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## **Yoga As Therapeutic Intervention with Survivors of Sexual Abuse: A Systematic Review**

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*St. Catherine University*

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Yoga As Therapeutic Intervention with Survivors of Sexual Abuse:  
A Systematic Review

by

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MSW Clinical Research Paper

Presented to the Faculty of the  
School of Social Work & Holistic Health Studies Program  
St. Catherine University and the University of St. Thomas  
Twin Cities, Minnesota

In Partial fulfillment of the Requirements of the Degree of

Master of Social Work & Master of Holistic Health Studies

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The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

### **Abstract**

Survivors of sexual abuse state that the experience is harrowing, involving both their body and mind. Traumas like these stimulate the stress response and can result in disjointed memories within both the body and the mind. Working with the felt sensations of the body, in conjunction with more traditional talk based therapies, may help to create clarity within these disjointed memories. This systematic review was designed to explore the research question: What makes yoga a therapeutic intervention with survivors of sexual abuse? The review was set up using peer-reviewed articles and dissertations published after 2005. The databases PsycINFO, Alt HealthWatch and ProQuest Dissertations & Theses were systematically searched using the terms; “incest” or “rape” or “sexual abuse” or “intimate partner violence” AND “yoga” or “mindfulness” or “meditation” or “mind body therapy”. Out of these searches, 10 articles and dissertations satisfied criteria for inclusion and were used in the final review. Six themes emerged from the research synthesis regarding what makes yoga a therapeutic intervention with survivors of sexual abuse; 1) establishing a sense of safety, 2) providing choice and a sense of control, 3) addressing the relationship with the body and personal boundaries, 4) yoga and mindfulness as an adjunct treatment with psychotherapy, 5) the use of present mind thinking, and 6) accessibility and self-treatment. The research suggests the importance of including the body in therapeutic work with survivors of sexual abuse. Moving forward, more research is required with survivors of sexual abuse to better understand the therapeutic needs of this population. Exploring potential risks of this form of intervention as well as the relationship between yoga practitioner and mental health provider are also important areas for further study.

*Keywords:* yoga, meditation, sexual abuse, body-based trauma, mindfulness

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### **Introduction**

Many survivors of sexual abuse state that the experience is a harrowing one that engages both their body and their mind. Sexual abuse involves unwanted sexual activity where the victim of the abuse is either unable to or does not give consent (American Psychiatric Association, 2013). Unwanted sexual activity can involve touch, exposure, or penetration. The issue of sexual abuse permeates through all socioeconomic classes, cultures, races, religions, sexual orientations, and genders. While sexual abuse is most commonly discussed in relation to women as the victims, men can also be victims of sexual abuse.

Sexual abuse is an all too common phenomenon in the United States. According to a report put out by the National Crime Victims Research and Treatment Center, 18% of women in the United States will be raped in their lifetime (Kilpatrick, Resnick, Ruggiero, Conoscenti, & McCauley, 2007). Roughly 270,000 women in the United States experienced rape or sexual assault in 2010 alone (Planty & Krebs, 2013). While women comprise the great majority of victims, it is estimated that men make up 10% of all victims of sexual assault in the United States (Male Sexual Assault, 2014). When exploring sexual abuse statistics by age, 15% of victims in the United States are under the age of 12 years old, 44% are under the age of 18, and 80% of victims are under the age of 30 (Greenfeld, 1997). By expanding the scope of sexual abuse to include acts of incest and molestation, approximately 32% of women in the United States and 14% of men report experiencing sexual abuse in childhood (Briere & Elliott, 2003). Sexual abuse is an issue that continues to affect men, women and families all over the world and the physical and emotional pain that can result from these acts can continue to affect a survivor years after the abuse occurred.

### **Posttraumatic Stress Disorder**

Many survivors of sexual abuse, regardless of whether their abuse was a single incident or a repeated experience, develop symptoms of Posttraumatic Stress Disorder (PTSD) as a mechanism for surviving the abuse. PTSD is believed by some to develop,

...when the trauma persists despite our best efforts to escape it...The traumatic event occurs despite the fact that everything we are-our physical, intellectual, emotional, and neurobiological selves-is trying to help us get away. When this occurs, we can become deeply wounded, left with the sense that our own body has betrayed us by failing to get us to safety. (Emerson & Hopper, 2011, "Reclaiming Your Body", para. 13)

When the body fails to protect the individual, the individual responds by consciously or unconsciously disconnecting from the body. However, this separation is not tidy, but rather creates dysregulation between emotions, cognitions, and the body.

The DSM-V identifies four distinct diagnostic clusters for PTSD and includes a dissociative subtype. These four diagnostic clusters include re-experiencing, avoidance, negative cognitions and mood, and arousal (American Psychiatric Association, 2013). PTSD can develop within hours or years after a trauma has occurred. Many of the long-term psychological effects associated with experiencing trauma include "depression, anxiety, anger, fear, dissociation, and numbing of feelings" (Schachter, Stalker, & Teram, 1999, p. 251).

Similar to issues concerning the mind, survivors of trauma are at an elevated risk for developing issues of the physical body: chronic pain, migraine headaches, and muscle spasms (Schachter, Stalker, & Teram, 1999; Emerson & Hopper, 2011). This increased risk for chronic issues related to the body has led some researchers to explore how the body responds to trauma, as well as the possible link between the body and the mind when it comes to processing memory

around traumatic events (Williams, 2006; Crawford 2010; Rothschild, 2000). There is a growing body of research and intervention development around working with the psychological and emotional effects of trauma (Warshaw, Sullivan, & Rivera, 2013). However, understanding the long-term physical effects of trauma on the body, as it is associated to body memory, is a newer area of study. What does appear to be a commonly agreed upon response to trauma is dissociation from the body and a desire to disconnect or numb body sensations (Emerson & Hopper, 2011).

**Sexual Abuse.** Trauma resulting from acts of sexual abuse has a different hue from traumas resulting from a serious car accident, war, or natural disaster. Sexual abuse involves an intimate act of touch or penetration, and in most cases the victim knows his or her perpetrator (American Psychological Association, n.d.). In many cases, sexual abuse is considered an act of interpersonal violence. The personal nature of this form of trauma leads to confusion and increased feelings of guilt and shame towards self within the victim (Hegadoren, Lasiuk, & Coupland, 2006). Hegadoren, Lasiuk, and Coupland (2006) explain that acts of interpersonal violence,

...cannot be assimilated into a person's schema of their self-in-relation-to-the-world.

Interpersonal violence disrupts one's sense of identity, basic trust in other people, and trust in the world as a safe, predictable place. Because of the intensely personal nature of interpersonal violence, victims and survivors often live with debilitating shame and self-blame. (p. 167)

Trauma resulting from sexual abuse affects not only a survivor's relationship with the external world, but with his or her internal world as well.

### **How the Body Remembers**

To understand how the body and somatic memory are affected by trauma, it is important to first understand the body's survival response to stress. Daruna (2012) explains how the stress response in the human body is controlled by two major systems: the automatic nervous system (ANS) and the endocrine system. The ANS is made up of the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS). It is these two systems, SNS and PNS, which regulate the stress response. The stress response is widely described as the "fight or flight" response, an idea first coined by Dr. Walter Bradford Cannon in the 1930's. In the years after Dr. Cannon introduced the idea of "fight or flight" the responses of *freeze* and *appease* or *submit* were added to the vocabulary of the stress response.

