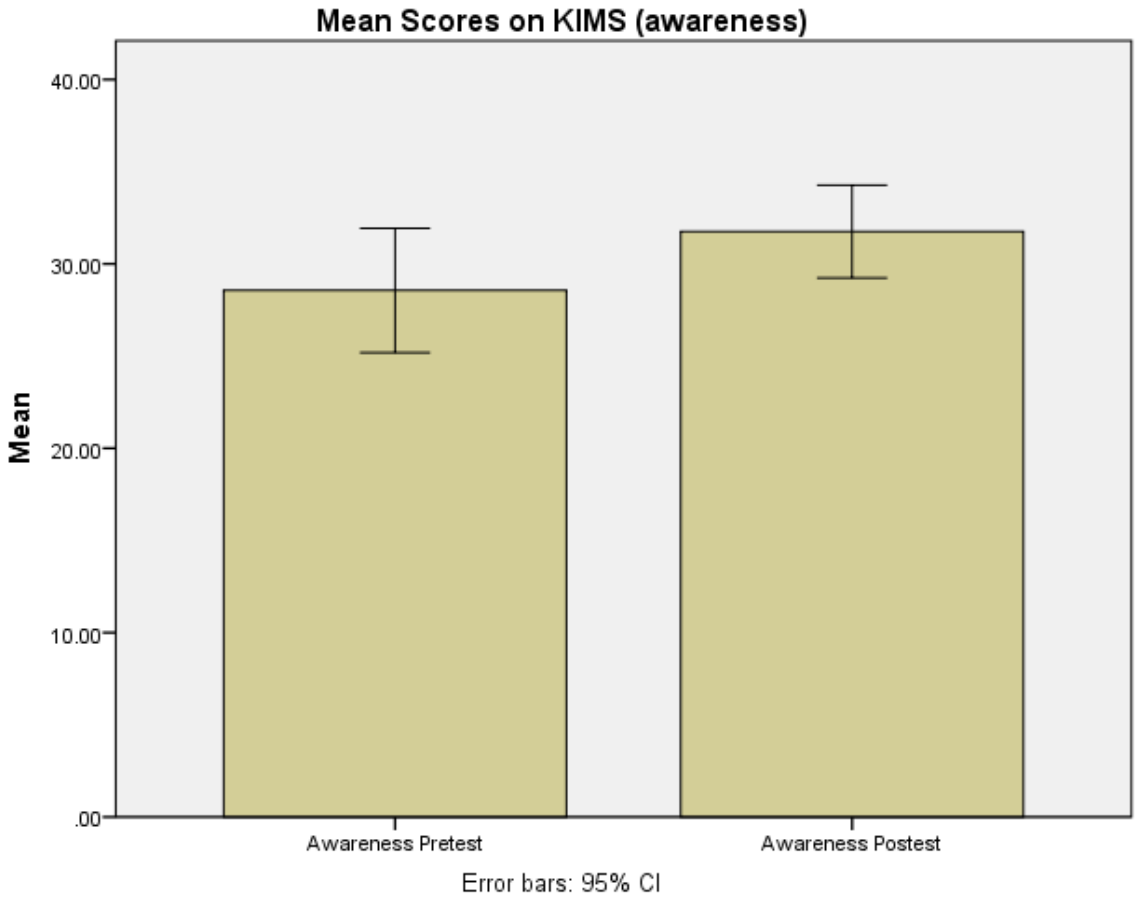

Figure 3. Mean scores and 95% confidence intervals on the KIMS (awareness) among $N = 16$. $t(15) = -3.0$, $p = .010$.

