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A DESCRIPTIVE STUDY OF PRACTITIONERS' USE OF YOGA WITH
ADOLESCENTS WHO HAVE EXPERIENCED TRAUMA

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Parks, Recreation and Tourism Management
Recreational Therapy Cognate

by
Madeline L. Nance, CTRS
August 2020

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ABSTRACT

Experiencing a traumatic event(s) during adolescence may lead to various short- and/or long-term effects on the adolescent's emotional, physical, social, cognitive, and/or spiritual health. The impacts of trauma may be addressed through treatment, but many common trauma treatments fail to address all five health domains. As a holistic practice, yoga may be a beneficial treatment for adolescents who have experienced trauma. While research has identified positive impacts of yoga on all five health domains, there are many inconsistencies in the literature regarding the use of yoga with adolescents who have experienced trauma. Using a descriptive quantitative research design, the purpose of this study was to describe how, why, and by whom yoga is implemented with adolescents who have experienced trauma. Results provide foundational knowledge regarding the use of yoga with adolescents who have experienced trauma, including session logistics, trauma-related adaptations, targeted client outcomes, and recommended facilitator yoga- and trauma-specific trainings. Study findings support pre-existing literature indicating the importance of establishing therapeutic practitioner-client rapport, promoting clients' autonomy, and maintaining a safe environment when facilitating yoga with adolescents who have experienced trauma. Future research recommendations focused on yoga with adolescents who have experienced trauma are identified and discussed.

DEDICATION

This thesis is dedicated to practitioners who are devoted to improving the lives of adolescents who have experienced trauma. Your work is important, noticed, and appreciated. Thank you for helping to inspire my passion for working with this population and for being a motivating factor in this research.

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CHAPTER ONE

INTRODUCTION

In the 2016 National Survey of Children's Health, approximately half (46%) of the individuals under the age of 17 in the United States were reported by their parent(s) or guardian(s) to have experienced at least one traumatic event (Sacks & Murphey, 2018). However, this percentage may be under representative of the number of youth who have experienced trauma as some traumatic event(s), such as physical or sexual assault, may take place in the home and are not reported (Sacks & Murphey, 2018). A traumatic event(s) (e.g., neglect, natural disasters, major accidents) can result in negative short- and/or long-term effects on an individual's overall health and well-being (Ranjbar & Erb, 2019; Telles, Singh, & Balkrishna, 2012).

When experienced during adolescence (i.e., ages 12 to 19), traumatic event(s) may impact adolescents' growth and development emotionally, physically, socially, cognitively, and spiritually (Gill et al., 2011; Racco & Vis, 2015). Experiencing traumatic event(s) during adolescence may also impact an adolescent's functional abilities (Najjar, Weller, Weisbrot, & Weller, 2008). For example, after experiencing a traumatic event(s) adolescents may experience a decreased ability to regulate their emotions (Cook et al., 2005), increased physical aggression (Kisiel, Fehrenbach, Small, & Lyons, 2009), increased social isolation from family and peers (Cook et al., 2005; Peltonen, Qouta, El Sarraj, & Punamäki, 2010), difficulties with communication (McFadyen & Kitson, 1996), and decreased spiritual practice (Walker, Reese, Hughes, & Troskie, 2010). Additionally, adolescents who have experienced trauma may be at an increased risk of developing

various health conditions such as substance abuse, autoimmune disorders, posttraumatic stress disorder (PTSD), and depression (Mulvihill, 2005). It is important that adolescents who have experienced trauma address these effects in order to decrease the likelihood that the traumatic event(s) continues to have an impact on their growth, development, and functional abilities throughout their lifespan (Najjar et al., 2008).

Studies have found that traditional trauma treatments (e.g., eye movement desensitization and reprocessing) and exposure therapies (e.g., cognitive behavioral therapy) have benefits for adolescents who have experienced trauma (West et al., 2017). However, these trauma treatments often fail to comprehensively address the effects that trauma may have on all five health domains which may prevent adolescents from overcoming the trauma (West et al., 2017). In order to fully address these effects, trauma treatments should incorporate both the mind and body (West et al., 2017). Yoga may be a beneficial treatment for adolescents who have experienced trauma as it addresses all five health domains by focusing on the mind and body (Beltran et al., 2016; Seena & Sundaram, 2018).

Yoga is a mind-body practice consisting of three elements: breath work, physical poses, and meditation (Beltran et al., 2016). The negative impacts of trauma (e.g., increased anxiety, decreased self-esteem) may be addressed through yoga by its ability to positively impact all health domains through the combination of these three elements (Beltran et al., 2016; Spinazzola, Rhodes, Emerson, Earle, & Monroe, 2011). Yoga may also be individualized to fit the trauma-related needs of each participant through adaptations such as modifying the length and intensity of sessions, and the progression

and duration of poses (White, 2009). As a holistic, adaptable, and noncompetitive intervention, practitioners should consider implementing yoga with adolescents who have experienced trauma (Beltran et al., 2016; Spinazzola et al., 2011; White, 2009).