The SNS is responsible for activating the fight or flight response when the individual first encounters a stressor. This stressor could be a lion, an important exam, or a perpetrator who does not respond to the command "no." According to Emerson and Hopper (2011), the SNS response to a potential threat is to prepare the body to either run (flight) from the threat or fight off the threat. The SNS is responsible for increasing both the individual's heart rate and respiration as well as preparing the muscles for quick activation (Emerson & Hopper, 2011). If the response of "fight or flight" is not effective in fending off the stressor, the PNS is activated and takes over the stress response by utilizing the responses of "freeze and appease". "If our adversary appears overpowering and flight or fight seems impossible, then the dorsal vagal branch of the parasympathetic system is activated (dissociation and freeze) and the ANS is designed to reduce the pain and terror of what might be imminent death" (Quillman, 2013, p.358). The PNS is a mechanism in the human body that helps to reduce pain and suffering, both emotional and physical, while an attack is going on. The PNS allows an individual to disconnect

or dissociate from an experience.

The stress response is an unconscious process in the body that works to help keep the body safe and in balance by regulating the body's baseline function. In the moment of imminent danger, the stress response is incredibly effective by allowing the body to function in a heightened state of arousal; however, this defense mechanism can lead to disjointed or fragmented memories that are incoherent to the individual after the stressor has gone and the body is able to return to a state of relaxation and "normal" baseline (Crawford, 2010; Quillman, 2013; Emerson & Hopper, 2011). One of the reasons for the appearance of disjointed memories in individuals who have experienced a stressful event is the secretion of cortisol, also known as the human stress hormone (Wolf, 2009). While cortisol is a key factor in the creation of short-term memories, when cortisol is maintained at high levels for extended periods of time it can begin to have a negative effect on learning and memory retrieval (Wolf, 2009). Individuals who have experienced trauma may find their bodies routinely in a state of hyperarousal, where they are triggered by stimuli and taken back to the original event, resulting in elevated levels of cortisol being released into the body. These high levels of cortisol impair learning and memory retrieval. According to Wolf (2009), "The main conclusions are that stress or cortisol treatment temporarily blocks memory retrieval. The effect is stronger for emotional arousing material independent of its valence" (p. 142).

While the stress response may help the conscious mind and memory dissociate or block out an experience, the physical or somatic memory has a harder time forgetting the event. According to Emerson and Hopper (2011), "When we dissociate, we might be consciously completely unaware of traumatic memories, or of the emotional pain attached to the memories. But the pain may still be held somatically" ("Traumatic Stress", para. 34). This separation or

disconnection between the conscious mind and a physical experience can lead to confusion within the individual. “The memory of the traumatic event is encoded, but the individual is missing the ability to make sense of the somatic sensations that are really implicitly felt memories of the event” (Williams, 2006, p. 328).

Working with the felt sensations in the body in conjunction with more traditional forms of therapeutic interventions (counseling, group work, support groups) may help to create clarity around the confusion that comes from disjointed or encoded memories (Duros & Crowley, 2014; Quillman, 2012; Crawford, 2010). Bodywork can tap into the somatic memory stored in the body, and talk-based therapy can help the individual work through this discovery process to create a holistic form of healing. “While talk-based therapy serves a critical role in the healing process, many are finding that it is insufficient by itself. We must address the ways that trauma is held in the body in order to make the healing process more complete” (Emerson & Hopper, 2011, “Reclaiming Your Body”, para. 15). This understanding of how traumatic events are held in the body have led many to explore the use of mind-body interventions as a tool in the healing process.

### **Yoga Therapy as a Mind-Body Intervention**

The fundamental belief behind mind-body interventions is that the individual must be seen as a whole person rather than a collection of parts (Micozzi, 2011). Mind-body work focuses on increasing awareness towards both the body and the mind, and encouraging communication between these two entities. The idea is that if the mind is unhealthy or off balance the body will show symptoms of this imbalance and vice versa. With this idea in mind, true healing can only be achieved by working with both the body and the mind in tandem.

Mind-body interventions include, but are not limited to, guided imagery, biofeedback,

meditation, Reiki, and yoga (Micozzi, 2011; Duros & Crowley, 2014). Of these mind-body interventions, yoga can be singled out as a movement based mind-body intervention. According to the National Center of Complementary and Alternative Medicine (NCCAM), a department under the U.S. Department of Health & Human Services,

Yoga is a mind and body practice with historical origins in ancient Indian philosophy.

Like other meditative movement practices used for health purposes, various styles of yoga typically combine physical postures, breathing techniques, and meditation or relaxation (Yoga for Health, 2014).

Yoga requires both body awareness within the different postures, and mindfulness for focus and breath control. Yoga is a form of movement-based meditation, and “invites students to listen first and foremost to their own bodies and to be guided by their own experience in the moment” (Emerson & Hopper, 2011, “Yoga”, para. 5). While many individuals who practice yoga, especially in the West, do so in a group setting with a teacher, yoga can also be used as an individual practice. Students are invited to connect with themselves and their feelings individually, both physically and mentally.

**Philosophy of Yoga.** The philosophy of yoga is often described using the image of a tree having eight limbs (Ross & Thomas, 2010; Chapman & Bredin, 2010). Each “limb” represents a different step towards the ultimate goal of *samadhi*, interpreted as bliss, self-awareness or wholeness (Carrera, 2006; Ross & Thomas, 2010; Chapman & Bredin, 2010). These eight limbs include, “*yama* (universal ethics), *niyama* (individual ethics), *asana* (physical postures), *pranayama* (breath control), *pratyahara* (control of the senses), *dharana* (concentration), *dyana* (meditation), and *samadhi* (bliss)” (Ross & Thomas, 2010, p. 3). The philosophy of the eight limbs starts big and external with *yama*, or universal ethics, and works inward towards *dyana*

(mediation), and eventually to *Samadhi*, explained as bliss or wholeness. A deep practice of yoga involves withdrawing one's senses from the outside world and connecting with the sensations of the mind-body interaction.

According to Emerson and Hopper (2011),

...there are many different styles of yoga to choose from, with some of the most popular being Vinyasa, Power, Iyengar, and Bikram, amongst dozens of others. While all of these emphasize the physical practice and attention to breath, each style presents yoga in a slightly different way. For example, some styles are more focused on postural alignment, while others concentrate on synchronizing movement and breath (“Yoga”, para. 11).

These individual forms of yoga were developed to address different needs or imbalances within the human body. For example, Iyengar yoga, popularized by B.K.S. Iyengar, focuses on body alignment and requires students to hold positions for extended lengths of time (Broad, 2012; Hanley, 2014). Iyengar is beneficial for those with chronic pain. Vinyasa, also referred to as yoga flow, is a fluid form of yoga in which individuals flow from one position to the next with little to no pause (Broad, 2012; Hanley, 2014). Vinyasa practices are beneficial to increase movement in the body and joints. Each style of yoga presents a way of healing the body and bringing balance where there is imbalance. There is a style or adaptation of yoga for virtually everyone, it is a matter of discovering what is most beneficial for the individual.

