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Yoga Use in Domestic Violence Shelters: Exploring Organizational and Personal Factors Associated with Adopting Yoga as a Complementary Treatment

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Table of Contents

Chapter Title	Page Number
Abstract	1
I. PROBLEM STATEMENT AND JUSTIFICATION	2
Introduction	2
Intimate Partner Violence Costs	2
A Holistic Approach to Intimate Partner Violence	4
Organizational Innovation in Social Work	6
Research Aim	8
Research Questions	8
II. LITERATURE REVIEW AND THEORETICAL FRAMEWORK	9
Consequences of IPV	9
Depression	9
Post Traumatic Stress Disorder	11
Treatment for Depression & PTSD	12
Limitations of Cognitive Behavioral Therapy	12
Limitations of Medication	13
Alternative Treatment as a Form of Treatment for Depression & PTSD	13
Yoga	14
Research Supporting Yoga as a Treatment for Depression	16
Research Supporting Yoga as a Treatment for PTSD	19
Innovation Adoption in Organizations	21
Organizational Culture Theory	23
Transformational Leadership Theory	27
Leadership Cultures	29
Knowledge of Yoga Effectiveness to Treat Depression & PTSD	31
Personal Experience with Yoga	34
Slack Resources	37
Theoretical Model	39
Study Hypotheses	40
III. RESEARCH METHODOLOGY	42
Study Design	42
Sample and Procedures	42
Target Population	44
Data Collection Method	44
Criteria for selection	45
Size of sample	45

Variables	46
Independent variables	46
Dependent variables	50
Moderating variable	51
Covariate	52
Open-Ended Questions	52
IV. FINDINGS	54
Results	54
Univariate analysis	54
Bivariate analysis	62
Open-Ended Questions about Yoga	67
V. DISCUSSION	70
Responses from Open-Ended Questions	77
Shelter-Related Hindrances	79
Client-Related Hindrances	79
Implications for Social Work	81
Conclusion	82
REFERENCES	84
APPENDICES	96
Leader Survey	96
Observer Survey	102
Authorization Letter to Use the LPI	107

ABSTRACT

Background

Service provision to address trauma-related intimate partner violence (IPV) is often through conventional psychotherapeutic approaches which may narrow the focus of treatment. Using unconventional approaches of complementary alternative medicines (CAM) such as yoga is innovative in the domestic violence field. Yoga has been shown to positively impact the mental and physical health consequences of IPV that have been identified among women in domestic violence shelters. It is therefore important to understand what factors contribute to adopting yoga as an alternative treatment model. This exploratory study sought to understand if organizational factors (organizational culture and transformational leadership) and personal factors (knowledge of yoga effectiveness and personal experience with yoga) influence yoga adoption in domestic violence shelters.

Methods

Forty-three domestic violence shelters throughout New York City were invited to participate in this study. Fifteen shelters returned questionnaires (34% response rate). Data were collected from program directors, their managers, and direct service providers using the Organizational Culture Profile, the Leadership Practices Inventory, and questions formulated by the researcher.

Results

Eight of fifteen shelters reported yoga use either directly or by referral. Analyses exploring relationships between organizational factors, personal factors, and yoga use indicated no significant relationships. Open-ended questions yielded more understanding about facilitators or hindrances to yoga adoption. Belief in yoga's ability to impact on stress and provide mental and physical health benefits was identified as a facilitating factor to yoga use. Hindrances identified pertained to shelters' policies and immediate resources or to perceptions about clients.

Conclusions

Organizational and personal factors explored were unrelated to yoga adoption in this study which may be attributable to the small sample size. Lessons learned are discussed and suggestions to increase sample size are provided. Information about facilitating factors and hindrances to yoga adoption provide directions for future research.

CHAPTER I

PROBLEM STATEMENT AND JUSTIFICATION

Introduction

Intimate Partner Violence Costs

Intimate partner violence (IPV) has been a long standing social issue that many couples have experienced for centuries, though it was not always recognized as a social problem. The term "intimate partner violence" describes physical, sexual, or psychological harm by a current or former partner or spouse (CDC, 2010). This type of violence can occur among heterosexual or same-sex couples and does not require sexual intimacy (CDC, 2010). IPV can vary in frequency and severity and occur on a continuum, ranging from one hit to chronic, severe battering (CDC, 2010). IPV can include verbal, emotional, spiritual, financial, psychological, and other forms of abuse that may be more subtle than outright physical abuse against a partner. In 2008, nonfatal intimate partner victimizations represented 22% (552,000) of nonfatal violent victimizations including rape/sexual assault, robbery, or aggravated or simple assault by a current or former spouse, boyfriend or girlfriend against females age 12 or older, compared to 5% (101,000) of nonfatal violent victimizations against males age 12 or older (Catalano, Smith, Snyder & Rand, 2009).

IPV is costly is in many ways and its effects are devastating. The health-related costs of intimate partner violence exceed $5.8 billion each year (CDC, 2003), with mental health costs representing the greatest amount of those health

costs (O'Campo et al., 2006). Nearly $4.1 billion are for direct medical and mental health care services, and nearly $1.8 billion are for the indirect costs of loss productivity or wages (CDC, 2003). The physical and psychological difficulties associated with IPV victimization impair role functioning and increase the need for health care services. The National Research Council reports that female IPV victims lose more time from work, spend more days in bed, and suffer more from stress and depression than non-victims (NRC, 1996). Medical care utilization is high among IPV victims, not only immediately after but for years following the battering (Rivara, Anderson, Fishman, et al., 2007; Bergman & Brismar, 1991). Some physical health problems associated with IPV include 1) arthritis, 3) chronic pain, 4) migraine and other frequent headaches, 5) stammering, 6) sexually transmitted infections, 7) chronic pelvic pain, 8) stomach ulcers, 9) spastic colon, and 10) frequent indigestion, diarrhea, or constipation (Coker et al., 2000).

One possible psychological impact of IPV may be short or long term trauma effects that develop into post-traumatic stress disorder (PTSD). Trauma can be understood as the emotional or physical shock that occurs after experiencing a stressful event. Several researchers have found that IPV-related trauma can have debilitating effects on victims, including mental health effects of depression (Coker et al., 2000; Golding, 1999; Jones, Hughes & Unterstaller, 2001; Pico-Alfonso et al., 2006) and PTSD (Jones, Hughes & Unterstaller, 2001; O'Campo et al., 2006), physical health effects (Bergman & Brismar, 1991; Coker et al., 2000; Rivara, Anderson, Fishman, et al., 2007), and even spiritual health

effects (Ai & Park, 2005).

A Holistic Approach to IPV-Related Trauma

Many domestic violence agencies provide victims of IPV with services that address the consequences of IPV-related trauma. However, those services may lack a holistic approach that uses both conventional and alternative approaches to treatment also known as complementary alternative medicine (CAM). Conventional approaches can be understood as traditional or standard approaches to treatment. In the social work field conventional approaches include mental health counseling, legal services, shelter, and job assistance. Alternative approaches refer to non-mainstream approaches in place of conventional medicine or standard treatment (NCCAM, 2008) i.e. traditional Chinese medicine or herbs only. Complementary alternative approaches refer to using a non mainstream practice together with conventional approaches (NCCAM, 2008) i.e. mind-body practices of yoga or acupuncture along with psychotherapy. Some evidence suggests that a holistic approach to treatment may better help victims to heal damaged aspects of the mind-body connection impacted by IPV e.g. Allen & Wozniak, 2011 & Franzblau, Echevarria, Smith & Van, 2008.

Among the services provided by domestic violence shelters are various programs to facilitate victim's independence from abusers including individual and group counseling, case management, and life skills workshops. Although those services are important and beneficial to help victims move forward in their lives, they emphasize independence from abusers, which neglects the physical,

emotional, and spiritual impact of IPV on the mind and body interconnection. While some domestic violence agencies may be open to incorporating alternative treatments that may better help to treat trauma, they may be limited by different factors impacting their organization.

There is evidence to support yoga as an intervention to decrease mental health consequences associated with IPV and improve mood and well-being (Allen & Wozniak, 2011; Brown & Gerbarg, 2005a; Kosaza et al., 2008; Mehta & Sharma 2010). Despite the evidence in support of the effectiveness of yoga to treat depression and PTSD, two of the major psychological consequences of IPV, yoga is used in only a minority of domestic violence agencies throughout New York City. This researcher obtained preliminary data through phone calls to 43 domestic violence shelters in NYC. Of the 22 shelters that responded to the researcher's request to indicate whether or not they used yoga with clients, 72% indicated they did not use yoga with clients, while the remaining 28% either presently used yoga with clients or provided it to them in the past. This preliminary data indicated the importance of understanding distinguishing factors among domestic violence shelters that facilitate or hinder the use of yoga in order to learn if commonalities existed among shelters. The disparity of yoga use amongst shelters indicates that there may be varying factors impacting on yoga adoption, which may or may not include organizational and personal factors in the innovation adoption process. It is important to learn the facilitating and hindering factors to innovation adoption in order to promote yoga as an alternative treatment model. In order to do so, factors motivating domestic violence agencies to adopt

yoga use need to be understood. Research on the use of yoga in domestic violence agencies will build the knowledge base about what organizational factors support the use of this innovative approach so that more domestic violence shelters can provide a holistic approach to treatment.

Organizational Innovation in Social Work

Human service organizations often examine employee-level innovations such as individual creativity in producing new ideas rather than organizational innovation such as the adoption of a new product, service, technology or administrative practice (Damanpour, 1991 & Daft & Becker, 1978). While understanding the factors that impact on individual employee innovation provides useful information about employees job performance, it does not provide information on overall service delivery to clients as well as how organizations fare in comparison to other organizations in the same field, i.e. how innovative they are and to what level. Of the available research examining organizational innovation, only a small amount explores innovation in the social service field (Brown, 2007; Jaskyte, 2011, Jaskyte & Dressler, 2005, Jaskyte & Dressler, 2004). Limited knowledge about the factors contributing to organizational innovation may impact on service delivery to clients, such that services provided may be outdated and inappropriate. Developing information about innovations that can help to better address the needs of IPV victims is important to improve service delivery to clients as well as to influence organizational performance (Walker, 2004). The relationship between innovation and organizational

performance suggests the need to increase knowledge about the various factors associated with organizational innovation including facilitators and hindrances to innovation adoption. Increasing knowledge about innovations can be useful to not only the domestic violence population but also to the broader social work community interested in providing alternative treatments to clients. Social work organizations could tailor this study's findings to their settings (shelter or non-shelter settings) to improve service delivery and influence their organization's performance.

This exploratory study identified facilitating and hindering factors associated with yoga use among domestic violence shelters, particularly because IPV victims residing in shelters, compared to their counterparts not in shelters are shown to have the highest rates of depression and or PTSD (Golding, 1999; Jones, Hughes & Unterstaller, 2001). In addition, in comparison to other divisions of domestic violence agencies, shelters are more likely to have the space available to provide yoga to clients. The information obtained from this study will be useful for future studies that aim to increase yoga adoption rates at domestic violence agencies.

Research Aim

The research aim of this study was:

To examine organizational and personal factors (of staff) associated with the adoption of yoga in domestic violence shelters.

The questions that guided the study were:

Research Questions

1. Is there a relationship between organizational culture and yoga use with clients (directly and referrals for yoga) at the shelter?
2. Is there a relationship between transformational leadership and yoga use with clients (directly and referrals for yoga) at the shelter?
3. Is there a relationship between knowledge of yoga effectiveness for treating depression and PTSD and yoga use with clients (directly and referrals for yoga) at the shelter?
4. Is there a relationship between personal experience with yoga and yoga use with clients (directly and referrals for yoga) at the shelter?

CHAPTER II

LITERATURE REVIEW and THEORETICAL FRAMEWORK

Consequences of IPV

The impact of IPV may range from one to several mental health problems (Coker et al., 2000; Bonomi et al., 2006; Ishida et al., 2010), among which may be depression and/or PTSD. Other mental health problems may include the following: substance use (Brown, Finkelstein & Mercy, 2008), cognitive difficulties including perception and memory failures, self-defeating problem solving, fearfulness of one's spouse, obsessive compulsiveness, traumatic bonding (identifying with an abuser who exercises power over them), hyperarousal, psychoticism, paranoid ideation, psychosexual dysfunction (Jones, Hughes & Unterstaller, 2001) decreased self-esteem, and sleep disorders (Koopman et al., 2007). IPV victims may also experience an increased likelihood of undergoing divorce and using more medical and mental health services than the general population (Jones, Hughes & Unterstaller, 2001, Montero et al., 2011). This dissertation focused on yoga adoption to address two commonly reported mental health consequences of IPV-related trauma: depression and post-traumatic stress disorder.

Depression

Depression has been shown to be a correlate of IPV in many studies (Bonomi et al., 2006; Dinemann et al., 2000; Jones, Hughes & Unterstaller, 2001). Dinemann et al. (2000) found lifetime prevalence rates of IPV among

women with depression indicating 61%. Plichta & Falik (2001), in a nationally representative sample of women between the ages of 18-64, found that 35% of women indicate an experience of IPV in their lifetime. Of the women in this study that reported sexual violence by an intimate partner, these women were 4-5 times more likely to experience depression and anxiety than women that did not experience sexual violence.

Across varied clinical samples (i.e. women in a shelter, those seeking services from community agencies, and victimized women in the community) findings indicate that IPV victims have elevated symptoms of depression at the time of assessment (Jones, Hughes & Unterstaller, 2001). Among the group of IPV victims with the highest rates of depression are women residing in shelters (60%) (Golding, 1999). Some research has found associations between IPV and a sense of powerlessness (believed to contribute to depression) (Calvete, Estevez, & Corral, 2007) and increased depressive symptoms among women with lower levels of social support (Coker et al., 2002). Other research shows associations between severity of depression among IPV victims and the: 1) severity of IPV (Dinemann et al., 2000), 2) recency of IPV (within the past five years) (Bonomi et al., 2006), 3) length of exposure to IPV (Bonomi et al., 2006; Pico-Alfonso, Garcia-Linares, 2006), and 4) experience of childhood abuse (Hegarty, Gunn & Chondros, 2004). In summary, the research shows that depression is highly correlated with women that: 1) live in shelters, 2) have lower social support, 3) have more recent, severe, and longer episodes of abuse, and 4) have histories of childhood abuse.

