The Use of Yoga as a Complementary Practice When Treating Children and Adolescents Who Have Been Exposed to Domestic Violence

by

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DEDICATION

This work is dedicated to Erica, Victoria, Daniel, Hildegard, and Raúl.

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ABSTRACT OF THE DOCTORAL PROJECT

The focus of this doctoral project is to address the impact of domestic violence exposure on children and adolescents (ages 6 to 18) and offer support for the use of yoga as a complementary treatment method. This project is comprised of information collected through research and interviews with professionals in the mental health field. It includes definitions of domestic violence and domestic violence exposure, the emotional, behavioral, psychological, biological, and physiological consequences of domestic violence exposure in children and adolescents, and the benefits of yoga for treating children and adolescents with a history of domestic violence exposure and other traumas. The goals of this doctoral project are as follows: (a) increase clinicians' understanding of the impact domestic violence has on children and adolescents; (b) increase clinicians' familiarity with the biological effects of trauma on the peripheral nervous system and children's physiological responses to trauma; (c) increase clinicians' familiarity with research on the positive effects of yoga for the body and the mind; and (d) expose clinicians to research that examines the effectiveness of yoga practice as a complementary treatment for trauma and other mental health concerns that may result from exposure to domestic violence.

Keywords: adolescents, children, complementary practice, domestic violence, domestic violence exposure, trauma, yoga

CHAPTER I

Introduction

Approximately 7.7 million incidents of domestic violence occur each year (Tjaden & Thoennes, 2000). As a direct result of these incidents, family members living in homes where domestic violence takes place are severely impacted by this violence. In the state of California alone, data from the California Department of Justice showed that 166,361 emergency calls were placed reporting domestic violence in 2010. Of these calls, close to 40 percent involved the use of a weapon (California Department of Public Health, 2012).

Domestic violence can impact adults engaged in the violence in a number of ways including the fatality of either the male or the female adult (Catalano, 2012) or either partner being psychologically affected by the violence (Graham-Bermann, DeVoe, Mattis, Lynch, & Thomas, 2006; Hines & Douglas, 2011a; Hines & Douglas, 2011b; Jarvis, Gordon, & Novaco, 2005). In addition to impacting adults, domestic violence also has a tremendous impact on the children who are present in these homes. Approximately 15.5 million children in the United States are exposed to domestic violence each year (McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2006). The degree to which children and adolescents are exposed to domestic violence can vary, and the exposure can be either direct or indirect. Direct exposure refers to when children and adolescents see or hear the violence as it is taking place; whereas indirect exposure refers to when they hear about the violence after the incident or see the repercussions of the violence (e.g., bruises on parent, broken items in the home) (Spilsbury et al., 2007).

Regardless of whether the exposure is direct or indirect, domestic violence can cause children and adolescents to feel unsafe in the home and experience a range of emotional and behavioral problems including depression, a tendency to worry (Evans, Davies, & DiLillo, 2008), physical complaints, sleep disturbance, crying, clinging, and increased aggressive behavior such as fighting, hitting, and suicidal behavior (Adams, 2006). Additional consequences to witnessing domestic violence may include anxiety and hyper arousal, and for some children and adolescents these symptoms, combined with disturbing memories and other symptoms, may meet full criteria for a diagnosis of Post-Traumatic Stress Disorder (PTSD) (Clarke et al., 2007; El-Sheikh, Cummings, Kouros, Elmore-Staton, & Buckhalt, 2008; Jarvis et al., 2005; Meltzer, Doos, Vostanis, Ford, & Goodman, 2009). Additionally, experiencing feelings of anxiety and being in a state of hyperarousal can make it difficult for a child or adolescent to modulate his or her emotions and cope with the impact of the violence.

Research shows that the impact of domestic violence on children and adolescents is mediated by a number of factors including age, gender, ethnicity, child's sense of control, child abuse, type and severity of violence exposure, maternal emotions, maternal parenting, mother-child dyad, mother's education, and threat to safety (Kulkarni, Graham-Bermann, Rauch, & Seng, 2011; Jarvis et al., 2005; Spilsbury et al., 2008; Spilsbury et al., 2007). This type of research can be useful in determining risk factors for mental health problems, identifying preventative measures regarding the negative impacts of violence exposure, and assisting children and adolescents in their recovery.

Psychological treatments are often needed for children and adolescents who have been exposed to domestic violence. While some demonstrate incredible resilience and are

able to continue to function without impairment (Gewirtz & Edleson, 2007), others develop emotional and behavioral problems that require professional intervention. The manner in which treatment is delivered, as well as the type of treatment, depends on the child's symptoms and stage of development. For example, infants and young children (ages birth to 5) are unable (or less able) to vocalize their experiences relative to older children. Thus, the symptom presentation found among preschoolers typically resembles crying, clinging or fearful behaviors, sleep disturbance, and separation anxiety (Zerk, Mertin, & Proeve, 2009).

Children of school age (6 to 12 years old) have reached important milestones in their development, yet have many other important developmental tasks to master before entering adolescence. For example, children around the ages of seven or eight are beginning to develop a sense of autonomy and are becoming their own person. They are also learning to integrate different parts of the self and display less black-and-white thinking. In addition, children in this age group are beginning to develop feelings of pride in their own accomplishments (particularly those related to school), demonstrate empathy for others, and value prosocial behaviors. All of these are essential for the development of fulfilling peer relationships, which are important at this age. Due to the grand cognitive, emotional, and physical changes that children experience at this stage of development, exposure to violence in the home can hinder normal development and ultimately impact children's ability to relate well to others, develop good self-esteem, and create meaningful relationships with peers. Difficulty mastering the socio-emotional challenges of this developmental stage can lead to feelings of shame and self-doubt that persist well into adulthood (Papalia, Olds, & Feldman, 2004).

Also important during this developmental stage is the child's ability to perform well academically. Children enter formal schooling around the age of six or seven years old and begin to experience increasing levels of academic challenges that can be made even more difficult when life at home feels unsafe and chaotic. Children with learning disabilities tend to be first identified at this stage of development, as well as children with emotional and behavioral problems that impact their academic performance, regardless of whether they have a history of domestic violence exposure (Papalia et al., 2004). For children exposed to domestic violence, school difficulties can be even greater at this developmental stage, often triggering the referral to formal psychological assessment or other types of mental health services.

Regarding adolescents, their reactions to domestic violence often include oppositional and argumentative behaviors, as well as more serious conduct problems, truancy, angry outbursts, unprovoked aggression, academic difficulties, and substance use (Margolin & Vickerman, 2007). While considering the impact of domestic violence on children and adolescents, understanding normal development is essential for recognizing differences in response to domestic violence that accompany different age ranges.

As it was previously mentioned, exposure to domestic violence can be a traumatic experience for children and adolescents. Some of these children ultimately develop symptoms of PTSD. A common consequence of experiencing trauma is hyperarousal, which is also one of the essential criteria needed for a diagnosis of PTSD. Research has shown that experiencing trauma can impact a person's peripheral nervous system. The peripheral nervous system, which is comprised of the autonomic, sympathetic, and

parasympathetic nervous systems, is not only responsible for a person's state of rest and calm but also a person's response to threat. More specifically, the sympathetic nervous system is responsible for a person's response to a threat in the form of a fight-or-flight response (Levine, 2010; Rothschild, 2000). When a person is confronted with a threat and is unable to fight or flee, the individual freezes and tonic immobility occurs. The parasympathetic nervous system is activated at this time despite its traditional role of being activated during states of rest and relaxation (Emerson & Hopper, 2011).

Based on a physiological understanding of how trauma can affect the body, emerging research has focused on how to utilize an understanding of a person's physiological response to trauma and employ appropriate interventions. As stated in Spinazzola, Rhodes, Emerson, Earle, and Monroe (2011), traditional evidence-based treatments for trauma place a prominent focus on narrative approaches, memory processing, and cognitive reframing. With less of an emphasis on the person's body and the physiological effects of trauma, alternative and complimentary methods for trauma treatment are emerging in the literature and clinical practice to address this gap. One of the complementary practices that has emerged in recent years as a treatment for trauma is yoga.

Yoga, which emerged over 5,000 years ago in ancient India, is a series of postures, movements, breathing techniques, and focused attention that allow for individuals to enhance a connection to the self. While it has been linked to meditative practices as well as spiritual and religious practices such as Hinduism, Buddhism, and Jainism (Emerson & Hopper, 2011), the practice of yoga has achieved popularity in the United States as a form of self-care, exercise, and mindfulness (Macy, 2008). As the

positive effects of yoga have been noted, research has attested to the positive impact that yoga can have on general medical conditions (Cohen, Warneke, Fouladi, Rodriguez, & Chaoul-Reich, 2004; Moadel et al., 2007; Sareen, Kumari, K. S. Gajebasia, & N. K. Gajebasia, 2007; Sathyaprabha et al., 2008; Singh, Malhotra, Singh, Madhu, & Tandon, 2004) as well as mental health issues and symptoms (Brown & Gerbarg, 2005; Brown & Gerbarg, 2009; Granath, Ingvarsson, von Thiele, & Lundberg, 2006; Katzman et al., 2012).

Research on the use of yoga as a complementary treatment practice has also begun to venture into the field of trauma (Descilo et al., 2010). While trauma is becoming more present as the focus of yoga research, the use of yoga as a treatment method for treating trauma in children and adolescents is still limited. More specifically, the use of yoga as a treatment method with children and adolescents exposed to domestic violence appears to be absent from research. Conversely, the consequences of children and adolescents exposed to domestic violence are well-documented, and research has begun to address the impact of yoga on children and adolescents in a variety of capacities such as attention (Pradham & Nagendra, 2010), the relationships between stress and academic performance (Kauts & Sharma, 2009), deviant behaviors (Kannappan & Bai, 2008), and overall well-being (Berger, Silver, & Stein, 2009).

The purpose of this doctoral project is to study the literature on the impact of domestic violence on children and adolescents, particularly the physiological effects of trauma, and to explore the use of yoga as a complementary treatment method for treating children and adolescents exposed to domestic violence in the home.

Goals

The primary goals of this project are as follows: (a) increase clinicians' understanding of the impact domestic violence exposure has on children and adolescents; (b) increase clinicians' familiarity with the biological effects of trauma on the peripheral nervous system and children's physiological responses to trauma; (c) increase clinicians' familiarity with research on the positive effects of yoga for the body and the mind; and (d) expose clinicians to research that examines the effectiveness of yoga practice as a complementary treatment for trauma and other mental health concerns that may result from exposure to domestic violence.

Objectives

This doctoral project includes the following objectives: (a) review the existing literature as it pertains to the impact of domestic violence exposure on children and adolescents; (b) review the existing literature as it pertains to the role that mediating factors play in the symptom presentation of children and adolescents who have been exposed to domestic violence; (c) review existing literature on the biological and physiological responses to trauma; (d) review the existing literature on yoga as a complementary treatment method for treating trauma and other mental health concerns; (e) gather additional information through consultation with mental health professionals and individuals who have experience with the treatment of domestic violence and the integration of complimentary practices with standard psychological treatment; and (f) develop a professional presentation in order to disseminate relevant information to clinicians in community-based settings who treat children and adolescents exposed to domestic violence and other forms of trauma.

CHAPTER II

Literature Review

Domestic Violence: Defining Features and Risk Factors

Domestic violence affects many families on a daily basis. Statistics show that approximately 7.7 million incidents of domestic violence occur each year nationally (Tjaden & Thoennes, 2000). In 2007, 2,340 deaths occurred, with 70 percent being women and 30 percent being men (Catalano, 2012). In 2010, in the state of California specifically, 911 emergency responders received 166,361 calls with 65,865 of those incidents involving a weapon (California Department of Public Health, 2012).

Domestic violence, oftentimes referred to as intimate partner violence, includes physical violence, sexual violence, threats, and emotional abuse (Black et al., 2011). The World Health Organization (WHO) defines domestic violence, or intimate partner violence, as **"**behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours" (2012). Physical violence often includes, but is not limited to, the following: slapping, pushing, punching, kicking, choking, burning, and using a weapon such as a knife or a gun (McDonald et al., 2006). Sexual violence includes one member of the couple forcing the other to engage in a sexual act without consent. Threats include the communication of physical or sexual violence. These threats are communicated through words, physical gestures, weapons, or other forms of communication. Lastly, emotional abuse includes threatening a partner, threatening a partner's loved ones or possessions, or damaging the sense of self-worth of the partner. Examples of emotional abuse include intimidation, stalking, name-calling, or not

allowing a partner to be in communication with his or her family or friends (Black et al., 2011).

While the terms *domestic violence* and *intimate partner violence* are often used interchangeably, the Bureau of Justice Statistics (BJS) identifies a difference between the two. While domestic violence is a generalized term referring to violence that occurs in the home between any adult persons, intimate partner violence refers to violence where the victim and perpetrator are involved in a romantic relationship. This differentiates violence occurring in the home where the perpetrator and victim are relatives, siblings, co-workers, or other acquaintances (Catalano, 2012). For the purpose of this project, the term *domestic violence* will be used throughout the document to refer to violence that occurs in the home independent of whether or not it happens in the context of a romantic relationship.

In contrast with domestic violence and intimate partner violence (which imply the presence of a perpetrator and a victim), exposure to domestic violence refers to the experiences of a witness and can include seeing the event, hearing the event, witnessing the aftermath of the event, becoming aware that the incident took place based on being told or overhearing others' conversations (Spilsbury et al., 2007), or the attempts of the witness to intervene in the violence (Evans et al., 2008). The different types of exposure can have varying effects on children and adolescents. Some studies, which will be addressed later on, go further into the specifics of exposure and how the amount of exposure can affect children and adolescents differently based on their sense of control over the situation (Spilsbury et al., 2007) as well the frequency in which both children and adolescents attempt to intervene in the violence (Jarvis et al., 2005).

According to the WHO, numerous risk factors exist for being victimized by an intimate partner. Some of the risk factors are associated with the victim, the perpetrator, or both. The risk factors associated with both the victim and the perpetrator include lower education levels, having been abused as a child, witnessing domestic violence as a child, alcohol use, a belief that violent behavior is acceptable, and marital dissatisfaction and discord. Risk factors for domestic violence associated with the perpetrator include antisocial personality disorder, acts of infidelity, or suspicion by the partner that the perpetrator is being unfaithful (WHO, 2012).

An additional risk factor associated with domestic violence in the home is child abuse. The prevalence of child abuse in homes with domestic violence has been documented to be much higher than in average American homes. More specifically, children who witness domestic violence are 15 times more likely to be abused than children from a national average (Osofsky, 2003). Jouriles, McDonald, Smith Slep, Heyman, and Garrido (2008) completed an extensive review of the literature on this topic and noted that between 18 and 67 percent of homes with domestic violence also have the presence of child abuse. The authors concluded that differences in percent rates between studies are due to differences in the source of the report (e.g., domestic violence shelter, community setting) as well as how lenient or strict the definition of child abuse was in each study. Research supports that children who witness domestic violence and experience direct abuse in the home exhibit worse symptoms than children who only witness domestic violence. The extent of this difference has only been minimally researched and has presented with mixed results. Consequently, in a home where a child both witnesses domestic violence and is the victim of direct abuse, the extent that each

experience has on the child's emotional or behavioral response is unclear (Jarvis et al., 2005).

Children and Adolescents Exposed to Domestic Violence

Domestic violence affects a very large number of children and adolescents in the United States. One study showed that roughly 15.5 million children living in the United States had been exposed to at least one episode of domestic violence in the previous year. The study also indicated that the domestic violence exposure witnessed by approximately half of these children qualified as severe (McDonald et al., 2006). More specifically, nationwide statistics collected by the BJS indicate that between 2001 and 2005, 38 percent of the households impacted by domestic violence were also inhabited with children under the age of 12. Other statistics from the BJS pertained to court cases involving domestic violence. Out of 3,750 cases of domestic violence that were filed in state courts across 16 different urban counties, 36 percent of the cases involved a child being present. Of those children present, 60 percent directly witnessed the violence (Catalano, 2012). Another study reported that out of a community sample of children who had been exposed to domestic violence, 79.8 percent had seen or heard the violence (Spilsbury et al., 2008). In addition, data were collected by police officers responding to domestic violence calls in a Northeastern county. Of the 5,295 incidents that they responded to, children were present 44 percent of the time. Of these responses, 69 percent of the homes had a previous history of domestic violence (Fantuzzo, Fusco, Mohr, & Perry, 2007).

Emotional and behavioral consequences. For children and adolescents who witness domestic violence, symptoms can manifest in various ways including physically,

emotionally, behaviorally, cognitively, and socially (Adams, 2006; Margolin & Vickerman, 2007). The physical symptoms include the physiological and neurobiological effects of witnessing violence in the home as well as a variety of health problems. These physiological and neurobiological effects include hyperarousal, elevated heart rate, and anxiety-related concerns (Adams, 2006). Emotional and behavioral consequences have also been found to be a result of witnessing domestic violence. As multiple studies report, these types of behaviors are oftentimes displayed in internalizing and externalizing manners (Adams, 2006; Clarke et al., 2007). Internalizing symptoms of domestic violence can include physical complaints, sleep disturbance, crying, clinging (Adams, 2006), depression, anxiety, and a tendency to worry (Evans et al., 2008). These behaviors result from children internalizing the experiences of violence in the home. Externalizing symptoms may include increased aggressive behavior such as fighting, hitting, and suicidal behavior. One of the most common emotions that a child experiences as a result of violence in the home is fear. This fear can be generalized to the parent, or parents, in the home who perpetrated the violence and can also be accompanied by some of the aforementioned internalizing and externalizing behaviors. Other symptoms include low self-esteem and other trauma-related symptoms such as nightmares and hypervigilance (Adams, 2006).

Some children and adolescents have symptoms that meet the full criteria for PTSD, while others experience a subclinical presentation of posttraumatic stress symptoms. Symptoms of PTSD are characterized by re-experiencing the traumatic event, avoiding situations or reminders of the event, and hyperarousal (American Psychiatric Association, 2000). Numerous studies have explored children's and adolescents'

responses to witnessing domestic violence, the role of posttraumatic stress symptoms, and the presence of internalizing and externalizing behavioral problems (Clarke et al., 2007; El-Sheikh et al., 2008; Jarvis et al., 2005; Meltzer et al., 2009). The results of one study on school-aged children who had been exposed to domestic violence reported that 25 percent of the sample had symptoms that met full diagnostic criteria for PTSD. Furthermore, while not all children in the sample received a diagnosis of PTSD, many had symptoms that reached clinical levels for re-experiencing, avoidance, and arousal (Graham-Bermann et al., 2006).

Some controversy exists in the field regarding the diagnostic criteria for PTSD in children who witness domestic violence. It is evident that children can exhibit symptoms of posttraumatic stress following exposure to domestic violence (Graham-Bermann et al., 2006), but the controversy exists in the definition of PTSD according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition-Text Revision (DSM-IV-TR; American Psychiatric Association, 2000). According to the DSM-IV-TR, Criterion A states that the individual needs to have been exposed to a traumatic event in which two factors were present. In the first, "the person has experienced, witnessed, or been confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others" (American Psychiatric Association, 2000, p. 467). The second factor of Criterion A requires that the individual's response involves "intense fear, helplessness, or horror" (American Psychiatric Association, 2000, p. 467). The controversy surrounding the PTSD diagnosis pertains to the difficulty in applying this diagnosis to children who witness domestic violence because their traumatic experiences are often ongoing and chronic in nature, as opposed

to experiencing a specific extraordinary traumatic event, which is more closely related to how the DSM-IV-TR defines trauma (Kilpatrick, Resnick, & Acierno, 2009).

While some children and adolescents exposed to domestic violence or other traumas may develop PTSD or posttraumatic stress-type symptoms, children and adolescents who experience two or more traumas or an ongoing trauma with repeated exposure may require additional considerations for case conceptualization and treatment planning. For children and adolescents who experience more than one trauma or trauma over a long period of time, a treatment model addressing Complex Trauma (L. Ross, personal communication, August 20, 2012) or Developmental Trauma may be more appropriate (D. Emerson, personal communication, August 21, 2012; L. Ross, personal communication, August 20, 2012). Complex Trauma is defined as "a type of trauma that occurs repeatedly and cumulatively, usually over a period of time and within specific relationships and contexts" (Courtois, 2008, p. 86). A Complex Trauma model for treatment addresses multiple exposures to trauma over extended time frames, which differs from treatment for PTSD. With Complex Trauma, some symptoms of PTSD may be present but challenges with interpersonal relationships may be more prevalent (L. Ross, personal communication, August 20, 2012). According to L. Ross (personal communication, August 20, 2012), the focus of treatment for Complex Trauma includes addressing relationship problems, controlling emotions, relationship skills, and finding a sense of life meaning. An article by Cook et al. (2005) offered additional information on the treatment of Complex Trauma, indicating that a "comprehensive review of the literature on complex trauma suggests seven primary domains of impairment observed in exposed children: attachment, biology, affect regulation, dissociation (i.e., alterations in

consciousness), behavioral regulation, cognition, and self-concept" (p. 392). Because the models for treatment can vary, it is important to understand what is being treated and select the appropriate treatment method (L. Ross, personal communication, August 20, 2012).

A new proposed diagnosis that arose from research on Complex Trauma is called Developmental Trauma Disorder, which emerged from the Complex Trauma Taskforce of the National Child Traumatic Stress Network. The criteria for Developmental Trauma Disorder includes the following: "(a) repeated exposure to developmentally adverse childhood experiences; (b) triggered pattern of repeated dysregulation in response to trauma cues, including dysregulation in multiple domains; (c) persistently altered attributions and expectancies about self, relationship, and others; and (d) evidence of functional impairment" (Margolin & Vickerman, 2007, p. 616). This proposed diagnosis is centered around the idea that numerous exposures to interpersonal trauma cause a marked impairment in various areas of functioning. Some of these traumas may include, but are not limited to, physical assault, sexual assault, betrayal, abandonment, and witnessing domestic violence. According to the understanding of this disorder, children who have these experiences have a tendency to reenact their traumas when they enter adulthood, such as becoming the perpetrators of sexual or aggressive acts against other children (van der Kolk, 2005). A review of the research on treatments and clinical considerations for PTSD, Complex Trauma, and Developmental Trauma Disorder indicate a multifaceted manner in which to not only understand trauma but also how to select an appropriate treatment.

Additional studies have also demonstrated that children who witness domestic violence may be prone to cognitive and academic difficulties (Adams, 2006; Blackburn, 2008). Blackburn (2008) cited evidence regarding children's academic difficulties as a result of witnessing interparental violence in the home. The results of this study indicated that children who witnessed domestic violence in the home scored lower on tests assessing reading ability and phonological awareness than children in a control group who did not have a history of witnessing domestic violence. Specifically, 20 percent of children coming from violent homes presented with reading difficulties. In contrast, none of the children from the control group presented with scores low enough to warrant a reading difficulty. These results were calculated after nonverbal intelligence quotient (IQ), age, gender, and socioeconomic status were accounted for. The researchers in this study explained this discrepancy in several ways. First, they argued that the presence of violence in the home and the impact this has on parenting may interfere with the general development of reading skills. Second, the researchers explained that chronic stress, rather than acute stress, may lead to increased cognitive deficits. As a result, children have a greater difficulty with the complex cognitive processes that are needed to develop reading skills. It is important to note that even though 20 percent of the experimental group had symptoms that met criteria for a reading disorder, the overall mean of the group fell within the normal range of reading performance. These results suggest that exposure to domestic violence has an impact on children's reading abilities yet some children still perform in the normal range, which suggests the presence of resiliency factors for some children.