**Yoga for Healing.** Research around the use of mind-body work, specifically yoga, with survivors of trauma has increased in the last 10 years. This research suggests that yoga, when used as an intentional form of intervention, is able to reduce symptoms of PTSD, including anxiety and depression, in survivors of sexual abuse (Lilly & Hedlund, 2010; Kaley-Isley,

Peterson, Fischer, & Peterson, 2010; Emerson & Turner, 2009). According to Hopper (2010), quoted by Lilly and Hedlund (2010), yoga works as a therapeutic intervention with survivors of sexual abuse because the principles of yoga address the four areas of need for beginning any intervention with survivors of sexual abuse. These areas include,

1. “Establishing safety and stability in one’s own body, one’s relationships, and the rest of one’s life.
2. Tapping into and developing one’s own inner strengths, and any other potentially available resources for healing.
3. Learning how to regulate one’s emotions and manage symptoms that cause suffering or make one feel unsafe.
4. Developing and strengthening skills for managing painful and unwanted experiences and minimizing unhelpful responses to them.” (p. 121)

Looking back at the eight limbs of yoga, the practice of yoga requires attention to these same four areas. The first “limb” of *yama* (universal ethics) includes the ideas of nonviolence and truthfulness (Carrera, 2006). These ideas of *yama* are the foundation of safety and stability.

From this foundation, the individual can begin to move towards healing. The “limbs” of *asana* (physical postures) and *pranayama* (breath control) allow the individual to draw on their own inner strength. *Pratyahara* (control of the senses) helps to regulate emotions by intervening with the “fight or flight” response. Lastly, *dharana* (concentration) and *dyana* (meditation) teach the individual how to remain present in the moment and allows the individual to become discerning over which thoughts or emotions they would like to focus on and which they can allow to pass over.

Hopper (2010) articulates that the practice of yoga addresses the areas of greatest need

and awareness for survivors of trauma (Lilly & Hedlund, 2010). The concern, however, is that any movement-focused work may act as a trigger to survivors of body trauma (Lilly & Hedlund, 2010; Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry, & Turner, 2009). It is important to be intentional with the style and practice of yoga being used as an intervention with survivors of sexual abuse. It is also necessary that yoga teachers be trained to respond responsibly to the needs of the survivor. This emphasizes the point that not all trauma is the same and the element of physical intrusion associated with sexual abuse may have diverse and individualized effects on survivors.

**Trauma-Sensitive Yoga.** Trauma-sensitive yoga emerged from the Trauma Center at the Justice Resource Institute in Brookline, Massachusetts in 2003. David Emerson and Dr. Bessel van der Kolk collaborated to create a style of yoga practice that would take into consideration the particular physical, mental and emotional needs of survivors of trauma. From their collaboration and research, Emerson and van der Kolk identified four areas of attention for teachers of trauma-sensitive yoga. These areas include language, assists, environment and postures (Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry, & Turner, 2009). While attention to these areas are considered in all forms of yoga, Emerson and van der Kolk are intentional around what considerations need to be taken when practicing yoga as a therapeutic intervention for survivors of trauma.

**Language.** Emerson and van der Kolk emphasize the need for yoga teachers to avoid commanding language and use instead *language of inquiry* and *invitatory language* (Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry, & Turner, 2009). Commanding language like “keep holding” may trigger a survivor of body trauma as it may remind them of the language used when they were subdued by their perpetrator. Invitatory language like “see if you can hold

for 5-4-3-2-1” or “when you are ready” provides the survivor with more self-determination and choice within the practice. Emerson and van der Kolk also encourage instructors to be thoughtful around the words used to describe specific movements in trauma-sensitive yoga. Phrases such as “squeeze your butt” or “push your hips” may feel aggressive. Terms like “gently lift” or “raise your hips” are encouraged alternatives.

***Assists.*** In yoga there are three forms of assists that are used to help guide students; verbal, visual, and physical. In trauma-sensitive yoga verbal assists are the primary mode for assisting students with postures. The important considerations around verbal assists in trauma-sensitive yoga have already been addressed. Visual assists consist of the teacher modeling the movement for the students. This form of assist is also used in trauma-sensitive yoga classes. The one concern around visual assists is that some students may begin to compare themselves with the instructor creating feelings of guilt or shame. In some yoga classes, teachers prefer to demonstrate the more basic form of a posture rather than the more advanced form to limit this type of comparison. It is very important in the practice of trauma-sensitive yoga for the instructor to continually remind students to focus on themselves and that each individual’s practice is unique to the individual (Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry & Turner, 2009). Physical assists, which involve a yoga teacher touching the student to move the body in order to achieve proper alignment, are rarely used in trauma-sensitive yoga. Instead of using physical assists an instructor may suggest using yoga props such as a block or blanket to help the student more comfortably find the posture. If a physical assist is ever used, it is essential that the instructor first ask permission of the student.

***Environment.*** Safety is of the utmost importance when exploring ways to heal from trauma (Lilly & Hedlund, 2010; Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry, &

Turner, 2009). Creating a safe environment where survivors can practice yoga and listen to their bodies requires careful consideration. A sense of safety can be enhanced by the perceived privacy of the room, lighting, music selected, and set-up of the practice space (Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry, & Turner, 2009). Emerson and van der Kolk suggest that windows and mirrors should be covered and that the room should be well lit. This will allow students to know who is in the room and to avoid any concerns of who may be watching the practice. The goal when creating a safe environment is to avoid possible triggers associated with the space itself.

**Postures.** When developing a practice of trauma-sensitive yoga it is important to take into consideration what positions you are asking individuals to put their bodies into (Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry, & Turner, 2009). Postures like the hip opener *happy baby pose*, which draws open the hips and exposes the pelvic area while the individual is lying on their back, or *downward facing dog*, which puts the body in an upside-down V-position, may feel unsafe or exposing for survivors of sexual trauma. Postures where one's head is down and one's area of vision is limited may feel threatening. Not all postures are appropriate in trauma-sensitive yoga. It is important to offer options and alternatives in trauma-sensitive yoga so that the survivor feels a sense of control and choice within the practice (Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry, & Turner, 2009). For example, most yoga classes end with the posture *corpse pose* where the individual lays on his or her back with eyes closed in a final meditation. This position can make an individual feel vulnerable. There are alternatives where individuals lay on their side in a fetal position or sit up for the final meditation with their bodies still but their eyes open. These alternatives can achieve a similar awareness in the body without making the individual feel unsafe.

The work of Emerson and van der Kolk is one example of how yoga is being used as a method for healing survivors of trauma. There are likely many more methods, but they have not been collated or accounted for in the literature. The purpose of this study is to systematically explore what makes yoga a therapeutic intervention with survivors of sexual abuse.

## **Methods**

### **Research Purpose**

The purpose of this systematic literature review was to explore the question: what makes yoga a therapeutic intervention with survivors of sexual abuse?