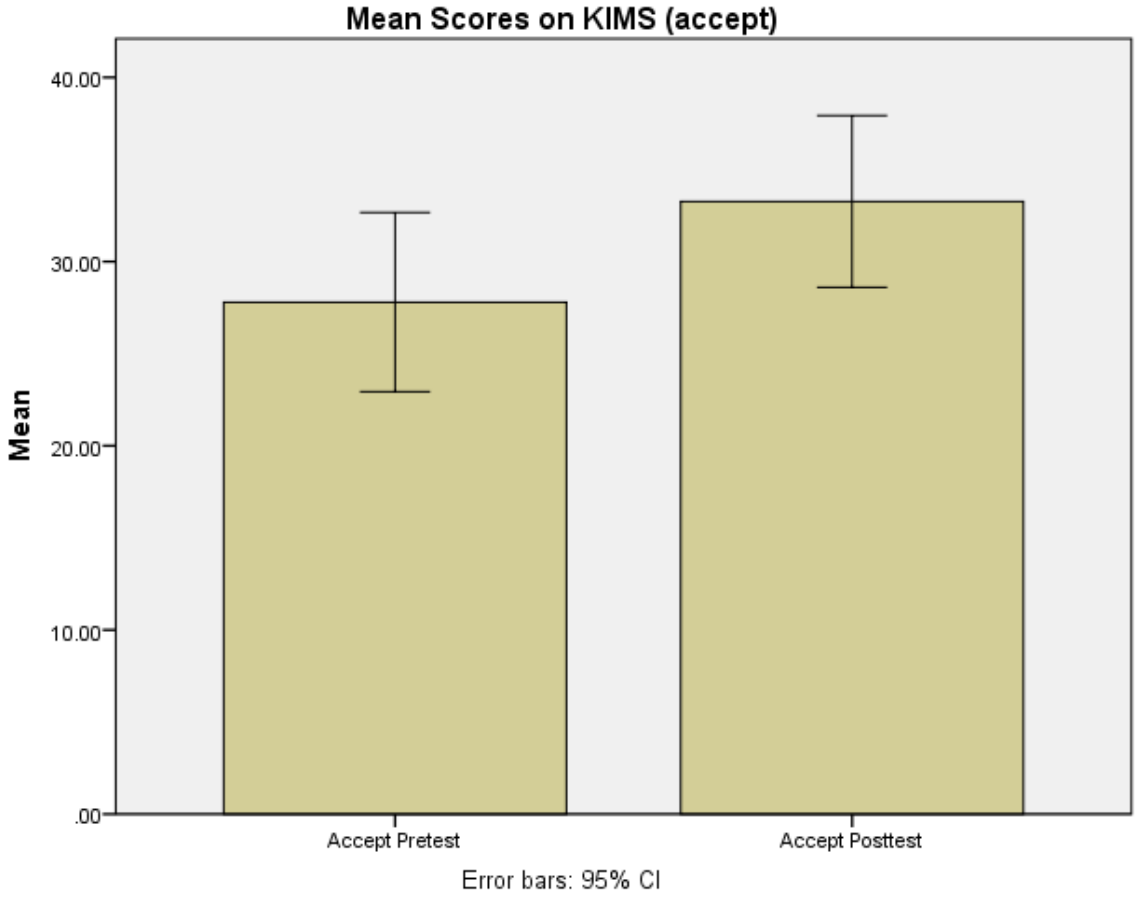

Figure 4. Mean scores and 95% confidence intervals on the KIMS (accept) among N = 16. $t(14) = -4.7$, $p < .001$.

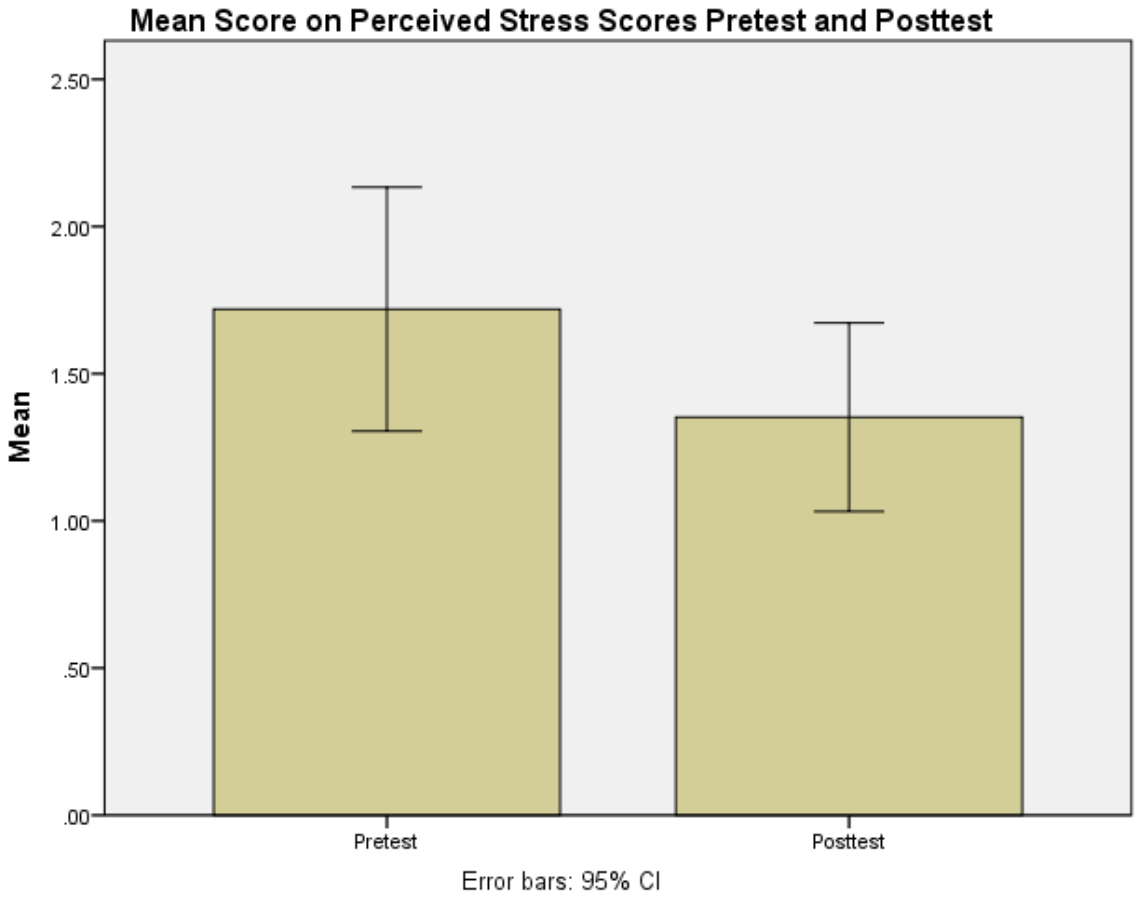

Figure 5. Mean stress scores and 95% confidence intervals from pretest and posttest among $N = 16$. $t(15) = 2.1$, $p = .057$.