Trauma-informed and trauma-sensitive yoga were designed specifically for individuals who have experienced trauma, and promote building a safe environment absent of trauma-related triggers, developing a therapeutic relationship between participants and practitioners, increasing autonomy by providing participants choices, minimizing vulnerable moments, and addressing trauma-related symptoms by uniting the mind and body (Emerson & Hopper, 2012; Jackson, 2014; Justice, Brems, & Ehlers, 2018). Although the literature highlights similarities between trauma-informed and trauma-sensitive yoga, these terms are not clearly differentiated or defined which may impact implementation in the field.

Yoga may be implemented with adolescents who have experienced trauma by practitioners across various healthcare fields, including mental health professionals, social workers, and physical, occupational, and recreational therapists (Libby, Reddy, Pilver, & Desai, 2012). The impact of yoga on adolescents who have experienced trauma may in part be shaped by the practitioners' levels of knowledge and training. Yoga has been found to be a beneficial treatment modality for adolescents who have experienced trauma (Seena & Sundaram, 2018; Spinazzola et al., 2011), but the literature contains many inconsistencies regarding practitioners' purpose in using yoga as treatment and their facilitation methods. Specifically, the research is inconsistent in terms of data on yoga style, length, and intensity of yoga sessions which may prevent practitioners from

understanding how to best facilitate yoga with adolescents who have experienced trauma, potentially minimizing the benefits adolescents may receive by participating (Macy, Jones, Graham, & Roach, 2018; Nolan, 2016). Many studies on yoga with adolescents who have experienced trauma also fail to mention practitioners' credentials (Culver, Whetten, Boyd, & Odonnell, 2015; Seena & Sundaram, 2018). Similar to a lack of knowledge on beneficial yoga facilitations, a lack of practitioner yoga- and/or trauma-related certifications and trainings may minimize the benefits adolescents who have experienced trauma receive from participating in yoga. Therefore, it is vital that these inconsistencies are addressed by understanding the methods practitioners' use to plan and facilitate yoga with adolescents who have experienced trauma in order to improve practice and inform future research. The purpose of this study was to describe how, why, and by whom yoga is implemented with adolescents who have experienced trauma.

CHAPTER TWO

LITERATURE REVIEW

Adolescent Development

Adolescence occurs between the ages of 12 and 19 and is often characterized as a developmental stage with one of the highest numbers of developmental changes (Eccles, 1999). Similar to all other developmental stages throughout the lifespan, there are milestones specific to the adolescence developmental stage that adolescents are expected to achieve (see Table 1). Adolescent milestones build off of milestones that were reached in previous childhood developmental stages and are the foundation for further growth and development in subsequent adulthood stages.

Throughout adolescence, milestones are expected to be achieved in the emotional, physical, social, cognitive, and spiritual health domains. In terms of emotional health, increases in sense of self, autonomy, and emotional capacity (e.g., an increased ability to understand emotional cues) are often seen during adolescence (Eccles, 1999; Sebastian, Burnett, & Blakemore, 2008; Yurgelun-Todd, 2007). Physically, adolescents experience many hormonal changes through puberty that result in growth spurts and developing primary and secondary sex characteristics (Eccles, 1999). Adolescents also experience many changes socially as they often spend less time with their parents, but experience more conflicts with them. Social focus is turned towards peers, where social acceptance and conformity are highly prioritized, often leading to changes in self-esteem as it is based on acceptance over internal confidence (Eccles, 1999). Cognitively, adolescents have higher-order cognitive abilities that lead to the completion of more elaborate tasks.

These higher-level cognitive abilities allow adolescents to think abstractly and hypothetically, analyze complex issues by looking at the problem from various dimensions, self-reflect, and increase decentering skills (Eccles, 1999; Yurgelun-Todd, 2007). The ability to have abstract thoughts may impact the ability to think conceptually about religion, as a form of spirituality, in a new light as an individual enters adolescence (Bridges & Moore, 2002). These thoughts, values, and beliefs built during adolescence are often reflective of those held during adulthood (Bridges & Moore, 2002). The spiritual health domain also expands during adolescence as adolescents may turn to a god(s) for safety or peace when facing a stressful situation (Richert & Granqvist, 2013).

The growth and development that adolescents are expected to experience is important to their functioning in future developmental stages. Therefore, experiencing a traumatic event(s) during adolescence may negatively impact an individual's future development and functioning (Racco & Vis, 2015).