For the purpose of this study, sexual abuse referred to any unwanted sexualized act involving physical touch: rape, attempted rape, molestation, incest, sexual assault, and sexual trauma. Sexual harassment was not included under the umbrella of sexual abuse in this study due to the fact that this study focused on the physical nature of sexual abuse. Sexual harassment, while it can have a physical component, includes unwanted verbal aggressions, which was not the focus of this review (U.S Equal Employment Opportunity Commission, 2009). Sexual abuse experienced at any time of life was included in this review. The sexual abuse could have been a single occurrence or a repeated offense. While the majority of survivors of sexual abuse are women, the experiences of men were also included in this review (Briere & Elliott, 2003).

This review looked at the use of yoga as an intentional therapeutic intervention, being used for the purpose of healing from sexual abuse. The intentionality of this practice is sometimes referred to as trauma-sensitive yoga (Emerson & Hopper, 2011; Emerson, Sharma, Chaudhry, & Turner, 2009). This study considered elements of yoga practice, including physical postures, meditation, mindfulness, breath work, and mind-body awareness, as being core to the holistic practice of yoga. All of these elements were included in this review under

the umbrella of yoga interventions. Some consideration was taken to look at the effectiveness of yoga as a therapeutic intervention, however the main focus of this review was on how and when yoga interventions are used with survivors of sexual abuse.

### **Type of Studies**

To answer the question of what makes yoga a therapeutic intervention with survivors of sexual abuse, only empirically based, qualitative, and quantitative studies were considered. Case studies, focus groups, and in-depth interviews were taken into consideration. The focus of this study was on the experiences and perspectives of participants, therefore the experiences of practitioners were not included.

### **Search Strategy**

In a preliminary search of academic journals and online search sites including SocINDEX, Google Scholar, PsycInfo, and Alt HealthWatch, no systematic literature reviews were found addressing the question of how yoga is being used as a therapeutic intervention with survivors of sexual abuse. In order to understand the scope of available literature around the research question, a search for both sensitivity and specificity was conducted. A search of sensitivity allows researchers to examine the broadest range of the research topic. This level of breadth can produce a large amount of available research with a high percentage of irrelevant articles. A search of specificity allows researchers to narrow the focus of research in order to produce a search with a high percentage of relevant articles. A specificity search runs the risk of missing relevant articles due to the limited nature of the search terms. Using both sensitivity as well as specificity searches helps to understand the literature landscape in order to narrow down search terms, as well as develop inclusion and exclusion criteria. Both searches for sensitivity and specificity were performed as part of this study.

**Review Protocol**

Peer-reviewed, full-text articles were considered in this review. Because yoga as a therapeutic intervention is a relatively new topic of research, dissertations published within the last 10 years were also included in this literature review. Articles were found using the search engines PsycINFO, Alt HealthWatch, and ProQuest Dissertations & Theses. Articles were searched and collected during January of 2015. These data qualifications were put in place as a means of addressing the issue of validity for this research.

**Inclusion Criteria.** In the databases of PsycINFO and Alt HealthWatch, searches were carried out using the following combination of search terms; “incest” or “rape” or “sexual abuse” or “intimate partner violence” AND “yoga” or “mindfulness” or “meditation” or “mind-body therapy.” All articles that came up in these databases, using these search terms, were published after 2005. In PsycINFO, 13 peer-reviewed articles satisfied the specified search criteria. A search using Alt HealthWatch produced three peer-reviewed articles. Due to how ProQuest Dissertations & Theses is set up as a database, the search was undertaken with slight modifications. Using ProQuest Dissertations & Theses, search terms were set up as “incest” or “rape” or “sexual abuse” or “intimate partner violence” AND “yoga.” Once the search was set up, specification was established by selecting index terms within the search. These index terms were “yoga,” “sexual abuse,” “meditation” and “mindfulness.” In this way the same search terms were used in all three databases but the method of establishing those search terms varied slightly within the database ProQuest Dissertations & Theses. In ProQuest Dissertations & Theses, 166 dissertations were generated using the prescribed search, including that requirement of being published in 2005 or later. A search was also performed using the database SocINDEX

using the same research terms, however, this search produced no new articles.

The focal point of this research was around working with survivors of sexual abuse, therefore articles that were included involved survivors of sexual abuse, incest or rape. Articles were included that used yoga or another form of mind-body therapy as an intentional therapeutic intervention including mindfulness-based stressed reduction, yogic breathing, and meditation. These mindfulness-based interventions were included if they shared the same principles of yoga around mindfulness and concentration, breath and body control, inner strength, and stability and control.

**Exclusion Criteria.** Of the 182 peer-reviewed articles and dissertations that met the initial search criteria, only 11 met criteria to be included in this literature review. Articles which were excluded from the research review included: studies focused on perpetrators rather than survivors; articles that focused on trauma and PTSD that was not the result of sexual abuse, incest or rape; articles that focused on resilience without trauma; and articles focused on domestic violence or intimate partner violence. Selected articles were also limited to those written in English.

Inclusion and exclusion decisions were made based on the title and abstract of the articles and dissertations. Of the 11 articles and dissertations that satisfied the inclusion and exclusion criteria, the dissertation *Yoga for Traumatic Stress: A Three Paper Dissertation* (2014) was excluded because it was not accessible. The final review consisted of 10 peer-reviewed articles and dissertations. See Table 1 for a complete list of included articles and dissertations. A more detailed list of included articles with content summary can be found in Appendix A.

Table 1: Included Articles

Database	Title	Author(s)
Alt HealthWatch	Healing Childhood Sexual Abuse with Yoga	Lilly, M. & Hedlund, J. (2010)
	Acupuncture and mindfulness-based stress reduction among female child abuse survivors: A randomized waitlist-controlled pilot study	Chesney, M., Lao, L., Vegella, P., Magyari, T., Robertson, M. B., Berman, B. & Kimbrough, E. (2014)
PsycINFO	Mindfulness intervention for child abuse survivors: A 2.5-year follow-up	Earley, M D., Chesney, M. A., Frye, J., Greene, P. A., Berman, B. & Kimbrough, E. (2014)
	The trauma trifecta of military sexual trauma: A case study illustrating the integration of mind and body in clinical work with survivors of MST	Northcut, T. B. & Kienow, A. (2014)
	Pilot study of a brief cognitive behavioral versus mindfulness-based intervention for women with sexual distress and a history of childhood sexual abuse.	Brotto, L. A., Seal, B. N. & Rellini, A. (2012)
	The development of a brief acceptance and mindfulness-based program aimed at reducing sexual revictimization among college women with a history of childhood sexual abuse	Hill, J. M., Vernig, P. M., Lee, J. K., Brown, C. & Orsillo, S. M. (2011)
	Mindfulness intervention for child abuse survivors	Kimbrough, E., Magyari, T., Langenberg, P., Chesney, M. & Berman, B. (2010)
ProQuest Dissertations & Theses	Healing in love and light: A culturally syntonc, trauma sensitive yoga program	Young, S. J. (2014)
	Reclamation in motion: An exploration of yoga as an adjunctive treatment for women sexually abused as children	Michaelson, J. (2006)
	Stress management for adult survivors of childhood sexual abuse: A holistic inquiry	Wilson, D. R. (2005)

### **Research Synthesis**

The purpose of this systematic literature review was to explore the question: what makes yoga a therapeutic intervention with survivors of sexual abuse? Using the databases of Alt HealthWatch, PsycINFO, and ProQuest Dissertations & Theses, and working within the inclusion and exclusion criteria laid out above, 10 peer-reviewed articles and dissertations met criteria and were reviewed. Of the 10 articles included in this study, eight (80%) were focused on childhood sexual assault (CSA). Of those articles that dealt with CSA, the majority (87.5%, n=7) used sample populations of adult survivors (individuals over the age of 18 years). Only one article included in this literature review focused on survivors of CSA under the age of 18 years. Of the two articles included in this review that did not involve CSA, one article explored military sexual trauma (MST) and one did not specify the type of sexual abuse.