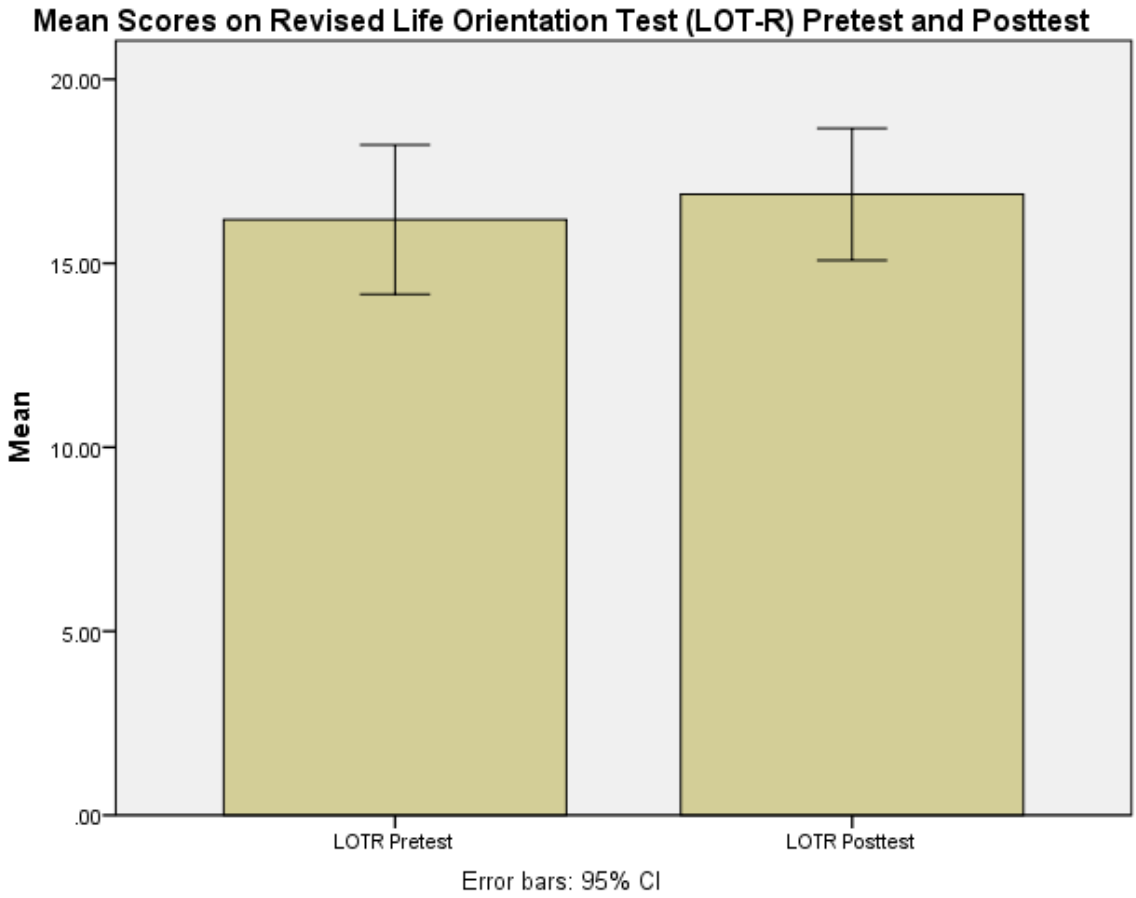

Figure 6. Mean LOT-R scores and 95% confidence intervals from pretest and posttest among $N = 16$. $t(15) = -0.7$, $p = .502$.

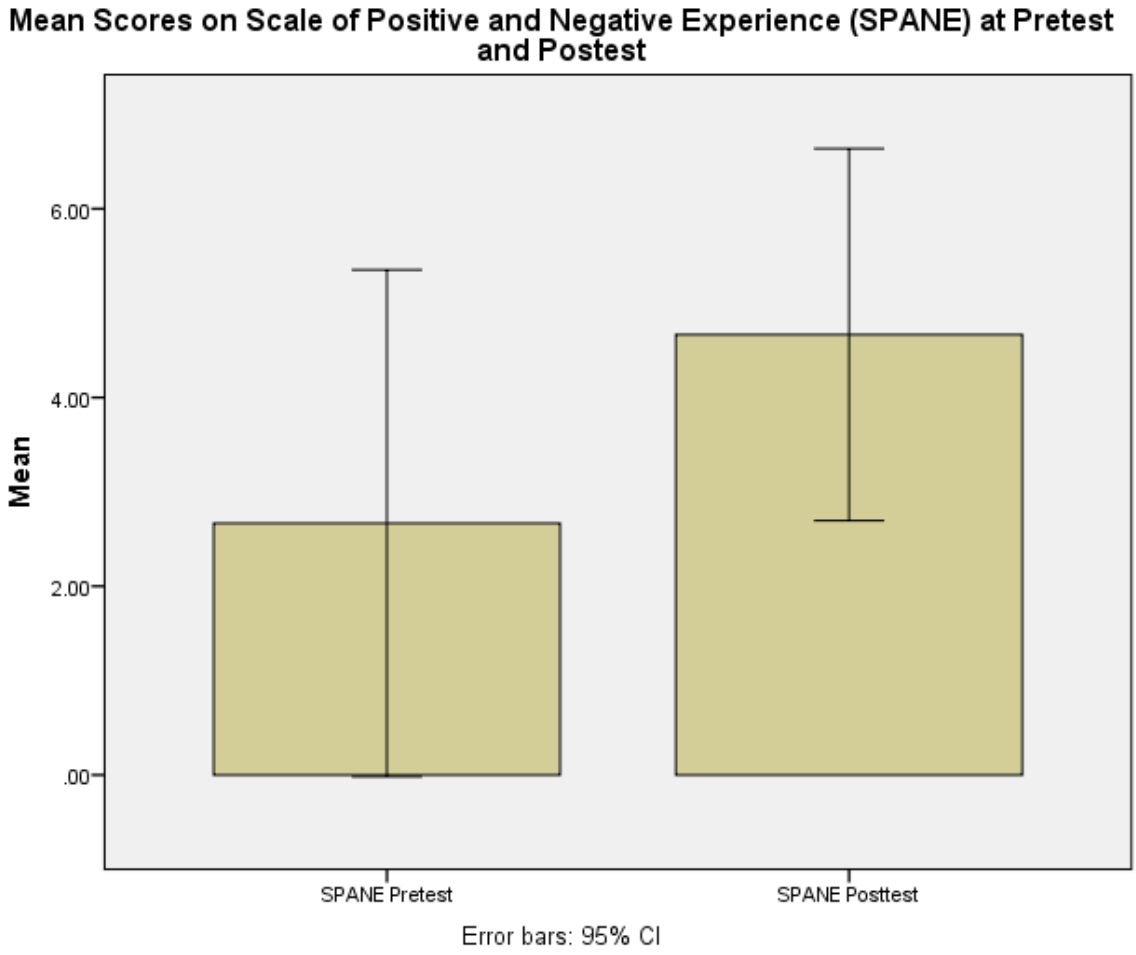

Figure 7. Mean SPANE scores and 95% confidence intervals from pretest and posttest among N =16 $t(14) = -2.1$, $p = .054$.