Trauma in Adolescents

A traumatic event(s), such as sexual assault, neglect, or physical abuse, leads to high levels of physiological and psychological stress (Ranjbar & Erb, 2019). The stress that results from experiencing trauma may negatively impact an individual's growth and development in terms of emotional, physical, social, cognitive, and/or spiritual health (see Table 1; Cook et al., 2005).

Table 1

Adolescent Developmental Milestones and the Impacts of Trauma

Health Domain	Typical Milestones in Adolescent Development	Impacts of Trauma
Emotional Health	<ul style="list-style-type: none"> - Increased sense of self - Increased autonomy - Increased emotional capacity 	<ul style="list-style-type: none"> - Decreased sense of self - Decreased self-esteem - Increased difficulty in emotion regulation
Physical Health	<ul style="list-style-type: none"> - Puberty - Increased secretion of hormones - Development of primary and secondary sex characteristics 	<ul style="list-style-type: none"> - Increased physical aggression - Difficulty maintaining homeostasis
Social Health	<ul style="list-style-type: none"> - Increased distance in relationship with parents - Increased focus on peers - Prioritize social acceptance 	<ul style="list-style-type: none"> - Decreased quality of relationships with siblings and peers - Increased social isolation - Difficulty understanding others
Cognitive Health	<ul style="list-style-type: none"> - Higher-order cognitive skills - Increased ability to complete complex tasks - Think abstractly - Understand hypothetical situations - Self-reflection 	<ul style="list-style-type: none"> - Dissociation - Depersonalization - Difficulties orienting to surroundings - Learning difficulties
Spiritual Health	<ul style="list-style-type: none"> - Recognize, turn to, and find safety in a god(s) - Abstract thoughts about religion 	<ul style="list-style-type: none"> - Decreased feeling of safety - Decreased use of prayer, if previously practiced religious prayer

(Bridges & Moore, 2002; Cook et al., 2005; Dhabhar, 2009; Eccles, 1999; Kisiel et al., 2009; Peltonen et al., 2010; Richert & Granqvist, 2013; Sebastian et al., 2008; Walker et al., 2010; Yurgelun-Todd, 2007)

Impact of trauma on emotional health in adolescents. Trauma may have many impacts on an adolescent’s current and/or future emotional health. For example, adolescents who have experienced trauma may face increased difficulty in regulating their emotions, specifically when identifying and expressing their emotions or needs (Cook et al., 2005; Sevecke, Franke, Kosson, & Krischer, 2016). Additionally, experiencing trauma may often increase an adolescent’s sensitivity and reactivity to an

emotional conflict, while decreasing their ability to regulate it (Marusak, Martin, Etkin, & Thomason, 2015). Trauma may also have a negative impact on an adolescent's self-concept through decreased sense of self, self-esteem, and body image, accompanied by feelings of guilt and shame (Cook et al., 2005).

Impact of trauma on physical health in adolescents. A traumatic event(s) may negatively impact adolescents' nervous system, specifically by impairing the functioning of the autonomic and parasympathetic nervous systems (De Bellis & Zisk, 2014). These nervous systems are responsible for involuntary bodily functions and maintaining homeostasis (De Bellis & Zisk, 2014; Dhabhar, 2009). When trauma impairs these two nervous systems, it increases sympathetic nervous system activity which is used as a defense mechanism, referred to as the fight-or-flight mechanism, in response to stressful situations (Jacobs, 2001). While this defense mechanism is important in short-term situations, extended activation may lead to various side effects (e.g., hostility, impulsivity, physical aggression) that can cause further harm to the body (Kisiel et al., 2009; Sherin & Nemeroff, 2011).

Impact of trauma on social health in adolescents. Socially, trauma can be detrimental to adolescents' relationships, including the quality of relationships with siblings and peers (Cook et al., 2005; Peltonen et al., 2010). These relationships may be hindered by an adolescent who has experienced trauma socially isolating themselves, feeling timid, having difficulty communicating with others, experiencing shame related to their trauma, and/or exhibiting oppositional behaviors due to their trauma(s) (Cook et al., 2005; Guerra, Williams, & Sadek, 2011; Peltonen et al., 2010).

Impact of trauma on cognitive health in adolescents. Cognitive functioning and development may also be impeded after experiencing a traumatic event(s). For example, adolescents may experience dissociation, depersonalization, difficulties orienting to their surroundings, and learning difficulties (Cook et al., 2005). Additionally, syntactic expression and functional communication (e.g., poor self-related language) are often impaired in adolescents after experiencing trauma (McFadyen & Kitson, 1996).

Impact of trauma on spiritual health in adolescents. Trauma may lead adolescents to feel a loss of safety, comfort, and connection to everything around them (Walker et al., 2010). Trauma may lead to a short-term, long-term, or permanent loss of belief in a higher power (Garbarino & Bedard, 1996). Specific to religion as a form of spirituality, adolescents who previously found comfort in prayer may no longer actively pray or find the same level of comfort in their prayers post-trauma (Walker et al., 2010). Although traumatic event(s) can lead to a spiritual darkness, spiritual growth may still take place later on in life if individuals are able to recover and learn from the experience (Garbarino & Bedard, 1996).