Half of the research included in this systematic review (50%, n=5) focused specifically on interventions with female survivors. Four articles (40%) contained research that included both men/boys and women/girls, however, within these articles the majority of participants were identified as female. None of the articles included in this systematic review involved research focused specifically on male survivors of sexual abuse. The remaining dissertation did not focus on a specific demographic of survivor, but rather explored resources available to any survivor of sexual abuse; male, female or child. This dissertation did, however, include the development of an intervention intended for adult female survivors of sexual abuse.

The majority of the research included in this review (70%, n=7) contained self-reported quantitative data by participants. Of this 70% of research, five articles (71.4%) included only quantitative data while the remaining two articles utilized both quantitative as well as qualitative

approaches. One case study was included in this review as well as one online market analysis of resources in 29 states in the United States of America.

All articles and dissertations considered in this systematic review focused on survivors of sexual abuse. While yoga as a therapeutic intervention was the main focus of the research, the interventions included in this study expanded to include other forms of mind-body approaches. This review considered all eight limbs of yoga in its inclusion of interventions. These eight limbs include, “*yama* (universal ethics), *niyama* (individual ethics), *asana* (physical postures), *pranayama* (breath control), *pratyahara* (control of the senses), *dharana* (concentration), *dyana* (meditation), and *samadhi* (bliss)” (Ross & Thomas, 2010, p.3). Three of the included articles (30%) focused specifically on yoga as an intervention. Three articles (30%) used Mindfulness Based Stress Reduction (MBSR) as the primary intervention. MBSR typically includes meditation, yoga and stretching, and mindfulness or present-moment awareness techniques (Kimbrough, Magyari, Langenberg, Chesney, & Berman, 2010). Of the remaining four articles, the research used a combination of techniques including mindfulness and present-moment awareness, breathing exercises, meditation (including walking meditation), body scan, guided imagery, assertiveness training, and self-acceptance work.

### **Thematic Analysis**

Through analysis of the literature, six interrelated themes emerged from this systematic review around what makes yoga a therapeutic intervention with survivors of sexual abuse. These themes include: 1) establishing a sense of safety through routine; 2) providing choice and a sense of control; 3) addressing the relationship with the body and personal boundaries; 4) the use of present mind thinking; 5) yoga and mindfulness as an adjunct treatment with psychotherapy; and 6) accessibility and self-treatment.

**Establishing a safe environment through routine.** Many of the programs discussed in the literature followed predictable routines and patterns as a means of establishing a safe environment for participants (Lilly & Hedlund, 2010; Michaelson, 2006; Wilson, 2005). These interventions were explicit about what would take place during each session and participants were able to predict the pace and flow of every gathering. For example, the curriculum for the Healing Childhood Sexual Abuse with Yoga (HCSAY) program (Lilly & Hedlund, 2010) followed a highly structured session outline. Each of the eight consecutive sessions of HCSAY followed the same routine. Participants would meet outside the room and before entering would choose a stone. Upon entering the room participants would choose a scent (optional), an intention word, and a snack. They would then sit in a circle for a verbal check-in, body scan, movement activity, and a closing relaxation with a verbal chant. The research described how this level of routine and predictability is immensely important when working with survivors of sexual assault (Lilly & Hedlund, 2010; Michaelson, 2006).

According to Lilly and Hedlund (2010), many survivors of sexual abuse experience high levels of uncertainty due to the fear of being re-victimized and the experienced loss of control over their bodies. Creating a safe environment through predictability and routine allows survivors to begin to trust the space and people within that environment. Feeling safe in one's environment allows the survivor do the therapeutic work they are attempting. "Consistency and repetition create a feeling of order, allowing growth and progress to occur more evenly" (Lilly & Hedlund, 2010, p. 124). By creating a safe and predictable environment, survivors become more comfortable and confident with what they are experiencing. Michaelson (2006) articulates that as the process becomes routine, and therefore safe, survivors can begin to trust the experience and venture deeper into their healing.

**Providing choice to establish control.** Research indicates that it is critical to provide survivors of sexual abuse with opportunities to make self-directed choices and decisions (Kimbrough et al., 2010; Northcut & Kienow, 2014; Young, 2014; Michaelson, 2006).

Decision-making is important because many survivors experience powerlessness as a result of their abuse. According to Young (2014),

Such a trauma is an experience where one is stripped of choice in the moment. Through the interventions, survivors can begin to reclaim power and agency over their bodies...through the practice of making small choices for their bodies, experimenting with assertiveness, and practicing implementation of these decisions (p. 97).

Research illustrates that interventions with survivors of sexual abuse should provide the individual opportunities to make clear, independent choices, and should encourage the survivor to be in the “driver’s seat” of their healing process (Northcut & Kienow, 2014; Lilly & Hedlund, 2010).

Creating moments of choice can be either deliberate parts of the intervention or continuously encouraged and supported throughout the process. The HCSAY program, for example, included moments of decision making as an established part of the program’s curriculum (Lilly & Hedlund, 2010). Participants were required to make a choice around an intention word, scent, and stone each time the group met. Other moments of decision-making can be more internal and self-directed. The research indicated that participants in yoga or mindfulness practices are encouraged to create a practice that feels right for them in the moment (Kimbrough et al., 2010; Young, 2014). “This approach encouraged participants to stay present to experience, while ensuring that the choice to go forward or pull back in any meditation or exercise was theirs alone” (Kimbrough et al., 2010, p. 22). Providing survivors with choice and

opportunities to make decisions for themselves helps survivors establish an internal sense of control in relation to their bodies as well as in how they choose to interact with the world.

A key aspect of control is the belief that one has power to effect change, or self-efficacy. The research identified the development of self-efficacy as an important element in a sexual abuse survivors' healing. According to Northcut and Kienow (2014), self-efficacy is a key element in rebuilding one's sense of self and identity after a trauma. Michaelson (2006) articulates that, "Yoga participants have been shown to report greater sense of overall self-efficacy" (p.95). This self-efficacy is created through encouraged assertiveness and opportunities to establish personal agency (Lilly & Hedlund 2010; Michaelson, 2006).