Summary

A series of dependent samples *t*-tests were conducted to address the quantitative hypotheses. After applying a Bonferroni correction, there were significant improvements from pretest to posttest in mindfulness (specifically on the describe and accept dimensions). There were not significant changes from pretest to posttest in stress, well-being, and optimism. The measure of optimism was included as a non-equivalent variable to strengthen the internal validity of the study design. Because there was not a comparison group to assess the effectiveness of the intervention, optimism was included as a non-equivalent variable that was not conceptually linked to the intervention and was therefore, not expected to change as a function of the intervention. The mindfulness intervention appeared to increase levels of self-reported mindfulness, but did not seem to affect levels of optimism from pre-to post-test.

Evidence of Trustworthiness

Credibility of the findings was established by triangulating the qualitative results with the quantitative results. The themes that emerged from the qualitative analysis corroborated the findings from the quantitative analysis. Specifically, two of the themes that emerged from the qualitative analysis were improved self-awareness and improved intentionality. The improved sense of awareness and pride expressed in the journal entries closely corresponds to the statistically significant increases in the quantitatively-measured describe and accept dimensions of mindfulness. Transferability was supported by providing detailed descriptions of the study setting and research participants (see the Setting and Demographics sections respectively). These details will allow future

researchers to determine the applicability of the present findings to other populations and settings. Dependability was supported by providing complete documentation of the study's methodological procedures (see the Data Collection and Data Analysis sections). Finally, confirmability was supported by the researcher's assessment and disclosure of the researcher's preconceptions regarding the study.

Summary

The qualitative research question was addressed through examination of the researcher's personal observations and a thematic analysis of the journal entries of five intervention participants. Four themes emerged during the analysis: (1) a feeling of relaxation or balance, (2) improved self-awareness, (3) experiences with the mindfulness exercises becoming easier over time, and (4) improved intentionality. The quantitative research question and associated hypotheses were addressed by conducting paired samples *t* tests with a Bonferroni correction applied. The results showed that there was not a significant reduction in stress, therefore $H_0 1$ was not rejected. There were significant improvements in mindfulness (specifically on the describe and accept dimensions of mindfulness), therefore $H_0 2$ was rejected. There was not a significant increase in well-being, therefore $H_0 3$ was not rejected. Finally, there was not a significant change in optimism, in line with the expectation that the NEDV would not change as a result of the intervention. This demonstrates the internal validity of the results, as the dependent variable of interest (i.e., mindfulness) changed from pretest to posttest, but the conceptually-unrelated NEDV (i.e., optimism) did not change. Such evidence supports the conclusion that the changes were due to the intervention, and not simply a natural

change over time (Cook & Campbell, 1979; Coryn & Hobson, 2011). Triangulation of the qualitative and quantitative results showed that the improved self-awareness and self-pride reported in participants' journal entries corresponded with statistically significant improvements in quantitative measures of mindfulness (i.e., describe and accept). This was further supported by the researcher's personal observations wherein it was noted that participants felt less judgmental and more accepting of themselves. The next chapter will contain a discussion of these findings and recommendations for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to investigate the benefits of an MM intervention for women who survived IPV. Applying a mixed methods approach, I used deidentified data from an MBSR program conducted at a local women's shelter collected by shelter staff from program participants for the purpose of program evaluation. Qualitative methods were evaluated through participants' journals, notes taken during the MBSR classes, and reflection questions. Common themes were extracted from the three MBSR classes, resulting in four major themes: (a) a feeling of relaxation or balance; (b) improved self-awareness; (c) experiences with the mindfulness exercises becoming easier over time; and (d) improved self-pride. During qualitative analysis, I followed the analysis procedures outlined in Braun and Clark's (2014) description of thematic analysis.

Quantitative methods were evaluated through the following questionnaires: the KIMS (Baer et al., 2004), the PSS (Cohen, 1994), the SPANE (Diener & Biswas-Diener, 2009), and the LOT-R (Scheier et al., 1994). Each of these assessments was administered at two points in time, and a preintervention score and a postintervention score were assessed. There were significant improvements from pretest to posttest in mindfulness (specifically on the describe and accept dimensions). There were not significant changes from pretest to posttest in stress, well-being, and optimism.

Most of these correlations existed between the subscales of the KIMS, and in this series of correlations, all were positive. The KIMS Accept subscale was significant, indicating that higher acceptance corresponded with lower stress. The SPANE scores

exhibited a positive correlation with the Accept subscale of the KIMS, but a negative correlation with the PSS score.

Interpretation of the Findings

Many studies have focused on how survivors of IPV cope and progress during recovery, but few studies have focused on the reduction of stress for IPV survivors (Kabat-Zinn, 2005; Steward et al., 2012; Vøllestad et al., 2011). There was a gap in literature on MM and stress among these survivors. Jensen et al. (2012) found that although MBSR was highly correlated with improvements of attention as well as lower stress, there was a dearth of knowledge in regard to how IPV survivors cope with stress. MBSR has been demonstrated to be effective in reducing PTSD symptoms among survivors of childhood sexual abuse (Kimbrough et al., 2010). Sansone and Sansone (2009) reported that many of their patients were survivors of physical and emotional abuse who tended to be fixated on past traumas. Past traumas can be correlated with depression and low self-esteem. The researchers described meditation as a mind-and-body encounter that heightens the individual's condition of relaxation and mindfulness (Oman & Bornmann, 2014; Sansone & Sansone, 2009; Williams et al, 2014).