The impact of trauma on the peripheral nervous system. As it has been mentioned, witnessing domestic violence can affect children and adolescents behaviorally, emotionally, cognitively, and socially. An important component of experiencing trauma often missing from trauma treatment is the understanding of the role that the peripheral nervous system plays in a person's response to a traumatic event. In the DSM-IV-TR, the criteria for PTSD include symptoms related to arousal. Additional information on the biology and physiology of the individual's arousal is important to increase understanding of trauma's impact on the body and effective treatments to address this component of PTSD.

Initially when a person is confronted by a threat, the human body engages in a fight-or-flight response, which is an automatic physiological response to stress. The autonomic nervous system, comprised of the sympathetic nervous system and the parasympathetic nervous system, is responsible for a person's response to the threat. The sympathetic nervous system becomes aroused during states of stress, resulting in increased heart rate and blood pressure, rapid breathing, and muscle tension. During this time, cortisol (stress hormones) is released by the adrenal glands to prepare the person's body to respond to the threat. The parasympathetic nervous system, on the other hand, is responsible for states of calm and relaxation. The activation of the parasympathetic nervous system creates the opposite physiological effect, characterized by lower blood pressure and heart rate as well as decreased respiration. When a threat is present, the sympathetic nervous system is activated and depending on the situation and the individual, the person engages in a flight-or-fight response. This response is a survival reflex and is automatic (Levine, 2010; Rothschild, 2000)

When the threat presents itself and a person is unable to fight or flee, a freeze response occurs. This freeze response, sometimes referred to as tonic immobility, is characterized by an activation of the parasympathetic nervous system. During a state of tonic immobility, the person feels stuck and experiences a state of dissociation. When death may be imminent, the parasympathetic nervous system is activated and tonic immobility acts as a protective factor rather than a natural state of calm and relaxation. The service of this alternative response is to lessen the pain and fear of the situation. These effects provide a numbing experience for individuals when they feel trapped, resulting in a decrease in pain sensation (Emerson & Hopper, 2011).

The hippocampus also plays a role in response to threat. The hippocampus, located in the limbic system of the brain, provides structure to a person's memory and aids in transitioning memories from short-term memory to long-term memory. When a person is confronted with a threat and tonic immobility occurs, the function of the hippocampus is suppressed, and the traumatic memory is not stored properly. As a result, the traumatic experience remains in the present rather than being filed in the brain with a distinctive beginning, middle, and end. When individuals become triggered by trauma reminders or by natural physiological responses that remind their body of the event, the person's body automatically reacts as if the trauma were occurring in the present. Even though the traumatic event is in the past, the person's body signals to him or her that the event is in the present, resulting in feelings of terror, rage, and helplessness (Emerson & Hopper, 2011). Conceptualizing a traumatic experience from this physiological perspective allows for a greater understanding of how trauma impacts children and adolescents and sets the stage for a more comprehensive approach to trauma treatment

with children and adolescents who have been exposed to domestic violence, which will be expanded upon in future sections of this project.

The impact of domestic violence on adults in parental roles. Domestic violence undoubtedly has an impact on the adults involved (both men and women), but research predominantly focuses on the impact domestic violence has on women. This may be due to the fact that roughly 82 to 85 percent of reported victims of domestic violence are women (Fantuzzo & Fusco, 2007; National Coalition Against Domestic Violence [NCADV], 2011). As a result of experiencing domestic violence, women are affected in a number of ways. Research shows that being the victim of domestic violence can cause women to experience depression, anxiety, anger, PTSD symptoms, and have their relationship with their child impacted. The implications of these effects on women clearly go beyond the direct impact of these traumatic experiences on women themselves because their distress and responses to distress also impact how the children in the home respond to the violence (Graham-Bermann et al., 2006; Jarvis et al., 2005).

Regarding the impact on men, research has examined the struggles that accompany help-seeking behaviors (Hines & Douglas, 2011a; Hines & Douglas, 2011b). Another reason for the predominant focus on the impact on women could relate to the under-reporting of men who are themselves victims of domestic violence. Hines and Douglas (2011a) reported that men seeking help as victims of domestic violence receive the most positive support from mental health and medical service providers as well as family and friends. Conversely, the most negative support that they receive is from members of the domestic violence service system itself. An additional study addressed the impact that domestic violence has on male victims (Hines & Douglas, 2011b). Using

a community-sample of 520 men, the result of this study showed that men who were victims of domestic violence had a higher likelihood of developing symptoms of PTSD than men who were involved in a relationship with reciprocal violence or a relationship lacking violence from either partner (Hines & Douglas, 2011a). The results of this study speak to the need for increased research on the impact of domestic violence on men and how this could pose as a mediating factor for the impact of domestic violence on children and adolescents.

Mediating factors for the effects of domestic violence on children and adolescents. The literature points to the existence of several mediating factors that impact the experience of domestic violence on children and adolescents. Some of these include age, gender, ethnicity, child's sense of control, child abuse, type and severity of violence exposure, maternal emotions, maternal parenting, mother-child dyad, mother's education, and threat to safety (Jarvis et al., 2005; Kulkarni, et al., 2011; Spilsbury et al., 2008; Spilsbury et al., 2007).

A mediating factor that is readily discussed in much of the research is age. While some studies focus on a particular age group such as preschool age, school age or adolescents, other studies compare multiple age groups. Conversely, the studies that only focus on one age group compare the results of children of varying ages within that same age group. The results of these studies are mixed in regards to the impact that a child's age has on how he or she responds to witnessing domestic violence in the home. One study conducted by Spilsbury et al. (2007) found differences between younger and older children (in a sample with 5 to 17 years olds) in regards to how they responded to domestic violence. The results indicated that younger children were more prone to

experiencing anxiety, depression, symptoms of PTSD, and sexual concerns than older children. In this case, older age was a protective factor against some of these mental health concerns. In contrast, older age was aligned more closely with social withdrawal and issues related to attention and concentration (Spilsbury et al., 2007). These results indicate that increased age may serve as a protective factor for some symptoms but may make a child more prone to experiencing others. In this case, the symptoms the older children developed could make it difficult to identify the source of their difficulties, compared to the symptoms experienced by the younger children, which were more consistent with what professionals expect to find when there is a history of exposure to violence in the home.

Contrary to the findings of Spilsbury et al. (2007), other studies indicated that the child's age did not make a difference in regards to a child's symptom presentation after being exposed to domestic violence. El-Sheikh et al. (2008) conducted a study that included 251 school-aged children who were recruited from the community. With an age range of 6 to 11 years old and a mean age of 8.23, the results of this study showed that age did not make a difference in children's internalizing behaviors, externalizing behaviors, or symptoms of PTSD. Other studies supported the findings that children's age was not a mediating factor in the symptom presentation of school-aged children who witnessed domestic violence (Evans et al., 2008; Graham-Bermann et al., 2006). One reason why these studies indicate no differences based on age might be that the age range of the participants is relatively narrow (all participants are school-aged), and preschoolers and adolescents were not included in the sample.

Another demographic variable that is readily accounted for in a majority of the research is the impact that a child's gender has on the manifestation of symptoms. Like age, results for the impact of gender are also mixed and inconclusive. One study by Spilsbury et al. (2007) on children 5 to 17 years old noted that girls had a higher tendency to report symptoms in a variety of categories as a response to violence exposure in the home. Girls were more likely to exhibit externalizing behaviors in general, two times more likely than boys to exhibit psychotic behavior, and four times more likely to display socialized aggression. The researchers noted that it is normally assumed that boys have a higher tendency to exhibit externalizing behaviors. They commented on the importance of not succumbing to this stereotype and to make note that girls who have been exposed to domestic violence are also at risk for externalizing and aggressive behaviors. The results of a study conducted by Evans, Davies, and DiLillo (2008) contradict these gender differences. The study stated that externalizing behaviors were higher in boys than girls, but that no gender differences were found in relation to internalizing behaviors.

Numerous other studies supported the findings that no gender differences exist in regards to symptom display for children who witnessed domestic violence. A study conducted by Jarvis et al. (2005) supported the lack of gender differences in regards to internalizing and externalizing behaviors. A study conducted by Graham-Bermann et al. (2006) demonstrated that a child's gender was irrelevant to the development of symptoms of posttraumatic stress. Additionally, bringing together the findings of these two aforementioned studies, a study conducted by El-Sheikh et al. (2008) presented results indicating that externalizing behaviors, internalizing behaviors, and posttraumatic stress symptoms were not accounted for by gender. Many of the aforementioned studies

indicated in their review of the research that gender responses to domestic violence also led to mixed results.

In addition to age and gender, ethnicity is a demographic variable that many studies account for when denoting the impact of witnessing domestic violence on children and adolescents. Numerous studies cited different findings in regard to the impact of ethnicity. Spilsbury et al. (2007) conducted a study that examined the behavioral profiles of school age children in which the two prominent ethnicities comprising the sample were African American (48 percent) and European American (32 percent). The other 20 percent included a smaller representation of Latino, Native American, and multiethnic backgrounds. While no ethnic differences were found in regards to trauma symptoms, European American children were two times more likely to display socialized aggression and four times more likely than African American children to display symptoms that met criteria for Conduct Disorder. While these researchers did not offer an explanation for the role that ethnicity plays in externalizing behaviors, other researchers offered an explanation for these ethnic differences.

Other researchers speculated that because children from minority backgrounds tend to come from lower socioeconomic backgrounds, they may be more accustomed to various types of stressors, and therefore have had the opportunity to develop greater resilience and coping mechanisms for stressors related to domestic violence (Graham-Bermann et al., 2006). A study conducted by Graham-Bermann et al. (2006) found ethnic differences to be a relevant factor in the development of posttraumatic stress symptoms rather than internalizing or externalizing behaviors. More specifically, 33 percent of European American children and 17 percent of minority children presented with enough

symptoms to warrant a diagnosis of PTSD. In regards to the sub-categories of PTSD symptoms such as re-experiencing, avoidance and arousal, European American children had a higher number of those symptoms (33 percent versus 17 percent for re-experiencing; 40 percent versus 19 percent for avoidance; and 59 percent versus 32 percent for arousal).

While no biological factors exist that would cause one ethnicity to be more or less vulnerable to the effects of witnessing domestic violence, Graham-Bermann et al. (2006) speculated that minority cultures are more accustomed to having to overcome discrimination and other hardships related to their ethnicity. As a result, children from these backgrounds may be more accepting of hardships, feel less self-blame, and develop better coping strategies due to the realization that many of these hardships are out of their control. As it was mentioned previously, many authors have argued that ethnic differences in children's responses may be more closely related to low socioeconomic status rather than ethnicity itself.

Other potential mediating factors that many studies fail to mention is the frequency, severity, and duration of the violence. Some studies, such as the one conducted by Meltzer et al. (2009), looked at prevalence of domestic violence and demographic variables that may be associated with higher risk. Conversely, the way in which the researchers in this study assessed for the presence of domestic violence in the home was by simply documenting the presence or absence of it rather than details related to the frequency, severity, or duration of the violence. Other studies have documented these details, and the results have spoken to the symptom display of children who have been exposed to domestic violence based on the type of exposure. Jarvis et al. (2005), for

example, conducted a study on 30 mother-child dyads living in a domestic violence shelter to assess for the effect that witnessing domestic violence had on the children. By administering self-report and observational measures to the school age children and their mothers, the researchers gathered a clear depiction of the relationship between the severity of the abuse and the resulting symptoms and behaviors of the children. In regards to severity of the exposure, the results of the study showed that high posttraumatic stress symptoms were related to children's visual exposure to physical violence rather than just hearing the violence or witnessing the aftermath. It is also important to note that 76.7 percent of the children reported intervening in the violent incident in some fashion, which correlated strongly with high reporting of PTSD symptoms. These results go hand-in-hand with the findings of Spilsbury et al. (2008), which suggested that children who reported less exposure were more largely represented as being under the clinical cutoff for PTSD than children who had reported higher levels of exposure. The same study also indicated that children who only saw or heard the domestic violence had fewer symptoms related to depression, anxiety, and PTSD. In addition, children who reported more than one episode of witnessing domestic violence reported higher rates of anxiety and dissociation. These findings indicate that the severity of exposure and frequency of episodes of violence are related to higher internalizing behaviors as well as symptoms of PTSD in children. Other studies have also confirmed the relationship between the frequency and severity of violence exposure and an increase in symptoms (Graham-Bermann et al., 2006; Spilsbury et al., 2008).

Many studies have placed a strong emphasis on children's and adolescents' demographic characteristics as well as on the specifics related to the violence they were

exposed to. Other studies expanded on this concept, examined the child's experience and relevant background, and investigated whether the mother's distress and mental health mediated how the child responded emotionally, behaviorally, and symptomatically to witnessing domestic violence in the home (Graham-Bermann et al., 2006; Jarvis et al., 2005).

Jarvis et al. (2005) assessed for the impact that maternal distress had on the child's symptoms and behaviors. Using a variety of scales and measures, the researchers assessed the mothers' psychological distress as it pertained to the severity and duration of the domestic violence they experienced as well as levels of depression, anxiety, and hostility. The mothers were also asked several questions in order to investigate the quality of the mother-child relationship and see what effects this might have on the symptom presentation of the children. For the children, the researchers administered the Child Post-Traumatic Stress Reaction Index to assess for symptoms related to posttraumatic stress. Children's internalizing and externalizing behaviors were captured via their mother's report with the Child Behavioral Checklist. The mothers also completed the Conflict Tactics Scale-Revised (CTSR) to assess for the frequency, severity, and specific types of violent experiences. In addition, the CTSR also provided information regarding the degree to which the children were exposed to the violence and the specific acts they were exposed to. The mothers completed several self-report measures to assess for symptoms of depression and anxiety. These measures included the Brief Symptom Inventory (BSI) and the Center for Epidemiologic Studies-Depression (CESD) scale.

The results of the study showed that children's internalizing behavioral problems were associated with higher reports of anger and anxiety by their mother. Externalizing

behavioral problems were only accounted for by mothers' symptoms of anxiety. Specifically, 36.7 percent of children exhibited internalizing behaviors in the clinical range, and 23.3 percent of children exhibited externalizing behaviors in the clinical range. Posttraumatic symptoms in children were also found to be related to the amount of physical violence in the home, which was determined by the completion of the CTSR by the mother. Forty percent of the children indicated moderate levels of posttraumatic symptoms, 50 percent scored in the severe range, and the remaining 10 percent scored in the very severe range (Jarvis et al., 2005). Even though the researchers did not indicate how these degrees of posttraumatic symptoms related to a formal diagnosis of PTSD, it is important to note that 100 percent of the children in this study were exhibiting at least a moderate level of trauma-related symptoms. In addition, while this study has low generalizability due to the small sample size and limited setting, the results suggest that mothers' level of distress can impact their children's symptom presentation. Specifically, certain emotions experienced by the mother as well as the frequency and duration of the domestic violence all played a role in how their respective children adjusted to life after living in a violent home.

Another study attempted to bridge the link between mother's distress and behavioral problems in their children. Rather than studying the effects of physical aggression in the home, Clarke et al. (2007) opted to study the effects of children's exposure to psychological aggression. The researchers found that maternal distress provided a partial mediation between exposure to psychological aggression and behavioral problems in the children who had been exposed to the violence (Clarke et al., 2007). Clarke et al. (2007) also assessed for the tendency for behavioral problems in

children to present in both an internalized and externalized fashion. The results of the study showed that while psychological aggression and maternal distress were both predictors of internalizing behaviors in their children, only maternal distress predicted externalizing behaviors in their children. The two previously mentioned studies indicate that a strong relationship exists between the mental health of women who have been victimized by domestic violence and the behavior of their children.

Many studies attempt to establish a link between how witnessing domestic violence for children and adolescents can result in internalizing or externalizing behaviors or even a diagnosis of PTSD (Jarvis et al., 2005; Spilsbury et al., 2007; Spilsbury et al., 2008). A study conducted by Dehon and Weems (2010) accounted for the mediating factors relating to the way in which a child's exposure to violence can impact him or her. The researchers accounted for these mediating factors by testing a model that explained these indirect effects. The study involved 359 women and at least one of their school age children (ages 6 to 12). The women were predominantly European American and Mexican American. The sample was characterized by three groups of women and their children recruited in different settings (domestic violence shelter, community sample, and comparison sample). The model posed by the researchers suggests that domestic violence is associated with maternal depression, which is associated with maladaptive parenting practices by the mother. Maladaptive parenting practices were measured by the Parent Perception Inventory and the Conflict Tactics Scale Parent Child Version. Both measures asked questions regarding different parenting behaviors. The researchers suggested that as a result of maladaptive parenting practices, the child in question begins to exhibit a variety of internalizing and externalizing

behaviors. The results of the study indicate that the model was a good fit with the data collected. The clinical implications of this study suggest that ending the child's exposure to intraparental violence will not necessarily account for the source from which the child's internalizing and externalizing problems are rooted in. The results suggest a need for addressing parenting practices as well as the mother's mental health in prevention and intervention programs targeting children who witnessed domestic violence.

Differences in settings for the occurrence of domestic violence. A meta-analysis conducted by Evans et al. (2008), which was mentioned earlier in regards to gender differences of internalizing and externalizing behaviors, also examined the difference in symptom presentation based on several different recruitment samples. These varied recruitment samples included clinical settings, domestic violence shelters, and community settings including schools. The results of the meta-analysis indicated that no difference existed across these recruitment settings in regards to internalizing behaviors, externalizing behaviors, and symptoms of PTSD. Because many studies use samples from only one recruitment setting and do not compare the results to samples from other settings, these results suggest that the child's setting does not have an impact on the symptom presentation in children. The further implication of such findings relates to the relevance of addressing the impact of domestic violence exposure in multiple settings and that the past or current residence of a child does not have an impact on how they respond to the violence.

Developmental considerations. In the section about mediating factors for the impact of domestic violence on children and adolescents, it was discussed that domestic violence impacts children of all ages but the degree of impact varies depending on the

children's developmental level when exposure occurs. Also, symptoms of trauma experienced at earlier stages of development manifest themselves differently as children get older and begin to progress through different stages of development. The following section further expands on this notion and discusses developmental considerations that can have implications for mental health.

Some studies have focused on understanding the impact of domestic violence on children and adolescents under the age of 18 without discussing age differences. Other studies have focused on specific age groups, such as preschool age, school age, and adolescence. Zerk et al. (2009) addressed the impact of domestic violence exposure on preschool-aged children. Based on the reports of the mothers of 60 children of this age group via self-report measures, the children in the study experienced an increase in fearful and clingy behavior, sleep disturbance, increased motor activity, and increased separation anxiety. The researchers also pointed out that the mothers, who also completed self-report measures on their own response to the violence, reported high levels of anxiety, depression, and stress related to parenting. As a result, the researchers speculated that the mothers who were emotionally impacted by the violence might have had a misconception about their child's symptoms and behaviors (Crusto et al., 2010). These findings suggest a potential bias in maternal responses regarding the impact of domestic violence on preschool-aged children. Because children in this age range may have greater difficulty with talking about and making sense of their experiences, children of an older age may be able to assist in providing a more comprehensive understanding of the ways in which they have been impacted by exposure to domestic violence.

Adolescents experience the impact of domestic violence in a different manner than preschool and school-aged children. Research shows that adolescents who have been exposed to domestic violence report high levels of delinquency, substance abuse, and externalizing behaviors (Margolin & Vickerman, 2007). Black, Sussman, and Unger (2010) reported that individuals who witnessed domestic violence during adolescence had a higher likelihood of being involved in a romantic relationship in young adulthood where dating violence was present. The implications of this study also speak to the relevance of addressing the impacts of domestic violence exposure at a younger age.

In addition to the impact that witnessing domestic violence has on both preschool age children and adolescents, it is important to address the impact that witnessing domestic violence as a child has on adults later in life. One study attempted to bridge the gaps in research regarding the effects that witnessing domestic violence as a child can have on a diagnosis of PTSD in adulthood (Kulkarni et al., 2011). Because other traumas in early childhood (e.g., child abuse) and adulthood may also lead to a PTSD diagnosis, the researchers controlled for these other traumas when examining the role of direct and indirect exposure to violence in predicting a current or lifetime diagnosis of PTSD. The sample consisted of 1,581 pregnant women from three university medical centers. The participants were separated into four groups based on the type of violence they experienced in childhood: those who witnessed domestic violence only (20.6 percent), those who experienced child abuse only (7.7 percent), those who witnessed domestic violence and experienced child abuse (13.6 percent), and a control group composed of participants who experienced neither domestic violence nor child abuse (58.1 percent). Regarding prevalence of PTSD in this sample, 7.9 percent of the participants had a

current diagnosis of PTSD, and 20.2 percent had a lifetime diagnosis of PTSD (Kulkarni et al., 2011).

The results of the study showed that participants in the combined group (those who witnessed domestic violence in childhood and were physically abused) had a higher prevalence of a lifetime diagnosis of PTSD. It is also important to note that participants who experienced only abuse had a higher likelihood of receiving a PTSD diagnosis than participants who only witnessed domestic violence. These results speak to the fact that women exposed to direct violence have a higher likelihood of developing PTSD than women exposed to indirect violence. In addition, it was found that witnessing domestic violence alone was not predictive of a PTSD diagnosis. A major implication of this study is that a thorough trauma history should be recorded so that individuals with a PTSD diagnosis can be properly treated. Other implications of this study are that witnessing domestic violence as a child can greatly impact the mental health of that person in adulthood (Kulkarni et al., 2011). Due to the high prevalence of child abuse co-occurring with exposure to domestic violence (Hamby, Finkelhor, Turner, & Ormrod, 2010), it is important that children receive treatment at a young age to address the impact of the violence.

Addressing the Needs of Children and Adolescents who Experienced Domestic Violence

Mental health professionals have an important role when treating individuals and families who were exposed to domestic violence. The role of mental health professionals is diverse and includes components such as a thorough initial clinical assessment. In this initial assessment, it is pertinent for a comprehensive history to be taken, which includes

the child's or adolescent's developmental history, a thorough history of symptoms and behaviors, and screening for domestic violence and history of other traumatic experiences. After the initial evaluation, a case conceptualization should be made which will ultimately inform treatment planning. With a thorough initial assessment, the information collected can allow for a better understanding of the presenting problems, the etiology of specific symptoms and behaviors, and ultimately a clear diagnosis that is informed by the information given. If the initial evaluation is lacking in detail, a misdiagnosis may occur, and treatment planning will ultimately be misguided. As it was previously mentioned, the impact of domestic violence on children and adolescents can take many different forms and can be easily mistaken for other issues or problems. It is for this reason that the role of the mental health professional is important and that all differential diagnoses are considered based on the extensive information collected so that treatment can be appropriate and beneficial for the client.