**Relationship with the body and personal boundaries.** The research suggests that somatic and mindfulness-based interventions facilitate survivors in rediscovering body experiences, as well as developing boundaries and mastery of their bodies (Michaelson, 2006; Young, 2014; Wilson, 2005; Brotto, Seal, & Rellini, 2012; Lilly & Hedlund, 2010). Young (2014) explains that, "The reality that one's body can be a constant reminder of a traumatic event such as rape can make it feel uninhabitable, untrustworthy, and unsafe" (p. 34). Interventions that include movement and body awareness encouraged the reawakening of body sensations and allow participants to attune to what messages they are receiving from their body (Brotto, Seal, & Rellini, 2012; Michaelson, 2006). Through this body awareness, survivors are working against their learned coping mechanism of detachment and begin to develop a new relationship with their body. Interventions such as yoga and MBSR encouraged participants to listen to their bodies with curiosity and non-judgment as a way of exploring what feels good in the body and discovering new somatic boundaries (Lilly & Hedlund, 2010; Brotto, Seal, & Rellini, 2012). By moving in a therapeutic way, survivors can learn what their bodies are capable of, new ways in

which to move and how to use their bodies to affect how they feel and what they experience (Lilly & Hedlund, 2010; Michaelson, 2006).

This mastery of one's body helps to establish physical confidence, which leads to the establishment of new boundaries for the body. Many survivors of sexual abuse detach from the body and develop a distorted sense of their own body's boundaries. "*Somatic Detachment*, part of the PTSD symptomology of dissociation, was described by participants as an unawareness of somatic messages and a barrier to self-care" (Wilson, 2005, p. 222). In order to detach from one or two body sensations that feel unsafe or painful, survivors must detach from all body sensations (Brotto, Seal, & Rellini, 2012; Wilson, 2005). The research suggests that body awareness and movement-based interventions create a safe environment for individuals to allow themselves to feel these body sensations and learn to understand what they mean in their body (Brotto, Seal, & Rellini, 2012; Wilson, 2005; Michaelson, 2006).

Michaelson (2006) articulates that, "Engagement in a guided yoga practice provides an opportunity to address and practice bodily boundary setting" (p. 106). These boundaries can be internal, focused around self-care and how far to take a movement in the body so that it still feels good for the individual (Wilson, 2005; Lilly & Hedlund, 2010). There are also external boundaries focused around rediscovering personal space and the external boundaries of the skin itself (Lilly & Hedlund, 2010; Michaelson, 2006).

**Present-moment thinking.** With many survivors of sexual abuse, attention to cognitions and thoughts is an important component of healing. Interventions such as yoga, MBSR and mindfulness encourage survivors to slow down their thoughts, approach them with curiosity and non-judgment, and detach from the thought itself (Kimbrough et al., 2010; Brotto, Seal, & Rellini, 2012; Northcut & Kienow, 2014). According to Kimbrough et al. (2010),

Recent thinking in the field of trauma asserts that avoidance, the effort to escape or hide from traumatic thoughts, feelings, or memories, is the core psychological process underlying the development and continuation of PTSD...Therapeutic approaches that prescribe the opposite of avoidance, i.e., acceptance, can serve as a form of exposure and work to alleviate avoidant tendencies (p. 29).

The research suggests that interventions that encourage mindfulness and present-mind thinking allow participants to recognize thoughts without having to take on the emotions related to the thoughts or personifying the thoughts. Brotto, Seal, and Rellini (2012) suggest that through mindfulness interventions survivors learn to “tolerate and accept their emotional reactions” (p.19). By slowing down one’s thoughts, and examining them, individuals can become discerning about what thoughts they want to explore, when they want to explore them, and whether or not they want to change these thoughts (Northcut & Kienow, 2014). In their work with a client named Susan, Northcut and Kienow (2014) explained, “The goal was not to eliminate the thought ‘I am to blame’ but to help Susan de-identify with it so the thoughts lost power to control her” (p. 255).

Interventions that encourage awareness and being present in the moment provide participants with the opportunity to practice acceptance of thoughts and feelings. Interventions such as yoga, MBSR, and mindfulness encourage the practice of acceptance of thoughts without attaching to thoughts. Such interventions require present-moment thinking.

**Yoga as an adjunct treatment.** The research argues that body-focused interventions should be used as an adjunct treatment with psychotherapy and not as a stand alone therapeutic intervention (Lilly & Hedlund, 2010; Northcut & Kienow, 2014; Young 2013; Michaelson, 2006). This collaborative approach to treatment is founded on the idea that working with the

body can bring more awareness to memory, emotion, and thought which can then be addressed within the therapeutic relationship with a mental health professional (Lilly & Hedlund, 2010; Michaelson, 2006; Young, 2014). “The complex nature of post-sexual abuse traumatization strongly suggests that any new intervention be closely integrated with existing therapies” (Lilly & Hedlund, 2010, p. 122). The idea is that body and mindfulness-based interventions help illicit new awareness in the individual that can then be discussed and explored with a licensed therapist. Michaelson (2006) emphasizes that body-focused interventions are not the time or place to experience an emotional release or explore cognitions. “Proponents of yoga for healing trauma emphasize that it is important for the teacher to create a holding environment and to avoid trying to cause an emotional release” (Michaelson, 2006, p. 99). In this approach, the emotions and cognitions would be explored later on in a therapeutic setting. Michaelson (2006) argues that individuals should attend psychotherapy within three days of a yoga-based intervention. The research suggests that while bodywork should be included in the healing process, it should be used as a means for connection and awareness, not for release or understanding (Lilly & Hedlund, 2010; Michaelson, 2006; Young, 2014).

**Accessibility and self-treatment.** According to Young (2014) yoga and body-based interventions are useful for survivors of sexual abuse because individuals do not perceive these interventions as being clinical, prescribed, or invasive. These interventions require little to no equipment or finances. The skills included in these interventions can be used anywhere and by anyone. “The therapeutic use of yoga may also be preferred due to its capacity for self-treatment versus clinical intervention and fewer side effects. This allows survivors to exercise and modulate power over their own bodies from inside out with non-invasive techniques” (Young, 2014, p. 65). The research suggests that a nonclinical, self-treatment approach feels safer and

more accessible for some survivors of sexual assault. Yoga and mindfulness interventions can be practiced in multiple settings and the skills can be translated into moments of arousal and possible triggering (Brotto, Sael & Rellini, 2012). Yoga and mindfulness therefore become both a therapeutic intervention and a skill-based treatment approach.

### **Discussion**

This systematic review was developed to explore the contemporary body of scholarship available on the topic of what makes yoga a therapeutic intervention with survivors of sexual abuse. However, the goal of this research was not to answer this question with a simple sampling of the literature, but rather to consider the whole relevant body of literature on the subject. This review was set up using inclusion and exclusion criteria, as well as both sensitivity and specificity searches, as a means of finding pertinent and current research. What emerged from this review is how yoga and other mindfulness and body-based interventions provide survivors of sexual abuse with a sense of safety and control. This form of body-based intervention can also offer awareness to survivors, both of their internal experiences as well as how they relate to the external world. These findings suggest that yoga can be used as a therapeutic intervention with survivors of sexual abuse and outlines six themes related to how yoga and mindfulness practices support survivors in their healing.