Post traumatic stress disorder

Post traumatic stress disorder (PTSD) refers to exposure to an event in which a person may respond to trauma experienced by: 1) re-experiencing the trauma (flashbacks, nightmares), 2) numbing and avoidance, and 3) hyperarousal (sleeplessness, hyper vigilance, irritability). PTSD is shown as a correlate of IPV in several studies (Jones, Hughes & Unterstaller, 2001; O'Campo et al., 2006; Pico-Alfonso, 2005). Across diverse research samples i.e. clinical samples, shelters, hospitals, and community agencies, a large percent of IPV victims (31% to 84%) display PTSD symptoms (Golding, 1999; Jones, Hughes & Unterstaller, 2001) compared to women in the general population (1.3% -12.3%) (Golding, 1999). In particular, victims of IPV in shelters are at greater risk of developing PTSD versus victims not in shelters (Jones, Hughes & Unterstaller, 2001). The needs of IPV victims in shelters are greater than their counterparts as they are compounded by issues of homelessness, lack of social support, and low income (Jones, Hughes & Unterstaller, 2001). IPV victims in shelters are likely to have experienced multiple episodes of violence against them, thus PTSD may be a response to the multiple episodes of violence (Basile, Arias, Desai, Thompson, 2004).

The following section will examine the effectiveness of the current treatments available for victims of IPV with depression and/or PTSD and highlight the limitations of those treatments.

Treatment for Depression and PTSD

Cognitive-behavioral therapy treatment strategies are consistently shown empirically to be a valid treatment for depression and PTSD symptoms (Butler et al., 2006; Foa et al., 1996, National Institute for Clinical Excellence, 2004) particularly for the avoidance symptom cluster of PTSD (Solomon & Johnson, 2002), that may impact on treatment dropout rates in female victims of IPV (Schlee et al., 1998). Medication is another commonly recommended treatment shown to positively address depression or PTSD in more severe cases. Despite the benefits of these treatments and their success, some research points to their limited effectiveness and in some cases their harm to clients (Asnis, Kohn, Henderson, & Brown, 2004; Bryant, 2000).

1. Limitations of Cognitive Behavior Therapy (CBT)

Despite the research showing CBT's ability to reduce symptoms of depression, other research has identified limitations such as: 1) no significant effect of CBT in impacting major depression, where CBT and medication is compared to a medication only group (Goodyer et al., 2008); 2) no significant difference between CBT and short term psychodynamic psychotherapy (STPP) (Leichsenring 2001); 3) CBT is not better than usual care post-treatment (Berkman et al., 2003); and 4) there may be long-term ineffectiveness of CBT for depression, such that the success of CBT treatment declines and relapse rates of depression increase 1-2 years post-treatment (Arkowitz & Lilienfeld, 2006). In addition, CBT may increase PTSD and depressive symptoms in some individuals and may be inappropriate to treat chronic PTSD (Bryant, 2000).

2. Limitations of Medication

Among the medication shown effective in treating depression and PTSD are selective serotonin reuptake inhibitors (SSRIs), the first line of treatment. While there are benefits of these drugs, including its safety and benign adverse effects, there are limitations of these medication which include 1) the long duration of time needed for results to be beneficial (at least 6-12 weeks, preferably longer), 2) several side effects that may occur (e.g. gastrointestinal problems and insomnia) and 3) significant residual symptoms after treatment of PTSD that can be incapacitating (Asnis, Kohn, Henderson, & Brown, 2004).

The empirical support for the use of pharmacological approaches to manage PTSD symptoms suggests that these approaches do not appear to work as a stand-alone treatment to fully alleviate PTSD or address particular symptom clusters such as avoidance (Albucher and Liberzon, 2002), thus while CBT and medication are two useful and in some cases helpful forms of treatment, there are notable limitations of these forms of treatment for PTSD and depression.

Alternative Treatments as a Form of Treatment for Depression and PTSD

Given the limitations of CBT and medication, alternative treatments need to be considered in treating PTSD and depression- two of the major mental health problems found to be associated with IPV. By definition an alternative treatment provides a choice between two or more options outside of conventional systems or institutions (Nurse's Handbook of Alternative and Complementary Therapies, 2003). As an alternative to mental health counseling only, using complementary

and alternative medicine (CAM) represents a pathway to more of an inclusive or holistic way of treatment. CAM is integrative, combining both complementary medicine and mainstream medicine (Simmons, 2001). It represents a different approach that introduces a variety of techniques that people can do on their own, providing more decision-making or empowerment, with few side effects compared to drugs (Simmons, 2001). In the social work field, CAM techniques can be used as a complement to mental health treatments as a way of providing more holistic care.

Included under the umbrella of CAM are mind-body practices. Mind-body practices include meditation, acupuncture, yoga, deep-breathing exercises, guided imagery, hypnotherapy, progressive relaxation, qi gong, and tai chi (NCCAM, 2011). These practices are designed to impact on the mind's ability to affect bodily function and symptoms (Wolska, Eisenberg, Davis & Phillips, 2004). They assist in decreasing pain and improving one's health physically and psychologically (Simmons, 2001). Many scientific studies have found that mind-body practices including yoga are effective in treating stress-related mental and physical disorders (Brown & Gerbarg, 2005a).

Yoga

Yoga is an ancient practice originating in India that focuses on breathing exercises (pranayama) and postures (asanas) (Brown & Gerbarg, 2005a). Yoga combines muscle relaxation, meditation, and physical workout (Brown & Gerbarg, 2005a; Granath, Ingvarsson, van Thiele, & Lundberg, 2006). Yoga techniques historically have been found to enhance well-being, mood, attention,

mental focus, and stress tolerance (Brown & Gerbarg, 2005a). There are varying forms of yoga used to restore and maintain health and increase self-awareness and consciousness (Brown & Gerbarg, 2005a). Yoga style can differ by emphasis, i.e. holding postures, (yogasite, 2010) the intensity of the workout, incorporation of meditation, breathing, and spiritual principles may vary. Yogic breathing in particular, serves as a way to help balance the autonomic nervous system, thereby influencing a broad range of mental and physical disorders (Brown & Gerbarg, 2005a).

The scientific exploration of yoga by Western medicine is in its infancy, but it has some empirical support, including controlled studies showing its effectiveness in addressing physiological as well as psychological outcomes (Khalsa, 2004; Granath, Ingvarsson, van Thiele, & Lundberg, 2006). Yoga has been shown to address depression, anxiety and PTSD (Wolska, Eisenberg, Davis & Phillips, 2004; Woolery, Myers, Sternlieb & Zeltzer, 2004; Khalsa, 2004, 2006; Brown & Gerbarg, 2005a, b; Franzblau, Echavarria, Smith, & Van Cantfort, 2008). Among the types of yoga investigated in the research are Hatha, Kundalini, Iyengar, and Siidarshan Kriya Yoga (SKY) which may emphasize one or more of the following: 1) breathing, 2) meditation, and 3) specific poses to address particular aspects of the body. Research identifies the positive benefits of yoga, and SKY in particular, to improve feelings of fear, neglect, abuse, rejection, depression, isolation, and worthlessness (Brown & Gerbarg, 2005b). The following section will highlight research that has shown support for the use of yoga to treat depression or PTSD.

A. Research Supporting Yoga as a Treatment for Depression

Support for the use of yoga to address differing physical and mental health outcomes has been shown in many studies. Among the more common mental health problems is depression. The following studies will highlight yoga's usefulness with depression. Only one study specifically investigated the impact of yoga with victims of IPV using depression as an outcome. Franzblau, Echevarria, Smith & Van (2008) investigated the short-term effects of IPV victims giving testimony about their abuse and the effects of yogic breathing on depression. Results indicated that yogic breathing techniques alone significantly reduced feelings of depression, in a relatively short amount of time (4 days). In combination with testimony, yogic breathing had the most powerful influence on depression. Limitations of this study include 1) small sample size, 2) limited generalizeablity, and 3) the inability to know if the short-term effects of yogic breathing and testimony on mood are maintained long-term.

In other research, the positive effects of yoga have been shown to treat depression across the spectrum. Results indicate that after a yoga intervention is provided, and in some cases during the course of the intervention (Woolery et al., 2004), there is 1) significant reduction in depression scores, decreases in tension and increases in well-being in individuals with mild depression (Kosaza et al., 2008), 2) reductions in negative mood (Woolery, Myers, Sternlieb & Zeltzer, 2004), 3) remission of depression in some people who, prior to the intervention, were only in partial remission despite taking medication (Shapiro, 2007), and 4) higher remission rates of depression when yoga is combined with medication

compared to a psycho-education only control group to treat long-term depression (Butler et al., 2008).

In addition to the previous studies some researchers have conducted systematic reviews to learn yoga's usefulness with depression. Brown & Gerbarg (2005b) note several clinical studies showing reductions in depression due to participants receiving Siidarshan Kriya Yoga (SKY) (a combination of yogic breathing, postures, meditation, aspects of cognitive-behavioral therapy, and psychoeducation). Among these studies were two pilot studies that examined SKY's usefulness among patients with dysthymia and major depression, which showed reductions on depression assessment tools, including remission of dysthymia. A third study reviewed showed evidence for SKY as an alternative to conventional treatment for severely depressed individuals (bilateral electroconvulsive therapy (ECT) or medication), which indicated remission of depression among SKY users at a rate comparable to remission through medication (Brown & Gerbarg, 2005b).

In Pilkington, Kirkwood, Rampes & Richardson's (2005) systematic review assessing yoga's usefulness with depression, 5 randomized controlled trials using yoga interventions to address mild to severe depression are reported. Included is a study comparing full SKY against partial SKY (full SKY without cyclical breathing) in patients with major depressive disorder. Reduction in depression was shown despite the SKY group participants were in, though the statistical impact of that was insignificant. However receiving full SKY led to

experiencing 50% or greater reductions on total depression scores compared to receiving partial SKY.

In all of the 5 trials reported in the review, positive results of yoga interventions were found, but methodological details including method of randomization, compliance, and attrition rates were missing (Pilkington, Kirkwood, Rampes & Richardson, 2005). In four of the five studies no adverse effects were reported, though one study reported effects of fatigue and breathlessness (Pilkington, Kirkwood, Rampes & Richardson, 2005). Thus, overall support was found for the beneficial effects of yoga interventions with treating depressive disorders. There were variations in the interventions, depression severity, and reporting of trial methodology, so these findings must be viewed with caution.

In a more recent systematic review, Mehta & Sharma (2010) found that yoga was a beneficial method of treatment for depression in a majority of the studies reviewed (17 of 18 studies). While the review included different forms of yoga as interventions, the study findings indicate that yoga can be helpful to treat depression as well as anxiety, though in some studies there were trends toward improvements but not at statistically significant levels. Included in the review were studies using pre-test post-test, quasi-experimental and randomized controlled studies. Of the limitations noted from the studies were: 1) small number of participants, 2) some studies may have lacked adequate power to detect significant differences, 3) limited diversity of participants, and 4) age of participants- inclusion of only middle aged to elderly participants.

B. Research Supporting Yoga as a Treatment for PTSD

In addition to treating depression, some research points to the beneficial effects of yoga to treat PTSD (Brown & Gerbarg, 2005b; Descilo et al., 2009; Allen & Wozniak, 2011). In particular, SKY (yogic breathing, postures, meditation, as well as aspects of cognitive-behavioral therapy and psycho-education) is shown to have beneficial effects in treating the full range of PTSD symptoms when a combination of breathing, meditation, and postures are done versus only a single practice of breathing, meditation, or postures (Brown & Gerbarg, 2005b). Brown & Gerbarg (2005b), in their systematic review, note two open unpublished pilot studies designed to treat Vietnam veterans with PTSD and depression that experienced success. Results indicated significant improvement in depression in both studies and reduction in PTSD symptoms of disturbed sleep, flashbacks, and anger outbursts as well as improvements in sleep initiation (though in one of the studies there were no reports of improvement in insomnia or anger expression). In the first study success continued long-term (21 weeks), well after the 6 week Iyengar yoga program, with continued yoga practice. The second study included meditation and breathing in addition to yoga postures to treat PTSD. Interestingly, the yoga postures reduced PTSD and depression but an effect on PTSD hyperarousal symptoms (sleep disturbance, flashbacks or anger outbursts) was not evident until meditation and breathing techniques were added to the practice. These findings indicate that yoga as a form of treatment for symptoms of PTSD may be more effective when different aspects of yoga are combined. This is not surprising when considering that the different symptoms of

PTSD may illicit anxiety and fear of the reoccurring traumatic event. So a yoga intervention that includes postures, meditation, and breathing may be more appropriate to address the dimensions of PTSD.

In another study showing improvement in PTSD symptoms after a yoga program, Descilo et al. (2009) evaluated the effect of a yoga breath program alone compared to a yoga breath program with a trauma reduction exposure technique for victims of a tsunami that had co-morbid PTSD and depression. Results indicated that the intervention groups did better than the control group at 6 weeks on both measures assessing PTSD and depression, and these were maintained at the 24 week follow up period. Limitations included the inability to use randomization and to strictly adhere to the study protocol due to the natural disaster nature of the circumstances. However, support was found for the use of yoga in reducing both PTSD and depression.

Finally, in a mixed method study assessing the impact of alternative approaches to facilitate healing in women with histories of IPV, Allen & Wozniak (2011) used a 10 week group intervention that encompassed yoga as well as other approaches to healing. Positive qualitative and quantitative results were found from the group, including reduction in PTSD symptoms. While the intervention used in this study did not specifically focus on yoga use to decrease PTSD symptoms, the positive effects of yoga in conjunction with other approaches to facilitate healing from IPV provide some support for its use as an adjunct approach in working with victims of IPV.

As the previous studies highlight, yoga is a promising treatment strategy to

address mental health problems, particularly depression and PTSD. However, the limitations of that research must be considered. Some of the studies used yoga in conjunction with other treatments, which may have impacted the outcomes of those studies. In addition, many of the previous studies used small sample sizes, some did not report all of the methodological details, and some combined breathing techniques, making it difficult to compare or apply findings regarding breathing practices (Brown & Gerbarg, 2005a). However, in light of the challenges of yoga research, the current research lends support for the use of yoga as an adjunct treatment for the improvement of client's mental health and the improvement of specific disorders such as depression and PTSD.

While there is growing evidence in support of yoga's effectiveness to treat mental health consequences of IPV, yoga has not been embraced as a viable form of treatment to use with victims of IPV by the majority of domestic violence shelters in New York City. The limited adoption of yoga indicates a need to explore the factors impacting on yoga adoption at domestic violence shelters in New York City. The next section will discuss potential factors relevant for yoga adoption in domestic violence shelters, focusing on the role of organizational culture and transformational leadership in innovation adoption.