Clinical assessment. Screening for exposure to domestic violence is important in addressing the overall health needs of mothers and children. The relevance of such screening relates to identifying the presence of the violence in the home, gaining an understanding of how the violence has affected those living in the home, and providing a baseline of symptoms and behaviors so that clinicians can better address these issues throughout treatment. The prevalence of domestic violence for women can be examined in multiple settings. Those settings include primary care settings, community health settings, psychiatric clinics, obstetric/gynecology clinics, hospitals, surgery clinics, emergency care, and population-based samples (Alhabib, Nur, & Jones, 2010).

Measures that are commonly used in research pertaining to domestic violence exposure are the following: the Child Behavioral Checklist (CBCL) (Dehon & Weems, 2010; Graham-Bermann et al., 2006; Jarvis et al., 2005), the Trauma Symptom Checklist (TSCC) (Graham-Bermann et al., 2006; Spilsbury et al., 2007; Spilsbury et al., 2008), the Conflict Tactics Scale (CTS) and Conflict Tactics Scale-Revised (CTS2) (Dehon & Weems, 2010; Graham-Bermann et al., 2006; Jarvis et al., 2005), the Beck Depression Inventory (BDI) (Aderka, Appelbaum-Namdar, Shafran, & Gilboa-Schechtman, 2011; Graham-Bermann et al., 2006), and the Brief Symptom Inventory (BSI) (Jarvis et al., 2005). In addition to their role in research, these measures can be used in clinical practice to ensure an accurate diagnosis, case conceptualization, and treatment planning. The specificity of each of the measures allows for greater understanding of symptoms related to depression, anxiety, posttraumatic stress, behaviors, and degree of exposure to domestic violence.

The CBCL is a measure completed by the parent and helps to identify a variety of internalizing and externalizing behaviors based on over 100 questions. Designed by Achenbach and Rescorla (2001), the CBCL has two age-specific versions. One version is for children between the age of 18 months and 5 years. The other version is for children between the ages of 6 and 18. The authors report that the CBCL has good inter-rater and test-retest reliabilities, falling between .93 and 1.00. The authors also report that their test has been proven to have acceptable validity, including criterion validity (Achenbach & Rescorla, 2001). The CBCL is a useful instrument to measure symptoms associated with a history of domestic violence due to the questions and scales that are consistent with a variety of DSM-IV-TR symptoms such as those related to anxiety problems, affective

problems, somatic problems, oppositional defiant problems, conduct problems, and attention deficit/hyperactivity problems. Because the research has shown that children who witness domestic violence exhibit many of the aforementioned symptoms measured by the CBCL (Adams, 2006; Clarke et al., 2007; Evans et al., 2008; Margolin & Vickerman, 2007), the instrument is a useful screening tool that can help identify symptoms in children that have been exposed to domestic violence and help monitor the impact and progress of treatment.

The TSCC is a measure completed by the child that can help identify symptoms related to trauma exposure and posttraumatic stress. The measure is designed for individuals between the ages of 6 and 18 and consists of 54 items. The clinical scales included in the measure include anxiety, depression, anger, sexual concerns, dissociation, and posttraumatic stress. The TSCC has been demonstrated to have high reliability (mid to high 80s) for all scales with the exception of Sexual Concerns (high 60s and low 70s). The measure also accounted for two forms of validity, including under-response and hyper-response. These validity scales help to identify children who may be under or over-reporting symptoms related to trauma exposure (Briere, 1996).

The CTS is a measure completed by the parent to determine the frequency and severity of interpartner violence. A revised version of the CTS, called the CTS2, is the version that is currently used. The measure also allows for the parent to document specific acts the child was exposed to as well as the degree of the exposure (saw or heard) (Straus, 1979; Straus, Hamby, Boney-McCoy, & Sugarman 1996). Research has shown that the CTS2 demonstrates good test-retest reliability (Vega & O'Leary, 2007) as well as good cross-cultural reliability (Straus, 2004). Because severity and duration can affect the

parent's and child's overall response to the violence (Graham-Bermann et al., 2006; Spilsbury et al., 2008), this measure is useful in gathering this information.

Another important aspect of screening for domestic violence relates to the parent's overall well-being and emotional response to the violence. Measures such as the BDI and the BSI can help to identify the mother's symptoms of depression, anger, and anxiety. The BDI has been shown to have good reliability and validity (Titov et al., 2011) as well as the BSI (Derogatis, 1993). As it will be discussed later on, maternal distress and depression have been found to have an impact on how a child or adolescent in the home responds behaviorally and emotionally to the violence (Graham-Bermann et al., 2006; Jarvis et al., 2005).

Evidenced-based treatments. A variety of interventions exist for children and adolescents who have been exposed to domestic violence. As it was previously mentioned, each individual responds differently to violence exposure. Due to the differing diagnoses and symptom presentation, it is important to decide on an appropriate course of treatment that addresses the needs of each particular child or adolescent rather than assigning a treatment that pertains to the general experience of having been exposed to domestic violence. Many of the treatments for children and adolescents that have experienced a form of trauma may vary in target population by age or type of trauma. Conversely, many of the treatments focus on how each individual responds to the actual trauma, showing some generalizability for treatments for different types of trauma. Some of the trauma treatments target a younger population of children who are of preschool age, such as Child-Parent Psychotherapy (CPP) (Diaz & Lieberman, 2010) and Parent-Child Interaction Therapy (PCIT) (McNeil & Hembree-Kigin, 2011).

Some of the more commonly used evidence-based models for children and adolescents include Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), Seeking Safety, Cognitive Behavioral Intervention for Trauma in Schools (CBITS), Eye Movement Desensitization and Reprocessing (EMDR), Alternatives for Families – A Cognitive-Behavioral Therapy (AF-CBT), Real Life Heroes, Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS), and Trauma Adaptive Recovery Group Education and Training (TARGET) (Lang, Ford, & Fitzgerald, 2010). Given its prominent use in many mental health agencies in California, TF-CBT will be discussed in this section as a widely used evidence-based mental health treatment practice.

TF-CBT is an evidence-based treatment approach designed for children and adolescents who have experienced trauma. Involving a parent component, TF-CBT addresses the details of the traumatic event as well as how the child has responded to the trauma. The treatment is designed for children between the ages of 3 and 17 and includes a set structure for aiding the child to process and overcome the trauma. TF-CBT is focused on treating trauma with an understanding that traumatic events can result in affective dysregulation, behavioral problems, and cognitive problems. Rooted in traditional cognitive behavioral therapy, TF-CBT addresses these core issues related to affect, behavior, and cognition via the means of therapeutic components characterized by the acronym PRACTICE (Cohen & Mannarino, 2008).

PRACTICE involves a highly structured therapeutic process by which the therapist can assist clients with stress management and help process the traumatic experience. PRACTICE includes the following components: “Psychoeducation,

Parenting skills, Relaxation skills, Affective modulation skills, Cognitive coping skills, Trauma narrative and cognitive processing of the traumatic event(s), *In vivo* mastery of trauma reminders, Conjoint child-parent sessions, and Enhancing safety and future developmental trajectory" (Cohen & Mannarino, 2008, p. 158). Over the course of 12 to 16 sessions, the therapist guides the client through gradual exposure to the trauma and assists him or her with the development of proper coping skills (Cohen, Deblinger, Mannarino, & Steer, 2004).

The structure of the PRACTICE format for intervention is as follows. The psychoeducation component involves a general introduction to and explanation of the course of treatment, the client's diagnosis, and the treatment plan. This phase of treatment also places an emphasis on normalizing the child's response to the traumatic event and aiding in decreasing the stigma associated with having experienced the trauma and the subsequent adverse reactions that the child has experienced. The parenting component focuses on how parenting practices may have been affected by the child's trauma and also the techniques that parents can utilize to address their child's behaviors such as praise, selective attention, and reinforcing behaviors. Relaxation skills assist in addressing the physiological changes that the child may have undergone in response to the trauma. Children and adolescents are given a set of tools and a greater sense of control via the means of progressive muscle relaxation, deep breathing exercises, and a variety of mindfulness exercises such as yoga or meditation. The affective modulation skills component of TF-CBT assists children and adolescents in broadening their range of feelings and affect, which may have become restricted by the traumatic event. By playing games that focus on the identification of feelings, clients gain an increased ability to

identify feelings and improve their ability to modulate their affect. The cognitive coping skills aspect of treatment involves helping the child to recognize the connection between feelings, thoughts, and behaviors. By doing so, children and adolescents are able to determine the accuracy and usefulness of their thoughts and generate different thoughts that may be more helpful throughout the day when confronted by reminders of the trauma or feelings associated with it. The trauma narrative allows the child to cognitively process the trauma. The child is given the opportunity to tell the story of their trauma via creative means such as writing a book, song, poem, or another written narrative. The trauma narrative assists the child with the following: overcoming avoidance of the trauma, identifying the cognitive distortions that accompany the trauma, and placing the traumatic experience in a context. After the trauma narrative and cognitive processing component, the child is engaged in *in vivo* mastery of their various trauma reminders. This component, which is characterized by gradual exposure, aids children in addressing their avoidance symptoms related to the trauma and gives them the opportunity to apply some of the skills learned earlier in the TF-CBT treatment. Following the aforementioned stages of the treatment, children are now able to participate in conjoint therapy sessions with their parent or parents. This component of treatment allows them to communicate their experience of the trauma with their parents so that the channels of communication about the trauma between the child and parents can be opened. The client and parent are able to ask each other questions and an opportunity is provided so that parents can provide praise and reassurance for discussing any fears or cognitive distortions that may arise. The final component of treatment focuses on the future development and safety planning. This component of the treatment teaches a variety of safety skills to the client

pertaining to his or her traumatic experience. For example, children and adolescents exposed to domestic violence may be taught skills that assist them with calling for help or protecting themselves from violence (Cohen & Mannarino, 2008).

Numerous studies have tested the effectiveness of TF-CBT as an appropriate intervention for children and adolescents who have experienced a form of trauma (Feather & Ronan, 2009; Little, Akin-Little, & Gutierrez, 2009). In addition, several randomized controlled trials were initially conducted, ultimately allowing for TF-CBT to be officially considered an evidence-based treatment (Cohen et al., 2004; Deblinger, Mannarino, Cohen, & Steer, 2006). Many studies show conclusive evidence that TF-CBT is an effective treatment for children who have been impacted by trauma (Deblinger, Mannarino, Cohen, Runyon, & Steer, 2010). The research shows that treatment can be effective over a range of differing traumas mostly because the impact of the different traumas can affect children in similar ways, such as experiencing posttraumatic stress symptoms (Deblinger et al., 2010; Lang et al., 2010). One study conducted by Deblinger et al. (2010) studied the effectiveness of TF-CBT by changing some of the key components of the treatments such as removing the trauma narrative and altering the amount of treatment sessions. The results of the study showed that while an eight session model including the trauma narrative was the most beneficial, other versions of the treatment also proved effective in decreasing trauma-related symptoms. The results of this study speak to the effectiveness of the multiple components of TF-CBT and the individual strength that each of them carries in treating children who have been impacted by trauma.

Toward a Holistic Conceptualization of Health and Trauma-Based Practice

In recent years, the professional literature has been documenting a growing movement towards adding holistic practices that promote overall health and well-being to standard health care in general. More recently, this new trend has also begun to influence contemporary trauma-focused mental health practice. Grounded in traditional eastern healing practices, this approach to health emphasizes the importance of recognizing the interconnectedness of body and mind, conceptualizing health and illness holistically, and promoting life enhancing behaviors that lead to more balanced states of being (Emerson & Hopper, 2010; Liljegren et al., 2012; Reynolds, 2012; Spinazzola et al., 2011).

Applied to the field of mental health (and trauma more specifically), this holistic movement in health professional practice leads to a better understanding of how trauma affects the human body and how complimentary approaches to treatment can be tailored and applied to the specific biological and physiological impacts of trauma. As it was mentioned in the introductory chapter to this project, a traumatic experience has the potential to impact the peripheral nervous system. If an individual is unable to engage in the automatic fight-or-flight response, tonic immobility occurs. Tonic immobility has been discussed as being the catalyst that increases an individual's susceptibility to developing PTSD (Levine, 2010). With children and adolescents who have been exposed to domestic violence, the violence in the home can set the stage for tonic immobility given that the home is a restricted environment of which children or adolescents may feel unable to escape. In addition, a child's age may make it difficult for them to intervene and freezing may be a natural response to the violence. In response, many of the physiological affects that were mentioned earlier could occur as a result. Post-trauma,

some children may experience the arousal component of posttraumatic stress symptoms. In addition to the effects of posttraumatic stress, including the physiological effects of trauma, other consequences of domestic violence (e.g., internalizing and externalizing behaviors) may also be present. The following sections focus on discussing the usefulness of yoga as a complementary health practice for a number of medical and mental health conditions and argue for its applicability to the treatment of trauma-based symptoms in children and adolescents who have been exposed to domestic violence.

Yoga defined. Yoga is a series of movements, postures, breathing techniques, and focused attention that allow for people to create and enhance a connection to the self. Yoga provides the opportunity for individuals to become more present in their thoughts and experiences, have an increased toleration for their inner experiences, and expand a newfound connection with their body. Originating over 5,000 years ago in ancient India, the practice of yoga has been linked to meditative practices as well as spiritual and religious practices such as Hinduism, Buddhism, and Jainism. Despite yoga's early connection to religious and spiritual practices, the practice of yoga itself is vastly inclusive of diverse populations and relates strongly to a way of being rather than a particular religious belief system (Emerson & Hopper, 2010).

A variety of different types of yoga exist. The various yoga practices are rooted in the same general concept but vary in their implementation. Some of the various types of yoga practiced include *anusara*, *ashtanga*, *bikram*, *hatha*, *iyengar*, *jivamukti*, *kripalu kundalini*, *power yoga*, *prenatal*, *restorative*, *sivananda*, *viniyoga*, and *yin*. With the basic foundations of yoga including breathing and postures along with exercise and spirituality, these various forms of yoga vary in their inclusion of these foundations and provide

variety for those interested in the practice (Women's Health Magazine, 2013). Due to the variety in practices, yoga affords the opportunity for interested parties to find a method of practice that best suits their specific needs. According to Emerson and Hopper (2011), with the foundation of yoga being rooted in the "practice of self-inquiry and self-care," (p. 27) the general applicability of this practice can meet the "physical, emotional, and spiritual needs of each individual practitioner" (p. 28) rather than the practice meeting a predetermined set of needs.

A primary component of yoga is breathing, which is often referred to as *pranayama*. Regulating one's breathing has the capacity to activate the parasympathetic nervous system, which plays a key role in allowing a person's body to remain calm and be at rest (Brown & Gerbarg, 2009). These practices can be enhanced by a variety of breathing and physical techniques such as "breathing deeply into the abdomen, breathing against airway resistance, physical postures, holding the breath at different parts of the breath cycle, or breathing alternately through both nostrils, or only one nostril" (Brown & Gerbarg, 2009, p. 56). Taking control of one's breathing can allow for individuals to have a greater sense of control and self-regulation, which can ultimately combat the impact of stress, anxiety, and other issues that have an adverse reaction on a person's ability to self-regulate (Brown & Gerbarg, 2009). A hypothesis held by Brown and Gerbarg (2009) is that yoga breathing results in greater flexibility in the nervous system, which is often inhibited and restricted by mental health issues and trauma. This is consistent with the physiological explanation for the impact of trauma on the nervous system that was offered by Levine (2010) and Rothschild (2000).

Yoga's emergence and popularity. The popularity and practice of yoga is currently on the rise in the United States. As of 2008, Americans were spending 5.7 million dollars per year on yoga classes and products such as clothing, equipment, media, and vacations. Roughly 15.8 million people in the United States practice yoga (Macy, 2008). In addition, yoga is one of the 10 most commonly practiced types of complementary healthcare in this country (Barnes, Powell-Griner, McFann, & Nahin, 2004). As yoga becomes more prominent in the mainstream culture, the accessibility of the practice has increased, and its practice has become more commonplace. While yoga is practiced for reasons such as exercise, health, and overall mindfulness, it has emerged in the medical and mental health literature as a complementary treatment method for treating general medical conditions (Kuttner et al., 2006; Sathyaprabha et al., 2008; Singh et al., 2004), mental health symptoms and disorders (Brown & Gerbarg, 2005; Brown & Gerbarg, 2009; Granath et al., 2006; Katzman et al., 2012) and, more recently, trauma (Descilo et al., 2010; Spinazzola et al., 2011).

The impact of yoga on medical and mental health conditions. Several studies have documented the positive impact of yoga on medical conditions including irritable bowel syndrome (Kuttner et al., 2006), type 2 diabetes (Singh et al., 2004), chronic pancreatitis (Sareen et al., 2007), epilepsy (Sathyaprabha et al., 2008), and on various types of cancer such as lymphoma (Cohen et al., 2004) and breast cancer (Moadel et al., 2007). Findings indicate a decrease in medical symptoms (Kuttner et al., 2006; Sathyaprabha et al., 2008; Singh et al., 2004), increase in mood and decreased stress (Kuttner et al., 2006; Moadel et al., 2007; Sareen et al., 2007; Shapiro et al., 2007),

decreased sleep disturbance (Moadel et al., 2007), and increase in quality of life (Moadel et al., 2007; Sareen et al., 2007).

While the positive impact of yoga on medical conditions is well documented and widely recognized in the medical literature, the positive effects of yoga on mental health are only beginning to emerge. As explained by Salmon, Lush, Jablonksi, and Sephton (2009), this may be due to the lack of experience that mental health professionals have in the practice and instruction of yoga. An additional hypothesis proposed relates to the understanding of yoga as being health and fitness oriented rather than maintaining any pertinence to psychological treatment. Despite the limited research in the psychological arena, researchers are beginning to examine the effectiveness of yoga for treating a variety of psychological issues including anxiety (Brown & Gerbarg, 2005; Brown & Gerbarg, 2009; Katzman et al., 2012), stress (Granath et al., 2006), and depression (Brown & Gerbarg, 2005; Brown & Gerbarg, 2009; Shapiro et al., 2007).

The following studies offer a glimpse into the positive impacts that yoga can have on mental health issues and offer support for yoga as a complementary treatment method. Katzman et al. (2012) addressed the impact of yoga on adults (ages 18 to 65) diagnosed with Generalized Anxiety Disorder. The sample used for this study included 31 individuals who lacked success in previous outpatient treatments such as Cognitive Behavioral Therapy (CBT) and Mindfulness Based Stress Reduction (MBSR). After participating in 22 hours of Sudarshan Kriya Yoga classes over the span of five days, significant changes were documented as evidenced by a decrease in the anxiety levels of the participants. Measured with the Anxiety Sensitivity Index as well as the Beck Anxiety Inventory, psychological and physical symptoms of anxiety were both accounted for. The

study also measured other symptoms such as depression, in which no significant changes were noted. The researchers argued that participants' depression levels were already low when they began participation in the study, hence the lack of significant change. An overarching implication of this study relates to the benefit yoga can have on anxiety levels, specifically anxiety in individuals who showed a lack of progress in other clinical treatments for anxiety.

Granath et al. (2006) conducted a study on stress reduction by comparing the impacts of CBT and yoga on an adult sample (N=33). The authors cited research noting the differences between physiological and psychological outcomes based on the type of treatment. The measurements used in the study to monitor change included five self-report questionnaires for changes in psychological functioning (perceived stress, Type-A personality behavior, exhaustion, anger, and quality of life). Physiological measurements were used to measure noradrenaline and cortisol levels as well as changes in heart rate and blood pressure. The results of the study demonstrated that both CBT and yoga had positive impacts on stress reduction for the participants. More specifically, participants in the yoga group noted a decrease in perceived stress, behavioral stress, and noraderenaline levels.

Shapiro et al. (2007) conducted a study to measure the impact that yoga had on depression in an adult sample of 17 participants. The participants in the study included individuals with a diagnosis of unipolar major depression who were both in remission from their symptoms and also taking anti-depressant medications. Similar to the study by Granath et al. (2006), psychological and physiological variables were acknowledged, and measures were administered both before and after the completion of 20 yoga classes.

Some of the instruments measuring the participants' change in mood were administered after every class to provide a more in depth understanding of how quickly yoga began affecting the participants' moods. Mood was broken apart into three categories: positive, negative, and energy/arousal. Positive moods included happy, relaxed, optimistic, confident, and content. Negative moods included stressed, sad, frustrated, irritated, depressed, anxious, blue, and pessimistic. Items related to energy/arousal included attentive, fatigued, alert, tried, energetic, and sleepy. The results demonstrated an increase in all positive moods, a decrease in all negative moods, changes in energy and arousal related to increased attentiveness and energy, and decreased feelings of fatigue and sleepiness. Overall, the study demonstrated that participating in yoga classes decreased symptoms of depression. The benefit of measuring other positive and negative attributes of mood and behavior also allowed for the results to show how yoga can decrease other symptoms such as anxiety, anger, and neurotic symptoms. The implications of this study speak to the effectiveness of yoga in treating depression, the effectiveness of coupling yoga and anti-depressant medication, and further evidence that the benefits of practicing yoga can yield positive results of both a psychological and physiological nature.

Yoga with children and adolescents. Yoga research has focused predominately on examining its benefits with adult populations for improving both medical and psychological well-being, but research on children and adolescents is also beginning to emerge. Some of these studies have documented the positive effects of yoga on various aspects of a child's functioning such as attention (Pradham & Nagendra, 2010), the relationships between stress and academic performance (Kauts & Sharma, 2009), deviant

behaviors (Kannappan & Bai, 2008), and overall well-being (Berger et al., 2009). These studies highlight the emergence of popularity of yoga with children and adolescents as well as implementing yoga as a means of addressing a variety of challenges and issues.

Berger et al. (2009) studied the effects of yoga on well-being on a population of children from the inner city. The sample was comprised of 72 fourth- and fifth-grade students with mean age of 10.3 years. The students were evenly split into two separate after-school programs, both of which had a physical activity component. The experimental group included yoga as part of its physical activities, and the control group included physical activities that did not include yoga. The experimental group participated in one hour of yoga per week for 12 weeks. Children in the sample did not come from a clinical population with specific mental health issues or challenges. The researchers looked for changes in various aspects of emotional well-being, self-perception, self-worth, and perception of physical health. The results of the study indicated overall improvement with the group of children who participated in the yoga classes. While no statistically significant differences were found in regards to global self-worth or physical appearance, children from the experimental group reported decreased negative behaviors, higher reports of balancing skills, and increased well-being. Increased well-being was characterized by increases in physical well-being, self-perception, and self-regulation. The implications of the study suggest that yoga can prove useful as both a protective and preventative tool in regards to the physical and emotional well-being of children.

Another study sampled a healthy group of students from a school in India but focused on how yoga impacted attention (Pradhan & Nagendra, 2010). Pradhan and

Nagendra (2010) used a slightly older group of children (13 to 16 year olds; 132 boys and 76 girls) and a larger sample size (N=208), ultimately comparing the impact of two yoga-based techniques including cyclic meditation (CM) and supine rest (SR). CM included repeating verses from a yoga text, a series of relaxation techniques, yoga postures, and SR. SR involved the participants lying down in "corpse pose" for the entire duration of the exercise. Both techniques were administered only once during each session with a duration of 22 minutes and 30 seconds. The first group participated in CM on one day and SR on the following day. The second group participated in the SR group first and then in the CM group on the following day. Attention was measured by a cancellation task requiring the participants to cancel out six target letters from a section of 22 columns and 14 rows consisting of randomly arranged letters from the alphabet. In addition to measuring sustained attention, the cancellation task measured concentration, activation, visual scanning, and inhibition of rapid responses. The results of the study showed that both CM and SR had a positive impact on participants' attention with those in the CM group demonstrating greater improvement. These results demonstrated the power of yoga, even in the simplicity of SR. In addition, this study shows the impact of yoga on attention in children and also differentiates the varied impact of different yoga techniques with the more diverse techniques having a greater impact on levels of attention in children.