The findings of Dutton, Bermudez, Matas, Majid, and Myers (2013) indicated that MBSR could be used to treat African American women with PTSD and a history of IPV. The researchers proposed that an MBSR intervention would be extremely beneficial as a program for low-income African American women in lieu of very expensive therapy to which they might not have access. The researchers proposed that a similar MBSR program would be beneficial for low-income African American women with a history of

IPV, because MBSR is a low-cost, effective program that does not require a licensed therapist and mental health setting to conduct a mindfulness-based intervention curriculum (Robb et al., 2013). The researchers' findings substantiated their hypothesis that conducting an MBSR intervention program for low-income African American women with a history of IPV was feasible for this population (Robb et al., 2013).

Desrosiers et al. (2013) examined mindfulness and its relationship to mental health in a clinical setting. One hundred eighty-seven participants seeking treatment for mood and anxiety problems were recruited from a clinic in Connecticut. Desrosiers et al. found that the practice of mindfulness significantly improved symptoms of depression and anxiety. Nila et al. (2014) investigated whether MBSR can have positive effects on distress tolerance (DT). Forty-nine participants were recruited for an online longitudinal study. Twenty participants were assessed before and after training in MBSR and were compared to 29 participants from a control group. The experimental group self-reported higher levels of mindfulness and DT, along with resilience.

Hence, the present study's primary goal was to evaluate the effectiveness of an MBSR program in a community-based organization serving women who had experienced IPV, and the effectiveness of MBSR can provide a valuable link to developing coping and treatment strategies for IPV survivors that can be integrated into therapy programs and individual treatment. Furthermore, research establishing the effectiveness of MBSR can provide a foundation for further research on IPV survivors, stress, meditation, and coping strategies. In that IPV affects communities and families as well as individual victims, the ripple effect of healing survivors can carry over to their extended networks.

Limitations to the Study

The limitations to this study included the small sample size, with participants consisting of 16 women from a local community crisis center. Out of 29 participants who enrolled, only 16 participants completed the 4-week course in MBSR. As such, the sample size was not large enough to appropriately generalize the findings to a broader population of IPV survivors. Additionally, limitations of the research design (i.e., lack of a randomized control group) posed threats to the validity of the findings. Potential threats to validity in this study included history, maturation, testing, and mortality (Campbell & Stanley, 1963). History refers to the possibility that events that occurred outside of the course affected participants' responses. Maturation refers to the possibility that participants experienced a natural change over time, independent of the course, which affected their responses. Testing refers to the possibility that simply being exposed to the survey questions during the pretest influenced participants' responses on the posttest.

A limitation of this study was the small-scale evaluation of one program in one city with a limited number of participants. The planned sample size for this study (assuming a medium effect size of 0.50, a power level of .80, and a significance level of .05) was 34 participants (Cohen, 1992). However only 16 participants completed the 4-week course in MBSR, which suggests that the study was underpowered as far as being able to demonstrate statistically significant changes.

Another limitation of the study was attrition. Participants dropped out before the intervention was completed, which led to potential attrition bias. Every effort was made to retain participants by engaging participants through the program content.

Another limitation was response bias, which could have influenced participants' responses in their self-report processes. Specifically, participants might have chosen to answer the questions in a socially desirable manner or in a way that served to confirm the hypotheses of the study. This may have occurred even though participants were assured that their participation was voluntary and that their responses would be kept confidential to shield them from any potential retaliation for their responses.

Finally, participants who did not complete the posttest might have differed systematically from participants who did complete the posttest, which could have influenced the results. These threats were mitigated by the inclusion of the NEDV (i.e., optimism); the results showed that the NEDV did not change from pretest to posttest, strengthening the validity of the findings. The NEDV was included to improve the internal validity of the study because a control group was not feasible (e.g., Coryn & Hobson, 2011). The NEDV in this study was optimism, which is conceptually unrelated to the dependent variables (stress, mindfulness, and well-being) and was not expected to change because of the intervention (Cook & Campbell, 1979; Coryn & Hobson, 2011). The NEDV of optimism was measured and analyzed to determine if there were any changes from pre to post program participation. There was not a significant change in optimism, in line with the expectation that the NEDV would not change as a result of the intervention. However, as there was no randomized control group in this study, history, maturation, testing, and mortality effects that may have affected the mindfulness outcomes but not the NEDV cannot be completely ruled out.

Although most of the participants appeared to be excited and committed during the first two classes, most failed to show up on the last day of the class, and some participants were transient while others were dealing with domestic issues, such as child custody, court hearings, finding appropriate housing, and so on. These participants, therefore, did not complete the postintervention score assessments, which limited the usable data. The results for MBSR efficacy might have been greater if more participants had not dropped out of the program.

Recommendations

During the analysis for this study, four common themes emerged: (a) a feeling of relaxation or balance; (b) improved self-awareness; (c) experiences with the mindfulness exercises becoming easier over time; and (d) improved self-pride. These common themes emerged as significant, but due to low statistical power, they cannot be determinative of actual improvements. Furthermore, the results showed that there was not a significant reduction in stress or significant increases in well-being.

Conversely, there were significant improvements in mindfulness, specifically on the describe and accept dimensions of mindfulness. At the end of the MBSR classes, most participants reported feeling less mentally disturbed and more mindful. They reported seeing improvement in sleep patterns and having an overall mood improvement. All of the participants reported that journaling was also beneficial because it helped them to be reflective, which allowed them to slow down. However, the results mostly approached but did not reach statistical significance, possibly due to the small sample

size. Further studies need to be conducted to support the efficacy of MBSR for IPV survivors.

Recommendations for future studies are to include a larger number of participants and to extend MBSR classes from 4 weeks, which was the length used in the current study, to 6 or 8 weeks. This might help to ensure that the MBSR treatment is effective for program participants. Furthermore, because retention was an issue for the current study's participants, it is recommended that those implementing the programs provide transportation, food, and weekly check-ins with participants during the program to encourage and help them with MBSR practices. Because a number of participants were single mothers caring for their children, it is recommended that those implementing the MBSR program provide onsite child care.