Innovation Adoption in Organizations

Innovation can be understood as a practice or object thought of as new by an individual or unit of adoption in comparison to the existing practice in the host organization (Cohen, 1999). Innovation is a social process where implementation

of ideas depends heavily on the involvement of others (Jaskyte & Dressler, 2005). Innovation determines the organization's ability to meet future demands, take advantage of opportunities and resources, and use resources to come up with new products and services (Shin & McClomb, 1998). Thus the availability of slack resources (i.e. personnel or underutilized capital in excess of the amount needed to produce organizational output) (Nohria & Gulati, 1997), which allow assets to absorb potential failure (Nystrom, Ramamurthya & Wilson, 2002) may work to facilitate innovation adoption.

Much of the research on innovation, often in for-profit organizations, focuses on the influence of structural and process characteristics (e.g. size, centralization, formalization, and specialization) on organizational innovation (Jaskyte, 2011). While there is large support for the influence of structural characteristics in innovation adoption, other research shows that non-structural features of organizations such as organizational culture and transformational leadership are key factors in organizational innovativeness (Jaskyte & Dressler, 2006). These findings warrant support for further investigation of the roles of organizational culture and transformational leadership in innovation adoption not only in for-profit organizations, but also in non-profit social service organizations.

The innovation literature says little about innovation in social work settings (Brown, 2007) and there are no studies assessing factors facilitating and hindering CAM use in social work settings. However, in the medical field, the primary field in which CAM is used, some studies have explored facilitators and hindrances to CAM use, (Meenan & Vuckovic, 2004; Ruggle, 2005; Salomonsen

et al., 2011; Santa & Coleen, 2001) though this research says little about the specific organizational attributes of organizational culture and transformational leadership. In particular the organizational factors impacting on yoga use as an innovation among social service organizations has not been explored.

To understand innovation adoption in social work settings, it may be helpful to consider factors relevant to those settings in addition to what is known about CAM use in the medical field, and to view innovation through the lens of theories that can provide useful contexts to frame innovation adoption. The following sections will discuss the role of organizational culture and transformational leadership.

Organizational Culture Theory and Innovation

Organizational culture is shown to impact on innovation depending on the strength of the culture around particular shared values (Jaskyte & Dressler, 2005; Jaskyte & Kisieliene, 2006). Strong, homogenous organizational cultures may work as either a facilitator (Flynn and Chatman, 2001) or hindrance to innovation (Jaskyte, 2003; Nemeth & Staw, 1989). As a facilitator, strong cultures are important when introducing, implementing, and sustaining change because they can impact both employee behaviors and implicit coordination so that change is easier (Jaskyte & Kisiliene, 2006). In addition, strong cultures can provide predictability and allow for quick responses to known conditions. Depending on the values shared the culture can stimulate creativity and innovation (Flynn and Chatman, 2001). However, strong cultures may be problematic because they

create uniformity, loyalty, and commitment which may create difficulty with 1) implementing new ways of functioning, 2) responding to changes in the external environment, and 3) developing new solutions to problems that arise (Jaskyte & Dressler, 2005). They may hinder quick responses to the unknown because of their commitment to the existing organizational ideology. In contrast, weak organizational cultures may allow for flexibility in responding to unfamiliar situations (Jaskyte & Dressler, 2005). Thus to understand the relationship between innovation and organizational culture, it is important to consider what values are being shared and how strongly they are shared (Jaskyte & Kisiliene, 2006).

Organizational culture theory is selected for use in this study because it provides an understanding about how organizational culture influences and is influenced by an organization. Organizational culture can be understood as a pattern of shared basic assumptions that groups learn by dealing with external adaptation and internal integration (Schein, 1992). It is the set of beliefs, values, and meanings shared by members of an organization (Hodges & Hernandez, 1999; McLean, 2005; Jaskyte & Dressler, 2005). Organizational culture helps members to understand organizational function and guide thinking and behavior (Jaskyte & Dressler, 2005). It keeps employees together and increases the stability of the system, complementing leadership (Pervaiz, 1998; Schein, 1994).

Included under the domain of organizational culture are the espoused values of the organization. Espoused values are the goals, ideals, and standards; they are what members of an organization believe should be the work of the organization, i.e., the ideologies, attitudes, and philosophies (Schein, 1992).

Values refer to priorities assigned to organizational outcomes such as innovation, risk taking, and predictability (Arad, Hanson & Schneider, 1997). Values convey to organizational members the choices and priorities of the organization in terms of its mode of functioning (Arad, Hanson & Schneider, 1997). It is arguable that organizational values are the defining element of any organization's culture (Arad, Hanson & Schneider, 1997), impacting on an individual's adjustment to, as well as attitudes toward the organization (O'Reilly, Chatman, and Caldwell, 1991).

Certain values and assumptions are identified as characteristic of innovative organizations (Jaskyte & Dressler, 2005). These values include 1) challenging the status quo, 2) flexibility (Quinn, 1988) and adaptability, 3) freedom to make changes, 4) sharing common goals, 5) teamwork, 6) risk-taking, 7) accepting mistakes, 8) entrepreneurship, 9) collegial and participative relationships, 10) sharing information openly, 11) autonomy, 12) results-orientation, 13) creativity, 14) stimulation, 15) challenge, 16) future orientation, 17) cohesiveness, 18) a sense of family, 19) commitment, and 20) dynamism (Delanna & Houser, 2000; Hurley & Hult, 1998; Jaskyte & Dressler, 2005). However, values of cohesion, teamwork, stability, security, cooperation, and lack of conflict, when highly shared are believed to hinder innovation (Jaskyte & Dressler, 2005).

In the social service field, research has found positive relationships among organizational culture and organizational innovativeness (Jaskyte & Dressler, 2005) and leadership practices and cultural consensus (strong cohesion) around

certain values (Jaskyte & Kisiliene (2006). However, the perceived risk of innovations and resistance to change is shown to be a hindrance to innovation adoption (Brown, 2007).

Higher cultural consensus on values of stability, security, low level of conflict, predictability, rule orientation, team orientation, and working in collaboration with others is shown to negatively impact on innovation so that organizations high in these characteristics are lower in innovation (Jaskyte & Dressler, 2005), while weaker cultural consensus on values of being willing to experiment, pursue opportunities, and risk taking is associated with innovation (Jaskyte & Dressler, 2005).

In the medical field, organizational culture is shown to influence staff support of complementary alternative medicine (CAM) use. Santa & Coleen (2001), citing a study conducted by Health Forum, state that CAM reflecting hospitals' mission statement was a motivator to CAM use in hospitals. Wang & Yates (2006) found that organizational culture either encouraged or discouraged nurses' support of patient use of CAM as an adjunct to medical treatment for cancer. In addition to personal factors related to nurses (e.g. knowledge of CAM and philosophy about CAM), their colleagues' support of CAM as treatment and CAM's ease of fit with the medical practices of their treatment setting impacted on their openness to patient CAM use.

Other research shows the importance of organizational culture when attempts are made to integrate CAM and conventional medicine. Keith (1990), noting the impact of organizational culture on innovation adoption in a medical

setting, found that organizational culture was a barrier to adopting and implementing an innovative healthcare program. The program which included spirituality was terminated after only several months of use. Staff perceived that the program's values posed a conflict with values of traditional medicine, and this perceived difference in values contributed to high staff resistance at the clinic.

Maher (2008), describing steps taken by an integrative cancer center to initially integrate CAM that were later replicated by other cancer centers, notes the importance of shifting organizational culture in cancer centers to successfully integrate CAM services to patients. The shift in organizational culture required a focus from a professional centered to a patient-centered agenda, as well as allowing for innovative ideas and services to be integrated into the routine practice of these organizations. A key lesson learned from the development of the first integrated center was the importance of the organization continually adapting to be viable. This provides support for the role of adaptability, an organizational value important in innovation (Delanna & Houser, 2000; Hurley & Hult, 1998; Jaskyte & Dressler, 2005).

Transformational Leadership Theory and Innovation

Another organizational factor shown to positively influence organizational innovation is transformational leadership, particularly in the business field (Jung et al., 2003; Jung, Wu & Chow, 2008; Gumusluoglu & Islev, 2009). Little exists in the research to show the specific impact of transformational leadership on innovation in nonprofit social service or medical organizations, but what exists

shows a relationship between transformational leadership and innovation (Shin & McClomb, 1998).

Transformational leadership theory is a wellused framework for understanding leadership behaviors. This theory looks at the characteristics of leaders and their influence on followers, i.e. employee and organizational outcomes. Transformational leaders use four I's to influence followers: 1) individualized consideration (attention to follower's needs), 2) intellectual stimulation (challenges assumptions and takes risks), 3) inspiration (motivates others through inspiring vision), and 4) idealized influence or charisma (garners respect and trust among followers).

Transformational leadership focuses on achieving an outcome through the use of the relationship between the leader and the employee in terms of the leader's ability to influence followers. Transformational leaders encourage followers to come up with new ways to challenge the status quo (Bass, 1985), an organizational value shown to be correlated with innovation (Jaskyte, 2004).

They can also motivate followers by their vision and challenge them to adopt innovative approaches in their work, ultimately enhancing organizational innovation (Gumusluoglu & Islev, 2009). Transformational leaders encourage cooperation in performing collective tasks and provide opportunities to learn from shared experience which can lead to workers seeking an innovative approach to performing their jobs (Jung & Sosik, 2002). Using the four I's transformational leaders promote personal and organizational changes and help their followers go beyond their initial performance expectations (Jung & Sosik, 2002). Leaders who

are transformational in their leadership style are viewed as more effective and achieve higher performance than leaders who are not (Jung & Sosik, 2002).

Shin & McClomb (1998) found that leaders with "vision setter" styles, a style aligned with transformational leadership in regards to invention and risk-taking was the most important predictor of organizational innovation. In contrast, styles of leadership that focused on building cohesion and teamwork were unrelated to innovation (Shin and McClomb, 1998). Another finding was that organizations headed by vision setters tended to be highest in organizational innovation compared to organizations headed by leaders with other leadership styles (Shin & McClomb, 1998).

In the medical field, Vohra et al. (2005) found that among the factors important to initiate integrative medicine programs (conventional medical therapies and alternative treatments) in hospitals was a motivated champion that was well-trusted. Hollenberg, Tsasis & Kelley (2011) found that CAM use in hospitals was directly related in part to hospital leadership. Leader's interest in and influence on CAM use had an important role in determining CAM being successful in hospitals, including the success of particular CAM services (e.g., massage; acupuncture) over others (e.g., chiropractic).

Leadership Cultures

Though organizational culture and transformational leadership may have independent effects on innovation, it is possible that there may be interdependent effects on innovation as well. Leaders can impact on organizational

innovativeness through: facilitating the development of organizational culture by creating new sets of shared values (Schein, 1985; Trice and Beyer, 1993), sharing their vision (Bennis &Nanus, 1985; Pinto & Prescott, 1988; West, 1990), using motivation with their followers (Miller & Friesen, 1982) and deliberately taking risks (West, 1990). Leaders' values for change and innovation, (i.e., support of risk taking and innovation) can also impact on the level of organizational innovation (Chatman and Cha, 2003; Cummings & Huse, 1989; Hasenfeld, 1983; Jaskyte, 2004; King & Anderson, 1995).

Jaskyte (2004), exploring the effect of transformational leadership and organizational culture on organizational innovation in human service organizations, found that though transformational leadership practices were not related to organizational innovation, it was significantly positively related to cultural consensus. Cultural consensus characterized by stability and team orientation, in turn was negatively related to organizational innovativeness. Of the five leadership practices that characterized transformational leadership, the only leadership practice unrelated to cultural consensus was distinguished by challenging the status quo, looking for the ways to innovate, experimenting, and taking risks. Thus, the extent to which organizational values are shared among employees (cultural consensus) is important to consider when linking leadership and organizational culture (Jaskyte & Dressler, 2005).

In organizations with strong cultures the strength of the leader can prevent the expression of diverse views (Nemeth, 1997), and cohesive groups with strong, directive leaders are most likely to seek uniformity (Janis, 1982) which may work

against innovative efforts. Some studies have shown that the highest levels of innovation occurred in organizations whose leaders had only moderate control over work groups (Farris, 1973; Pelz & Andrews, 1976). This implies that both strength of the organizational culture as well as the leader's strength are important factors in understanding organizational innovation.

The previous factors show the complexity involved with understanding organizational aspects in considering innovation adoption. While it is clear to understand that organizational factors may play a role of facilitating or hindering innovation adoption, organizations consist of people who contribute their own role towards innovation adoption, thus a consideration of the personal factors involved in innovation adoption need to be considered as well. The following sections focus on understanding the role of personal factors in innovation adoption, particularly how knowledge of yoga effectiveness and personal experience with yoga can impact on the adoption of yoga in organizations.

Knowledge of Yoga Effectiveness to Treat Depression & PTSD

While general knowledge of yoga may be known by some people, knowledge of yoga's effectiveness, particularly in treating health concerns, may be less known. The evidence of yoga to treat depression and PTSD is growing but it is questionable how many people know of this evidence, particularly shelter staff that work with victims of IPV. Knowledge of CAM effectiveness is a factor shown to impact on CAM use (Salomonsen et al., 2011; Santa & Coleen, 2001; van Haselen et al., 2004), thus it is possible that lack of knowledge may

contribute to yoga non-use (Nurse's Handbook of Alternative and Complementary Therapies, 2003). In the medical field, knowledge of CAM effectiveness and its impact on CAM use has been explored, and to a small extent, the specific knowledge of yoga effectiveness and yoga use. Results indicate the following barriers to CAM use: 1) insufficient evidence or the perception of insufficient evidence (Awad, Al-Ajmi & Waheedi, 2012; Giannelli, Cuttini, DaFre & Buiatti, 2007; Zimmerman & Kandiah, 2012), 2) the perception of inadequate knowledge, and 3) the belief that CAM is ineffective (Jain & Astin, 2001).