Kauts and Sharma (2009) examined the relationship between stress and academic performance and the effects of yoga on both variables. The study included 800 adolescent students, whom were assigned to either an experimental group or a control group. The adolescents in the experimental group participated in one hour of daily yoga exercises for

a duration of seven weeks. The yoga exercises included a series of postures, controlled breathing, meditation, and prayer. The Bisht Battery of Stress Scale was used to measure stress levels, which included academic as well as achievement stress. The results led to two important findings. First, high stress levels were associated with lower academic performance. Second, participation in yoga had a positive impact on academic performance and related to a decrease in stress levels. The findings of this study suggest that the implementation of yoga has an overall positive impact on both stress and academic performance, which were found to be inversely correlated to each other.

A study conducted by Kannappan and Bai (2008) assessed the impact of yoga on deviant behaviors with a school sample of 120 adolescent boys. The study included two experimental groups (Yoga-Cognitive Training and Human Relationship Training), both with a Parent Management Training component, and a control group that received no interventions. The experimental groups included 50-minute sessions occurring twice per week over the course of one year. The Yoga-Cognitive Training group promoted abstinence from antisocial behaviors, self-discipline, and also taught postures, controlled breathing, fixed attention, and meditation. It also included a cognitive aspect addressing change in the participants' attitudes, beliefs, and past experiences. The Human Relationship Training was characterized by developing good rapport, acknowledgment of strengths, good friendship, communication, feedback, helping behaviors, and the subjective interpretation of events. Both experimental groups integrated a parenting component, which involved behavioral counseling, problem solving, reinforcement, and study skills. The maladjustment and antisocial behaviors of the boys were measured with the Behavior Deviance Checklist, the Maladjustment Inventory, and the Antisocial

Behavior Scale. These measures assessed for social norm-breaking behaviors, various types of adjustment (emotional, physical, education, and sexual), and other behaviors including theft, lying, truancy aggressive acts, and running away from home. The results of the study indicated that the participation in both experimental groups resulted in a decrease in deviant behaviors whereas the control was characterized by a lack of change. Both experimental groups offered a similar improvement in antisocial behaviors, this change also remaining consistent over time based on follow-up assessments. The implications of this study speak to the effectiveness of yoga as a tool for decreasing aggressive and deviant behaviors in adolescent boys. The equal effectiveness that the yoga group had to the second experimental group shows that yoga can be equally effective. This supports an equal consideration for yoga as an intervention for deviant behaviors in adolescents as well as a general consideration for this as an alternative intervention or treatment method.

When reviewing these studies as a whole, several implications exist that support the use of yoga as an intervention with children and adolescents. First, it is important to note the applicability of yoga as an intervention for children and adolescents. The ages of the children in the studies included school-aged children and adolescents. In addition, all of the studies, with one exception, included both boys and girls. Second, the aforementioned studies implemented yoga as an intervention to address a variety of concerns, including stress and academic performance, deviant behaviors, attention, and overall well-being. Due to the progress shown in these studies, yoga appears to demonstrate a great benefit in a variety of capacities. Third, the implementation of yoga varied in frequency and duration. The frequencies included a one-time implementation,

daily, one time per week, and twice per week. The various durations included a one-time implementation, seven weeks, 12 weeks, and a full year. What can be derived from the information on frequency and duration is the effectiveness of yoga in many capacities. No matter the duration, all of these studies indicated that yoga is beneficial. Fourth, one of the studies even compared two separate yoga-based techniques. While the results indicated that the technique with more components had a stronger impact, these results still showed a benefit for both interventions. Lastly, the populations in the studies varied in their mental health presentation. Some included a population with mental health concerns while others included a sample of children lacking mental health concerns. This speaks to the general applicability of yoga as a practice that can be used with both populations. The takeaway point from these studies is that they offer strong support for the implementation of yoga with children and adolescents and the potential benefits they can have on a variety of issues.

The impact of yoga on trauma based symptoms. Yoga is beginning to emerge also as a practice associated with the treatment of trauma. Currently, the implementation of meditation and other mindfulness techniques dominate this field of study, but yoga principles overlap with those of mindfulness. Therefore, yoga is beginning to be considered as a promising trauma intervention by trauma researchers and clinicians. One study examined the effects of yoga as a complementary intervention for treating PTSD and depression in survivors of a tsunami that occurred in South-East Asia in 2004 (Descilo et al., 2010). The study included a total of 183 survivors between the ages of 18 and 65 with women comprising 87 percent of this sample. The focus of the study was to test the effectiveness of a specific yoga intervention (Breath, Water, Sound) with and

without the accompaniment of an exposure intervention (Traumatic Incident Reduction) and subsequently compare both of these experimental groups to a wait-list control group. The yoga intervention incorporated several techniques that included controlled breathing, arm movements, and breathing at different rates (e.g., slow, medium, and fast). The yoga intervention also included a group discussion with the purpose of stress reduction and allowing the participants to talk about their experiences. Participants were also instructed to practice breathing techniques for 20 minutes each day. The exposure intervention, which was administered three to seven days after the yoga intervention, included recollection of trauma, associated events, and flooding of traumatic event as if it were being re-experienced. All interventions were administered in a group format. The study targeted the survivors' symptoms of PTSD, depression, and quality of life, which were measured with the Posttraumatic Stress Disorder Checklist (PCL-17), The Beck Depression Inventory (BDI-21), and The General Health Questionnaire (GHQ-12).

Both experimental groups showed a significant difference from the control group in regards to symptoms of PTSD, depression, and quality of life. Both experimental groups noted a 90 percent decrease in symptoms on the BDI-21, a 60 percent decrease in symptoms on the PCL-17, and a better quality of life as measured by the GHQ-12. The study noted the effectiveness of the yoga intervention with and without the exposure intervention in areas related to PTSD, depression, and quality of life. The researchers also spoke to the impracticality of one-on-one interventions when considering treatment for a large group of individuals impacted by a common trauma, such as a natural disaster. In addition, the researchers considered the difference that could be made if this study was conducted in a country or culture where yoga is less widely accepted and practiced

(Descilo et al., 2010). When reviewing the results of the study, the participants demonstrated improvement in all three measured areas of functioning. Because yoga was implemented as an intervention with and without the support of the exposure intervention, the results of this study demonstrate the effectiveness of treating trauma with yoga, no matter whether it is used as a primary or complementary intervention.

In a consultation with D. Emerson (personal communication, August 21, 2012), he mentioned that he is participating in a study examining the effectiveness of yoga as a complementary intervention for women (ages 18 to 58) diagnosed with chronic PTSD (Stone et al., 2011). While the study has yet to be published and the statistical significance of the results has yet to be determined, this study demonstrates the positive impact of yoga on trauma and a shift towards the use of complementary practices for treating trauma. Regarding the study, some of the primary criteria for inclusion were that the participants had to be in psychotherapy, for at least three years, and be deemed as having treatment-unresponsive PTSD. Two experimental groups comprised the study, one of which included trauma-informed yoga as a weekly intervention for 10 weeks. The other group involved participants attending an Attentional Control group, which included the implementation of a women's health education class. The results were measured with the Clinician Administered PTSD Scale (CAPS), the Davidson Trauma Scale (DTS), the Beck Depression Inventory (BDI-II), the Dissociative Experiences Scale (DES), the Inventory of Altered Self-Capacities (IAS), and Heart Rate Variability (HRV). The only results currently reported from this study relate to the CAPS and the DES, the latter of which yielded no significant results. The results, as indicated by the changes in participants' CAPS score pre- and post-treatment, demonstrate a strong support for the

effectiveness of yoga as a complementary treatment method for reducing symptoms of PTSD in adult women with treatment-unresponsive PTSD.

The results of the CAPS yielded a 33 percent decrease in trauma-related symptoms compared to the 17 percent decrease in symptoms for participants in the control group. In addition, the CAPS noted that 52 percent of the participants in the yoga group no longer had symptoms that met criteria for PTSD in comparison to the 21 percent accounted for by the control group (Stone et al., 2011). Emerging research considering yoga as a treatment method for trauma in adults sets the stage of its consideration as a potentially equally effective treatment method in children. If the results of the Stone et al. (2011) study are confirmed, the results would be consistent with the positive results found in other studies such as the study mentioned earlier on the treatment of Generalized Anxiety Disorder, where yoga provided symptom reduction in individuals who had been unresponsive to mental health treatment (Katzman et al., 2012).

Using yoga as a complementary trauma treatment for children and adolescents. Emerging research regarding the impact of yoga on children and youth with a history of trauma has focused primarily on traumatic experiences that simultaneously affected large groups of people such as natural disasters (Descilo et al., 2010). Although the literature on the use of yoga as a complementary treatment method for treating trauma in children is scarce, there are a few articles that address the benefits of yoga for this clinical population.

An article that addressed the impact of yoga on traumatized youth whose traumas were of a more ongoing nature (such as abuse, neglect, having an impaired caregiver, and exposure to community or domestic violence) discussed the implementation of a yoga

protocol in a residential setting for youth (ages 12 to 21 years) who had experienced ongoing trauma (Spinazzola et al., 2011). Like other authors, the authors of this article mentioned the gap in research as it pertains to overlooking the impact of somatic and physiological responses to trauma. They stated the following:

> The impetus for the establishment of the Trauma Center Yoga Program stems directly from this conceptual vantage on the somatic imprint and often enduring effects of trauma exposure, guided by the hypothesis and rationale that yoga might provide a gentle, incremental mechanism to facilitate traumatized individuals' cultivation of safe, healthy relationship with their bodies as part of their overall mind–body healing process (Spinazzola et al., 2011, p. 434).

Because many co-morbid diagnoses can be present in individuals who have experienced trauma, oftentimes the traumatic experience and its consequences may be overlooked, thus leading to a misdiagnosis and inadequate treatment planning and interventions. This high co-morbidity rate speaks to the necessity for proper clinical assessment and identification of trauma for both clinician and client. As a result, appropriate treatment strategies can be implemented and initial psychoeducation can be provided so that traumatized individuals can develop an increased understanding and connection between their past experiences and their current state of being. Regarding the particular experience of these authors with their work in a residential treatment center, an example of an inappropriate and counterintuitive intervention was the implementation of physical restraint with individuals with a history of trauma. Physical restraint is an intervention that could trigger traumatic stress in a traumatized individual, a behavioral response by the individual that could be misperceived as resistance or oppositional behavior.

Spinazzola et al. (2011) acknowledged the positive impact found with other mindfulness techniques such as progressive muscle relaxation, meditation, deep breathing, EMDR, and movement interventions. The authors' support for yoga relates to the integrative nature of the practice and its use of many of the aforementioned elements. Some of the benefits of yoga as stated in the article relate to the sense of safety offered by yoga, which address the overwhelming sensation that an individual with a history of trauma may experience. More specifically, trauma-sensitive yoga, the details of which will be discussed later, affords individuals a choice and a sense of control, ultimately allowing for them to become increasingly mindful of their bodily sensations and regulate them accordingly. It is for this reason that providing psychoeducation on the somatic and physiological responses to trauma is crucial. With this psychoeducation, a better understanding of how trauma affects the body can afford a better understanding of the purpose of yoga and how it can assist an individual in reclaiming one's body after trauma.

Spinazzola et al. (2011) further argued that yoga also allows for differentiation between pleasurable and painful experiences, which is less the custom in an American culture that emphasizes pushing one's body to its physical limits and encouraging immediate results and rapid progress. The authors' built a solid rationale for the use of yoga as a trauma intervention with children and youth based on a literature review and a discussion of several case vignettes. They also pointed towards the need for more empirical studies that can provide further support for the use of yoga for the treatment of trauma symptoms in clinical settings with children and youth, particularly those related to physiological arousal.

Despite limited empirical support, mental health and yoga professionals are currently using yoga as a complementary treatment method for individuals with a history of trauma. During field consultation for this project, consultants spoke to some of the benefits of the practice, which they stated could be helpful with adults as well as children and adolescents. Some of the benefits include increasing the ability to remain present (M. Pascuzzi, personal communication, August 7, 2012; L. Ross, personal communication, August 20, 2012), bridging the mind and body (Khouri, personal communication, August 15, 2012; M. Pascuzzi, personal communication, August 7, 2012), developing an increased ability to tolerate uncomfortable sensations in the body (H. Khouri, personal communication, August 15, 2012), decreasing impulsive and aggressive behaviors (H. Khouri, personal communication, August 15, 2012; L. Ross, personal communication, August 20, 2012), and using an understanding of the biological and physiological effects of trauma for the purposes of psychoeducation and treatment interventions (S. Dahlgren, July 10, 2012; H. Khouri, personal communication, August 15, 2012; M. Pascuzzi, personal communication, August 7, 2012; L. Ross, personal communication, August 20, 2012).

Yoga as a treatment intervention for children and adolescents exposed to domestic violence. Clinical research as it pertains to the impact of yoga on children and adolescents who have been exposed to domestic violence (as a specific type of trauma) is lacking. Yoga has been included as a relaxation technique in the evidence-based treatment known as Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), which targets children who experienced trauma, including those who have been exposed to domestic violence (Cohen & Mannarino, 2008). While research has demonstrated the

effectiveness of this treatment approach (Cohen & Mannarino, 2008), TF-CBT includes a wealth of other intervention strategies. TF-CBT in its entirety is most commonly studied for overall effectiveness rather than individual components such as yoga being studied separately. As clinicians push forth to increase their repertoire of interventions and options for treatment, evidence has been cited in support of yoga as a complementary practice in health care. As discussed in previous sections, the positive impact of yoga has been shown to apply to a variety of general medical conditions, a vast number of mental health symptoms and diagnoses, and a variety of symptoms and issues in children, adolescents, and adults. The overwhelming positive impact of yoga and its benefits is evident in the health care literature and is specifically emerging in previously under-researched areas such as trauma-based care.

As mentioned earlier, internalizing symptoms that can result from exposure to domestic violence include depression, anxiety, a tendency to worry (Evans et al., 2008), sleep disturbance, physical complaints, crying, and clinging (Adams, 2006). Externalizing behaviors may include increased aggressive behavior such as hitting, fighting, and suicidal behavior (Adams, 2006). Additional consequences of domestic violence exposure include symptoms of PTSD (Clarke et al., 2007; El-Sheikh et al., 2008; Graham-Bermann et al., 2006; Jarvis et al., 2005; Meltzer et al., 2009), as well as academic and cognitive difficulties (Adams, 2006; Blackburn, 2008). While yoga research is lacking in regards to domestic violence specifically, there seems to be enough support in the literature for yoga as a complementary treatment intervention for a number of these symptoms associated with domestic violence exposure.

Trauma-sensitive yoga. While different techniques have been used to aid individuals with a variety of problems and issues, recommendations have been made to assist practitioners in making the implementation of yoga especially sensitive to individuals with a history of trauma (Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry, & Turner, 2009). Trauma-sensitive yoga brings with it an understanding that the bodies of people who have experienced trauma respond differently to different postures and movements. Some of the goals of trauma-sensitive yoga include "creating present-moment focus, developing mindfulness skills, building curiosity and developing tolerance for experiencing sensation, changing one's relationship to one's body, centering, grounding, building affect-regulation skills, practicing choice, integrating aspects of experience, increasing confidence, and building connection to others" (Emerson & Hopper, 2011, p. 95). These goals are reminiscent of the conceptualization that Levine (2010) offers regarding a person's natural biological reaction to a traumatic experience.

Much of what yoga focuses on is mindfulness and the person being present in the here and now. An advantage of yoga over meditation or mindfulness-based practices lacking a yoga component is that yoga offers a strong physical training component (e.g., postures and stretching), which helps participants become more attuned to their physical sensations and stay connected to their bodies. For those individuals with traumatic experiences, re-experiencing can take the form of flashbacks, nightmares, and intrusive thoughts. All of those types of re-experiencing disconnect the person from the present, causing them to re-live the past and fear the future. Movement and breathing are at the foundation of yoga, and these techniques help to center the person and bring them to the

present. For someone who has experienced trauma, the traumatic experience is oftentimes the center of the person's life. In essence, the center of the person's life should be at his or her center or core of the body. With an externalized center that ultimately becomes focused on the traumatic event, the person feels shaky and off-balanced. Certain yoga poses such as the tree pose, which focuses on balancing, helps the person to reconnect with their own center rather than revolving their experiences around a traumatic or externalized center (Emerson & Hopper, 2011).

Yoga also focuses on skills for affect regulation. The idea behind this is that movement and posture relate to an individual's mood and energy. Usefulness can be found in educating the individual on this bodily connection, incorporating movement and changes in posture during sessions, and helping clients make note of any impact that this may have on their mood or energy. As mentioned earlier, breathing is a core component of yoga. Not only can breathing assist a person in becoming more mindful of the present, but it can also help regulate a person's arousal. Increasing the rate of breathing can help to increase a person's energy, and decreasing the rate of breathing can be used to calm the person (Emerson & Hopper, 2011).

A final aspect of yoga that can be useful for trauma victims is the connection that movement and breath has with making a person feel fully connected to their body. Traumatic experiences can cause a person to feel disconnected from regular experiences due to the overwhelming focus on the trauma and its effects. The disjointed feeling, also lacking in coherence, can be remedied by the simultaneous acts of movement and breathing that yoga offers (Emerson & Hopper, 2011).

Emerson and Hopper (2011) acknowledge that trauma impacts individuals in different ways and thus goals for treatment vary from person to person. For a person who feels rigid, frozen, or who internalizes experiences, letting go can be a useful goal. With yoga, this goal can be accomplished via a position called the forward fold. For a person who feels anxiety, muscle tension, or panic, decreasing hyperarousal is a goal that can ultimately be met by doing neck rolls and deep belly breathing. By aligning specific yoga-based strategies with a specific challenge that matches a specific goal, yoga can be a useful intervention in which individuals who have experienced trauma can reconnect with their bodies and become more mindful of their inner and outer bodily sensations and experiences.

Emerson et al. (2009) described the emergence of trauma-sensitive yoga as well as the principles, practice, and research supporting it. A primary reason for implementing yoga relates to the high resistance to treatment with individuals impacted by trauma who display symptoms of PTSD. Avoidance, being one of the symptoms PTSD, can prevent these individuals from being connected with appropriate treatments to address their mental health issues. The authors offer several areas of consideration when instructing trauma-sensitive yoga: “environment, exercises, teacher qualities, assists, and language” (Emerson et al., 2009, p. 125). First, it can be helpful for the yoga instructors to provide a setting that is welcoming, free from distractions and public exposure (e.g., covering exposed windows), and maintain appropriate lighting. Second, classes can begin with warm-up exercises and a tone of safety should be implemented. The choice of postures should be varied due to the diversity of class members (e.g., war veterans versus victims of abuse). The element of choice is a prominent theme in the exercises, and class

members should always be given the freedom to participate only when they feel comfortable. Third, the qualities of an effective trauma-sensitive yoga instructor include someone who is positive, engaged, present, welcoming, and approachable. The instructor should also display competency with the material, be open to feedback from students, and display flexibility if current approaches are proving unsuccessful. In addition, it is beneficial for the instructor to dress appropriately, maintain a stable position throughout class to minimize surprises, move at a slower pace, and be present as students arrive to be able to greet them. Fourth, it is crucial for instructors to assist students verbally rather than physically. A physical assist may invoke discomfort as a result of a person's trauma history, and, while physical assists can offer therapeutic value, they should be reserved for students who have been enrolled long-term. Verbal assists as a primary form of assistance can demonstrate respect for boundaries as well as a nurturing form of attention. Fifth, the language used by the yoga instructor is beneficial to promote engagement. It is important that students be invited to try certain poses and exercises rather than commanded, and it is helpful for instructions to be rooted in openness rather than by trying to invoke compliance. The "invitatory language" developed by the authors works towards one of the primary goals of trauma-sensitive yoga: allowing for trauma survivors to "develop a friendly relationship with their bodies" (Emerson & Hopper, 2011, p. 127).

General conclusions regarding yoga as a complementary practice. After a review of the research as it pertains to the effectiveness of yoga as a clinical intervention, suggestions were made in support of this practice as a treatment method for children and adolescents exposed to domestic violence. As the research has been addressing the impact of yoga on a number of issues, many of these issues mirror the consequences that

children and adolescents face as a result of exposure to domestic violence. The research mentioned offered numerous implications regarding the use of yoga as a complementary practice. First, a thorough initial assessment of symptoms, both psychological and physiological, can help determine the most appropriate treatment strategy. Second, numerous studies noted the equal or superior effectiveness of yoga as an intervention. The implication relates to a broader choice of treatments for individuals seeking mental health treatment and being able to choose a treatment that best suits their symptomatic needs as well as their personal ones. Third, the implementation of yoga has yielded some positive results for individuals who have shown a lack of success in traditional mental health treatments. In turn, in addition to yoga being considered a complementary intervention, it can also be used in response to other unsuccessful treatments. Fourth, while yoga has a spiritual foundation to it, the wide variety of yoga practices that differ in implementation can afford individuals from diverse backgrounds the opportunity to practice a type of yoga that is not in conflict with their core belief system.

CHAPTER III

Methodology

The methodology of this project was comprised of five main undertakings: literature review, field consultation, presentation development, presentation delivery, and presentation evaluation.

Literature Review

The literature review was conducted by searching for articles through the library research database at Alliant International University. The research included the following databases: Academic Search Premier, Alt Healthwatch, EBSCOhost, Google Scholar, Heath and Psychosocial Instruments, Health Source: Nursing/Academic Edition, MEDLINE with Full Text, and SocINDEX with Full Text. For articles that were unavailable in full text, a search was conducted through the "List of Online Journals" search engine where journal articles with full text could be located by searching for the journals in which they were published. The reference section of various articles was used to locate additional articles with information related to the topic of this project. In addition, suggestions for books and articles were provided by mental health and yoga professionals.

Field Consultation

Interviews were conducted with five field consultants in order to obtain further information on best practices for children and adolescents exposed to domestic violence, the use of yoga as a complementary treatment method for treating trauma, and the process of developing a practice, curriculum, and/or treatment team for incorporating yoga as a complementary treatment method for treating trauma. The field consultants

were comprised of mental health professionals with masters and doctorate degrees, yoga instructors working with individuals who have been impacted by trauma, authors specializing in the use of yoga as a complementary treatment method for treating trauma, and mental health professionals certified to teach yoga in their mental health practice.