The first theme found in the literature focused on developing a sense of safety and security for survivors of sexual abuse, safety being considered a basic human need for survival and wellbeing. This sense of safety can be established through predictable routines and patterns of practice. Providing survivors with a predictable routine emerged as an essential element for healing from sexual abuse (Lilly & Hedlund, 2010; Michaelson, 2006; Wilson, 2005). A yoga practice contains postures that become known and expected to participants. There is a flow and

pattern to the movements that is repeated within each session. This level of predictability can make yoga a safe environment for a survivor of sexual abuse (Lilly & Hedlund, 2010; Michaelson, 2006). As individuals become more comfortable with the postures and patterns of the practice, they can begin to go deeper with the exercise (physically, mentally, spiritually and emotionally) and become more accepting of possible variance (Michaelson, 2006). The yoga session becomes a place where survivors can explore their bodies and become aware of their emotional and cognitive reactions to movement and sensation. For many survivors of sexual abuse, their bodies and the world around them feel unsafe and unpredictable. Yoga appears to be a place where repetition can bring back a sense of predictability and safety to the survivor.

The second theme found in the literature explored the need to rebuild a sense of control and ownership for survivors of sexual abuse. Within a yoga or mindfulness-based intervention, the research suggests that there are opportunities for decision-making and for individuals to take ownership over their personal practice. It is common in yoga for instructors to remind students that yoga is a fluid practice as well as a personal one. Individuals are encouraged to do what feels good in the moment. Built into a yoga practice are variations of postures that naturally encourage this idea of personal choice. For example, postures such as chaturanga, or *four-limbed staff pose* (a modified yoga push-up), have a few variations including taking the position from the knees or toes and students are instructed to choose which variation is right for them. By reclaiming a sense of control over the body and practicing personal decision-making, survivors are able to rebuild a sense of self and self-efficacy (Kimbrough et al., 2010; Northcut & Kienow, 2014; Young, 2014; Michaelson, 2006). Much of the trauma associated with sexual abuse stems from feeling powerless to stop the abuse and powerless to protect oneself. Yoga can help survivors of sexual abuse heal by providing choice, which encourages self-efficacy and decision-

making. Survivors are able to establish personal boundaries and trust in their own established limits.

The third and fourth themes found in the literature address how yoga and other mindfulness-based interventions help to restore awareness to the body (both towards body sensations as well as physical ability and limitations) that many survivors of sexual abuse learn to avoid or detach from (Michaelson, 2006; Young, 2014; Wilson, 2005; Brotto, Seal, & Rellini, 2012; Lilly & Hedlund, 2010). This awareness comes from movement, a focus on the body, and attention to present-moment thinking. The mindfulness required in yoga and MBSR foster this present-moment thinking and encourage the acknowledgment of thought and sensation without attachment. This idea of acknowledgment without attachment allows survivors of sexual abuse to feel and think with curiosity, which becomes a starting point for exploration and understanding (Michaelson, 2006; Lilly & Hedlund, 2010). Present-moment thinking allows the individual to decide what feelings, thoughts or sensations they want to focus on and which they want to set aside. This is a powerful element in how yoga and mindfulness are used as therapeutic interventions with survivors of sexual abuse. Being aware of what the body is feeling without judgment allows the individual to gain understanding around what the body is capable of as well as what the body has experienced. Through movement-based interventions, survivors gain awareness of bodily sensations and how movement of their body can impact their physical and emotional states (Lilly & Hedlund, 2010; Brotto, Seal, & Rellini, 2012). Avoidance is a common coping mechanism found in survivors of sexual abuse. The use of movement, the focus on breath, and present-moment thinking make it more difficult for survivors to engage in avoidance within a yoga practice, some form of awareness is required.

The fifth theme found in the literature was the recommendation to only utilize yoga and other mindfulness-based interventions with an already established psychotherapy or mental health practice (Lilly & Hedlund, 2010; Northcut & Kienow, 2014; Young 2013; Michaelson, 2006). Working with a mental health practitioner provides a survivor with the space to process, explore, and gain understanding around the thoughts, emotions, and sensations that arise within the body during a yoga or movement based intervention. While yoga and mindfulness interventions bring awareness, psychotherapy can help provide understanding and processing, which is a key element of healing. The research articulates that healing from sexual abuse requires some level of bodywork due to the fact that the body was involved in the abuse. By focusing on the body, using the themes previously discussed (safety, control, establishing personal boundaries, and bringing awareness to sensation) a psychotherapist can work in conjunction with these themes and add emotions and cognitions to the work. The research does not articulate whether the yoga practitioner and psychotherapist should be different individuals or if one trained professional can take on both roles. The research also does not take a clear stance on whether the practitioners need to know each other. Some may even argue that the yoga practitioner does not, or even should not, need to know the nature of the survivor's trauma. What the research does say is that when using yoga and mindfulness-based approaches as an intentional intervention for healing from sexual abuse, some form of mental health work should be used in tandem

The sixth and final theme found in the literature was less pronounced but worthy of mention. Young (2014) in particular articulated that yoga and mindfulness-based interventions have the potential to be effective because of their accessibility and personalized nature. Many survivors of sexual abuse are resistant to interventions that appear to be invasive or clinical, in

part perhaps because their abuse and preliminary healing felt both invasive and clinical. Rape kits, the process of filing a police report and even the narrative nature of current mental health work with sexual abuse survivors can leave many feeling overwhelmed and fearful. In its basic form, yoga requires no special equipment and can be done anywhere the individual feels comfortable. Young (2014) uses the term “self-treatment” as a way of describing yoga. The idea of self-treatment being that yogic breathing and basic yoga postures can be done by survivors outside of a formal yoga practice whenever one feels triggered. This accessibility brings yoga outside the formal setting and turns it into a coping skill to be learned and practiced.

This systematic review suggests that yoga is being used as a therapeutic intervention with survivors of sexual abuse and that yoga, when used as an adjunct intervention with some form of mental health counseling, has the potential to provide healing to the minds and bodies of survivors. This healing comes through the safety created by routine and predictability, as well as the empowerment of making decisions for oneself that is provided in a yoga session. Increasing awareness of one’s body and making the body a place of mindfulness and not detachment is a powerful step as well. Yoga encourages focus, awareness and curiosity, which is a promising mindset from which to start in the healing of trauma.

### **Limitations**

While this review was designed to include all relevant contemporary research on the topic of yoga as a therapeutic intervention with survivors of sexual abuse, there were still a number of limitations to this study. First, yoga as a therapeutic intervention is a new area of research in the West. While yoga has been an established practice in the East for centuries, scientific research of this healing form has rarely needed to be addressed. In our western medical model, we require evidence-based data to justify treatment measures. While yoga has

been documented as far back as 400 CE, research around yoga has only recently become a topic of exploration. Thus one of the major limitations of this systematic review is the small sample of research available for review.

This review was limited to articles and research that were peer-reviewed and written in English. This was done to ensure the rigor of the study but may have left out less structured research focused on personal experience and less formal narrative. Focus on peer-reviewed and evidenced-based research also meant that gray literature, or literature that has not been formally published, was excluded from this study. The focal point of this research was around working with survivors of sexual abuse, therefore articles that were included involved survivors of sexual abuse, incest or rape. Articles were included that used yoga and other forms of mind-body therapy as intentional therapeutic interventions including MBSR, breath work, and meditation. These mindfulness-based interventions were included if they shared the same principles of yoga around mindfulness and concentration, breath and body control, inner strength, and stability. This review used all eight limbs of yoga as a basis for inclusion and exclusion of body and mindfulness-based interventions. By expanding the view of yoga beyond the physical postures it became more challenging to understand which elements of yoga provide healing to the individual and which may not.