Among healthcare professionals, knowledge of CAM effectiveness may impact both on direct CAM use with patients and whether CAM is recommended to patients. Chang et al. (2011) found that healthcare professionals had poor evidence-based knowledge on specific oncology treatments in the oncology field and that this lack of knowledge of CAM effectiveness impacted on professionals being able to advise patients regarding benefits, limitations and potential harms of CAM. More than half of the sample thought they did not have adequate knowledge nor were they up to date with the best evidence on CAM use in oncology and were unsure of the roles of CAM practices in cancer-related scenarios (80%). Among the professionals that did not use CAM, insufficient information about CAM was a reason for non-use. Brown et al. (2007) also found that health professionals have limited knowledge about CAM which may impact on health professionals discussing patient use of CAM. In addition, the knowledge that professionals had was mainly acquired from sources other than

professional journals. Koh, Teo & Ng (2003), assessing pharmacists knowledge of CAM, found that the majority of pharmacists rated their knowledge of herbal medicine, one CAM method as little (49%), indicating they did not know much about herbal medicine. Eighty-one percent of the pharmacists felt that there was inadequate training to equip them with the skills and knowledge to counsel patients. Brazier et al. (2008), exploring integrative care practices provided to patients among oncology health professionals found that knowledge of CAM evidence played a role in advising patients regarding CAM use. Some professionals set boundaries around their role as an integrative guide based on the perceptions of limited evidence of CAM efficacy and potential interactions of CAM and conventional cancer care.

Wilkinson & Tinley (2009), assessing Australian podiatric physician's knowledge of CAM found that physician's knowledge of CAM was not strong. Of the CAM knowledge physicians had, they generally obtained it from other people (i.e., CAM practitioners or other health professionals) rather than the literature. Gianelli, Cuttini, Da Fre, & Buiatti (2007) found that among physicians reporting never recommending CAM to patients, about two thirds were not convinced of its effectiveness, while approximately one third felt they did not have enough knowledge to be able to recommend it.

Robotin & Penman (2006) noted that to further integrative medicine (combination of conventional and alternative medicine), knowledge about CAM needs to be improved, including addressing uncertainties about CAM efficacy and safety. However, before uncertainties of CAM and yoga in particular can be

addressed, it is important to assess what is actually known about yoga effectiveness and to determine if knowledge of yoga effectiveness impacts on use of yoga. The available evidence of yoga's effectiveness may not have been acquired, possibly impacting on yoga use. Thus it was important to learn if domestic violence organizations were aware of the available evidence of yoga effectiveness to treat mental health consequences of depression and PTSD and if knowledge of yoga effectiveness impacted on yoga use at domestic violence agencies.

Personal Experience with Yoga

In many professions, including those that work with victims of IPV, staff may experience high levels of stress. Occupational stress and personal health conditions are frequently related to stress such as anxiety, back pain, functional bowel disorders, and depression (Kemper et al., 2011), and these conditions may impact on the quality of work provided (Kemper et al., 2011). It is plausible that some frontline workers in the domestic violence field may turn to stress relaxation techniques including yoga, to address work related stress, and based on that personal experience with yoga may be influenced to use yoga with clients.

In the medical field, professional use of CAM among healthcare professionals has been studied, with some of that research indicating a relationship between personal experience and professional use of CAM, though how that relationship plays out is not always clear. Some authors point to the reasons for CAM use among health professionals being similar to those of the

general population including for general wellness and for health problems (Johnson, Ward, Knutson & Sendelbach, 2012).

Hayes & Alexander (2000), exploring nurse practitioner's (NP's) personal and professional experiences with alternative treatments found that the majority of nurses reported both personal experience with and professional use of alternative therapies with patients (63%). Sixty-five percent reported they referred or recommended one or more alternative therapy modalities and 30% provided alternative therapies directly, with one third of NP's (31%), indicating they had received training in one or more therapies. Wilkinson & Tinley (2009), also found particularly high personal and professional CAM use with patients (over 90%), including referrals for CAM among podiatric physicians. King, Pettigrew & Reed (1999), exploring the reasons for CAM use in nurses' self-care and with patients either directly or through referral found that nurses used many of the same therapies for self-care that they also used with patients to address pain management, symptom management, and well-being. Tracy et al. (2005) also found that nurse's professional use of CAM was related to personal use of CAM and the therapies most widely used and recommended were those more popular in mainstream practice. CAM that nurses had less knowledge of and were viewed as harmful were least used. Rooney, Fiocco, Hughes & Halter (2001) found that staff and primary care providers that had used CAM personally were more likely to have used or referred for CAM presently or wished to offer more CAM in the future.

Cutshall et al. (2010), assessing CAM use by clinical nurse specialists also found that nurse specialists were using CAM in their professional and personal lives, of which, personal use of CAM may have been attributable to work-related stress. Pirotta, Farish, Kotsirilos & Cohen (2002) found that among general practitioners using CAM therapies with patients, positive exposures to CAM, including having had personal treatment by CAM therapists was influential to their use of CAM with patients. Zhang et al. (2010) also found that positive personal experience with CAM was influential in health professionals using CAM with patients.

Lastly, Kanadiya, Klein & Shubrook (2012), exploring the CAM use among osteopathic medical students found that commonly used CAM modalities, including yoga, were most likely to be suggested to patients for use. The authors suggest osteopathic medical students who have personal experience with CAM, along with professional training may be in a better position to discuss CAM with future patients.

Domestic violence shelter workers are likely faced with work-related stress and as such may be likely to use yoga to address that stress. It is possible that personal experience with yoga may contribute to also using yoga with clients. Knowledge of yoga, particularly yoga effectiveness with mental health problems as well as personal experience with yoga may impact on yoga use at the shelter with clients. These variables were included in this study to explore their potential impact on yoga use among shelter workers. The previous studies provide support for including knowledge of yoga effectiveness as well as personal experience with

yoga as variables to explore yoga use, as they may either positively or negatively impact on the use of yoga.

While the previous organizational and personal factors are shown to potentially impact on innovation adoption, a consideration of slack resources must also be made, particularly because the absence or presence of slack resources may influence the decision to adopt innovations. The next section discusses the impact of slack resources as a moderator of organizational innovation.

Slack Resources- A Determinant of Innovation Adoption

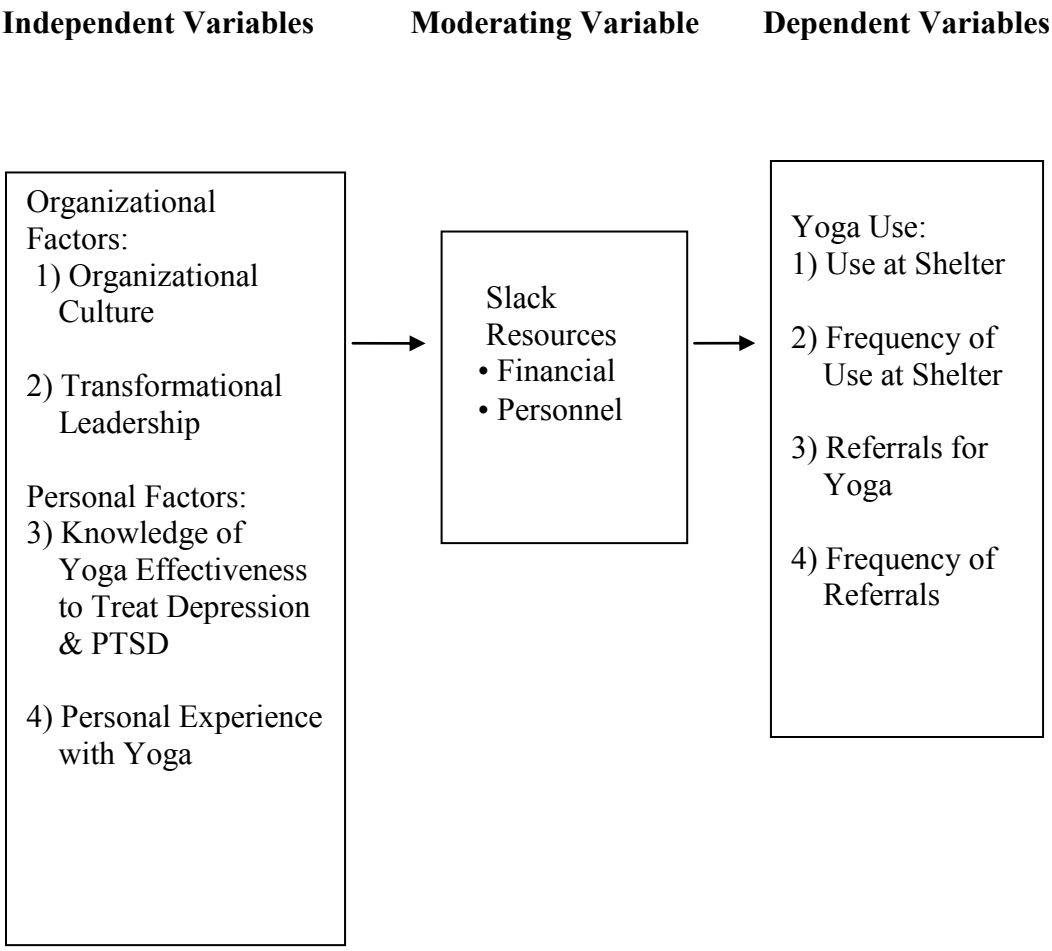
Slack resources are shown to be a determinant of innovation adoption (Crossan & Apaydin, 2010; Damanpour, 1991; Fernandez & Wise, 2010) and are therefore included in this study as a moderating variable. Several scholars argue that budgetary slack enhances creativity and innovation, allowing for projects that would not otherwise be approved when there is tight control over the budget (Fernandez & Wise, 2010; Cyert and March, 1963), while financial resource constraints hinder innovation (Amabile et al., 1996; Camison-Zornoza, Lapiedra-Alcami, Segarra-Cipres & Boronat-Navarro, 2004, Damanpour, 1991; Woodman et. al, 1993).

Slack resources consist of personnel and underutilized capital in excess of the minimum necessary to produce organizational output (Nohria & Gulati, 1997). These resources allow for ideas to be explored in advance of an actual need and for accepting the costs of change, (Fernandez & Wise, 2010, Rosner, 1968), including absorbing failure associated with an innovation (Rosner, 1968).

Slack resources influence the organizational leader's disposition and behavior relating to change, thus influencing the probability of innovation adoption (Fernandez & Wise, 2010). The absence of slack resources results in very rigid decision-making that avoids risk taking, but favors efficiency and certainty (Staw, Sandelands, & Dutton, 1981). Thus, the absence of slack resources could work as a hindrance to innovation adoption since managers reluctant to experiencing risk, due to low levels of slack, may be particularly motivated by security and limiting exposure to threats of loss (Lopes, 1987). These factors may be core issues for shelters that impact on innovation adoption. In contrast, slack resources could encourage risk-taking which may facilitate innovation adoption, in that managers with slack resources try more risky actions due to the cushion of assets to buffer potential failure (Nystrom, Ramamurthya & Wilson, 2002). Experimental innovative behavior, especially the development of new strategies, is one of the major outcomes of slack resources (Nystrom, Ramamurthya & Wilson, 2002).

The amount of resources available sends a message to staff about the supportiveness of innovations in their organizations (Amabile et al., 1996; Scott & Bruce, 1994). The perception created may either lead staff to pursue or not pursue innovations. By supporting experimentation through resource allocation leaders can create a learning environment (Damanpour, 1991; King et al., 1992; West & Anderson, 1992), be tolerant of failed ideas (Madjar et al., 2002), and adopt risk-taking norms (King et al., 1992; West & Anderson, 1992). These factors taken together can increase the likelihood of innovation adoption.

Theoretical Model



Given the previous literature review, the following hypotheses were investigated:

Study Hypotheses

1) Domestic violence shelters with strong cohesion on values associated with innovation including risk taking and willingness to experiment are more likely to directly use yoga with clients (ever or within the past year) than domestic violence shelters that do not have strong cohesion on those values.
2) Domestic violence shelters with strong cohesion on values associated with innovation including risk taking and willingness to experiment are more likely to refer clients for yoga than domestic violence shelters that do not have strong cohesion on those values.
3) Domestic violence shelters with leaders that use more transformational leadership practices are more likely to use yoga with clients (ever or within the past year) than domestic violence shelters with leaders that use less transformational leadership practices.
4) Domestic violence shelters with leaders that use more transformational leadership practices are more likely to refer clients for yoga than domestic violence shelters with leaders that use less transformational leadership practices.
5) There is a positive relationship between knowledge of yoga effectiveness for treating depression and PTSD and direct yoga use with clients at domestic violence shelters.
6) There is a positive relationship between knowledge of yoga effectiveness for treating depression and PTSD and client referrals for yoga.

7) There is a positive relationship between personal experience with yoga and direct yoga use with clients at domestic violence shelters.
8) There is a positive relationship between personal experience with yoga and client referrals for yoga.

Moderating Variable and Dependent Variables

9) Slack resources moderates the relationship between the organizational factors (organizational culture, transformational leadership) and personal factors (knowledge of yoga effectiveness and personal experience with yoga), such that greater slack resources increases the likelihood of yoga use at domestic violence shelters.
10) Slack resources moderates the relationship between the organizational factors (organizational culture, transformational leadership) and personal factors (knowledge of yoga effectiveness and personal experience with yoga), such that greater slack resources increases the likelihood of client referrals for yoga at domestic violence shelters.

CHAPTER III

RESEARCH METHODOLOGY

Study Design

This was an exploratory study that used a cross-sectional design to examine the predictive factors associated with either the use or nonuse of yoga in domestic violence shelters. A cross sectional design best allows for answering the research questions by allowing the comparison of the two groups: users and non users of yoga. Differences among shelters were explored among the variables identified in this study: organizational factors (organizational culture and leadership) and personal factors (knowledge of yoga effectiveness to treat depression and PTSD and personal experience with yoga) and yoga use (direct use and referrals) at shelters. This study included a purposive sample of program directors, managers of program directors, and direct service workers in domestic violence shelters. Participating shelters were surveyed to obtain retrospective data about the research topic.

The strengths of utilizing a purposive sample for this research was that it allowed for: 1) an inclusion of the desired population and 2) an examination of the differences among shelters in terms of their use of yoga.

Sample and Procedures

The data source for this study was the directory of all domestic violence shelters located in New York City obtained from the Human Resources

Administration Office of Domestic Violence and Emergency Intervention Services. This directory was provided by Sanctuary for Families, a leading domestic violence agency in New York City. The directory was used as the sampling frame to invite all shelters to participate in the study. Prior to the commencement of the study, the researcher contacted the Brooklyn, Queens, and Manhattan Domestic Violence Taskforces as well as colleagues working at domestic violence organizations to facilitate shelter staff interest and willingness to participate in the study. The chairperson of the Manhattan Domestic Violence Taskforce sent a description letter about this study to all members of the taskforce's list serve to inform them about the nature of the study. In addition, the researcher made contact with other domestic violence organizations to request their endorsement of the study to increase shelter participation. Shelters were contacted by phone to invite them to participate in the study and emailed and/or faxed a study description letter requesting their participation in the study. After contacting program directors of each shelter and awaiting authorization from the appropriate sources in the shelter's organizations, shelters that provided agreement to participate in the study were mailed packages of surveys with informed consent forms. Each participating shelter was sent a package including the following: four consent forms, four surveys for direct staff (two staff), the program director, and the program director's manager to complete, four individual envelopes, and one large envelope with postage to be mailed to the researcher. A free incentive yoga class that was initially intended to be provided to all participating shelters in this study was provided to only two shelters due to either

lack of availability or interest to participate in the class. The yoga class was conducted directly at the two shelters after all surveys were returned to the researcher.