Selection and interview of field consultants. The field consultants were located through professional networking, personal contacts in the mental health field, contacts made through the academic consultant, and professionals with information listed on their website. Contact with potential consultants was made via electronic mail or telephone. They were given information about this doctoral project, the role of a field consultant, options for conducting the field consultation, and a list of the questions that would be used during the interview. Those who decided to participate in this project were asked to sign a consent form acknowledging their awareness that they were participating as consultants and not as research subjects (see Appendix B). A total of five individuals agreed to participate in the field consultation and respond to a total of 9 questions (see Appendix C). Interviews were scheduled based on the availability and location of the field consultants and were conducted in person or via telephone. The questions were made available to the field consultants prior to the interview to ensure comprehensive responses. The purpose of the interviews was to address the gaps in the literature and have a better understanding of how yoga can be incorporated into clinical practice as a complementary approach for treating trauma given that literature is scarce. The information gathered during the interviews was integrated briefly into Chapter 2 of this project and discussed comprehensively in Chapter 4. The information was also used to

develop a presentation that was delivered to mental health professionals as a practical application of this doctoral project.

Characteristics of field consultants. Leslie Ross, Psy.D., is a licensed clinical psychologist who specializes in child trauma. Working in a supervisory role at community-based mental health organization in the Los Angeles area, Dr. Ross co-authored a curriculum for domestic violence and has aided in the planning and implementation of domestic violence treatment. David Emerson, Experienced-Registered Yoga Teacher (E-RYT), is a researcher, practitioner, and originator of "trauma-sensitive yoga." Mr. Emerson works at the Trauma Center, which is affiliated with the Justice Resource Institute in Brookline, Massachusetts. He works as part of a collaborative team in the research and practice of the positive effects of yoga on trauma. Hala Khouri, M.A. E-RYT, is an individual practitioner and registered yoga teacher who specializes in treating adolescents and adults with histories of trauma. Marianna Pascuzzi, M.A., M.A., MFTI (Marriage and Family Therapy Intern), CYT (Certified Yoga Teacher), is a marriage and family therapist who has provided therapy to children with a history of domestic violence exposure and other traumas. She is also a certified yoga instructor who has incorporated this complementary approach into individual and group treatment with children. Sherisa Dahlgren, LMFT (Licensed Marriage and Family Therapist), has been working with children and adults who have been impacted by trauma, including exposure to domestic violence, for almost a decade. She also has extensive knowledge in somatic therapies such as yoga, mindfulness, breathing, and movement, which she has experience implementing with children and adolescents with the purpose of strengthening coping skills.

Presentation Development

The material included in the professional presentation was a culmination of information collected through a thorough literature review and information made available from the field consultation. The presentation included (a) definitions of domestic violence and domestic violence exposure, (b) the numerous consequences of being exposed to domestic violence, and (c) the benefits of yoga when treating the emotional, behavioral, psychological, biological, and physiological consequences of domestic violence exposure in children and adolescents.

Presentation Delivery

The presentation was delivered by this author to a group of mental health professionals at The Village Family Services. The overarching goal of the presentation was to increase awareness of the emotional, behavioral, psychological, biological, and physiological consequences of domestic violence exposure on children and adolescents and offer a rationale for yoga as a complementary treatment method. The information was disseminated via a professional presentation in PowerPoint format (Appendix E), which lasted approximately one hour.

Presentation Evaluation

The evaluation of this final project was obtained via the means of a questionnaire distributed to the mental health professionals who attended the presentation. The doctoral institution in which this author is currently enrolled assisted in the development of the questionnaire (Appendix D). The questions addressed the relevance of the information, effectiveness and clarity of the presenter, usefulness and clarity of the presentation, and the degree to which the content of the presentation reflected the goals of the project. The

project supervisor and academic consultant provided guidance, recommendations, and official approval of the author's topic, the completed doctoral project manuscript, and the professional presentation outline and slides. A complete evaluation will be principally based in how accurately the author was able to address the stated objectives of the doctoral project.

CHAPTER IV

Results

This chapter includes a description of all aspects involved in field consultation, as well as product development, delivery and evaluation.

Field Consultation

Selection and interview of field consultants. Contact with field consultants was initiated through professional and personal contacts in Los Angeles and Boston. They were invited to participate in this project because of their professional experiences treating individuals with a history of trauma (including domestic violence) and incorporating complementary treatment methods such as yoga into their clinical practice. The field consultants varied in their educational training. Some were trained as mental health professionals, others were registered yoga instructors, and others were familiar with the integration of yoga and other complementary treatment methods into mental health treatment. The consultants were initially contacted via electronic mail or telephone. All consultants were interviewed in person with the exception of one who was interviewed by telephone due to his residence outside of the state of California. All field consultants gave permission to have their interviews tape-recorded and to be cited in the final document.

Characteristics of field consultants. Leslie Ross, Psy.D., is a licensed clinical psychologist and currently the Vice President of the Leadership Center at Children's Institute, Inc., a non-profit mental health organization based in Los Angeles, California, that is dedicated to serving at-risk children, youth, and families who have been impacted by violence and trauma. Dr. Ross has over 15 years of experience in research, clinical

services, and training in psychological trauma. She has extensive knowledge of complementary healing practices such as yoga and mindfulness as well as their clinical application for treating trauma and other mental health conditions. Dr. Ross is also the co-author of *Responding to Domestic Violence: The Whole Person Approach*, a group treatment model for adult victims of domestic violence and their children.

David Emerson, E-RYT, is the Director of Yoga Services for the Trauma Center at Justice Resource Institute in Brookline, Massachusetts. Mr. Emerson began his career as a social worker, having gained experienced working with youth with behavioral difficulties and histories of trauma. He has been practicing Tai Chi and yoga for the past 15 years. In 2002, Mr. Emerson founded the Black Lotus Yoga Project, Inc., a non-profit organization designed to teach yoga to people with PTSD. In 2003, Mr. Emerson began collaborating with Bessel van der Kolk, M.D., on his research and practice of using yoga to treat PTSD. Dr. van der Kolk is a renowned researcher and has been an active clinician and educator in the realm of posttraumatic stress since the 1970s. Mr. Emerson is also the co-author of *Overcoming Trauma Through Yoga: Reclaiming Your Body*.

Hala Khouri, M.A., E-RYT, is an individual practitioner who integrates components of psychology, yoga, and somatic experiencing to treat individuals with a history of trauma. Having been a fitness instructor for over 20 years, Ms. Khouri also received her Masters in Counseling Psychology in 2004. In 2006, she completed a three-year training program in Somatic Experiencing, a body-awareness approach to treating trauma. Since 2004, Ms. Khouri has been treating individuals with a history of trauma in a private practice setting. She has taught yoga in a variety of settings including juvenile detention centers, mental health hospitals, police stations, yoga studios, and conference

halls. She has also released a DVD titled *Yoga for Stress Reduction: Simple Techniques to Manage and Release Stress*.

Mariana Pascuzzi, M.A., M.A., MFTI, CYT, a body-centered child and family therapist specializing in childhood trauma and domestic violence, has been working in the field of mental health for over 20 years. In addition to being a certified yoga teacher, Ms. Pascuzzi holds distinct Masters degrees in both Psychology and Dance and practices psychology as a Marriage and Family Therapy intern. She also has experience teaching creative dance workshops in inpatient settings in Central and South America. For the past 13 years, Ms. Pascuzzi has been working as a child and family therapist working with the Latino community and specializing in child abuse and trauma. She is currently a body-centered interventions consultant for the Leadership Center at Children's Institute, Inc., where she coordinates and supervises the domestic violence trainings.

Sherisa Dahlgren, LMFT, is a licensed marriage and family therapist and the Vice President of Clinical Programs for Joyful Heart Foundation. Joyful Heart Foundation is an organization based in Los Angeles, California, that serves individuals with issues related to sexual assault, domestic violence, and child abuse. For the past decade as a licensed marriage and family therapist, Ms. Dahlgren has integrated elements of somatic therapies such as yoga, breathing, mindfulness, and movement into her work with young children and adults who have been impacted by trauma.

Field Consultant Responses

Question 1. For the first question, field consultants were asked to describe their experiences utilizing yoga as a complementary treatment modality for mental health problems with individuals with a history of trauma. Three of the field consultants have

current or past experience directly providing yoga as a complementary practice for treating trauma. The other two field consultants have a strong background in yoga practice and principles and provide overarching support for programs that integrate aspects of mindfulness, meditation, and yoga to treat individuals with histories of trauma. Two of the three consultants with direct service experience have worked only with adults and adolescents, whereas the third consultant has experience working with children as young as three years old. Mr. Emerson and Dr. Ross both have experience in treating PTSD and spoke to the different treatment approaches required when treating individuals with Complex Trauma and PTSD. Dr. Ross, Mr. Emerson, Ms. Pascuzzi, and Ms. Dahlgren have experience working primarily under the umbrella of an organizational structure, whereas Ms. Khouri has predominantly operated out of a private practice. More specifically, the personal experiences of each of the field consultants are as follows.

Dr. Ross assisted in the development of a domestic violence curriculum for Children's Institute, Inc., the development of which began in 2005 and was a collaborative effort between Children's Institute, Inc. and a non-profit consulting organization called A Thousand Joys. The goal was to integrate aspects of movement, mindfulness, and meditation, address the impact of trauma on the nervous system, implement coping skills that can be used to address these neurobiological effects, help individuals develop skills that help with the identification of trauma inputs, and help to increase resilience. Mr. Emerson stated that he has been using Hatha yoga to treat severe Complex Trauma and PTSD for approximately the past 10 years. Ms. Khouri, operating via a private practice model, has integrated elements of yoga, trauma-sensitive language, and somatic experiencing, ultimately allowing individuals with histories of trauma to

better understand how to discharge energy in their body that was stored during their traumatic experience. Ms. Pascuzzi's experiences include teaching yoga as part of an after-school program to children who were clients of Children's Institute, Inc. She explained that she primarily served children who had Attention-Deficit Hyperactivity Disorder, anxiety, trauma, histories of abuse or neglect, and children who had been removed from their home. Shortly after, Ms. Pascuzzi participated in implementing a treatment model at a domestic violence shelter in a group format, which held a collaborative relationship with CII. A majority of the children in the groups had been physically or emotionally abused, victims of neglect, and exposed to violence in and out of the home. Shortly after, the yoga treatment model became integrated into the domestic violence curriculum used by CII. Having worked under the supervision of Dr. Ross, Ms. Pascuzzi had the opportunity to implement treatment that was based on using yoga as a resilience building model to help children with a history of trauma. She mentioned that their goal was to help these children develop useful coping skills that could be used in the classroom setting, home, or other locations. She attributes the success of the treatment group due to its mixture of mental health, coping skills, yoga, and somatic strategies. She felt as though it was a great way to engage children and include the body as part of the focus of treatment. She shared that the children received this treatment in conjunction with individual therapy.

Ms. Dahlgren has had the unique opportunity to provide mental health support on a 5-day retreat model for women who were victims of sexual assault. On the retreats, they would begin each day with yoga and weave in other practices such as deep breathing, creative movement, dance, creative expression through theater games, the creative arts,

and swimming with dolphins. Ms. Dahlgren also shared that her role was to be available and present for the women in order to provide emotional support if needed. She explained that she approaches clients before their activities and asks them what they would like her role to be if an overwhelming emotional experience should occur. She is invested in and supports the shift from treating sick people to a perception of overall internal health that highlights the adaptive and resilient qualities of people. Compared to her previous work at a domestic violence shelter, Ms. Dahlgren mentioned that she felt like she saw more progress for some women in five days than she would ever anticipate seeing for women attending three to five years of strictly psychotherapy.

Question 2. For the second question, field consultants were asked to describe some of the benefits of using yoga for treating mental health problems associated with a history of trauma. They were also asked to share any limitations. Dr. Ross and Ms. Pascuzzi both agreed that a primary benefit of yoga is allowing for individuals with a history of trauma to increase their ability to remain in the present. Ms. Khouri and Ms. Pascuzzi spoke to the bridge between the mind and body that yoga practice can offer in helping individuals to integrate their whole persona. As a result, two field consultants agreed that this helps individuals to feel more centered, and thus, according to Ms. Khouri, have an increased ability to tolerate uncomfortable sensations in their bodies. Ms. Khouri and Mr. Emerson both shared how yoga can allow for individuals with a history of trauma to re-establish a safe connection with their bodies. All but one field consultant spoke to the importance of becoming educated on the neurophysiological and biological effects of trauma and ultimately weaving this into treatment. Dr. Ross shared that the domestic violence treatment model at CII, which includes principles and elements of

yoga and other mindfulness practices, offers clients an increased ability to identify triggers and trauma inputs in the environment as well as tools to cope with stressful situations. Dr. Ross added that the techniques have been found to result in a decrease in impulsivity and aggressive behaviors. Ms. Khouri's experiences mirrored Dr. Ross's in regards to noticing a decrease in impulsive and aggressive behaviors. Ms. Pascuzzi added that yoga can be an effective treatment for trauma when received in conjunction with evidence-based practices such as TF-CBT. She stated that children are taught a series of coping skills via the TF-CBT model, allowing them to build upon skills they learn from yoga.

Ms. Khouri and Ms. Pascuzzi agreed that a limitation relates to the overall lack of training that yoga teachers have on the impact of trauma as well as trauma-sensitive methods to treat individuals impacted by trauma. Ms. Pascuzzi added that it takes a special type of teacher to work with individuals impacted by trauma and that some of these characteristics are innate rather than learned. She also added that physical injury can be an unfortunate side effect of yoga if teachers without proper training are teaching. Dr. Ross and Ms. Pascuzzi both addressed the cultural barriers that result in a negative perception of both mental health treatment and yoga practice. As a result, both field consultants agreed that a modification of yoga practice can be offered to allow for an integration of yogic principles rather than the direct implementation of a traditional yoga model. Ms. Dahlgren stated that a limitation includes the general assumption that yoga is a cure-all. She shared that her organization acknowledges that yoga is one modality of treatment. She also shared that they spend a lot of time explaining the science around yoga to address the misconception that yoga is associated with religion.

Question 3. The field consultants responded to a question asking them to share what components they feel to be essential when developing a mental health treatment program that incorporates yoga as a complementary modality for treating individuals who have experienced trauma. Dr. Ross stated that it is essential to incorporate some psychoeducation about how movement, breathing, and the body and mind work. She explained that in addition to incorporating these components into each session, it is important for the clinician to also offer a rationale for its inclusion, differentiate the different components of treatment, and identify what they are addressing. For example, Dr. Ross clarified that treatments differ for PTSD and Complex Trauma. An important component that Dr. Ross spoke to includes the move towards affect regulation, understanding emotion, and allowing children to have an increased understanding of what is happening in their bodies. In addition, a neurophysiological component, such as movement, can be incorporated into the cognitive triangle (i.e., thinking, feeling, and action). Mr. Emerson and Ms. Khouri both agreed that a trauma-sensitive component to treatment is necessary when working with individuals with a history of trauma. Mr. Emerson shared that this includes offering verbal rather than physical assists, using invitatory rather than commanding language, and having the yoga teacher maintain a continuous visible presence to avoid startling students. Ms. Pascuzzi shared that a careful integration of mental health and yoga practice can assist with addressing the physical symptoms of trauma and allow for a person to reconnect with their body. Ms. Dahlgren feels that it is helpful to have structure and design when it comes to treatment but finds it of greater importance to have philosophies of respect, empowerment, and healing be the underlying foundation for treatment. She shared that it is of great importance to avoid

making promises before starting treatment. When designing a program, she mentioned that the practitioner's belief system regarding healing should underlie the design of the program. Regarding the integration of yoga and mental heath treatment, Ms. Dahlgren shared that she has also found a lack of cross-respect between mental health and yoga professionals. She mentioned that practitioners from either field tend to emphasize the usefulness of their practice while downplaying or disregarding the usefulness of the other, which can ultimately be counter-productive to a potentially effective collaborative effort.

Question 4. The field consultants responded to a question asking them if the implementation of yoga with individuals who have experienced trauma is overseen by a treatment team. They were asked to elaborate on what types of professionals are included as a part of this team or professionals they think should be included. Ms. Dahlgren offered a comprehensive vision of who comprises the treatment team at Joyful Heart Foundation and also offered her own vision of what a complete team would look like. She shared that it would be crucial to have someone who has a strong understanding of the neurology of the brain, the impact of trauma on the body, as well as experience and academic knowledge regarding working with individuals who have experienced trauma. It is also important to have someone with this type of background who also has a healthy respect for alternative and complementary treatment methods. She expressed that someone who is able to embody all of these characteristics would make a great leader for this team. Ms. Dahlgren also spoke to the importance of a professional who is able to talk openly about spirituality without a rigid or religious perspective. She would also want to include someone who is a specialist in either yoga or some type of creative movement

that is strongly influenced in breathing, meditation, and yoga. She is also interested in having an additional person as part of the treatment team who has specialized trainings in somatic therapies such as emotion biology, which relates to how emotions are trapped in the body. Someone with this background may present as the yoga teacher or trauma specialist. In addition to the different types of professionals present, Ms. Dahlgren finds it important to have everyone on the team have a shared belief system about individuals being inherently healthy rather than approaching treatment from a deficit model where clients are sick or broken. All of the aforementioned individuals are the people that Ms. Dahlgren is trying to collect for the retreat model. She shared that they also have a massage therapist, which relates to the emotional biology aspect of trauma.

Mr. Emerson stated that the treatment team he works with at The Trauma Center is comprised of yoga teachers, medical doctors, psychologists, and clinical social workers. Dr. Ross shared that due to receiving funding from the Department of Mental Health and a requirement for mental health clinicians to meet productivity requirements, little time or funding exists to train clinicians in yoga and hire a certified yoga professional to offer teaching and consultation. She added that that at her site, yoga is implemented only in the domestic violence groups. The therapists who utilize the domestic violence curriculum receive supervision from their clinical supervisors and also receive monthly training and supervision from a therapist who is also a certified yoga instructor. Ms. Khouri and Ms. Pascuzzi both agreed that their experiences have found them working primarily independently but working closely with other professionals or client's family members based on their involvement in the case. For example, Ms. Khouri shared that much of her work in a school-based setting was also independent due to

schools having a general lack of resources. When working at a juvenile hall, Ms. Khouri shared that she would primarily communicate with social workers, mostly if her clients were receiving medication services. Ms. Pascuzzi mentioned that when she worked in a school-based setting, a strong relationship was present between the yoga teacher and the child's therapist. In addition, she shared that a clinical supervisor was present. She also said that a coordination of care included the child's parents and school teacher, which related more strongly to the coordination of care of the child and not necessarily the yoga class.

Question 5. For the fifth question, the field consultants were asked to discuss the type of training that qualifies a professional to integrate a complementary treatment method such as yoga into mental health treatment. Based on the culmination of the responses from the field consultants, it is evident that the type of training required is dependent on the type of service the professional is providing. Dr. Ross and Mr. Emerson indicated that if a yoga certification is not needed, it is important to have knowledge of yoga practice, yoga principles, and also knowledge regarding how trauma impacts the body. All of the field consultants agreed that a certification in yoga is mandatory if a professional is directly providing yoga service. Dr. Ross explained that the type of training required for a professional to integrate yoga into mental health treatment depends on the type of service in question. For example, Dr. Ross shared that some yoga exercises in the domestic violence curriculum used at CII can be delivered by mental health professionals lacking a certification in yoga training. Because some of the yoga skills are taught through games, Dr. Ross mentioned that components and principles of yoga can be incorporated into treatment by non-yoga mental health professionals. Dr. Ross added that

all children have the capability to learn about mindfulness and about the connection between breath and body. Because the implementation of yoga and yoga principles can vary in their degree of implementation, the certifications of those delivering the service can also vary. On the other hand, as Dr. Ross clarified, being clear about this differentiation is important to ensure that all clinicians are practicing within their scope of practice. Mr. Emerson shared a similar belief that services can be delivered without a yoga teaching credential as long as direct yoga service is not being provided. Conversely, he added that if a professional is working as part of a team where trauma is being treated and yoga is part of the treatment, it is important for professionals to receive training on how to bring somatic experience into the office, become knowledgeable of how trauma impacts the body, become educated on how trauma affects the sense of self, and be aware of the neurophysiology related to trauma. Ms. Dahlgren's shared ideas similar to Mr. Emerson's about the education that non-yoga certified professionals should have when working with trauma. Mr. Emerson also explained that the expertise and training depends on what is being treated and that at his site they treat Complex Trauma, which they differentiate from PTSD. He also shared that their program is making a shift towards treating Developmental Trauma.

Regarding a certification for direct yoga services, which all field consultants agreed is necessary, Ms. Khouri clarified that professionals interested in providing direct yoga service should at least receive the 200-hour yoga teacher training from the Yoga Alliance, which is an international professional organization that offers yoga teacher certification trainings and other support services. Ms. Pascuzzi agreed that the 200-hour training was essential, but she felt as though this was the bare minimum and that yoga

teachers have the opportunity to receive much more training. Ms. Dahlgren shared that she is personally a certified Level 1 Kundalini yoga teacher, but that she does not refer to herself as a yoga teacher because she does not directly teach yoga. She stressed the importance of accurately representing your credentials and said that a specific credential does not necessarily equal expertise or qualification. Two field consultants agreed that many yoga trainings lack a trauma component and ultimately leave certified yoga teachers with a lack of true preparation for treating individuals with histories of trauma. Ms. Khouri expanded on these viewpoints by adding that certified yoga teachers working with individuals with a history of trauma should also attend a trauma-informed yoga training. She added that it is important to also gain some experience teaching yoga, which is not a part of the yoga teacher training. Ms. Khouri expressed that she feels as though yoga teachers should teach a regular basic yoga group for approximately one year in order to be grounded in the basics before attempting to teach a yoga class for individuals with a trauma history. According to Ms. Khouri, walking into a room full of individuals who are disregulated and have a history of trauma can be a difficult experience for yoga teachers. Ms. Dahlgren added that no matter what training the person possesses, she would want to ensure they are at the top of their field and feel comfortable with each person being in charge of their own healing path.

Question 6. The field consultants also answered a question about the ethical concerns that present when implementing yoga as a treatment modality for individuals with a history of trauma. All of the field consultants agreed that ethical issues can present themselves when providing a treatment that can include the body and touch. Dr. Ross emphasized that any practice involving the use of the body can be triggering. As a result,

it is important to have an awareness of these triggers and how certain yoga exercises may trigger them. Dr. Ross also shared that it is important to initially be clear about what yoga entails and offer a disclaimer about the triggers and memories that may result for some individuals with a history of trauma. Dr. Ross also explained that it is important to verbally assist clients when correcting poses, ask permission before making corrections, and avoid approaching clients from behind. Dr. Ross's explanation mirrored the components of trauma-sensitive yoga, which Mr. Emerson implements at his site and addressed when responding to the third question. Ms. Khouri explained that touch can enter once the relationship has grown, but communication about touch is always important. Mr. Emerson shared that it is important to explain the differences between trauma-sensitive yoga courses and more traditional yoga classes. Ms. Pascuzzi added that additional considerations include properly adjusting postures, providing a safe and comfortable environment, and promoting a different atmosphere from traditional yoga such as a non-competitive atmosphere. An additional ethical issue that Ms. Pascuzzi shared pertained to students approaching her with medical issues or sharing changes in their bodies. She said that it is important to refer her students to medical professionals for these issues to ensure appropriate medical care if needed.

Another ethical concern, addressed by Ms. Khouri and Ms. Dahlgren, was the issue of boundaries and multiple relationships. Ms. Khouri stressed the importance of defining clear boundaries. Because a sense of fragility is closely associated with trauma, it is important for yoga instructors to be cautious about creating a personal relationship with their students outside of their class. Ms. Dahlgren shared that she commonly sees the formation of relationships outside of the treatment relationship in the yoga world. Ms.