Future research can provide a foundation on IPV and stress for future studies and may influence policies and practices of institutions such as university campuses, treatment centers, and therapists' private practices, as well as secondary educational institutions and programs. For the public at large, the outcome of future research may inform political leaders of the need for educational programs and health care services for survivors of domestic violence. An effectively implemented MBSR program might also be integrated into educational programs promoting awareness of stress, IPV, and mindfulness.

Implications for Positive Social Change

In the present study, the effectiveness of an MBSR program in a community-based organization serving women who had experienced IPV was evaluated in an effort

to provide a valuable link to the development of coping and treatment strategies for IPV survivors that can be integrated into therapy programs and individual treatment. The use of MBSR can also provide a foundation for further research on IPV victims, stress, meditation, and coping strategies. Because IPV affects communities and families as well as individual victims, the ripple effect of healing victims can carry over to their extended networks.

Conclusion

In this study, I provided an evaluation of an existing program. Secondary data were used from an evaluation of a community program that implemented classes in mindfulness intervention among survivors of IPV. Data were collected from an MBSR program conducted at a local women's shelter by a licensed mental health care provider who was knowledgable about MBSR and IPV. Program evaluation data consisted of qualitative data (participant reflections) and quantitative assessment of changes in mindfulness, stress, and well-being from pre to post intervention. The MBSR curriculum consisted of a 4-week program to train participants in the practice of mindfulness using a standardized curriculum that has been validated across diverse settings such as domestic violence shelters (Hughes & Rasmussen, 2010).

The qualitative and quantitative results showed that the improved self-awareness and self-pride reported in participants' journal entries corresponded with statistically significant improvements in quantitative measures of mindfulness (i.e., describe and accept). This was further supported by my personal observations, wherein it was noted that participants felt less judgmental and more accepting of themselves.

MBSR has been demonstrated to be effective in reducing PTSD symptoms among individuals experiencing IPV (Kimbrough et al., 2010). Davis and Hayes (2011) found that participants who underwent MBSR training showed improvement on measures of empathy, emotional regulation, reactivity and response flexibility, and compassion, as well as stress and anxiety. Therefore, future research is needed to investigate whether MBSR is an effective treatment for IPV survivors coping with stress and trauma, as well as to assess any positive coping benefits for IPV survivors.

References

Alabama Coalition Against Domestic Violence. (n.d.). Children and the effects of domestic violence. Retrieved October 21, 2011, from http://www.acadv.org/children.html

Baer, R. A., Smith, G. T., & Allen, K. B. (2006). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*(3), 191-206.

Bayarri, E., Ezpeleta, L., & Granero, R. (2011). Exposure to intimate partner violence, psychopathology, and functional impairment in children and adolescents: Moderator effect of sex and age. *Journal of Family Violence, 26*, 535-543. doi:10.1007/s10896-011-9390-4

Bermudez, D., Benjamin M. T., Porter, S. E., Saunders, P. A., Myers, N. A. L., & Dutton, M. A. (2013). A qualitative analysis of beginning mindfulness experiences for women with post-traumatic stress disorder and a history of intimate partner violence. *Complementary Therapies in Clinical Practice, 19*, 104-108.

Black, M. C. (2011). Intimate partner violence and adverse health consequences: Implications for clinicians. *American Journal of Lifestyle Medicine, 2011*(5), 428-439.

Bloomberg, L. D., & Volpe, M. F. (2012). *Completing your qualitative dissertation: A road map from beginning to end* (2nd ed.). Thousand Oaks, CA: Sage.

Borrell-Carrió, F., Suchman, A. L., & Epstein, R. M. (2004). The biopsychosocial model

25 years later: Principles, practice, and scientific inquiry. *Annals of Family Medicine*, *2*(6), 576-582.

Brace, N., Kemp, R., & Snelgar, R. (2006). *SPSS for psychologists* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.

Campbell, D. T., & Stanley, J. C. (1966a). *Experimental and quasi-experimental designs for research*. Boston, MA: Houghton Mifflin.

Campbell, D. T., & Stanley, J. C. (1966b). Experimental and quasi-experimental designs for research on teaching. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 171-246). Chicago, IL: Rand McNally.

Carlson, L., Speca, M., Patel, K., & Goodey, E. (2003). Mindfulness based stress reduction in relation to quality of life, mood, symptoms of stress, and immune parameters in breast and prostate cancer patients. *Psychosomatic Medicine, 65*(4), 571-581.

Carmody, J., & Baer, R. A. (2007). *Relationship between mindfulness practice and levels of mindfulness, medical and psychological symptoms and well-being in a mindfulness-based stress reduction program*. Worchester, MA: Springer Science+Business Media.

Centers for Disease Control and Prevention. (2011, June 11). Injury Center: Violence prevention. Retrieved from http://www.cdc.gov/ViolencePrevention /childmaltreatment/

Centers for Disease Control and Prevention. (2014, September 5). Prevalence and characteristics of sexual violence, stalking, and intimate partner violence

victimization—National Intimate Partner and Sexual Violence Survey, United States, 2011. *Morbidity and Mortality Weekly Report*, *63*, 1-18. Retrieved from http://www.cdc.gov/mmwr/indss_2014.html

Chambers, R., Lo, B. C. Y., & Allen, N. B. (2008). The impact of intensive mindfulness training on attentional control, cognitive style, and affect. *Cognitive Therapy and Research*, *32*, 303-322. doi:10.1007/s10608-007-9119-0

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155-159.

Cohen, S. (1994). Perceived Stress Scale. Retrieved from http://www.mindgarden.com /products/pss.htm

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385-396.

Cohen, S., & Williamson, G. M. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oscamp (Eds.), *The social psychology of health* (pp. 31-67). Newbury Park, CA: Sage.

Cook, T. D., & Campbell, D. T (1979). *Quasi-experimentation: Design and analysis for field settings.* Chicago, IL: Rand McNally.