The strengths of using a survey to obtain data for this study were: 1) it is less intrusive compared to other data collection methods, and 2) allows similar data to be collected from groups and to be interpreted (i.e. agencies using yoga versus agencies not using yoga). The limitations of this method include: 1) recall bias, and 2) difficulty of respondents answering honestly about a controversial question or about the leader.

Target Population

The target population was all domestic violence shelters in the New York metropolitan area.

Data Collection Method

Program directors of each shelter were contacted by the researcher to request their shelter's participation in the study. Program directors that agreed to allow their shelter to participate in the study identified a point person to assist with collecting and ensuring all surveys were completed, sealed, and returned to the researcher.

Program directors received the leader survey, which included questions about yoga use at the shelter, the shelter's resources, the director's knowledge of yoga effectiveness and personal experience with yoga, the organizational culture at the shelter, and the director's leadership style. Direct service staff and program

director's managers received the observer survey which included questions about their knowledge of yoga effectiveness and personal experience with yoga, their organization's culture, and the program director's leadership style.

The collection period was between May and June 2013. Shelters were contacted by phone and email several times to follow up and ensure that surveys were completed and returned to the researcher.

To allow for confidentiality, each study participant received an individual envelope to enclose their survey so that their responses were not seen by others working in their organization. Names were not asked for on surveys but given that surveys were labeled with a number indicating where they are from and asked about participant's position at the organization, the researcher knew which shelter surveys came from as well as if the respondent was a program director, manager of a program director, or a direct service provider. Thus confidentiality was ensured but not anonymity.

Criteria for Selection

The unit of analysis for this study was the domestic violence shelter. Respondents from each shelter were assigned a number for coding purposes. Inclusion criteria was domestic violence shelters in the NYC area. Exclusion criteria were shelters that are not domestic violence agencies.

Size of Sample

This study surveyed 4 staff from 15 domestic violence shelters in the NYC metropolitan area, with 54 staff altogether from the shelters. Though 4 staff were

requested from each shelter, only 11 of 15 participating shelters included 4 staff. The study response rate was 34%, a rate similar to Jaskyte's (2004) study that also explored organizational innovation in social service organizations (33.2% response rate). However, a notable difference between the two studies is the number of staff included: this study included only 4 staff from 15 shelters, while Jaskyte's study included all staff from 19 organizations (247 employees), thus the overall larger sample size of Jaskyte's study compared to the present study may have contributed to her significant findings. Also, Jaskyte's study's reflected the average response rate per organization opposed to responses based on all participating shelters as in this study.

Variables

Independent Variables

1) Organizational Culture (ORGCULT). Organizational culture is defined as a set of shared values that help organizational members understand organizational functioning and thus guide their thinking and behavior. Twenty-three organizational culture items were adopted from 54 items of the Organizational Culture Profile (OCP) developed by O'Reilly, Chatman, and Caldwell (1991). These 23 items factored substantially alike in several studies as characteristic of an innovative organizational culture (Koberg & Chusmir, 1987; Schein, 1994; Wallach, 1983), which made it appropriate for purposes of this study. There are seven value dimensions: attention to detail, innovation, outcome orientation, aggressiveness, team orientation, stability, and people orientation (Chatman &

Jehn, 1994; O'Reilly et al., 1991; Sheridan, 1992). Leaders, staff, and the program director's manager were asked to rate the degree to which each of the 23 value statements describes their organization, using a 5-point Likert scale ranging from extremely uncharacteristic to extremely characteristic, where 1 = extremely uncharacteristic, 2= somewhat uncharacteristic, 3= uncertain, 4= somewhat characteristic, and 5 = extremely characteristic. This is an interval variable, with scores ranging from 23-115. Scores were obtained for the seven factors separately as well as collectively to form a composite score that represents this variable.

The OCP shows reasonable reliability and convergent validity. The instrument has demonstrated moderate test-retest reliability (median r =.74, range = .65 -.87). The convergent validity of the instrument was established through a significant but small correlation ($r = .28$, $p < .01$) between person-organization fit and normative commitment (commitment to an organization based on value congruence between an individual and an organization) (O'Reilly et al., 1991). Social desirability bias was addressed by casting the items in socially neutral or slightly positive terms, thus no evidence was shown indicating this bias (O'Reilly et al., 1991).

2) Transformational Leadership (TRANS). Transformational leadership is defined as a set of practices employed for developing relationships between leaders and employees. It was measured using the Leadership Practices Inventory (LPI) (Kouzes and Posner, 1993). This instrument was selected because it

measures leadership behaviors consistent with the transformational leadership style. Program directors, managers of program directors, and direct service workers were asked to rate a set of 30 behaviorally based statements regarding five leadership practices: challenging the process, inspiring a shared vision, enabling others to act, modeling the way, and encouraging the heart. Responses for each statement were cast on a 10-point Likert scale. Categories include 1=almost never, 2=rarely, 3=seldom, 4=once in a while, 5=occasionally, 6=sometimes, 7=fairly often, 8=usually, 9=very frequently, and 10=almost always. This is an interval variable, with scores ranging from 6-60 for each practice. Scores were obtained for the five leadership practices separately as well as collectively to form a composite score that represents this variable.

Posner and Kouzes (1993) reported that the LPI has sound psychometric properties. Internal reliabilities with 36,226 subjects ranged from .81 to .90. Test-retest reliability for the measure averaged nearly .94. Statistical testing for social desirability bias, using the Marlowe-Crowne Social Desirability Scale, found no significant correlations indicating that the inventory is not affected by this bias.

3) Knowledge of yoga effectiveness (KNOW). Knowledge of yoga effectiveness refers to respondent's knowledge about yoga effectiveness to treat depression and PTSD. There are five questions in this section. These questions were developed from research findings in the literature review indicating the impact of yoga on depression or PTSD. The questions are: "Yoga reduces depression either by itself or as a complementary treatment", "Yoga by itself does not decrease symptoms of

depression", "Yoga is as effective in reducing depression as medication", "As a complementary treatment, yoga is able to treat PTSD", and "Combining different yoga practices (breathing, meditation, and postures) is no more effective than a single yoga practice in reducing PTSD symptoms". Response categories included 1=true, 2= false, and 3=unsure. Responses were then recoded to allot 1 point to each correct answer, and an additive index was used to create a composite score, with scores ranging from 0-5. Higher scores indicate higher levels of knowledge. This is an interval variable.

4) Personal Experience (EXP). Participants were asked questions about their personal experience with yoga. There are 4 questions in this section cast on a 5-point Likert scale ranging from strongly agree to strongly disagree. These questions were developed from research studies indicating reasons for CAM use. The questions are: "I have used yoga in the past or presently use it to alleviate work-related stress", "I have used yoga in the past or presently use it to improve health problems", "I have used yoga in the past or presently use it for general wellness", "I have received professional training about using yoga". This is an ordinal variable, with response sets of 1=strongly agree, 2=agree, 3=undecided, 4=disagree, and 5=strongly disagree. Responses were reversed scored so that 1= strongly disagree, 2=disagree, 3=undecided, 4=agree, and 5=strongly agree. Scores ranged from 5-20, with higher scores indicating more personal experience with yoga.

Dependent Variables

Yoga Use. Yoga use refers to yoga provided to clients directly at the shelter or referrals made for clients to receive yoga elsewhere. There are seven questions in this section, two of which utilize skip logic and contain a subsection.

5) Ever Used Yoga (EVER). Program directors were asked "Has your shelter ever provided yoga to its residents?" This is a nominal variable with response categories of 0= yes and 1= no.

6) Yoga Use at the Shelter (YOGA1). Program directors were asked "Has your shelter directly provided yoga to the residents within the past year?" If the respondent answered yes, the respondent was asked to go to the subsequent question asking about yoga use frequency. If the respondent answered no, the respondent was asked to skip the subsequent question about yoga use frequency and go to the question about yoga referrals. This is a nominal variable with response categories of 0=yes and 1=no.

7) Frequency of Yoga Use (YOGAF1). Program directors were asked to answer "How often?" if they answered yes to using yoga at the shelter with clients in the previous year. This is an ordinal variable, with response categories of 1=regularly (weekly), 2 often (monthly), 3= sometimes (quarterly), and 4=rarely (1-2 times in the year).

8) Referrals for Yoga (YOGA2). Program directors were asked to answer "Has your shelter referred or suggested clients go to an outside agency or yoga center to

receive yoga within the past year?". If the respondent answered yes, the respondent was asked to go to the subsequent question about yoga referral frequency. If the respondent answered no, the respondent was asked to skip the subsequent question about yoga referral frequency and go to the question in the next section. This is a nominal variable with response categories of 0=yes and 1=no.

9) Frequency of Referrals (YOGAF2). Program directors were asked to answer "How often?" if they answered yes about referring clients for yoga in the previous year. This is an ordinal variable, with response categories of 1=regularly (weekly), 2 often (monthly), 3= sometimes (quarterly), and 4=rarely (1-2 times in the year).

Moderating Variable

10) Slack Resources (RESOURCES). This is a ratio variable. Slack resources were operationalized as financial and personnel slack, as these types of slack can capture absorbed slack (i.e. resources tied up in current operations that are not easily re-deployable) and unabsorbed slack (i.e. uncommitted resources that are easily re-deployable) (Tang & Peng, 2003), which are important measures of slack resources (Daneels, 2008; Voss, Sirdeshmukh, and Voss, 2008). There are eight questions in this section. Items include: "What is your shelter's annual operating budget?", "What is the cost of the following expenses at your shelter: a. facility (rent, utilities, etc.), b. salaries, c. supplies, d. staff development, e. other", "What are your sources of funding (check all that apply) and the percentage

(estimate) they contribute to the overall budget: a. federal, b. state, c. city, d. private organizations, e. donations, f. investments, g. other sources", "What is the total number of residents currently at your shelter?", "What is the total resident capacity at your shelter?", "How many of the following programs are offered at your shelter? (check all that apply) a. life skills (i.e. financial, parenting), b. children's programs, c. wellness, d. other (specify)", "How many of the following staff do you have? a. full time, b. part time, c. volunteers, d. interns, e. vacant positions (specify), and "How many full time equivalents are needed in order to be adequately staffed?". Program directors were asked to provide the appropriate answer to the question asked.

Covariate

11) Demographics (DEMO). Respondents were asked background information pertaining to their position at their organization. There are three questions to this section, all of which are nominal variables. Questions are "What is your position title?", "How long have you worked at your organization?", and "Is your position full, part time or other (specify)?"

Open-Ended Questions

Two open-ended qualitative questions were asked; what facilitated and what hindered yoga use at the shelter. These two questions are separate from the hypotheses explored in the study.

12) Facilitating factors for Yoga Use. Program directors were asked "If your shelter presently uses yoga or has used yoga in the past, what do you think facilitated this use?" Responses were noted and grouped according to similar themes.

13) Hindrances of Yoga Use. Program directors were asked "What do you see as the obstacles or challenges to using yoga in your agency?" Responses were noted and grouped according to similar themes.

CHAPTER IV

FINDINGS

Results

Univariate Analyses

Demographics

Fifteen of 43 domestic violence shelters were included in this study with 54 staff across the shelters. Fifteen program directors, 28 direct service providers, and 11 senior managers were among the staff included in this study. Reported direct service provider positions included: case manager, counselor/advocate, housing specialist, residential specialist, coordinator of family services, assistant program director, supervisor, and housing manager. Other reported direct service provider positions were: occupational therapist, clinical art therapist, program assistant, and administrative assistant. Close to all staff indicated that they work full time (98%) with the majority of the staff indicating that they were employed with their organization 3 years or longer (67%). It is unknown how the demographics of this sample represent the demographics of domestic violence staff at shelters in New York City.

Yoga Use

Program directors were asked about the use of yoga at their shelters – ever, within the past year, and if they made referrals for yoga. Eight shelters in all reported they used yoga, directly (N=7) or indirectly (referrals only) (N=1). Seven of 15 directors reported that their shelter used yoga at some point in the

past with clients, while 8 directors reported that their shelter never provided yoga to clients. Of the 7 shelters that ever provided yoga directly to clients, 5 shelters provided yoga to clients within the past year and the reported frequency was regularly, on a weekly basis. Three of 15 directors reported that their shelter used referrals for yoga. Two of those shelters were among the 7 shelters that directly provided yoga to clients, so that those 2 shelters used yoga both directly and indirectly. The third shelter used only referrals to an outside agency or yoga center for clients to receive yoga. The frequency of referrals for the 3 shelters ranged from weekly to quarterly.

Organizational Culture

All staff (N=54) were asked to rate how characteristic 23 values were of their organizational culture. Responses were totaled and created for 7 factor structures (innovation, outcome orientation, attention to detail, aggressiveness, team orientation, stability, and people orientation) as well as the total score for the full scale- the Organizational Culture Profile[a]. Stem and leaf plots indicated no outliers among the responses indicating cohesion among the values for each of the factor structures. Total scores from factors and the OCP were then averaged to reflect the organization's score of organizational culture (N=15) (Jaskyte, 2011).

a. Due to small sample size, in cases of missing data, mean substitution was employed to allow for analysis of the available data. This is a low impact decision that should not impact the outcome of analyses.

All shelters scored either between the mid-higher end of the factor structures, indicating the values were either moderately characteristic or very characteristic of their organization. Among the seven factor structures, 3 factors emerged as very characteristic of all the 15 shelters-outcome orientation, team orientation, and people orientation. Scores for the stability factor varied the most among shelters (range: 11), indicating it was valued differently among shelters.