Dahlgren, whose career is based in the mental health world, feels as though the mental health world could relax in terms of boundaries, but that the yoga world could have an increased awareness of the role of boundaries in yoga treatment. Mr. Emerson also stated that it is potentially unethical to blindly refer a person with a history of trauma to any yoga class. Because the experience could be re-traumatizing, it is important to refer them to a yoga instructor who has experiencing working with individuals with a history of trauma. An additional ethical issue that Ms. Pascuzzi shared was the over-generalization of the benefits of yoga. While yoga has certain benefits, she noted the importance of not over-generalizing or making promises. She explained that yoga is different for everyone and consists of so many layers that it is important to address these prior to the beginning. One of the field consultants shared that one of the ethical issues surrounding the treatment of trauma with yoga is that obtaining a yoga credential is very easy. This field consultant shared that in addition to this credential, additional considerations for teaching yoga in the mental health environment are necessary.

Question 7. Field consultants were asked to describe if they have found anyone to be resistant to yoga as a complementary treatment method and to discuss possible sources of this resistance. Dr. Ross, Ms. Khouri, and Ms. Pascuzzi all shared that multicultural factors can result in people having a negative perception of yoga. Ms. Khouri and Ms. Pascuzzi elaborated by stating that some people are resistant to yoga practice, particularly due to religious reasons. Ms. Khouri shared that she explains to her students that yoga is rooted in science rather than religion. She also mentioned that cultural factors create a barrier resulting in people thinking that yoga is only for women or individuals of Caucasian descent. Despite these false perceptions of yoga, she has found it beneficial in

a variety of settings, including juvenile hall. She shared that children and adolescents are shy and uncomfortable when they begin, but that this experience is a natural part of the process. She said that she has found that yoga is always well received once students begin. Ms. Pascuzzi has also noticed that resistance decreases as she begins to better explain the benefits of yoga to her classes, provide a warm environment, and make known that all poses and movements are based on choice rather than command. Mr. Emerson said that yoga is not for everyone, and, as a result, he has found certain individuals to be resistant. He shared that sometimes those individuals who are not ready yet to benefit from yoga may work with their individual therapist first. He said that sometimes they might do basic yoga in the therapy office first and be able to use their body with some else in a private setting. As a result, they can talk with their therapist about their experience and ultimately begin yoga courses if they feel comfortable, which relates back to understanding the root of resistance that Ms. Pascuzzi and Ms. Dahlgren spoke to.

Ms. Pascuzzi shared that her experience with resistance has changed over the years. She mentioned that she continues to experience less resistance as she personally becomes more comfortable in integrating the worlds of yoga and mental health. In addition, she has realized that yoga needs to be presented in a way that is fun and engaging for all students, all of whom are unique and have different needs. She mentioned the philosophy of yoga may conflict with the beliefs of some religious groups. She also said that she is able to manage the comfort level in her classes better and address people's comfort and experience in a more careful, respectful, and sacred way. She said that she has been able to work with resistance by opening the flow of communication

with her students about what they find beneficial and what they would like to be different. Dr. Ross added that some individuals may be resistant towards yoga due to a fear that it may be too physically demanding for them. She also stressed the importance of understanding the root of the resistance so that yoga can be integrated as a complementary treatment method in a safe and effective way. Conversely, Ms. Dahlgren shared that she does not believe in resistance. She mentioned that her beliefs reside in the idea that people resonate with different options for treatment. She shared that the idea of getting on a yoga mat can be overwhelming, especially for people who are overweight. Sometimes it can be difficult for certain people to keep up with yoga poses, which is why elements of creative movement are weaved into classes. She said that as people are getting to know their bodies, yoga tends to be a big lunge for them. She also shared that the celebrity culture surrounding yoga creates a barrier to treatment due to the mainstream perception and focus on attractiveness and body type. She shared that providing some education in this area can help to break down some barriers to treatment.

Question 8. Field consultants were asked if they had any recommendations for mental health clinicians interested in integrating yoga as a treatment into their practice. Four of the field consultants all began answering the question by stating that those who are interested should first do yoga in order to have a better understanding of the experience. Dr. Ross expanded on this by sharing that individuals who wish to incorporate yoga should at least practice yoga or mediation or have some general self-awareness about that type of work. Ms. Pascuzzi elaborated that people should begin by doing yoga at a minimum of two to three times per week. She also recommended to take the yoga teacher training, read a lot about yoga, and also collaborate and consult with

professionals who have experience integrating yoga and mental health treatment. Ms. Dahlgren responded in a similar fashion by stating that people should learn everything they can about the impact of trauma on the body, emotional biology, the way the central nervous system works, and the neurology of the brain. She mentioned that all of this knowledge can be helpful when working with people with a history of trauma, and the information can also be used to provide clients with a better understanding of their experience. Mr. Emerson shared that the book he co-authored with Dr. Elizabeth Hopper is a helpful introduction to trauma-sensitive yoga and can be a great resource for professionals who are interested in pursuing this interest. He also said that several articles that he co-authored are helpful for introducing trauma-sensitive yoga as well as illustrating various poses.

Ms. Khouri emphasized that the role of the professional should be established ahead of time as well as the type of service being received, whether it is a yoga session or a therapy session. She shared that certain elements of yoga, such as somatic experiencing, are acceptable to integrate into a therapy session. She clarified that it would be inappropriate to incorporate full-on yoga directly into the therapy room by, for example, bringing in a yoga mat and practicing traditional yoga. She shared that it may be confusing for the client's therapist to also be the yoga teacher, so it is important for these two providers to be different. Dr. Ross shared a similar thought by stating that if someone is interested in integrating yoga into mental health treatment, they should be both a certified yoga teacher and a therapist or be a therapist working in collaboration with a certified yoga teacher. Ms. Dahlgren also recommended for people to learn all they can about options outside of yoga. She shared that people have been healing from trauma for

thousands upon thousands of years, and that it is important to explore all options that could help with this healing process.

Question 9. Field consultants were asked how to determine if a person is a good candidate for yoga as a complementary treatment. They were also asked to provide insight into how someone can determine the modality of treatment that would best suit the person's needs. Dr. Ross and Ms. Khouri both began by sharing that anyone can be a good candidate for yoga. Dr. Ross expanded by saying that individuals of all ages can do yoga, and Ms. Khouri went on to say that even individuals with disabilities who use wheel chairs can do seated yoga. Dr. Ross shared that initially it is important to surpass the initial barrier of people's common misconception about the true meaning and impact of yoga. She said that it is crucial to share that the key of yoga is that it keeps the mind calm and helps people gain better mastery over their bodies. In addition, she shard that it helps people get to a place of peace and gain self-mastery rather than being held hostage by thoughts and triggers. Conversely, Dr. Ross emphasized the importance of not blindly sending a person with a history of trauma to a yoga class with the promise that it will make them feel better. Her statement relates back to one of Mr. Emerson's answers to the question regarding ethical issues. Ms. Khouri mentioned that some people might be unable to tolerate yoga at first because it is too slow for their nervous system. For some of these individuals, quicker exercises such as running may be helpful before trying yoga. Ms. Dahlgren shared that it is of great importance for individuals to self-identify whether or not yoga would be helpful for them. Before beginning yoga treatment, she shared that it is important to gain a better understanding of and assess for individuals' coping skills and awareness about their ability to regulate themselves. Ms. Pascuzzi shared that she

normally does an initial assessment when someone joins her yoga class to get a sense of how they relate to their bodies and how their motor skills relate to their confidence with their bodies. She ultimately takes this information into account and adjusts her class accordingly. She mentioned that it is challenging if a variety of students in her class begin the class at different times. She stated that it is a difficult situation to balance, but that she makes sure to meet with students individually for ongoing feedback and to also meet with their individual therapist.

Mr. Emerson shared that in the past, he and his team have found that individuals with symptoms of dissociation, a diagnosis of Dissociative Identity Disorder, or active psychosis may have a harder time benefiting from yoga. Conversely, Mr. Emerson shared that the positive impact of yoga is dependent on the unique individual and that no individuals should be screened out from trying yoga based on their symptoms or diagnosis. More specially, Mr. Emerson explained that the women in his current study on chronic PTSD who were experiencing symptoms of dissociation demonstrated a decrease in dissociative symptoms whereas women in the control group showed an increase in symptoms of dissociation.

Regarding the modality of treatment, Ms. Khouri stated that the benefits and challenges of both individual and group courses vary depending on each person. She mentioned that yoga groups can be triggering for some people and some are self-conscious about being seen doing postures by others. She has also found that female adolescent students in classes with male students often become concerned about how they are perceived by the male students. In this regard, a one-on-one yoga class could offer a greater sense of safety. Ms. Dahlgren also feels that a group format is extremely

beneficial and adds an element of community to treatment. Because many traumas (e.g., rape, domestic violence) are rooted in relationships, she explained that trauma can also be healed in relationships.

Question 10. Because Mr. Emerson, Ms. Khouri, and Ms. Pascuzzi have experience doing yoga with their clients, they were asked to describe their experiences using yoga as a complementary treatment method for children and adolescents with a history of trauma. They were also asked to elaborate if their methods of treatment or engagement are any different for this younger age group. The three field consultants who were posed this question all agreed that their approach with children and adolescents is different. Mr. Emerson shared that he works with children ages 13 and older and that his strategy and approach, including all of the principles of trauma-sensitive yoga, is similar to his work with adults. He mentioned that some of the modifications in yoga treatment might relate to shorter sessions (e.g., 10 to 15 minutes rather than a full hour) or working in individual or dyad sessions rather than larger group sessions. In general, Mr. Emerson said that it is important to work together with each individual to find out what works best for him or her.

Ms. Khouri shared that she works with adolescents and is aware of how to engage them. She has found that males tend to like showing off and trying more challenging poses whereas female adolescents enjoy using yoga for toning their bodies and physical appearance. She has found that children and adolescents want to be listened to and mirroring them can be helpful. Because adults normally tend to be in an authoritative role, Ms. Khouri has found that being respectful of her students and their experience is helpful in order to avoid diminishing their feelings and experiences. Because yoga can be

a strange and new experience for many, she has found importance in normalizing this experience. She asks a lot of questions that allow for students to get in touch with their bodily sensations. She has found that most students truly enjoy yoga and that she is able to make her classes fun and challenging at the same time.

Ms. Pascuzzi mentioned that her work with children is completely different than her work with adults. She shared that she is able to work more metaphorically through the use of stories, characters, and animals. Regarding animals, she is able to draw parallels between the common qualities in humans and animals. She has found that children are able to exaggerate those qualities during yoga classes, which is a much safer space to do so than outside of class. She shared that because the real world has so much structure, yoga allows for children to be more raw, playful, and imaginative. Ms. Pascuzzi stated that the foundation for her yoga practice with children is rooted in dance, body work, craniosacral therapy (a type of body work), storytelling, and other strategies she has learned over the years. She shared that all of these experiences play a role in her yoga practice, but that it is hard to identify to what degree they are incorporated and how much of a role they play due to her intuitive and fluid integration of these components. Due to the shift in the mental health community towards evidence-based practices, she mentioned that it is challenging for her to fit into this model due to the fluidity of how she integrates many aspects of her background into her classes. Ms. Pascuzzi spoke of the shift that she has been seeing in community-based mental health and the “recipe-like” treatment methods that are implemented. She feels that many of these are rooted in illness and pathology, and that yoga allows for a more open-minded approach that is rooted in wellness.

Presentation Development

The presentation was based predominantly on information gathered through a comprehensive literature search and was supported by and elaborated on by information provided by the field consultation. The information used from the field consultation primarily supported the biological and physiological consequences of trauma and information relating to the benefits and applicability of using yoga as a complementary treatment method for treating children and adolescents exposed to domestic violence or other traumas. The purpose of integrating information learned during the field consultation was to make a clear connection between the usefulness of yoga as a complementary treatment method for domestic violence and other traumas, highlight the positive effects yoga can have on the consequences of domestic violence exposure in children and adolescents, and address the positive impact that yoga can have on the overactive peripheral nervous system. Some of the information from the field consultation that was not included in the presentation included the following: information pertaining to the individual professional experiences of the field consultants, the limitations of yoga as a complementary treatment method, the essential components for developing a treatment program that incorporates yoga as a complementary treatment method, an explanation of the desired professionals who would comprise an effective treatment team to deliver this type of service, an explanation of the experience and certification options for certified yoga teachers, issues relating to resistance, and factors pertaining to an individual's candidacy for yoga treatment. A copy of the presentation slides is found in Appendix E.

Presentation Delivery

The professional presentation was delivered to a staff of roughly 50 to 60 mental health professionals at The Village Family Services (TVFS), a non-profit community based mental health organization located in North Hollywood, California. The presentation took place in a banquet hall located next door to TVFS and was delivered as a PowerPoint presentation that was projected onto a large screen. Because only 19 evaluation forms were returned, it is difficult to accurately account for all professionals present. Of the 19 professionals who completed the evaluation forms, the following characterizes the members of the audience: three marriage and family therapists, three marriage and family therapy interns, two social workers, one individual with a background in psychology, one individual with a background in counseling, one accounting professional, one practicum student receiving certification for drug and alcohol education, one human resources staff member, one public health employee, and five individuals who did not identify their professional role. The presentation took 50 minutes to complete, which included the presentation itself, engagement from the audience with several open-ended questions posed during the presentation, questions from the audience, and the completion of forms evaluating the performance of this presenter. The audience interacted with this presenter by responding to open-ended questions and being given the opportunity to ask questions during and after the presentation. This presenter planned on engaging the audience with a yoga exercise before the start of the presentation but omitted the exercise due to time constraints of the organization's all-staff training.

Presentation Evaluation

Upon the completion of the presentation, members of the audience were given the opportunity to ask the presenter questions yet none did. The audience was then asked to complete an evaluation form comprised of 14 questions. The questions were intended to evaluate the quality and clarity of the presentation, determine the usefulness and clinical relevance of the information, and provide feedback regarding the presenter's skill in presenting. For the first half of the evaluation form, the responses were scored on a Likert scale with values ranging from 1 (not familiar, not at all, not useful at all, and poorly) to 5 (very familiar, very much, very useful, very well, and very helpful). The latter half of the questions allowed for audience members to respond to questions in an open-ended format regarding the quality and usefulness of the presentation as well as their professional background and clinical experience.

Of the 50 to 60 audience members who attended the presentation, only 15 evaluation forms were completed and submitted to the presenter on-site. Four additional evaluation forms were submitted after the presentation via electronic mail. Responses pertaining to the audience's familiarity with the subject matter prior to the presentation ranged from 1 to 5 (not familiar to very familiar). Responses addressing the usefulness of the material, the presenter's abilities, and the helpfulness of the presentation materials (including presentation slides and handouts) ranged from 3 to 5 (somewhat to very much, very useful, very well, or very helpful) (see Table 1). A handout given to the audience included a list of the professional contributors (i.e., field consultants), online resources, purchasable games and activities that can be used to do yoga with children, suggested readings, and a complete list of references (See Appendix F).

Overall, the feedback from the audience members was positive. According to the audience members, the strengths of the presentation included increasing "awareness of yoga benefits" and "effects of yoga and mindfulness on the nervous system." One audience member commented that the presenter did a "great job making sure everyone could access the material despite varying levels of experience and education, as well as the diverse backgrounds of our staff." What the audience members liked least about the presentation was the length of the presentation, "the color scheme on the slides," and that "there were too many presentations in one day." The latter of the prior three comments is in reference to this presentation having followed three other presentations, each lasting approximately 10 to 15 minutes. Regarding the degree of usefulness pertaining to work with clients, the audience members shared that it could "help to focus children" and assist clients with "self-regulation, focus, [and] decreas[ing] tantrums." One audience member commented that the presentation content was applicable to the organization's "work with traumatized youth." Regarding the ways in which this presentation could be improved, the audience members would have liked "more exercises that we would be able to use with our clients," "a video of a demonstration or link to one that can be seen after," "make it a little more interactive," and "more techniques to use or referrals to people that know" (See Table 2).

CHAPTER IV

Discussion

The focus of this chapter pertains to the author's evaluation of the presentation, the strengths and limitations of this doctoral project as a whole, and the author's thoughts regarding the future direction of the field as it pertains to this project.

Evaluation of Presentation

Overall, the presentation at The Village Family Services (TVFS) appeared to go well. I initially made contact with the Senior Director of Clinical Programs at TVFS after being introduced via electronic mail by my academic consultant Dr. Liza Auciello. Dr. Auciello introduced me to several organizations, and I chose to present at TVFS due to an earlier availability to present in the Fall semester. After connecting with TVFS, I was told that my presentation would take place on the day of the organization's monthly all-staff training. This provided certainty that enough mental health professionals would be present to view the presentation. Due to the high number of mental health professionals that would be present at the all-staff training, I thought the topic of my presentation would be useful in that it would offer them information on an alternative method for treating domestic violence exposure and other traumas. In addition, I thought it would be valuable for staff to have a better understanding of the biological and physiological effects of trauma and how yoga addresses these factors.

On the day of the presentation, I met with my contact at TVFS 30 minutes prior to the beginning of the all-staff training. My contact walked me over to the banquet hall next door to TVFS where I was told that the agenda for the meeting had been finalized the night before and that she could give me more information regarding what time I

would present when we arrived at the banquet hall. Upon arriving at the meeting, I was informed that I would be given 45 minutes to present and would be presenting at the latter end of the two and a half hour meeting. An individual from the technology department was managing the computer and projector. Just before presenting, this individual told me that he did not have my presentation on the computer, therefore, I provided him a copy on a USB drive that I had brought with me. I was given the option to talk on a microphone but opted against it due to feeling that I would be able to adequately project my voice to an audience of approximately 50 to 60 people.

As I began my presentation, I was aware that the meeting was running roughly 45 minutes behind, and that I was being given 45 minutes to present rather than the previously agreed upon one-hour time frame. As a result of this time restriction and in an attempt to be respectful of the audience's time, I tried to present at a faster rate and bypassed my original plan to begin the presentation with an in-chair yoga exercise that the audience could participate in. The audience appeared quiet and attentive throughout the presentation and was predominantly unresponsive to open-ended questions posed. I felt mildly anxious at the beginning of the presentation but felt as though I was able to speak in a clear and straightforward manner. The anxiety that sustained throughout the presentation related to the lack of engagement and responsiveness from the audience. Only one question was asked during the presentation, which was outside of the focus of the project. At the end of the presentation, this presenter's prompt for questions was greeted with silence followed by applause.

Strengths and Limitations

This project had strengths and limitations. A major strength of this project is that

it explored a new area of clinical practice and research, articulating the impact of trauma on the peripheral nervous system and providing a rationale for the usefulness of yoga-based interventions in trauma-based practice. Another strength is the wealth of information gathered from field consultants. The input of the consultants was especially valuable because the literature in the field is scanty, and they were able to provide a good description of how yoga is currently being used as a complementary treatment method for children exposed to domestic violence and other traumas. The field consultants also provided a better understanding of the process of becoming a certified yoga instructor.

One of the limitations of this project is that it leaves many questions unanswered regarding how to use yoga in trauma-based practice; thus, mental health professionals interested in incorporating yoga-inspired interventions into their practices must refer to other sources to develop the necessary skills. This limitation relates to the fact that a certification in yoga is required to provide yoga services to clients, especially those with a history of trauma, thus advanced training (beyond the scope of this project) is required. Nevertheless, the information gathered and disseminated via this project helps to increase mental health professionals' knowledge of the benefits of yoga as a complementary treatment method. An additional limitation relates to the lack of information regarding whether different approaches are needed for children who have experienced different types of trauma (e.g., physical abuse, sexual abuse, exposure to community violence, exposure to domestic violence).

Future Directions

Future studies are needed to address various aspects of yoga that are understudied in the context of trauma-based practice. It would be important to look at whether certain

types of yoga are more effective for treating various types of problems. Additionally, people can include different yoga components into their practice, so it would be beneficial to study the components of each practice and the impact they can have individually and collectively. Also of interest for future studies is the relevance of the frequency and duration of the implemented yoga interventions and the role that this plays in outcomes. Another area that deserves further attention is the location of practice. Emerson and Hopper (2011) offer suggestions on how to practice yoga in convenient environments throughout the day with the use of a chair. It is important to research the effectiveness of these teachings and ensure they are trauma-sensitive to address the possibility that individuals might become triggered in an environment such as school and work. Conversely, this could be implemented at a time when the person has developed adequate coping skills and has become increasingly familiar with how their bodies respond to certain postures and breathing techniques.

Conclusion

The full completion of this project was challenging and required a great deal of motivation, patience, and focus. A great deal of commitment and momentum was essential to ensure the timely completion of the project. In addition, all of the individuals involved in the process offered a great deal of guidance, insight, and support. Undertaking this project was a challenge for me as it was my first extensive venture into searching for published research. This experience afforded me the opportunity to become a more effective researcher and learn skills for how to critique existing literature on a specific topic. The field consultants were particularly helpful in that they were able to offer great insight on what exists in practice that has yet to be flushed out in the literature.

They provided useful information regarding how the psychology and yoga fields are shifting towards the use of yoga as a complementary treatment method and offered useful resources for mental health professionals interested in integrating principles of yoga into their practice. The interviews with the field consultants also allowed me to have a stronger understanding of trauma treatment and insight into the avenues that can be taken in order to incorporate yoga into trauma treatment.

This doctoral project opened up several opportunities for professional development for me. While a presentation was being scheduled with The Village Family Services to fulfill the requirements of this project, another opportunity to present to a professional audience became available at Hillsides, a community-based mental health organization located in Pasadena, California. The presentation at Hillsides has been scheduled for February 2013, and I plan to use the feedback from my presentation at TVFS to help improve the slides and delivery for this next professional engagement. In conclusion, this doctoral project afforded me the opportunity to explore an area of study within clinical psychology I am passionate about, meet professionals who are integrating yoga practice into trauma-based practice, to develop research and presentation skills I will most certainly use in my future professional career.