Coryn, C. L. S., & Hobson, K. A. (2011). Using nonequivalent dependent variables to reduce internal validity threats in quasi-experiments: Rationale, history, and examples from practice. *New Directions for Evaluation*, *131*(1), 31-39. doi:10.1002/ev.375

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Davis, D. M., & Hayes, J. A. (2011). What are the benefits of mindfulness? A practice review of psychotherapy-related research. *Psychotherapy, 48*(2), 198-208.

Davis, R. L. (April, 2010). Domestic violence-related deaths. *Journal of Aggression, Conflict and Peace Research*, *2(*2), 44-52.

Delizonna, L. L., Williams, R. P., & Langer, E. J. (2009). The effects of mindfulness on heart rate control. *Journal of Adult Development, 16*, 61-65.

Department of Justice. (October 21, 2009). Archive for the 'Bureau of Justice Statistics (OJP)' category. Retrieved October 18, 2013, from http://blogs.justice,gov/ovw/archives/category/bjs

Desrosiers, A., Vine, V., Klemanski, D. H., & Hoeksema, S. N. (2013). Mindfulness and emotion regulation in depression and anxiety: Common and distinct mechanisms of action. *Depression and Anxiety, 30*, 654-661. doi:10.1002/da.22124

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). New well-being measures: Short scales to assess flourishing and positive and negative feelings. New York, NY: Springer Science+Business Media.

Earley. M. D., Chesney, M. A., Frye, J., Greene, P. A., Berman, B., & Kimbrough, E. (2014). Mindfulness intervention for child abuse survivors: A 2.5-year follow-up. *Journal of Clinical Psychology, 70*(10), 933-941.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175-191.

Fauth, J., Gates, S., Vinca, M. A., & Boles, S., Hayes, J. A. (2007). Big ideas for

psychotherapy training. *Psychotherapy: Theory, Research, Practice, Training, 44*(4) 384-391.

Finkelhor, D., Turner, H., & Hamby, S. (October, 2011). *Questions and answers about the national survey of children's exposure to violence.* Report from the Office of Juvenile Justice and Delinquency Prevention. Retrieved from https://www.ncjrs.gov/pdffiles1/ojjdp/235163.pdf

Friedman, R. C., & Downey, J. I. (2012). Editorial: the biopsychosocial model. *Psychodynamic Psychiatry*, *40*(3), 371-376.

Gallegos, A.M., Lytle, M. C., Moynihan, J. A. & Talbot, N. L. (2015). Mindfulness-based stress reduction to enhance psychological functioning and improve inflammatory biomarkers in trauma-exposed women: A pilot study. *Psychological Trauma, 7*(6), 525-32. doi: 10.1037/tra0000053

George, D. & Mallery, P. (2010). *SPSS for Windows step by step: a simple guide and reference, 18.0 update* (11th ed.). Boston, MA: Allyn and Bacon.

Grepmair, L., Mietterlehner, F., Loew, T., Bachler, E., Rother, W., & Nickel, N. (2007). Promoting mindfulness in psychotherapists in training influences the treatment results of their patients: A randomized, double-blind, controlled study. *Psychotherapy and Psychosomatics, 76*, 332-338.

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research, 57*, 35-43.

Hamby, S., Finkelhor, D., Turner, H., & Ormrod, R. (October, 2011). *Children's*

exposure to intimate partner violence and other family violence. Report from the Office of Juvenile Justice and Delinquency Prevention. Retrieved from https://www.ncjrs.gov/pdffiles1/ojjdp/232272.pdf

Hawley, L. L., Schwartz, D., Bieling, P. J., Irving, J., Corcoran, K., Farb, N. A. S., Anderson, A. K., & Segal, Z. V. (2014). Mindfulness practice, rumination and clinical outcome in mindfulness-based treatment. *Cognitive Therapy & Research*, *38*, 1-9.

Hill, C. L. M. & Updegraff, J. A. (2012). Mindfulness and its relationship to emotional regulation. *Emotion, 12*(1), 81-90.

Howell, D. C. (2010). *Statistical methods for psychology* (7th ed.). Belmont, CA: Wadsworth.

Hughes, M. J. & Rasmussen, L. A. (2010). The utility of motivational interviewing in domestic violence shelters: A qualitative exploration. *Journal of Aggression, Maltreatment & Trauma, 19*, 300-322.

IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM.

Insana, S. P., Foley, K. P., Montgomery-Downs, H. E., Kolko, D. J., & McNeil, C. B., (2013). Children exposed to initimate partner violence demonstrate disturbed sleep and impaired functional outcomes. *Psychological Trauma: Theory, Research, Practice, and Policy, 6*(3), 290-298.

Jee, S. H., Couderc, J. P., Swanson, D., Gallegos, A., Hilliard, C., Blumkin, A., Cunningham, K., & Heinert, S. (2015). A pilot randomized trial teaching

mindfulness-based stress reduction to traumatized youth in foster care. *Complementary Therapies in Clinical Practice, 21*, 201-209.

Jensen, C. G., Vangkilde, S., Frokjaer, V., & Hasselbalch, S. G. (2012). Mindfulness training affects attention – or is it attentional effort? *Journal of Experimental Psychology: General, 141*(1), 106-123.

Kabat-Zinn, J. (2005). *Coming to our senses: Healing ourselves and the world through mindfulness.* New York, NY: HarperCollins.

Kearney, D. J., McDermott, K., Malte, C., Martinez, M., & Simpson, T. L. (2013). Effects of participation in a mindfulness program for veterans with posttraumatic stress disorder: A randomized controlled pilot study. *Journal of Clinical Psychology, 69*(1), 14-27.

Kimbrough, E., Magyari, T., Langenberg, P., Chesney, M., & Berman, B. (2010). Mindfulness intervention for child abuse survivors. *Journal of Clinical Psychology, 66*(1), 17-33.