Table 1. Organizational Culture Profile OCP (Factor Structures and Total Score)

	Mean	Std. Deviation	Range	Min.	Max.
Innovation	10.97	1.248	5	9	13
Outcome	12.88	.750	3	12	14
Attention	11.83	.939	3	10	13
Aggressiveness	7.53	.865	3	6	9
Team Orientation	8.97	.541	2	8	10
Stability	19.07	2.572	11	13	24
People Orientation	22.02	1.807	6	19	25
Organizational Culture Profile Total (OCP Score Range 23-115)	93.28	6.265	23	84	106

Transformational Leadership

Program directors' (N=15) were asked to rate how frequently they engaged in 30 leadership behaviors. Direct service providers and program directors' supervisors (N=39) were asked to rate how frequently their director engaged in 30 leadership behaviors. Responses were totaled and created for 5

subscales (challenge the process, enable others, inspire others, model the way, and encourage the heart) as well as the total score for the full scale- the Leadership Practices Inventory[b]. Degree of agreement (low, moderate, or high agreement) among staff and the director's perspective on the director's leadership was assessed using Kouzes & Posner's (2001) software. Of the 15 shelters included in this study, only 14 of the 15 shelters were assessed on degree of agreement among staff due to having only the director's responses available from one of the shelters. Twelve of the 14 shelters' staff (86%) were in moderate to high agreement about the frequency of the director's engagement in the behaviors. Among those 12 shelters, 2 shelters (17%) were in high agreement on all 5 subscales about how frequently the director engaged in leadership behaviors. Two of the 14 shelters (14%) were in low agreement about 1 of the 5 subscales (either challenging the process or inspiring subscale).

Responses for all subscales and total LPI score were averaged to reflect the organization's score of transformational leadership (N=15). Twelve shelters (86%) scored towards the mid to higher end of the subscale totals, indicating the leader engaged in behaviors characteristic of transformational leadership fairly often to almost always.

b. Due to small sample size, in cases of missing data, mean substitution was employed to allow for analysis of the available data. This is a low impact decision that should not impact the outcome of analyses.

Table 2. Leadership Practices Inventory (LPI) (Subscales and Total Score)

	Mean	Std. Deviation	Range	Min	Max
Challenge the Process	46.78	3.824	17	38	55
Enable Others to Act	50.96	3.604	15	44	59
Inspire a Shared Vision	47.49	5.013	20	38	58
Model the Way	51.01	4.270	14	45	59
Encourage the Heart	48.62	5.649	19	40	59
LPI Total Score (LPI Score Range 60-300)	244.84	20.190	70	220	290

Knowledge of Yoga Effectiveness to Treat Depression and PTSD

All 54 staff were asked about their knowledge of yoga effectiveness to treat depression and PTSD. Responses were totaled and averaged to reflect the organization's score of knowledge of yoga effectiveness to treat depression and PTSD (N=15). The averaged scores were grouped according to not at all knowledgeable, somewhat knowledgeable or very knowledgeable. The mean for knowledge of yoga effectiveness among shelters was 2.17, with a standard deviation of .940. The majority of the shelters (12) were somewhat knowledgeable of yoga's effectiveness to treat depression and PTSD (80%), while 3 shelters were not at all knowledgeable of yoga's effectiveness (20%). None of the shelters scored in the high range indicating that they were not very knowledgeable about yoga's effectiveness to treat depression and PTSD.

Personal Experience with Yoga

All staff (N=54) were asked about their personal experience with yoga. Responses were totaled and averaged to reflect the organization's score of personal experience with yoga (N=15). The averaged scores were grouped according to very little experience, some experience, or a lot of experience. The mean for personal experience with yoga among shelters was 10.71, with a standard deviation of 3.357. The majority of the shelters (9) reported having some personal experience with yoga (60.3%). Five shelters average scores indicated very little personal experience with yoga (33%) and only 1 shelter's average score indicated a lot of personal experience with yoga (6.7%).

Slack Resources

Program directors only were asked to answer 8 open ended questions about their shelter's slack resources. Of the 8 questions, only 4 were answered by all 15 shelter program directors (shelter's resident total, resident capacity, number of staff-full time, and number of programs offered at the shelter). Categories were created to allow for comparison. The questions answered by all directors are presented below as well as questions with responses from at least 13 directors.

1) <u>Total Residents Currently at the Shelter</u>

Total number of residents per shelter ranged from 15-120 residents. Two categories were created to group responses: under 50 residents or 50 or more

residents. Eight shelters (53.3%) indicated their total number of residents was less than 50, while 7 shelters indicated they had 50 or more residents (46.7%).

2) Total Resident Capacity at the Shelter

Total resident capacity ranged from 15-179 residents. Two categories were created to group responses: under 50 residents or 50 or more residents. Seven shelters (46.7%) indicated they had less than 50 residents while 8 shelters indicated they had 50 or more residents (53.3%).

3) Number of Staff at the Shelter (full time, part time, volunteers, interns, vacant positions)

The size of staff was asked for each of the following positions at the shelter: full time staff, part time staff, volunteers, interns, and vacant positions. Of this question, only the number of full time staff was answered by all 15 program directors. Number of full time staff ranged from 2-48 full time staff. Two categories were created to group responses: 10 or less full time staff or more than 10 full time staff. Eight shelters (53.3 %) indicated they had 10 or less full time staff while 7 shelters (46.7%) indicated they had more than 10 full time staff.

4) Number of Programs Offered at the Shelter

Number of programs offered at the shelter ranged from 2-5 or more programs. Three categories of 1-2, 3-4, and 5 or more programs were created. Among the programs offered were life skills (daily living, financial, parenting),

children's programs, wellness (exercise, yoga, nutrition), job training, counseling (individual and/or group), legal services, recreational activities, and self-defense. The majority of the shelters (9) reported that they offered between 3-4 programs (60%). Four shelters offered 1-2 programs (27%) and 2 shelters offered 5 or more programs (13%).

5) Full Time Equivalents (FTE) Needed to be Adequately Staffed

Full time equivalents needed to be adequately staffed ranged from 0-50. Two categories were created to group responses: 10 or less FTE's and more than 10 FTE's. Of the 13 directors that answered this question, the majority (8) indicated they needed 10 or less FTE's to be adequately staffed (61.5%), while 5 indicated they needed more than 10 staff to be adequately staffed (38.5%).

6) Number of Vacant Positions at Shelter

Number of vacant positions at the shelter ranged from 0-6 vacancies. Two categories of 0-2 or 3-6 vacancies were created to group responses. Of the 14 directors that answered this question, the majority (11) indicated they had 0-2 vacancies (78.6%), while 3 indicated they had 3-6 vacancies (21.4%).

Table 3. Slack Resources

	Min	Max	Standard Deviation
Number of Residents	15	120	105
Total Resident Capacity	15	179	164
Number of Full Time Staff	2	48	46
Number of Programs Offered	2	4	2
Full Time Equivalents Needed	0	50	0
Vacancies	0	6	6

Questions unanswered by all 15 program directors were 1) the shelter's operating budget, 2) estimated annual expenses for: facility, salaries, supplies, staff development, other, 3) sources of funding and the percentage (estimate) they contribute to the overall budget, and 4) number of full time equivalents needed in order to be adequately staffed. Several of the program directors either left the questions blank or indicated they did not have knowledge of the first three slack resources questions.

Bivariate Analyses

Organizational Culture & Yoga Use (Ever, Within the Past Year, Referrals)

Mann Whitney U tests were performed to explore hypotheses 1-2 that shelters with strong cohesion on values associated with innovation including risk-taking and willingness to experiment are more likely to use yoga or refer clients for yoga than domestic violence shelters that do not have strong cohesion on those values. Results indicated that although there were differences in the mean ranks among shelters using and not using yoga on the innovation factor of the Organizational Culture Profile (OCP) as well as the total score for the OCP, this

difference was not statistically significant (See Tables 4-5). Organizational culture was unrelated to yoga use therefore the null hypothesis is accepted.

Additional analyses were explored to learn if differences existed among shelters use of yoga and their scores on the stability factor structure since among the 7 factor structures, stability had the greatest range of scores for the 15 shelters. Results indicated that in comparison to shelters that did not use yoga, 6 of the 7 shelters that ever used yoga scored high on the stability structure (U=26.000, z=.-232, p=.816) and all 5 shelters that used yoga within the past year also scored high on the stability structure (U=18.500, z=.-798, p=.425), indicating that stability was very characteristic of those organizations, though those differences were insignificant.

Transformational Leadership & Yoga Use (Ever, Within the Past Year, Referrals)

Mann Whitney U tests were performed to explore hypotheses 3-4 that domestic violence shelters with leaders that use more transformational leadership practices are more likely to use yoga with clients directly or refer them for yoga than domestic violence shelters with leaders that use less transformational leadership practices. Results indicated that although there were differences in the mean ranks among shelters using and not using yoga on the Leadership Practices Inventory, this difference was not significant (See Table 6). Transformational leadership was unrelated to yoga use therefore the null hypothesis is accepted.

Knowledge of Yoga Effectiveness to Treat Depression & PTSD & Yoga Use (Ever, Within the Past Year, Referrals)

T-tests were performed to explore hypotheses 5-6 that there is a positive relationship between knowledge of yoga effectiveness for treating depression and PTSD and direct yoga use as well as client referrals for yoga. Results indicated that there were no differences among yoga users and non-users in terms of knowledge of yoga effectiveness (See Table 7). Knowledge of yoga effectiveness was unrelated to yoga use therefore the null hypothesis is accepted.

Personal Experience with Yoga & Yoga Use (Ever, Within the Past Year, Referrals)

Mann Whitney U tests were performed to explore hypotheses 7-8 that domestic violence shelters with staff that have more personal experience with yoga are more likely to use yoga with clients directly or refer clients for yoga. Results indicated that although there were differences in the mean ranks among shelters using and not using yoga on personal experience with yoga, this difference was not significant (See Table 8). Personal experience with yoga was unrelated to yoga use therefore the null hypothesis is accepted.

Slack Resources & Yoga Use (Ever, Within the Past Year, Referrals)

T-tests were also performed to explore if there was a relationship with the moderating variable slack resources and yoga use amongst shelters. T-tests were performed only for the resources to which all 15 program directors responded (total residents currently at the shelter, total capacity for residents at the shelter,

number of full time staff, and number of programs offered) and yoga use. Results indicated that slack resources were unrelated to yoga use (See Table 9), though number of full time staff reached near significant levels (ever used yoga p=.081; used yoga within the past year p=.075).

Table 4. Organizational Culture (Innovation Factor)

	Mean Ranks	U	z	p
Ever Used Yoga (n=15)				
No=8	6.63	17.000	-1.276	.202
Yes=7	9.57			
Used Yoga within the Past Year (n=15)				
No=10	6.85	13.500	-1.412	.158
Yes=5	10.30			
Referrals for Yoga (n=14)				
No=11	7.18	13.000	-.547	.585
Yes=3	8.67			

Table 5. Organizational Culture (Total OCP)

	Mean Ranks	U	z	p
Ever Used Yoga (n=15)				
No=8	7.00	20.000	-.927	.354
Yes=7	9.14			
Used Yoga within the Past Year (n=15)				
No=10	6.90	14.000	-1.350	.177
Yes=5	10.20			
Referrals for Yoga (n=14)				
No=11	7.91	12.000	-.702	.483
Yes=3	6.00			

Table 6. Transformational Leadership

	Mean Ranks	U	z	p
Ever Used Yoga (n=15)				
No=8	7.38	23.000	-.579	.563
Yes=7	8.71			
Used Yoga within the Past Year (n=15)				
No=10	7.70	22.00	.-367	.713
Yes=5	8.60			
Referrals for Yoga (n=14)				
No=11	7.18	13.000	-.545	.586
Yes=3	8.67			

Table 7. Knowledge of Yoga Effectiveness To Treat Depression & PTSD

	t	df	p
Ever Used Yoga (n=15)	-.133	13	.896
Used Yoga within the Past Year (n=15)	-.568	13	.580
Referrals for Yoga (n=14)	.800	12	.439

Table 8. Personal Experience with Yoga

	Mean Ranks	U	z	p
Ever Used Yoga (n=15)				
No=8	7.00	20.000	-.927	.354
Yes=7	9.14			
Used Yoga within the Past Year (n=15)				
No=10	7.20	17.000	-.981	.327
Yes=5	9.60			
Referrals for Yoga (n=14)				
No=11	8.18	9.000	-1.169	.242
Yes=3	5.00			

Table 9. Slack Resources

	t	df	p
Resident Total			
Ever Used Yoga (n=15)	-.722	13	.483
Used Yoga within the Past Year (n=15)	-.694	13	.500
Referrals for Yoga (n=14)	.612	12	.552
Resident Capacity			
Ever Used Yoga (n=15)	-.258	13	.800
Within the Past Year (n=15)	-.342	13	.738
Referrals for Yoga (n=14)	.899	12	.386
Full Time Staff			
Ever Used Yoga (n=15)	-1.890	13	.081
Within the Past Year (n=15)	-1.933	13	.075
Referrals for Yoga (n=14)	-.612	12	.552
Number of Programs Offered			
Ever Used Yoga (n=15)	-.743	13	.471
Within the Past Year (n=15)	-1.487	13	.161
Referrals for Yoga (n=14)	.546	12	.595

Open-Ended Questions about Yoga

Open-ended questions were asked to enhance the information obtained from measures used in this study and to specifically learn from program directors' perspectives what the facilitating factors and hindrances to yoga use were at their shelters. Though empirical findings from this study were unable to provide support for hypotheses explored in this study and thereby indicate contributing factors to yoga use, responses from open-ended questions yielded some understanding about facilitating and hindering factors to yoga use at shelters. Despite missing data some themes emerged concerning these facilitating factors and hindrances. Among the 6 of 7 shelters that were using yoga and of which

program directors responded to what facilitates yoga use at their shelter, 5 directors indicated that their belief in yoga's ability to impact on stress and/or provide physical and mental benefits was a facilitator to yoga use at their shelter (71%). To explore if any intuitive relationships existed among belief in yoga's benefits and knowledge of yoga effectiveness, these two factors were analyzed. Among the 5 directors that indicated their belief in yoga's ability to impact on stress and/or provide physical and mental benefits was a facilitator to yoga use in their shelter, only one director was very knowledgeable about yoga's effectiveness to treat depression and PTSD (20%), while 3 directors were not at all knowledgeable (60%), and 1 director was somewhat knowledgeable about yoga's effectiveness (20%). Belief in yoga's benefits was unrelated to knowledge of yoga effectiveness to treat depression and PTSD.

Ten of 15 directors responded to what hinders yoga in their shelter (67%). Responses pertained to factors related to the shelter (33%) or to perceptions about clients (33%). Shelter hindrances to yoga use at the shelter were 1) liability issues, 2) confidentiality of the location, 3) limited space to provide yoga, or 4) no trained instructor to provide yoga. Hindrances to yoga use at the shelter related to perceptions about clients were clients': 1) lack of interest, 2) lack of knowledge/ awareness about yoga's benefits, 3) resistance to trying new things, or 4) their unavailability to participate in a yoga class when it was being provided.