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Table 1

Presentation Evaluation Results (N = 19)

Questions	Mean	Range	SD
1. Before this presentation, how familiar were you with the topic?	2.7	1-5	1.34
2. How much did the presentation increase your knowledge of this topic?	4.2	3-5	0.79
3. How useful is this information to you as a mental health professional working in a clinical setting?	4.1	3-5	0.86
4. How would you rate the presenter's ability to communicate the information presented?	4.6	3-5	0.76
5. How well did the presenter handle questions from the audience?	4.7	3-5	0.69
6. How helpful were the presentation slides?	4.5	3-5	0.84
7. How helpful were the handouts?	4.6	3-5	0.77

APPENDIX A

OPEN-ENDED QUESTIONS ON EVALUATION OF PRESENTATION

Open-ended Questions on Evaluation of Presentation (N=19)

8. What did you like most about the presentation? [Please explain.]
   - "I enjoyed the overall idea/theory about integrating yoga in treatment. I think it's a great way to engage children."
   - "It's nice to know that yoga benefits us in so many ways."
   - "I was able to see the use of yoga being taught from a more clinical/therapeutic way and having a yoga instructor becoming more aware of things that may arise in a yoga class."
   - "The ideas of a low stress intervention and therapeutic approach in this arena is very good."
   - "Learning the effects of yoga and mindfulness on the body and nervous system."
   - "It was very important to be reminded that not all Yoga is right for helping children to cope with trauma."
   - "The overall information and impact of yoga."
   - "The correlation between trauma/body work."
   - "He was very knowledgeable and easy to understand."
   - "Good."
   - "His knowledge and professionalism."
   - "Great job making sure everyone could access the material despite varying levels of experience and education, as well as the diverse backgrounds of our staff."
   - "The general information."
   - "Physiological affects."
   - "Data relating practice to treatment."
   - "Everything was excellent."
   - "Clear, focused, good examples (interventions)"

9. What did you like least about the presentation? [Please explain.]
   - "There were too many presentation in one day, which prevented me from focusing much at the end. Your presentation was great though :)"
   - "There was too much information for someone that is new to the subject."
   - "I would prefer the presenter not to read each slide because the staff can read them, however, more in depth explanation on the use of yoga – more 'presenting,' less reading."
   - "The color scheme on the slides. I was sitting in the back of the room and it was difficult to read."
   - "I don't think yoga is less stigmatized in the Latino community."
   - "Length."
   - "Too long."
   - "Need to be more dynamic."
   - "Need citations and to know which researched is peer-reviewed and which is from experts. Lack of citations made it unclear."
   - "Wanted more hands-on; connect mind and body."
   - "Too short/quick."
   - "The yoga principles and how to use them in therapy."
   - "N/A." (2 attendees)

10. How will this information be useful pertaining to your work with clients?
   - "The only way it would be useful is if I were certified in yoga."

- "I'm studying for my CAASE and any additional tools for use in this group is welcomed."
- "Help to focus children."
- "Knowing we can refer to yoga classes."
- "Very."
- "Yes."
- "We work with traumatized youth."
- "Working with kids with anxiety."
- "Trauma-sensitive piece was good."
- "Use some breathing exercises."
- "Using principles with clients."
- "For self-regulation, focus, decrease tantrums."
- "Understanding trauma sensitivity, incorporating into yoga practice."
- "N/A." (2 attendees)
- "N/A Not service clients directly."

11. What suggestions do you have that might help improve this presentation and make it more useful to others?
    - "Perhaps the handout can be in summary form or bullet points. It was a little difficult to read the print on the slide handouts."
    - "Use some visuals in the power point presentation there is a lot of writing and no images."
    - "Data on those that actually use yoga as a way to cope with D.V. exposure, ages, ethnicities, length of time using yoga."
    - "Don't follow 4 previous presentations; change slide colors; provide examples."
    - "More suggestions on how Latino community can have access to Yoga when low income."
    - "Maybe a video of demonstration or a link to one that can be seen after."
    - "More exercises that we would be able to use with our clients."
    - "Excellent and detailed presentation."
    - "Way shorter presentation."
    - "Let's do some yoga."
    - "Demonstrations."
    - "More techniques to use or referrals to people that know."
    - "Make it a little more interactive."
    - "Incorporate the body, physical experiences."
    - "Do some exercises."
    - "More interactive with audience; jokes."
    - "Visual examples: such as a video of how this practice is applied with children/adolescents."

APPENDIX B

INTERVIEW CONSENT FORM FOR FIELD CONSULTANTS

Interview Consent Form for Field Consultants

I have been invited by David Alvarado, M.A., to participate in a study about the consequences of exposure to domestic violence in children and the use of yoga as a complementary treatment method for treating trauma. I understand that Mr. Alvarado is a doctoral student (Psy.D. program) at the California School of Professional Psychology at Alliant International University, Los Angeles, and that he is completing a doctoral project titled "The Use of Yoga as a Complementary Practice When Treating Children Who Have Been Exposed to Domestic Violence."

I understand that my participation in this project is that of a field consultant and not as a research participant. I have been contacted by Mr. Alvarado to offer input as a field consultant because I have expertise and/or clinical/professional knowledge about the consequences of domestic violence exposure on children, the biological and physiological effects of trauma, the use of yoga for treating trauma, and the appropriate means to integrate yoga into traditional mental health treatment. The primary purpose of the field consultation is to assist in addressing the gaps in the professional literature and provide useful information on the integration of yoga into trauma treatment. I comprehend that my participation will involve answering a series of questions about my professional experience working with children and/or adults who have experienced trauma as well as my knowledge pertaining to the effectiveness of yoga as a complementary treatment method for treating trauma.

Based on my decision to participate as a field consultant, I was informed by Mr. Alvarado that an appointment would be scheduled for an interview at my earliest convenience. In addition, it was conveyed that a copy of the interview questions would be delivered via electronic mail prior to the interview in order to clarify expectations and the content of the interview. The interview will be conducted in person, by telephone, or via electronic mail, and it is my personal choice to complete the interview in whatever way is most convenient for me. The interview will last approximately 30 minutes, and it will be audiotaped pending on my consent. It is my choice to respond to questions that only I feel are within my qualifications and expertise. In addition, it is my choice to determine the length of my responses.

I understand that my participation is completely voluntary, and that I am free to withdraw at any time. I understand that the interview will be treated as a professional consultation, that my responses may be included in the final report as personal communication citations, and that I will be acknowledged as a professional contributor to the project. While I may not receive any direct compensation or benefits, my participation in this project will further increase knowledge about the use of yoga as a complementary treatment method for treating children and adolescents who have been exposed to domestic violence, as well as best practices for treating trauma in children and adult populations. I understand that I may contact Mr. Alvarado at dalvarado@alliant.edu or his project supervisor, Cristina Magalhaes, Ph.D. at 1000 S. Fremont Avenue Unit #5, Alhambra, CA, 91803 or (626) 270-3348 if I have any questions regarding this project or my participation as a field consultant. I understand that at the end of this project, I may request a copy of the final manuscript from Mr. Alvarado.

I have read this form and clearly understand the information conveyed. I voluntarily agree to participate in an interview with Mr. Alvarado as a field consultant. I understand that I will be signing two copies of this form. I will keep one copy and Mr. Alvarado will keep the second copy for his records. If I have received this Consent Form and the Interview Questions via email, by returning my answers via reply, I am agreeing to the above-stated conditions.

_____ _____

Participant's Signature Date

_____ _____

Student's Signature Date

APPENDIX C

FIELD CONSULTANT INTERVIEW QUESTIONS

Field Consultant Interview Questions

1. Please describe your experiences utilizing yoga as a complementary treatment modality for mental health problems with individuals with a history of trauma.

2. In your experience, what are some of the benefits of using yoga for treating mental health problems associated with a history of trauma? What are some of the limitations?

3. What components are essential when developing a mental health treatment program that incorporates yoga as a complementary modality for treating individuals who have experienced trauma?

4. Is the implementation of yoga with individuals who have experienced trauma overseen by a treatment team, and if so, what other types of professionals are included as a part of this team?

5. What kind of training qualifies a professional to provide this type of service?

6. What are some of the ethical concerns one should have when implementing yoga as a treatment modality for individuals with a history of trauma?

7. Have you found anyone to be resistant to yoga as a complementary treatment for mental health problems, and if so, what do you suppose leads to the resistance?

8. Do you have any recommendations for mental health clinicians who are interested in integrating yoga as a treatment into their practice?

9. How do you determine if a person is a good candidate for yoga as a complementary treatment? What helps determine the modality of treatment that would best suit the person's needs (e.g., individual versus group treatment)?

APPENDIX D

PRESENTATION EVALUATION FORM

Presentation Evaluation Form

1. Before this presentation, how familiar were you with the topic?

1	2	3	4	5
Not Familiar		Somewhat Familiar		Very Familiar

2. How much did the presentation increase your knowledge of this topic?

1	2	3	4	5
Not At All		Somewhat		Very Much

3. How useful is this information to you as a mental health professional working in a clinical setting?

1	2	3	4	5
Not Useful At All		Somewhat Useful		Very Useful

4. How would you rate the presenter's ability to communicate the information presented?

1	2	3	4	5
Poorly		Satisfactory		Very Well

5. How well did the presenter handle questions from the audience?

1	2	3	4	5
Poorly		Satisfactory		Very Well

6. How helpful were the presentation slides?

1	2	3	4	5
Not Helpful At All		Somewhat Helpful		Very Helpful

7. How helpful were the handouts?

1	2	3	4	5
Not Helpful At All		Somewhat Helpful		Very Helpful

8. What did you like most about the presentation? [Please explain.]

_____
_____
_____

9. What did you like least about the presentation? [Please explain.]

_____
_____
_____

10. How will this information be useful pertaining to your work with clients?

_____
_____

11. What suggestions do you have that might help improve this presentation and make it more useful to others?

_____
_____

Please answer the following questions about your training and experience:

12. How many years of clinical experience do you have (including practicum and internship)?

_____
_____

13. Is your training/degree in psychology, marriage and family therapy, social work, or other?

_____
_____

14. In what capacity do you provide clinical services? (e.g., as a practicum student, as an intern, as an unlicensed professional, as a licensed professional)

_____
_____

APPENDIX E

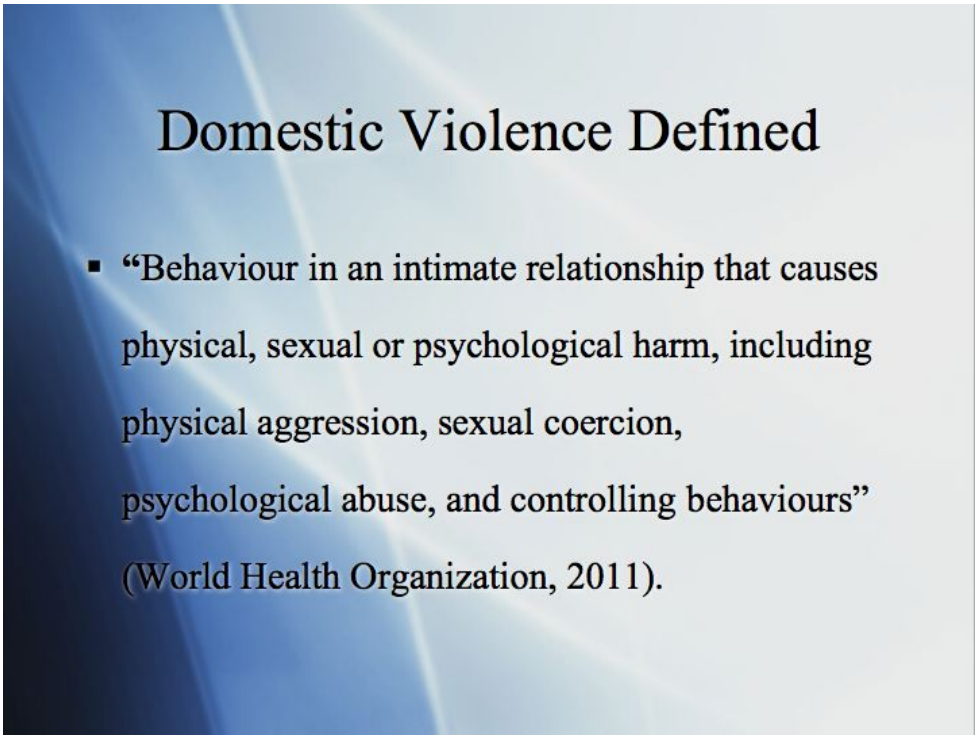
POWERPOINT PRESENTATION SLIDES

The Use of Yoga as a Complementary Practice When Treating Children Who Have Been Exposed to Domestic Violence

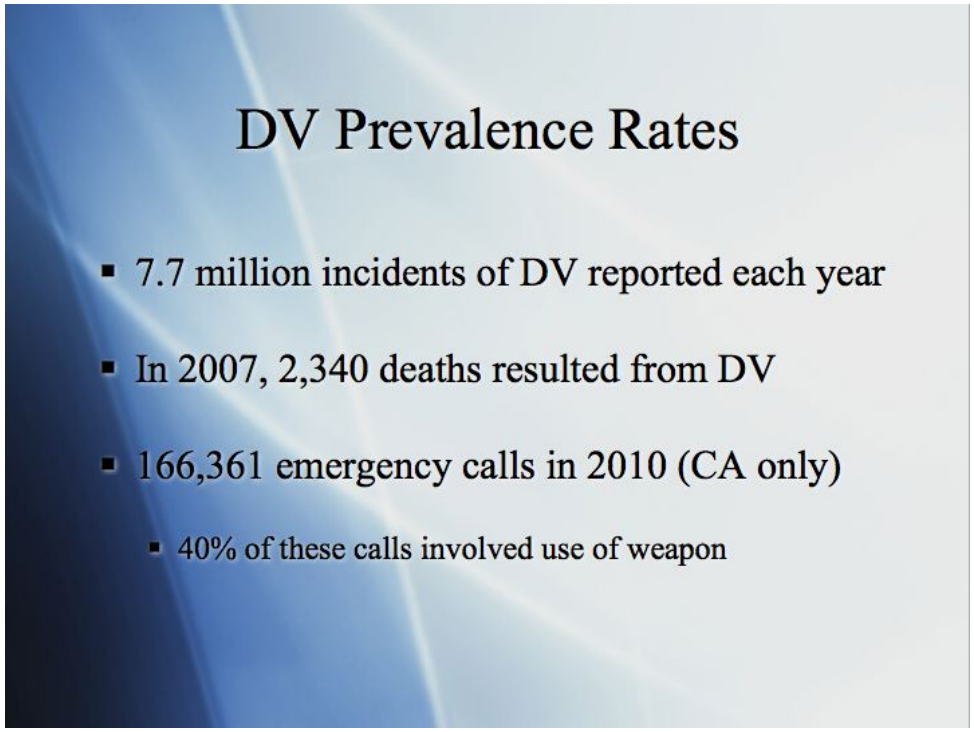
David E. Alvarado, M.A.
Doctoral (Psy.D.) Candidate
California School of Professional Psychology at
Alliant International University
September 7, 2012

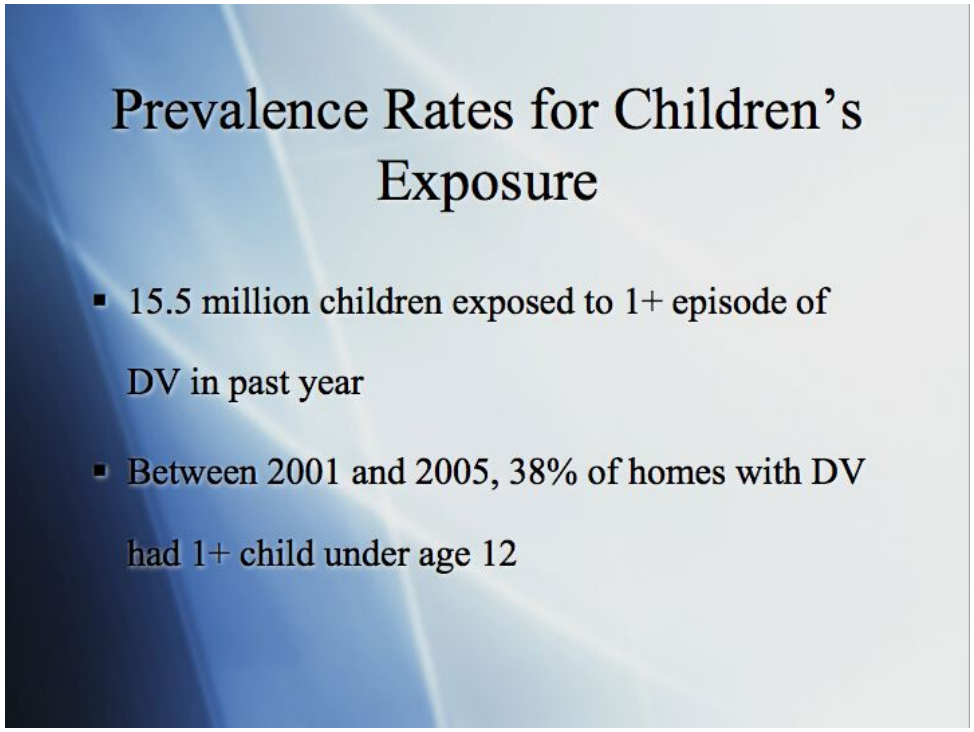
Goals and Objectives

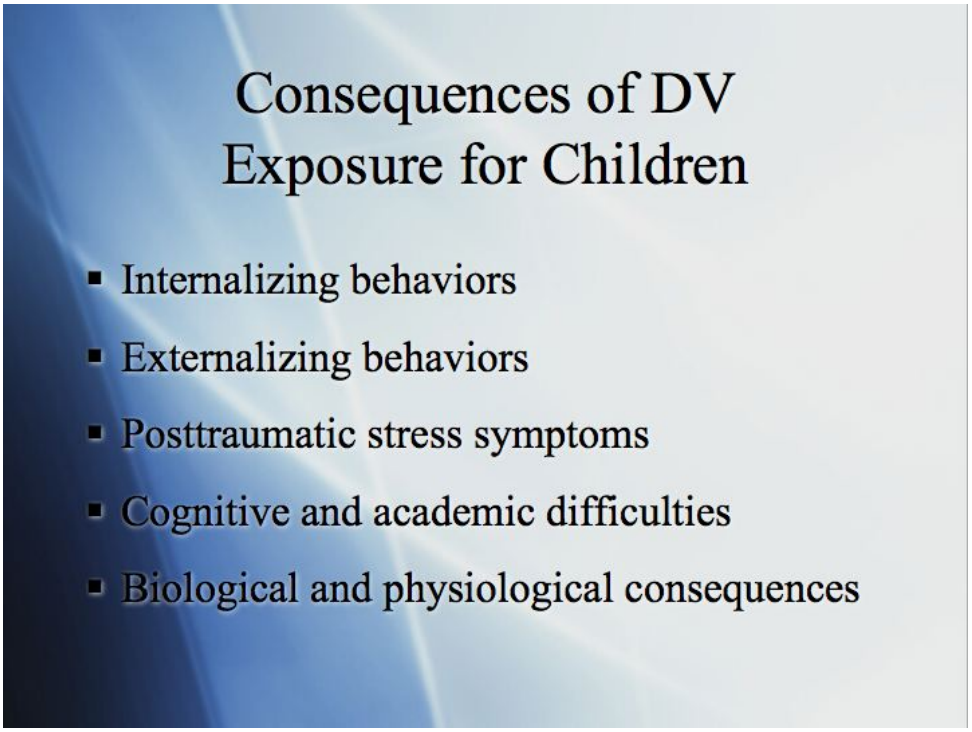
1. Provide information that would afford increased detection of domestic violence exposure in homes with children and adolescents
2. Increase awareness of the consequences that domestic violence exposure has on children and adolescents
3. Introduce yoga as a complementary treatment method
4. Address the positive impact that yoga can have on treating children who have been exposed to domestic violence and other traumas

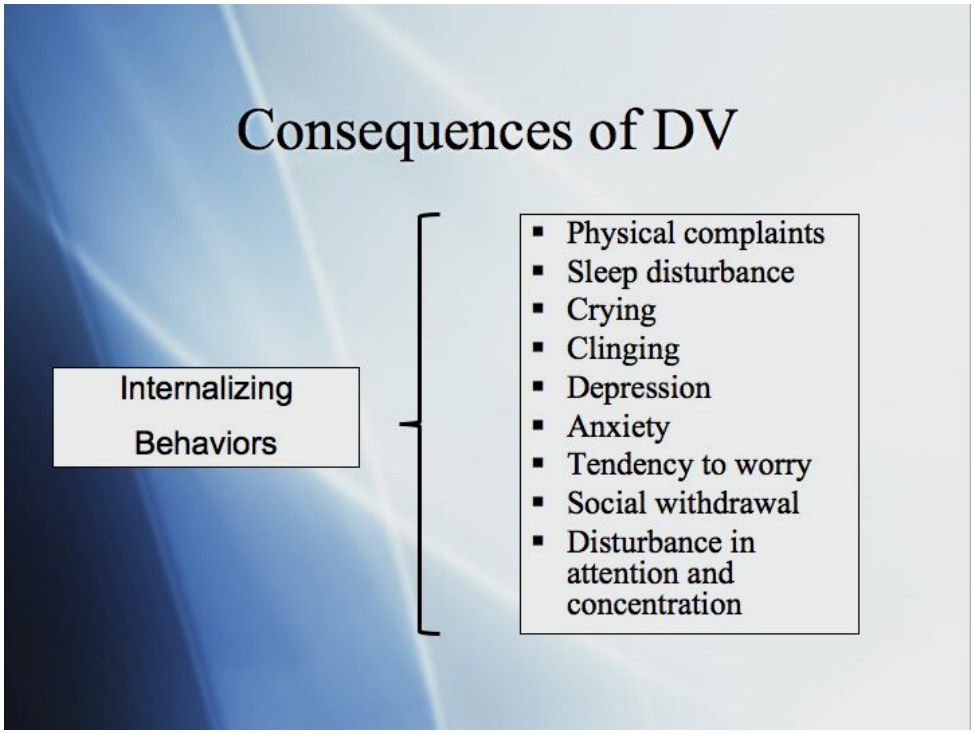

Domestic Violence Defined
"Behaviour in an intimate relationship that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse, and controlling behaviours" (World Health Organization, 2011).