Lamothe, M., Rondeau, É., Malboeuf-Hurtubise, C., Duval, M., & Sultan, S. (2016). Outcomes of MBSR or MBSR-based interventions in health care providers: A systematic review with a focus on empathy and emotional competencies. *Complementary Therapies in Medicine, 24*, 19-28.

Lee, M. Y., Ng, S. M., Leung, P. P. Y., & Chan, C. L. W. (2009). Integrative body-mind-spirit social work: An empirically based approach to assessment and treatment. Retrieved from https://books.google.com/books?isbn=0199724091

Lee, M. Y., Zaharlick, A., & Akers, D. (2009). Treatment of trauma survivors: Effects of

meditation practice on clients' mental health outcomes. *New Research in Mental Health, 18*, 155-161.

Levendosky, A. A., Lannert, B., & Yalch, M. (2012). The emotional effects of intimate partner violence on women and child survivors: An attachment perspective. *Psychodynamic Psychiatry, 40(*3), 397-434.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. New Park CA: Sage.

Maes, M., & Bonaccorso, S. (2004). Lower activities of serum peptidases predict higher depressive and anxiety levels following interferon-alpha-based immunotherapy in patients with hepatitis C. *Acta Psychiatrica Scandinavica, 109*(2), 126-131.

Merriam, S. B. (2014). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. Hoboken, NJ: Wiley-Blackwell.

Morgan, G.A., Leech, N. L., Gloekner, G. W. & Barrett, K. C. (2007). *SPSS for introductory statistics: Use and interpretation* (3rd ed.). Mahwah, NJ: Lawrence.

Murphy, M. C. (2006). Taming the anxious mind: An 8-Week mindfulness meditation group at a university counseling center. *Journal of College Student Psychotherapy, 21*(2), 5-13.

Nastasi, B. (n.d). Qualitative research:Sampling & sample size considerations. *Study notes adapted from a presentation by Dr. Bonnie Nastasi.* Laureate International Universities.

National Coalition Against Domestic Violence (2015). Domestic Violence and Physical Abuse. Retrieved September 5, 2016, from http://www.ncadv.org/learn-more/statistics

Nila, K., Holt, D. V., Ditzen, B., Aguilar-Raab, C. (2006). Mindfulness-based stress reduction (MBSR) enhances distress tolerance and resilience through changes in mindfulness. *Mental Health & Prevention, 4*(1), 36-41.

Oman, D., & Bormann, J. E. (2014). Mantram repetition fosters self-efficacy in veterans for managing PTSD: A randomized trial. *Psychology of Religion and Spirituality,* 1-12.

Pallant, J. (2007). *SPSS Survival Manual* (3rd ed.). New York, New York: McGraw-Hill.

Respecting Accuracy in Domestic Abuse Reporting (n.d.). Domestic violence programs are often ineffective, sometimes harmful. Retrieved October 14, 2011, from http://www.mediaradar.org/docs/RADARflyer-VAWA-Programs-Ineffective-or-Harmful.pdf

Robb, S. W., Benson, K., Middleton, L., Meyers, C., & Hébert, J. R. (2015). Mindfulness-based stress reduction teachers, practice characteristics, cancer incidence, and health: a nationwide ecological description. *BMC Complementary & Alternative Medicine*, doi:10.1186/s12906-015-0545-3

Sansone, R. A., & Sansone, L. A. (December, 2009). Psychotherapy: What's metaphysical got to do with it? *Psychiatry, 6*(12), 26-30.

Scheier, M. E., & Carver, C. S. (1987). Dispositional optimism and physical well-being: The influence of generalized outcome expectancies on health. *Journal of Personality, 55*(2), 169-210.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of

the Life Orientation Test. *Journal of Personality and Social Psychology*, *67*(6), 1063-1078.

Speca, M., Carlson, L., Goodey, E., & Angen, M. (2000). A randomized wait list comtrolled trial: The effect of a mindfulness meditation based stress reduction program on mood and symptoms of stress in cancer outpatients. *Psychosomatic Medicine, 62*, 613 – 622.

Stevens, J. P. (2009). *Applied Multivariate Statistics for the Social Sciences* (5th ed.). New York, NY: Routledge.

Steward, D. E., MacMillan, H., & Wathen, N. (2012). Intimate partner violence. *The Canadian Journal of Psychiatry, 58*(6).

Suls, J. & Rothman, A. (2004). Evolution of the biopsychosocial model: prospects and challenges for health psychology. *Health Psychology, 23*(2), 119-125.

Tabachnick, B. G. & Fidell, L. S. (2012). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.

Tashakkori, A. & Teddlie, C. (2003). *Handbook of Mixed Methods in Social & Behavioral Research*. Thousand Oaks, CA: Sage.

Tracy, S. J. (2013). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact.* Hoboken, NJ: Wiley-Blackwell.

Vøllestad, J., Sivertsen, B., & Nielsen, G. H. (2011). Mindfulness-based stress reduction for patients with anxiety disorders: Evaluation in a randomized controlled trial. *BehaviorResearch and Therapy, 49*, 281-288.

Vujanovic, A. A., Niles, B., Pietrefesa, A., Schmertz, S. K., & Potter, C. M. (2011). Mindfulness in the treatment of posttraumatic stress disorder among military veterans. *Professional Psychology: Research andPractice, 42*(1), 24-31.

Wexler, J. (2006). The relationship between psychotherapist mindfulness and the therapeutic alliance. *Dissertation Abstracts International: Section B: Science and Engineering*, *67*, 2848.

Williams, J. M. G. (2010). Mindfulness and psychological process. *Emotion*, *10*, 1-7.

Wood, N. D., Crane, D. R., & Keller, P. S. (2011). Tracking marital adjusment, hostility, and physical functioning across time in a therapy population: A biopsychosocial model. *Contemporary Family Therapy, 33*, 242-252.

Zosky, D. (2011). A matter of life and death: The voices of domestic violence survivors. *Affilia*, *26*(2), 201-212.