This systematic review focused on particular themes that contributed to yoga being a therapeutic intervention with survivors of sexual abuse. Unfortunately the role of the practitioner was not mentioned or explored in the literature. This study was focused on the survivor but it was surprising that the relationship between survivors/participants and the yoga instructor was not discussed. From the perspective of a practitioner, it would be important to understand the role of the instructor as well as the possible collaboration between yoga practitioner and mental

health worker. These more relational ideas were absent from this current review.

This review is also limited in its lack of discussion around whether or not yoga and mindfulness interventions provide a risk to survivors of sexual abuse. While there is suspicion, or perhaps assumption, that retriggering is inevitable for survivors of sexual abuse when using somatic interventions, this discussion was not included in this study due to the fact that it was not significantly raised in the literature.

### **Further Research and Implications**

One of the first things to emerge from this systematic literature review was how limited the research is around the use of yoga as an intervention with survivors of sexual abuse. Yoga as an intervention is much more frequently documented with other forms of trauma, including veterans with PTSD, and survivors of domestic abuse and intimate partner violence. While these traumas may have similarities (violence, physicality, sense of powerlessness), healing from sexual abuse provides unique challenges. It is necessary to conduct research specifically with this population in order to understand the nuances of this form of trauma and the impact of various modalities of treatment, including yoga.

One reason for the limited nature of research could be access to the population. Research performed with veterans, survivors of domestic abuse and even perpetrators of sexual abuse can be conducted more easily because there is easier access to these populations via the Veterans Administration, domestic violence shelters, and prisons. Survivors of sexual abuse are somewhat more invisible in the general population. Part of this could be due to the current stigmatization around this form of trauma. There is still estimated high levels of underreporting of sexual crimes and fear around the backlash that can come from being identified as a victim of sexual abuse. Survivors are also not mandated to seek treatment as part of their recovery from

sexual abuse. Whatever the reason, it is clear that research around how to best serve and support this population is lacking.

While the majority of research included in this study was quantitative, which typically leads to more generalizability of results, it would be important to gather more personal stories and experiences around using body focused interventions with survivors of sexual abuse. The use of personal stories can help to answer the *why* and *what* around effective interventions for survivors. Sexual abuse is very personal in both its nature and in how it impacts the survivor. The recovery from sexual abuse should be just as personal.

Currently, in the mental health field, mild exposure and narrative therapy is the most commonly used intervention to treat the impact of sexual abuse. However, given the somatic nature of this unique form of interpersonal trauma, it is important to include the body in the treatment. As more research continues to be conducted on the subject of sexual abuse trauma, hopefully there will be a shift in how services and treatments are covered by insurance providers and hopefully more alternative and complementary interventions, such as yoga, will be included as valid and effective approaches to healing.

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## Appendix A: Included Articles and Summary

Database	Title	Author(s)	Summary
Alt HealthWatch	Healing Childhood Sexual Abuse with Yoga	Lilly, M. & Hedlund, J. (2010)	The Healing Childhood Sexual Abuse with Yoga program. 8-week program, closed groups, teen girls (13-18) young girls (8-12). "safety", "assertiveness", "relationships"
	Acupuncture and mindfulness-based stress reduction among female child abuse survivors: A randomized waitlist-controlled pilot study	Chesney, M., Lao, L., Vegella, P., Magyari, T., Robertson, M. B., Berman, B. & Kimbrough, E. (2014)	Female, adult survivors of childhood sexual abuse. Compares MBSR, AT and a control. MBSR & AT improved mindfulness, AT improved PTSD symptoms & sleep quality. MBSR & AT improved depression symptoms but not sustainable.
PsycINFO	Mindfulness intervention for child abuse survivors: A 2.5-year follow-up	Earley, M D., Chesney, M. A., Frye, J., Greene, P. A., Berman, B. & Kimbrough, E. (2014)	Follow up of Kimbrough et al (2010) study. 19 adult survivors of childhood sexual abuse. Stats on anxiety, depression, mindfulness, PTSD. Suggests sustained improvement
	The trauma trifecta of military sexual trauma: A case study illustrating the integration of mind and body in clinical work with survivors of MST	Northcut, T. B. & Kienow, A. (2014)	Case study, female. Unique challenges of MST. Explores cognition, sleeplessness and self-injurious behavior. Pre-trauma self and post-trauma self. Body/mind interventions: body scan, guided imagery, mindfulness, meditation, movement
	Pilot study of a brief cognitive behavioral versus mindfulness-based intervention for women with sexual distress and a history of childhood sexual abuse.	Brotto, L. A., Seal, B. N. & Rellini, A. (2012)	20 adult women with current sexual dysfunction and history of CSA. Comparing brief (2 session) MBT and CBT. Both effective, MBT more effective.
	The development of a brief acceptance and mindfulness-based program aimed at reducing sexual revictimization among college women with a history of childhood sexual abuse	Hill, J. M., Vernig, P. M., Lee, J. K., Brown, C. & Orsillo, S. M. (2011)	71 college women both with and without CSA history. Use of control group. 2 session within 2-week intervention with 4 week follow up. Intervention showed no significant decrease in victimization/revictimization.
	Mindfulness intervention for child abuse survivors	Kimbrough, E., Magyari, T., Langenberg, P.,	27 women with a history of CSA and currently involved

		Chesney, M. & Berman, B. (2010)	in psychotherapy. MBSR intervention look at depression, anxiety, PTSD, mindfulness and PTSD symptom clusters. Statistically sig changes in all outcomes.
ProQuest Dissertations & Theses	Healing in love and light: A culturally syntonio, trauma sensitive yoga program	Young, S. J. (2014)	Online based market analysis of 539 agencies in 29 US states offering resources for survivors of sexual trauma. Suggested an underrepresentation of culturally sensitive as well as holistic/alternative approaches to healing. Literature review of current treatment approaches for trauma. Author proposed an original program geared towards women of African decent who are survivors of sexual assault
	Reclamation in motion: An exploration of yoga as an adjunctive treatment for women sexually abused as children	Michaelson, J. (2006)	Makes argument for yoga as an adjunct intervention alongside psychotherapy for CSA. Explores how, when and why yoga could be used. Also mentions areas of concern around using yoga. Focuses on a three phase model for CSA treatment; safety, integration, and reconnection.
	Stress management for adult survivors of childhood sexual abuse: A holistic inquiry	Wilson, D. R. (2005)	35 participant study (33 female), adult survivors of CSA. Explored effect of a 4-week stress management program on immune function and Way of Coping. Program involved routine, choice, journaling, body awareness, assertiveness, cognition, coping strategies, goal setting and time management. Qualitative and quantitative data. 3-themes from qualitative data; hypervigilance, somatic detachment, and healing pathway.