Due to the results of the above bivariate tests indicating no relationship among independent and dependent variables as well as among the moderating variable and the dependent variables, the requirement of significance for

multivariate analyses to be run was not met, therefore multivariate regression analyses were not performed.

CHAPTER V

DISCUSSION

Fifteen domestic violence shelters throughout the New York City area were surveyed to explore their use of yoga with clients and the organizational and personal factors associated with yoga use. In addition, the facilitating factors and hindrances to yoga use were also explored through open-ended questions. Results indicated that the organizational factors (organizational culture, transformational leadership) and personal factors (knowledge of yoga effectiveness and personal experience with yoga) explored in this study were unrelated to yoga use with clients (ever used, used within the past year, and referred clients for yoga). Although those findings may in fact be accurate, it is possible that the study's findings are attributable to the small sample size of 15 shelters which was a major limitation in this study. A larger sample would help to clarify if the findings are true. The purposive nature of this study as well as the unknown representativeness of the sample, limits generalizability to all domestic violence shelters. In addition, missing data among certain questions asked, e.g. questions asked to program directors reduced the total responses answered and further limits the results of this study.

Bivariate analyses indicated slight differences on mean sum of rank scores among yoga use and the innovation factor of the Organizational Culture Profile (OCP), the total OCP score, the Leadership Practices Inventory (LPI), and personal experience with yoga, though these differences were insignificant.

Although significant differences were not found between yoga use and non-yoga use and the previous measures, the mean scores in all but two cases (referrals for yoga and the OCP and referrals for yoga and personal experience with yoga) were going in the right direction- scores were higher for shelters that used yoga compared to those that did not use yoga. In addition, among the slack resources explored and yoga use, total number of full time staff reached near significant levels. It may be that with a larger sample the findings would have risen to statistical significance since there would have been more shelters to compare and explore any differences. Another interesting finding that may have impacted this study's findings is the lack of variability among shelters on organizational factors explored. Many of the shelters scored similarly on organizational culture and transformational leadership measures, with the exception of the stability factor structure on the Organizational Culture Profile. Findings from analyses exploring differences among shelters on the stability factor and their use of yoga indicated that 6 of 7 shelters that ever used yoga and all 5 shelters that used yoga within the past year highly valued stability, a contradictory finding to Jaskyte & Dressler's (2005) study showing that organizations that highly valued stability were less innovative.

Of the slack resource questions asked to program directors, only half of the questions were answered by all 15 directors. Many directors were unaware of their shelter's budget as well as funding sources and percentages. In addition there was missing data on the LPI as some managers of program directors did not participate in the study or opted not to complete the LPI. One manager of two

program directors in an organization (vice president of domestic violence programs) opted not to complete the LPI because of discomfort with evaluating program directors leadership. The manager believed the study would pertain only to questions about yoga use within shelters, though the manager received a study description letter which clearly stated the nature of the study and the topics that would be asked to participants. It is possible that there was oversight by the manager such that she did not read the entire study description letter due to the various demands on her time in her current position at the organization.

To obtain shelter participation in this study various efforts were made by the researcher, both prior to the commencement of the study and during the data collection period. Before the study began, this researcher contacted various domestic violence organizations and some hospitals to endorse the study but those organizations were either unwilling to do so or unable to endorse the study due to political reasons; they could not endorse an independent study not affiliated with their organization. Though they were unable to endorse the study, some shelter program directors were willing to share the study's information with their colleagues in an attempt to increase study participation. However, due to time constraints, many of the directors were unable to follow up with colleagues they believed may have been interested to participate in the study. It is possible that endorsement from domestic violence organizations would have helped to better foster interest or at a minimum, commitment to participate in the study.

During the data collection period, several efforts were made to obtain study participants. In addition to emailing and/or faxing program directors a

study description letter explaining the nature of the study, the following was done to obtain participants: 1) additional requested information from program directors or executive directors was provided to clarify the purpose and benefit of the study, 2) multiple follow up phone calls and emails were made to program directors and their direct managers and/or executive directors (in cases where it was either helpful or necessary to do so) about their shelter's participation in the study, 3) assistance was sought out from the researcher's colleagues affiliated with domestic violence organizations and program directors who agreed to participate in the study to encourage their colleagues participation in the study, 4) domestic violence taskforces were contacted to share study related information with taskforce members, and 5) study endorsement was requested by these taskforces and other domestic violence organizations, though inability to meet with these taskforces and organizations in person, may have impacted on obtaining study endorsement.

Though many efforts were made by the researcher to obtain study participants there were notable challenges to obtaining a larger sample. Several shelters experienced challenges with 1) changing staff within organizations and 2) difficulty obtaining authorization to participate in the study. Changing staff within organizations impacted on having appropriate staff to complete questionnaires, while difficulty obtaining authorization from the appropriate sources delayed participation in the study either by several weeks to a month or by disallowing staff to participate in the study. Difficulty obtaining authorization was related to high work demands of staff at all levels or because shelters that

were not using yoga did not see a benefit to participating in the study as indicated by program directors. Several program directors reported that their executive directors had little time to discuss participating in the study therefore obtaining authorization was highly unlikely due to the pressing issues on their executive director's schedule. Also directors of shelters that were not using yoga were hesitant to participate in the study and some of those directors declined to participate based on their non-use of yoga, despite efforts to convince them of the importance of including both shelters using and not using yoga.

The vice president of shelters in a large domestic violence organization (supervisor of 9 of the 43 domestic violence shelters in New York City) declined to participate because none of the organization's 9 shelters provided yoga and she did not believe the organization could contribute anything to the study. Despite repeated attempts to engage this vice president, she did not respond to the researcher's request to reconsider participating in the study. Similar challenges were faced in engaging another organization with 3 shelters – mostly due to questions on the survey that the executive director and program directors of those shelters were uncomfortable to answer. Though authorization was initially provided for 2 of its 3 shelters to participate in the study, the executive director later declined her organization's participation after receiving a copy of the questionnaire to complete. Several requests were made for the executive director to reconsider her organization's participation in the study but she declined. The inclusion of those two additional shelters would have increased the sample size to 17, and possibly yielded significant findings. A potential limitation of this study

may have been the way the study was framed to program directors- a study about yoga use in domestic violence shelters opposed to a study about yoga use in domestic violence shelters as well as organizational factors (organizational culture, leadership, and organizational innovation) and the relationship of these factors to yoga use and non use. Perhaps the way in which the researcher communicated the study to directors impacted on participation among shelters not using yoga or among program directors who thought the study was not about yoga.

Future studies assessing organizational innovation adoption will require vigorous efforts to obtain larger sample sizes (potentially across states). To increase sample sizes it will be important to focus on relationship building. Researchers will need to invest significant time in developing relationships with various individuals and organizations. Some approaches to relationship building include regularly participating in domestic violence taskforce or coalition meetings, community advisory boards, and other associations that have connections to domestic violence organizations. Relationship building amongst researchers and members of organizations can lead to developing trust of researchers which may ultimately increase participation in research studies. This researcher attended a domestic violence taskforce meeting and maintained regular contact with the director of the Manhattan domestic violence taskforce but due to time constraints was unable to regularly attend those meetings. Perhaps greater ability to network with domestic violence taskforces and associations would have increased the numbers of shelters participating in the study.

Cycyota & Harrison (2006) state the importance of researchers obtaining agreement to participate in a study in advance or using a pre-existing social network to gain study participants. To do this it may be better first to contact executive directors to get their authorization and buy-in before inviting program directors to participate in the study, as many program directors in this study needed authorization from the executive director before they could consent to participate. In addition, some of the program directors did not know answers to resource questions that were asked of them, so it would be useful to have executive director's buy-in of the study as well as their participation since they are likely to be knowledgeable of specific as well as broad areas of how their organization is run. To gain executive directors buy-in of the study and participation, arranging face to face meetings should those be possible, may prove beneficial to increasing the number of study participants.

Baruch & Holtom (2008) suggest establishing survey importance, fostering survey commitment, and providing survey feedback to increase response rates from organizations. When approaching executive populations it will be important to appeal to their specific interest in using complementary therapies to treat victims of IPV, as study content was found to be the most important factor in stimulating response rates, followed by study sponsorship (Greer, Chuchinprakarn & Seshadri, 2000). Perhaps the focus of complementary therapies to provide holistic services that address unmet needs may appeal to executives and other managers interested in improving service delivery to clients. Once relationships are established, researchers may be able to gain insight into the contextual factors

that impact on increasing higher response rates from the individuals within those organizations (Baruch & Holtom, 2008).

In addition to relationship building and obtaining endorsers of the study, researchers may need to consider obtaining data from measures other than traditional mail to increase response rates. Face to face interviews or interviews conducted by phone may prove beneficial to obtain answers to all or close to all questions asked. Surveys completed in person or on a drop-in basis are shown to have higher response rates (62.4%) compared to traditional mail (44.7%), and surveys obtained through the internet, email, and phone can achieve response rates nearly as good if not better than traditional mail surveys (Baruch & Holtom, 2008). Coupled with relationship building and obtaining study endorsers, changing the approach to collecting data may work as beneficial approaches to increase response rates.

Responses from Open-Ended Questions

Despite its limitations, this study's strength was the inclusion of open-ended responses which allowed directors to note facilitating factors and hindrances to yoga adoption at their domestic violence shelter. This is the first study to explore factors that impact yoga use in domestic violence shelters so findings provide useful information to guide future research interested in understanding yoga adoption in social work settings. Program directors at five of the seven shelters that used yoga indicated that a facilitating factor to yoga use at their shelter was the belief in the physical, mental, and stress alleviation benefits

of yoga. This finding provides some explanation for the insignificant correlation among yoga use and knowledge of yoga effectiveness. Open-ended findings indicate that a shift in focus may need to be made so that belief in yoga's benefits opposed to knowledge of yoga effectiveness is studied in future research. In addition, knowledge of yoga's effectiveness to treat depression & PTSD was measured by questions created by the researcher opposed to a standardized measure, which was a limitation in this study. While it would have been preferable to use a standardized measure to capture respondent's knowledge of yoga effectiveness to treat depression and PTSD, there were no available measures to capture that knowledge so questions were created based on the literature indicating the impact of yoga on depression or PTSD. It is possible that questions asked did not adequately capture respondents' knowledge of yoga effectiveness. It is also possible that questions asked about yoga's effectiveness to treat depression and PTSD were too specific and instead should have asked about respondent's general knowledge of yoga. Thus future research may need to focus on belief in yoga's ability to benefit clients opposed to knowledge of yoga effectiveness to treat depression or PTSD to determine whether an organization adopts and uses yoga. Additionally, researchers interested in respondent's knowledge may need to ask broad knowledge questions about yoga. It would be interesting to have focus groups with staff at shelters to learn additional beliefs about yoga and how those beliefs developed since knowing that information may facilitate future efforts to promote yoga adoption.

Shelter-Related Hindrances

When asked open ended questions about hindrances to yoga use in their shelters, program directors revealed two themes: factors related to the shelter and factors related to clients. Among the factors relating to the shelter were shelter's policies (liability issues, confidentiality of the location) and their immediate resources (limited space to provide yoga or no trained instructor to provide yoga). The risk of potential liability to hospitals and practitioners is noted in the CAM literature as a barrier to use (Gilmour, Harrison, Asadi, Cohen & Vohra, 2011; Ruggio, 1999). It is a limitation that this study did not explore the role of liability with using yoga at shelters, however, because this was an initial study to learn if the organizational factors of organizational culture and transformational leadership impacted yoga use in shelters, shelter liability was not studied but may be a factor that should be considered in future research.

Client-Related Hindrances

Hindrances relating to clients were director's perceptions that clients: 1) lacked interest in CAM [a barrier to CAM use noted elsewhere (Salomonsen et al., 2011; Santa & Coleen, 2001)], 2) lacked knowledge/ awareness about yoga's benefits, 3) were resistant to trying new things, or 4) were unavailable to participate in a yoga class when it was being provided. It is concerning to note that directors attributed hindrances of yoga use to clients, which may possibly be based on negative perceptions of client deficiencies and their resistance in the worker-client relationships at shelters. It will be important to directly study victims of IPV in shelters to get their perspective on reasons for use or non-use of

yoga, including what facilitates or hinders that use to learn if those factors are the same as those mentioned by directors in this study.

In the medical field a relationship has been shown between CAM use and patient related factors. Shoroffi (2011) found that multiple factors play a role in the use of CAMs including CAM being aligned with patients' life/philosophy (reported as the most common reason for CAM use). Among the facilitating factors shown related to CAM use are patients' perceived positive consequences of CAM use, i.e. improved health (O'Connor & White, 2009; Shoroffi, 2011), avoiding illness, and avoiding a Western medicine approach to health problems (O'Connor & White, 2009). Barriers shown related to CAM use due to patient factors include laziness, lack of knowledge (O'Connor & White, 2009), and lack of understanding/awareness of what yoga entails (Slocum-Gori, Howard, Balneaves & Kazanjian, 2012). Client interest, awareness, and knowledge of CAM may be just a few of the reasons that impact yoga use at shelters. To better understand the role of client factors in yoga adoption it will be important to include clients and staff in future studies to understand facilitators and hindrances to yoga use at shelters.

Responses from directors indicate that it is possible that the hypotheses explored in this study may need to be modified in future studies such that the personal factors explored focus on beliefs about yoga effectiveness rather than knowledge of yoga effectiveness, and organizational factors focus on factors immediately relevant to shelters such as liability issues, confidentiality of the location, limited space at the shelter, or a yoga instructor to provide classes.

Utilizing a larger sample size to investigate the relationships among those factors is also critical to providing greater insight about yoga adoption at domestic violence agencies.

Implications for Social Work

This exploratory study provides important information for domestic violence shelters interested to use the innovative practice of yoga to complement conventional social work treatments. Researchers interested to expand the knowledge base of innovation in social work can build upon the findings of the current study to explore if facilitating factors (belief in yoga's benefits) and hindrances (shelter and client hindrances) identified in this study apply across varied social work settings and diverse client populations. Understanding factors that contribute to and hinder yoga use across social work settings will help administrators and service providers understand how to better promote yoga as a treatment model in their settings.