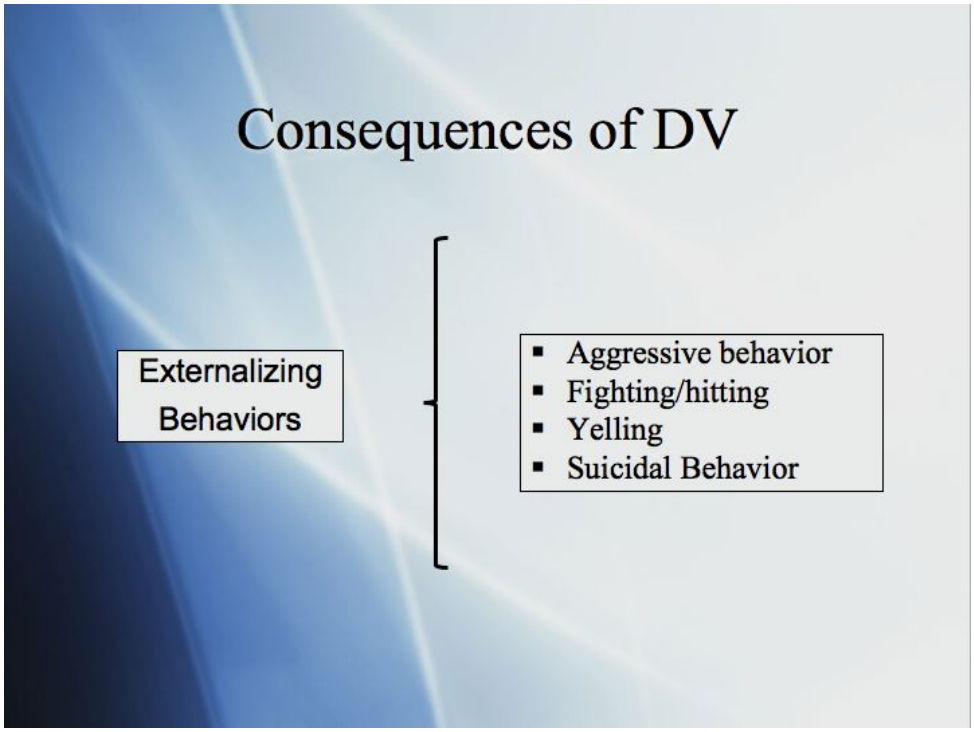

Domestic Violence Exposure
Direct exposure
Seeing
Hearing
Intervening
Indirect exposure
Hearing about violence
Seeing aftermath

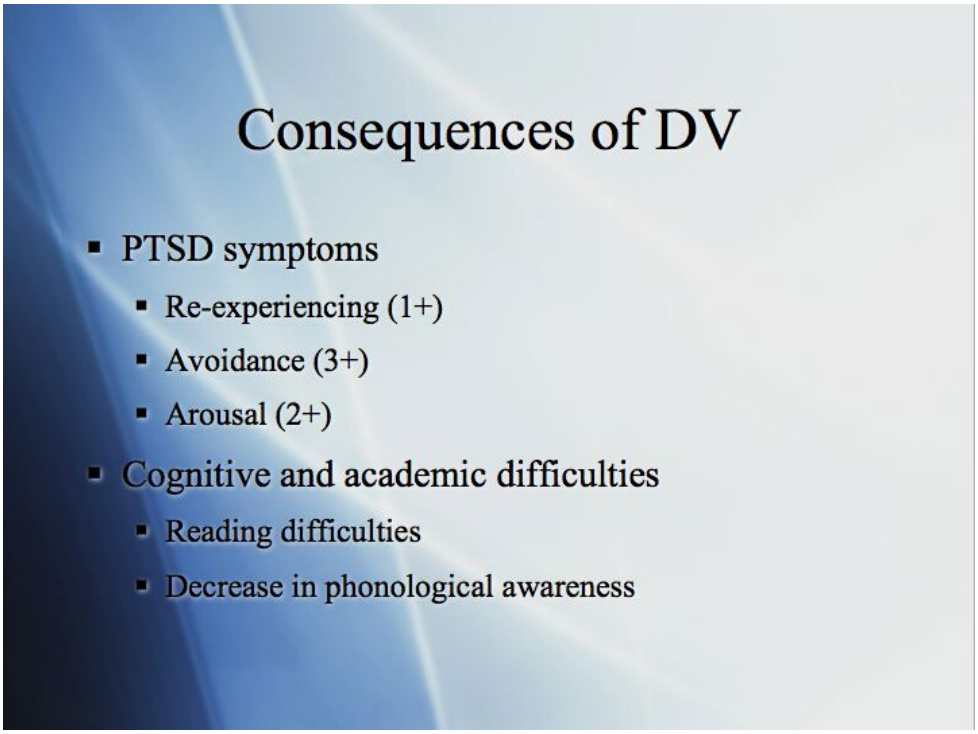

DV Prevalence Rates
7.7 million incidents of DV reported each year
In 2007, 2,340 deaths resulted from DV
166,361 emergency calls in 2010 (CA only)
40% of these calls involved use of weapon

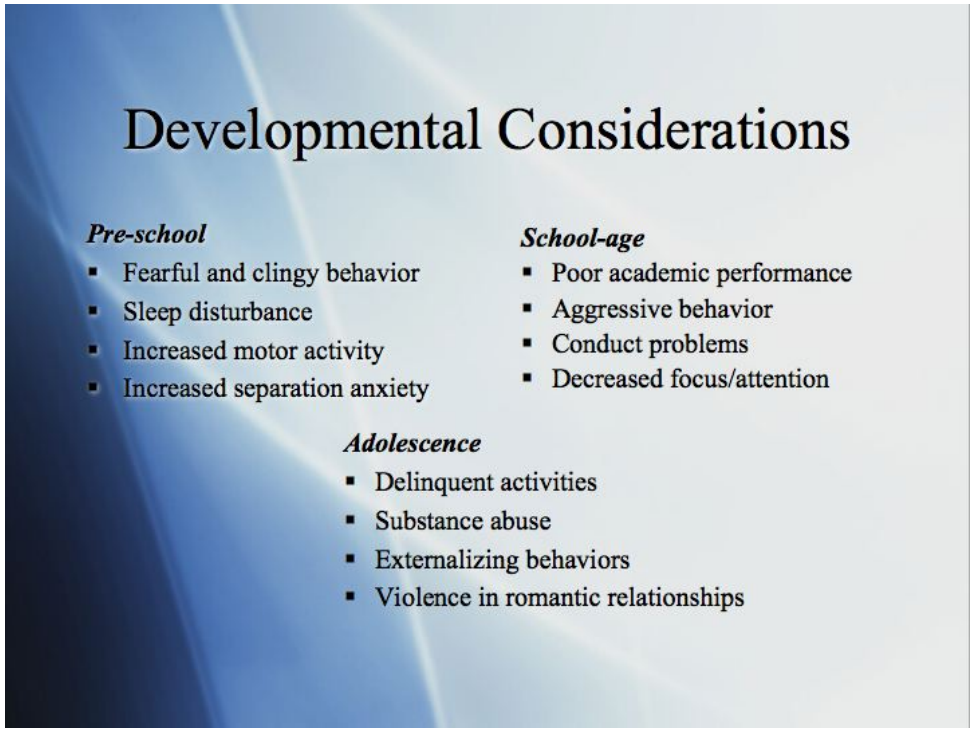

Prevalence Rates for Children's Exposure
15.5 million children exposed to 1+ episode of DV in past year
Between 2001 and 2005, 38% of homes with DV had 1+ child under age 12

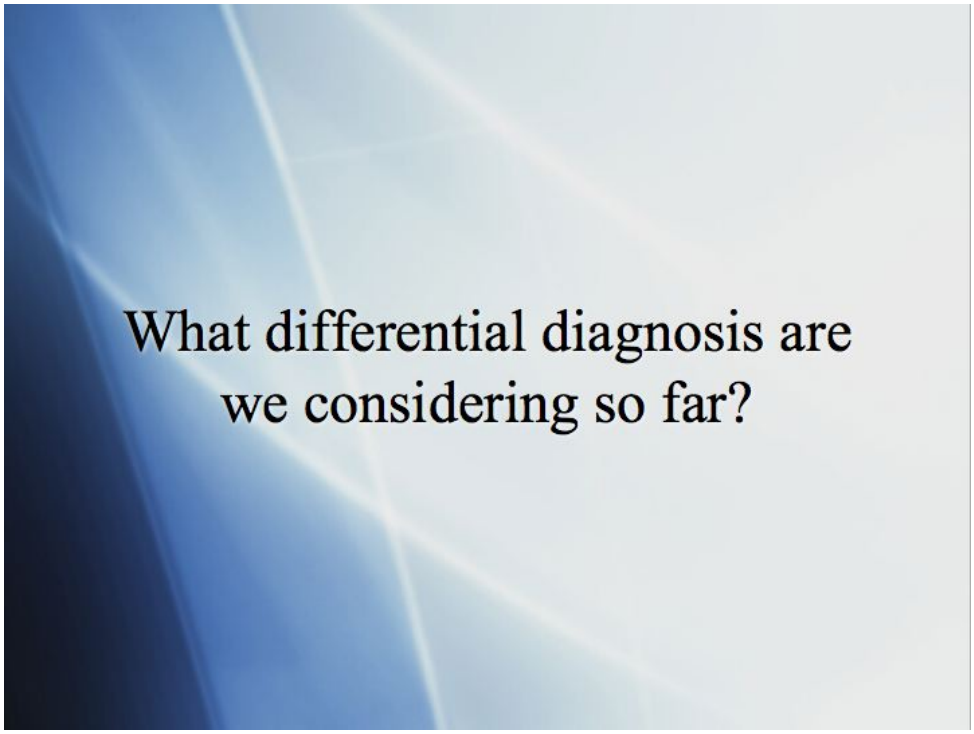

Consequences of DV Exposure for Children
Internalizing behaviors
Externalizing behaviors
Posttraumatic stress symptoms
Cognitive and academic difficulties
Biological and physiological consequences


Consequences of DV
Internalizing Behaviors
Physical complaints
Sleep disturbance
Crying
Clinging
Depression
Anxiety
Tendency to worry
Social withdrawal
Disturbance in attention and concentration


Consequences of DV
Externalizing Behaviors
Aggressive behavior
Fighting/hitting
Yelling
Suicidal Behavior

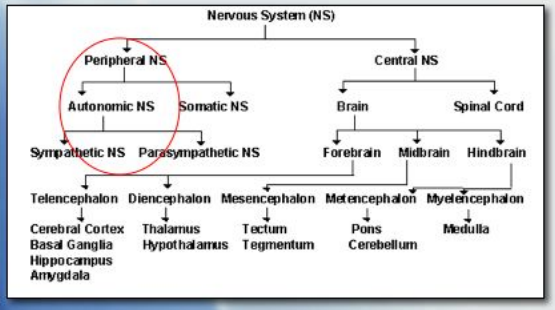

Consequences of DV
PTSD symptoms
Re-experiencing (1+)
Avoidance (3+)
Arousal (2+)
Cognitive and academic difficulties
Reading difficulties
Decrease in phonological awareness


Developmental Considerations
Pre-school
Fearful and clingy behavior
Sleep disturbance
Increased motor activity
Increased separation anxiety
School-age
Poor academic performance
Aggressive behavior
Conduct problems
Decreased focus/attention
Adolescence
Delinquent activities
Substance abuse
Externalizing behaviors
Violence in romantic relationships

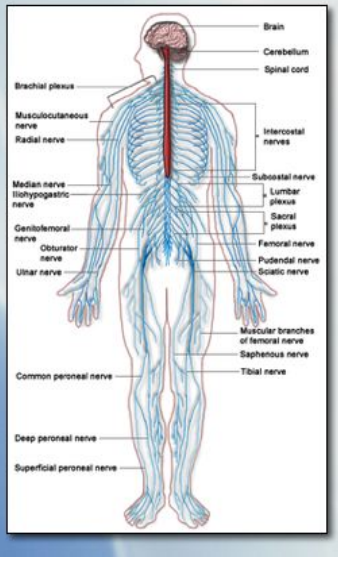

What differential diagnosis are we considering so far?

The Peripheral Nervous System

- Connects CNS to organs and limbs
- Comprised of Autonomic NS and Somatic NS
  - Autonomic Nervous System is comprised of:
    - Sympathetic NS (fight-or-flight)
    - Parasympathetic NS (calm/relaxation)



The Peripheral Nervous System



Impact on Peripheral Nervous System

- Tonic immobility (*freeze* response)
  - Fight-or-flight (Sympathetic NS) not activated during threat
- The Parasympathetic NS becomes activated during threat as a protective factor
- Consequently, trauma is "stored" in the body
  - Evolutionarily adaptive response to danger

Impact on Memory

- Hippocampus: transfers memory from short-term to long-term memory
- As a result of trauma, memory not properly stored in past
- Triggers make memory feel like the present

Towards a Holistic Conceptualization of Health and Trauma-Based Practice

- Integration of complementary practices
- Recognition of mind and body connection
- Holistic conceptualization of health and illness
- Promoting a balanced state of being
- Role of yoga in addressing impact of trauma

Yoga Defined

- "Yoga is a series of movements, postures, breathing techniques, and focused attention that allow for people to create and enhance a connection to the self."

Yoga Defined

- Originated 5000+ years ago in ancient India
- Rooted in religious practices
- Various types (e.g., bikram, hatha, kundalini, power yoga)

Yoga's Popularity and Emergence

- As of 2008, Americans were spending $5.7 million per year
  - Yoga classes and products
- Roughly 15.8 million in U.S. practice yoga
- One of the 10 most commonly practiced types of complementary healthcare in U.S.

Impact of Yoga on Medical Conditions

Medical Condition

- Irritable Bowel Syndrome
- Type 2 Diabetes
- Chronic Pancreatitis
- Epilepsy
- Lymphoma
- Breast Cancer

Symptom Reduction

- Decreased medical symptoms
- Improved mood
- Decreased stress
- Decreased sleep disturbance
- Increased quality of life

Impact of Yoga on Mental Health Conditions

- Research supports positive impact on mental health symptoms:
  - Generalized Anxiety Disorder
  - Depression
  - Stress reduction

Yoga as a Treatment for Children

- Research has shown improvement in the following:
  - Attention
  - Stress and academic performance
  - Deviant behaviors
  - Overall well-being
    - Emotional well-being, self-perception, self-worth, and perception of physical health
  - Other studies also focusing on yoga used for health reasons

Rationale for Yoga as Trauma Treatment

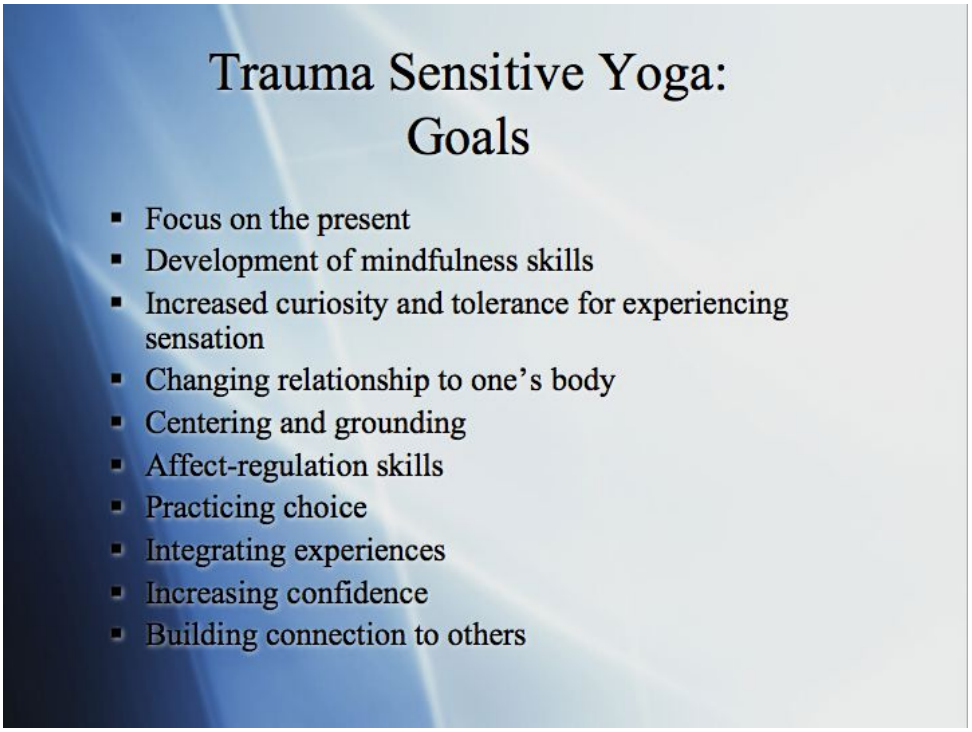
- Addresses disregulation in the body
  - Builds sense of connection to body
- Increased ability to remain present
- Increased ability to tolerate inner experience
- Greater ability to control impulses
- Develop new and positive relationship with body

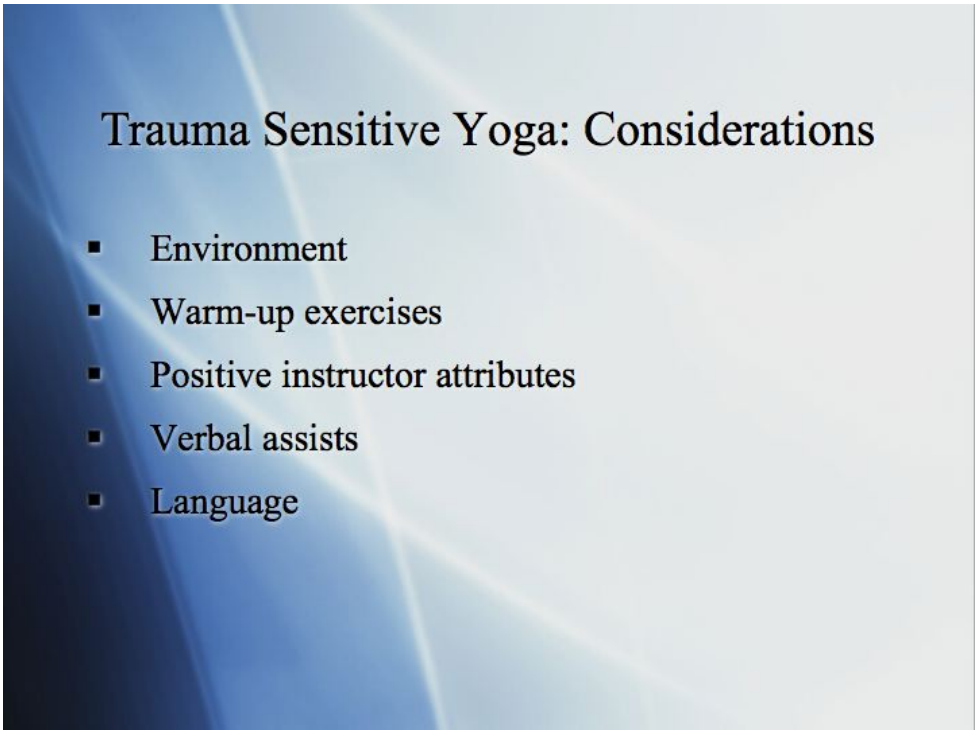
Yoga as Trauma Treatment

- Tsunami victims in SE Asia
  - Positive impact on PTSD, Depression, and Quality of Life
- Youth in residential setting
  - Safety, choice and control, awareness of bodily sensations and ability to regulate them, and psychoeducation
- Beneficial for treatment-unresponsive women with chronic PTSD
  - Decrease in PTSD symptoms

Yoga's Applicability to Children

- Fun; use of imagination
- Less stigmatized form of treatment
- Poses are relatable
  - Environmental and visual cues
  - Relation to animals or nature
- Abdominal breathing (lying down)
  - Windmill
  - Paper boat
- Relaxation
  - Floating on a cloud


Trauma Sensitive Yoga:
Goals
Focus on the present
Development of mindfulness skills
Increased curiosity and tolerance for experiencing sensation
Changing relationship to one's body
Centering and grounding
Affect-regulation skills
Practicing choice
Integrating experiences
Increasing confidence
Building connection to others


Trauma Sensitive Yoga: Considerations
Environment
Warm-up exercises
Positive instructor attributes
Verbal assists
Language

So…what can *you* do now?

- Do yoga!
- Learn more about yoga
- Learn more about impact of trauma on the body
- Consult with yoga professionals who have experience treating trauma
  - Avoid blindly referring to any yoga class
- Differentiate between yoga practice and principles

Yoga Practice vs. Principles

- Mindfulness, movement, and breath
- Understanding of impact of trauma on body
- Observe thoughts without judgment
- Ability to differentiate level of distress versus level of mastery/control
- Daily practice to increase skill set

Questions

Contact Information

Email: dalvarado@alliant.edu

APPENDIX F

PRESENTATION HANDOUT

"The Use of Yoga as a Complementary Practice When Treating Children Who Have Been Exposed to Domestic Violence"

David Alvarado, M.A.

The Village Family Services
September 7, 2012

Professional Contributors

David Emerson, E-RYT
- Director of Yoga Services at *The Trauma Center (Justice Research Institute)*

Hala Khouri, M.A., E-RYT
- Individual provider of somatic counseling and trauma-sensitive yoga

Leslie Ross, Psy.D.
- Vice President of the Leadership Center at *Children's Institute, Inc.*

Mariana Pascuzzi, M.A., MFTI, CYT
- Domestic Violence Training Coordinator, Leadership Center, *Children's Institute, Inc.*

Sherisa Dahlgren, LMFT
- Vice President of Clinical Programs at *Joyful Heart Foundation*

Online Resources

http://www.traumacenter.org/
http://yogaalliance.org/
http://www.joyfulheartfoundation.org/
http://www.yogaed.com/
http://halakhouri.com/

Yoga for Children: Games/Activities

Yoga 4 Kids in the Rainforest (Board Game)

The Kids' Yoga Deck: 50 Poses and Games

Yoga Pretzels: 50 Fun Yoga Activities for Kids & Grownups

Suggested Readings

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APPENDIX G

VITA

VITA

David E. Alvarado, M.A.

EDUCATIONAL EXPERIENCE

2009-Present	**California School of Professional Psychology** **Alliant International University** PsyD Candidate Los Angeles, California (APA Accredited) Anticipated Graduation Date: June, 2013
2007-2008	**Phillips Graduate Institute** Doctorate in Clinical Psychology program Encino, California (WASC Accredited)
2000-2004	**Boston University** Bachelor of Arts in Psychology

SUPERVISED CLINICAL EXPERIENCE

Full-time Clinical Psychology Intern (*Bilingual-Bicultural Track)*, Children's Institute, Inc., Los Angeles, California (APA Accredited)
September 2012 – August 2013

- Provided outpatient individual, family, and group psychotherapy (in English and Spanish) to an underserved population of children, adolescents, and families in a community-based setting
- Participated in weekly Headstart preschool mental health consultation program with the purpose of offering consultation services to teachers and staff

Practicum II (Clinical), Kaiser Permanente Medical Group, Lomita, California
September 2011 – August 2012

- Provided outpatient individual psychotherapy to adults and older adults who maintain health insurance through Kaiser Permanente
- Administered, scored, and completed assessment batteries with children and adults, utilizing such instruments as: WAIS-IV, MMPI-II, Brown ADD Scales, Bender-Gestalt Test, Trail Making Test, and other instruments upon request

Practicum I (Clinical), Long Beach Job Corps, Long Beach, California
September 2010 – August 2011

- Provided individual, couples, family, and group psychotherapy to transitional age youth (16-24 years old) in a residential living facility for over 300 individuals
- Co-presented and co-created a 2-hour training on the prevention of suicide and bullying to over 100 Long Beach Job Corps staff

ADDITIONAL CLINICAL EXPERIENCE

Case Manager (*Child Trauma department*), Children's Institute, Inc., Los Angeles, California
July 2008 – August 2009

- Co-facilitated domestic violence victim groups for young children
- Administered trauma assessments, intakes, and follow-up assessments with mothers and children in English and Spanish

Case Manager (*L.A. Bridges gang-prevention program*), Children's Institute, Inc., Los Angeles, California
August 2006 – August 2007

- Counseled and mentored children (10-14 years old) in a school-based setting who were identified as at risk for joining gangs or using drugs
- Administered intake assessments with youth and parents in English and Spanish
- Co-facilitated group therapy sessions for at-risk youth

Teacher/Counselor (*Day Treatment Intensive preschool*), Children's Institute, Inc., Torrance, California
June 2004 – August 2006

- Supervised and interacted with preschool children diagnosed with severe behavioral and emotional disorders in addition to preparing therapeutic activities

RESEARCH EXPERIENCE

Research Assistant (*Child Trauma/Research department*), Children's Institute, Inc., Los Angeles, California
July 2008 – August 2010

- Assisted with data entry, prepared follow-up reports for therapists, and attended domestic violence groups to assist with the administration of assessment measures

SCHOLARSHIPS

CSPP Dean's Award of Excellence (2010-2011 academic year)

PROFESSIONAL PRESENTATIONS

Alvarado, D. E., Magalhaes, C., & Auciello, L. (2012, September). The use of yoga as a complementary practice when treating children and adolescents exposed to domestic violence. Invited presentation at The Village Family Services, North Hollywood, California.

PROFESSIONAL AFFILIATIONS

American Psychological Association (Student Affiliate Member)