Information about innovations in social work can improve service delivery to clients as well influence organizational performance (Walker, 2004), therefore it is important to learn as much as possible about innovations. Research should not only include the staff of these organizations but also clients to learn their perspective of what factors facilitate or hinder yoga in social work settings, as well the ways in which the use of yoga can be facilitated in their personal lives. The inclusion of both staff and clients in research studies may help to dispel

incorrect perceptions about yoga hindrances and allow clients to directly voice the assistance they need to be more proactive in their healing process.

Conclusion

This is the first of study to explore factors that impact yoga use in domestic violence shelters. However there is still much to learn about factors that influence yoga use in domestic violence shelters as well as domestic violence agencies as a whole. While there were no statistically significant findings in this study indicating relationships between organizational and personal factors explored and yoga adoption, preliminary findings from open-ended questions provide directions for future research. The small sample size of this study was a major limitation that impacted the findings of this study.

Future researchers interested in building on the current findings will need to make multiple efforts to increase sample sizes including relationship building, obtaining study endorsers, and obtaining data through measures other than traditional mail so that data analysis can be performed at varying levels. Researchers will need to invest significant time in building relationships with executive directors and program directors of domestic violence organizations to gain directors' buy-in and support of the study so that more organizations are included in studies. Researchers will need to network with various domestic violence organizations, affiliated organizations, and domestic violence taskforces to develop trust in researchers and their studies to garner support that may lead to study endorsement. In addition, victims of IPV will need to be studied to learn

their perspective on facilitators and hindrances to yoga use. Additional research on yoga use at domestic violence agencies will help to build the knowledge base about important factors that support the use of yoga as a viable approach to address IPV related trauma. Having that information will be useful to promote yoga as an alternative treatment model to improve service delivery to victims of IPV clients such that services provided encompass a holistic approach to the multi-level effects of IPV.

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APPENDIX

Leader Survey

Before beginning the survey I would like to know a little information about you. Please answer the following questions about yourself.

1) What is your position at your organization?
a. program director b. direct service provider (specify title) _____
c. senior manager (specify title) _____

2) How long have you worked at your organization?
a. 0-6 months b. 6-12 months c. 1 -2 years d. 3 years or longer

3) Is your position:
a. full time b. part time c. other type (specify)_____

Part I

The following questions are geared to helping me understand your use, knowledge and personal experience with yoga, as well as your shelter's resources as it relates to providing services. Please select the choice that best answers the question.

Yoga Use

4) Has your shelter ever provided yoga to its residents?
Yes ____ No _____

5) Has your shelter directly provided yoga to its residents within the past year?
Yes ____ (if yes, go to question 1a.) No ____ (if no, go to question 3)

→ a. How often?
i.) regularly (weekly)
ii.) often (monthly)
iii.) sometimes (quarterly)
iv.) rarely (1-2 times in the year)

6) Has your shelter referred or suggested clients go to an outside agency or yoga center to receive yoga within the past year?
Yes ____ (if yes, go to question 2a.) No ____ (if no, go to question 7)

→ a. How often?
i.) regularly (weekly)
ii.) often (monthly)
iii.) sometimes (quarterly)
iv.) rarely (1-2 times per year)

7) If your shelter presently uses yoga or has used yoga in the past, what do you think facilitated this use?

_____

_____

_____
_____

8) What do you see as the obstacles or challenges to using yoga in your agency?_____
_____
_____
_____

Resources

9) What is your shelter's annual operating budget? _____

10) What are your estimated annual expenses for:
   a. facility (rent, utilities, etc.) _____
   b. salaries _____
   c. supplies _____
   d. staff development _____
   e. other _____

11) What are your sources of funding (check all that apply) and the percentage (estimate) they contribute to the overall budget?
   a. federal _____
   b. state _____
   c. city _____
   d. private organizations _____
   e. donations _____
   f. investments _____
   g. other sources _____

12) What is the total number of residents currently at your shelter? _____

13) What is the total resident capacity at your shelter? _____

14) How many of the following programs are offered at your shelter? (check all that apply)
   a. life skills (i.e. financial, parenting)_____
   b. children's programs (i.e. childcare, after-school) _____
   c. wellness (i.e. exercise, yoga) _____
   e. other _____ Specify _____

15) How many of the following staff do you have?
   a. full time_____
   b. part time _____
   c. volunteers _____
   d. interns_____
   e. vacant positions_____ Specify _____

16) How many full time equivalents are needed in order to be adequately staffed?
   _____

Knowledge of Yoga Effectiveness

Please indicate your knowledge about the following questions.

17) Yoga reduces depression either by itself or as a complementary treatment. True____ False ____ Unsure____

18) Yoga by itself does not decrease symptoms of depression. True___ False ___ Unsure ___

19) Yoga is as effective as medication in reducing depression. True___ False ___ Unsure ___

20) As a complementary treatment yoga is able to treat PTSD. True___ False ___ Unsure ___

21) Combining different yoga practices (breathing, meditation, and postures) is no more effective than using only a single yoga practice to reduce PTSD symptoms. True___ False ___ Unsure ___

Personal Experience with Yoga

To what extent do you agree with the following?

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
22) I presently use yoga or have used it in the past to alleviate work-related stress.	1	2	3	4	5
23) I presently use yoga or have used it in the past to improve my health problems.	1	2	3	4	5
24) I presently use yoga or have used it in the past for general wellness.	1	2	3	4	5
25) I have received professional training about using yoga.	1	2	3	4	5

Part II

Organizational Culture Profile

Now I would like to understand some information that relates to your organization's culture. Please rate the following organizational culture values according to ***how characteristic they are of your organization.***

	Extremely Uncharacteristic	Uncharacteristic	Unsure	Characteristic	Extremely Characteristic
1. Being people oriented	1	2	3	4	5
2. Respect for people	1	2	3	4	5
3. Being supportive	1	2	3	4	5
4. Being team oriented	1	2	3	4	5
5. Fairness	1	2	3	4	5
6. Sharing information freely	1	2	3	4	5
7. Being rule oriented	1	2	3	4	5
8. Being detail oriented	1	2	3	4	5
9. Being precise	1	2	3	4	5
10. Being analytical	1	2	3	4	5
11. Predictability	1	2	3	4	5
12. Competitiveness	1	2	3	4	5
13. Risk taking	1	2	3	4	5
14. Willing to experiment	1	2	3	4	5
15. Being action oriented	1	2	3	4	5
16. Working in collaboration with others	1	2	3	4	5
17. Being quick to take advantage of opportunities	1	2	3	4	5
18. Being results oriented	1	2	3	4	5
19. Being achievement oriented	1	2	3	4	5

20. Being innovative	1	2	3	4	5
21. Low level of conflict	1	2	3	4	5
22. Stability	1	2	3	4	5
23. Security	1	2	3	4	5

Part III

Leadership Practices Inventory

I would also like to understand some information that relates to your leadership style at your shelter. The following are thirty statements describing various leadership behaviors. Please read each statement carefully and decide ***how frequently you engage in the behavior*** described. Choose the number that best applies to each statement and record it in the blank to the left of the statement.

1	2	3	4	5	6	7	8	9	10
Almost Never	Rarely	Seldom	Once in a while	Occasionally	Sometimes	Fairly Often	Usually	Very Frequently	Almost Always

_____ 1. I seek out challenging opportunities that test my own skills and abilities.

_____ 2. I talk about future trends that will influence how our work gets done.

_____ 3. I develop cooperative relationships among the people I work with.

_____ 4. I set a personal example of what I expect from others.

_____ 5. I praise people for a job well done.

_____ 6. I challenge people to try out new and innovative approaches to their work.

_____ 7. I describe a compelling image of what our future could be like.

_____ 8. I actively listen to diverse points of view.

_____ 9. I spend time and energy on making certain that the people I work with adhere to the principles and standards that have been agreed on.

_____ 10. I make it a point to let people know about my confidence in their abilities.

_____ 11. I search outside the formal boundaries of my organization for innovative ways to improve what we do.

_____ 12. I appeal to others to share an exciting dream of the future.

_____ 13. I treat others with dignity and respect.

_____ 14. I follow through on the promises and commitments that I make.

_____ 15. I make sure that people are creatively rewarded for their contributions to the success of our projects.

_____ 16. I ask — "What can we learn?" when things do not go as expected.

_____ 17. I show others how their long-term interests can be realized by enlisting in a common vision.

_____ 18. I support the decisions that people make on their own.

_____ 19. I am clear about my philosophy of leadership.

_____ 20. I publicly recognize people who exemplify commitment to shared values.

_____ 21. I experiment and take risks even when there is a chance of failure.

_____ 22. I am contagiously enthusiastic and positive about future possibilities.

_____ 23. I give people a great deal of freedom and choice in deciding how to do their work.

_____ 24. I make certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on.

_____ 25. I find ways to celebrate accomplishments.

_____ 26. I take the initiative to overcome obstacles even when outcomes are uncertain.

_____ 27. I speak with genuine conviction about the higher meaning and purpose of our work.

_____ 28. I ensure that people grow in their jobs by learning new skills and developing themselves.

_____ 29. I make progress toward goals one step at a time.

_____ 30. I give the members of the team lots of appreciation and support for their contributions.

Thank you for taking the time to complete this survey!!

Observer Survey

Before beginning the survey I would like to know a little information about you. Please answer the following questions about yourself.

1) What is your position at your organization?
   a. program director b. direct service provider (specify title) _____
   c. senior manager (specify title) _____

2) How long have you worked at your organization?
   a. 0-6 months b. 6-12 months c. 1 -2 years d. 3 years or longer

3) Is your position:
   a. full time b. part time c. other type (specify)_____

Part I

The following questions are geared to helping me understand your use, knowledge and personal experience with yoga. Please select the choice that best answers the question.

Knowledge of Yoga Effectiveness

Please indicate your knowledge about the following questions.

4) Yoga reduces depression either by itself or as a complementary treatment. True____ False ____ Unsure____

5) Yoga by itself does not decrease symptoms of depression. True___ False ___ Unsure ___

6) Yoga is as effective as medication in reducing depression. True___ False ___ Unsure ___

7) As a complementary treatment yoga is able to treat PTSD. True___ False ___ Unsure ___

8) Combining different yoga practices (breathing, meditation, and postures) is no more effective than using only a single yoga practice to reduce PTSD symptoms. True___ False ___ Unsure ___

Personal Experience with Yoga

To what extent do you agree with the following?

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
9) I presently use yoga or have used it in the past to alleviate work-related stress.	1	2	3	4	5
10) I presently use yoga or have used it in the past to	1	2	3	4	5

improve my health problems.

11) I presently use yoga or have used it in the past for general wellness.	1	2	3	4	5
12) I have received professional training about using yoga.	1	2	3	4	5

Part II

Organizational Culture Profile

Now I would like to understand some information that relates to your organization's culture. Please rate the following organizational culture values according to ***how characteristic they are of your organization.***

	Extremely Uncharacteristic	Uncharacteristic	Unsure	Characteristic	Extremely Characteristic
24. Being people oriented	1	2	3	4	5
25. Respect for people	1	2	3	4	5
26. Being supportive	1	2	3	4	5
27. Being team oriented	1	2	3	4	5
28. Fairness	1	2	3	4	5
29. Sharing information freely	1	2	3	4	5
30. Being rule oriented	1	2	3	4	5
31. Being detail oriented	1	2	3	4	5
32. Being precise	1	2	3	4	5
33. Being analytical	1	2	3	4	5
34. Predictability	1	2	3	4	5
35. Competitiveness	1	2	3	4	5
36. Risk taking	1	2	3	4	5
37. Willing to experiment	1	2	3	4	5
38. Being action oriented	1	2	3	4	5
39. Working in collaboration					

with others	1	2	3	4	5
40. Being quick to take advantage of opportunities	1	2	3	4	5
41. Being results oriented	1	2	3	4	5
42. Being achievement oriented	1	2	3	4	5
43. Being innovative	1	2	3	4	5
44. Low level of conflict	1	2	3	4	5
45. Stability	1	2	3	4	5
46. Security	1	2	3	4	5

Part III

Leadership Practices Inventory

I would also like to understand some information that relates to the program director's leadership style at your shelter. The following are thirty statements describing various leadership behaviors. Please read each statement carefully and decide ***how frequently the program director engages in the behavior*** described. Choose the number that best applies to each statement and record it in the blank to the left of the statement.

1	2	3	4	5	6	7	8	9	10
Almost Never	Rarely	Seldom	Once in a while	Occasionally	Sometimes	Fairly Often	Usually	Very Frequently	Almost Always

He or She:

_____ 1. Seeks out challenging opportunities that test his or her own skills and abilities.

_____ 2. Talks about future trends that will influence how our work gets done.

_____ 3. Develops cooperative relationships among the people he or she works with.

_____ 4. Sets a personal example of what he or she expects from others.

_____ 5. Praises people for a job well done.

_____ 6. Challenges people to try out new and innovative approaches to their work.

_____ 7. Describes a compelling image of what our future could be like.

_____ 8. Actively listens to diverse points of view.

_____ 9. Spends time and energy on making certain that the people he or she works with adheres to the principles and standards that have been agreed on.

_____ 10. Makes it a point to let people know about his or her confidence in their abilities.

_____ 11. Searches outside the formal boundaries of his or her organization for innovative ways to improve what we do.

_____ 12. Appeals to others to share an exciting dream of the future.

_____ 13. Treats others with dignity and respect.

_____ 14. Follows through on the promises and commitments that he or she makes.

_____ 15. Makes sure that people are creatively rewarded for their contributions to the success of projects.

_____ 16. Asks "What can we learn?" when things do not go as expected.

_____ 17. Shows others how their long-term interests can be realized by enlisting in a common vision.

_____ 18. Supports the decisions that people make on their own.

_____ 19. Is clear about his or her philosophy of leadership.

_____ 20. Publicly recognizes people who exemplify commitment to shared values.

_____ 21. Experiments and take risks even when there is a chance of failure.

_____ 22. Is contagiously enthusiastic and positive about future possibilities.

_____ 23. Gives people a great deal of freedom and choice in deciding how to do their work.

_____ 24. Makes certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on.

_____ 25. Finds ways to celebrate accomplishments.

_____ 26. Takes the initiative to overcome obstacles even when outcomes are uncertain.

_____ 27. Speaks with genuine conviction about the higher meaning and purpose of our work.

_____ 28. Ensures that people grow in their jobs by learning new skills and developing themselves.

_____ 29. Makes progress toward goals one step at a time.

_____ 30. Gives the members of the team lots of appreciation and support for their contributions.

Thank you for taking the time to complete this survey.

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News

April 17, 2012

Fazeeda Abdur-Rahman
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Jamaica, NY 11435

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