While the five health domains function independently, they also interact with each other to make up an adolescent's overall health. This interaction may increase the likelihood of trauma having a greater impact on an adolescent's overall health and well-being versus only one health domain being impaired (Racco & Vis, 2015). The wide range effects of trauma on an adolescent's health may also increase their likelihood of developing additional trauma-related health conditions.

Additional trauma-related health conditions and their effects on adolescents.

Adolescents who experience trauma are more likely to develop additional health conditions and face higher healthcare costs throughout their lives (Bethell, Newacheck, Hawes, & Halfon, 2014). Common trauma-related health conditions include PTSD symptoms, anxiety, substance abuse, high levels of stress, heart disease, depression, extreme anger in adulthood, and liver disease (Kimbrough, Magyari, Langenberg, Chesney, & Berman, 2010; Mental Health Connection of Tarrant County, n.d.; Van Vugt, Lanctot, Paquette, Collin-Vezina, & Lemieux, 2014). Trauma-related health conditions may have a greater impact on development when experienced during adolescence as the expansive growth that takes place emotionally, physically, socially, cognitively, and/or spiritually may be affected (Beltran et al., 2016; Telles et al., 2012). Negative occurrences during the adolescent developmental stage may further impact an individual's growth and development during adulthood. For example, research has found a significant relationship between trauma experienced during adolescence and poor psychological functioning in adulthood (e.g., increased anxiety, depression, anger) (Stapinski et al., 2014; Van Vugt et al., 2014).

Experiencing trauma during adolescence may also lead to a lack of emotional, physical, and cognitive preparedness in school (Bethell et al., 2014), which can further extend into a lack of preparedness in secondary and post-secondary education, and/or in the workforce (e.g., preparing for a job, performance in the workplace). One causal factor of decreased academic and vocational performance after experiencing trauma is an increased focus on survival that results from the trauma's negative effects on the fight-or-

flight response (Carlson, Yates, & Sroufe, 2009; De Bellis & Zisk, 2014). The focus on survival may also result in more adverse behaviors among adolescents who have experienced trauma, which may further impact the adolescent's education (e.g., poor school performance) and well-being (Cook et al., 2005; Culver et al., 2015). Additionally, a positive correlation has been found between the number of traumatic events and the number of behavioral and/or academic problems an adolescent may experience (Bethell et al., 2014). The dropout rate among youth who have experienced maltreatment as a form of childhood trauma is three times greater than the dropout rate among those who have not experienced maltreatment (Cook et al., 2005). Trauma also increases the probability of adolescents' involvement with the juvenile justice system (Substance Abuse and Mental Health Services Administration, 2017).

Appropriate treatment that targets symptoms or residual effects of trauma in adolescents is vital in preventing and/or minimizing the long-term effects of trauma adolescents may face throughout their adult lives. To do so, treatment should comprehensively address emotional, physical, social, cognitive, and spiritual health domains, as trauma-related symptoms may impact functioning in all of these areas.

Treating Adolescents who have Experienced Trauma

Traditional trauma treatments, such as insight-oriented therapy and trauma-processing treatment, use verbal communication as the primary method for processing the traumatic event(s) (West et al., 2017). Exposure therapies (e.g., cognitive behavioral therapy, eye movement desensitization and reprocessing, prolonged exposure therapy) aim to help individuals cognitively process traumatic event(s) through exposure to

trauma-related memories and/or stimuli in order to change their response to the trigger(s) (Foa, 2011; Racco & Vis, 2015; West et al., 2017). Although traditional trauma treatments and exposure therapies may be beneficial, they may still raise challenges for adolescents who have experienced trauma as they do not fully address the wide-range of trauma-related symptoms, most often failing to address physical symptoms (West et al., 2017). Additionally, many adolescents who participate in exposure therapies do not complete treatment which may result in their continuing to experience trauma-related symptoms when faced with stimuli related to their traumatic experience(s) (Racco & Vis, 2015; West et al., 2017).

Complementary and integrative health practices have been found to be a beneficial treatment for adolescents who have experienced trauma (West et al., 2017). These holistic practices, such as yoga, may better address the variety of trauma-related symptoms as they involve both the mind and body, and can help individuals adjust their perspectives in order to better address challenges in their lives (Seena & Sundaram, 2018; West et al., 2017).

Yoga as Treatment for Trauma

Yoga is a strengths-based practice that focuses on unifying an individual's mind and body through the incorporation of three elements, breath work (*pranayama*), physical poses (*asana*), and meditation (*dyhana*) (Siegel et al., 2016; Vallath, 2010; West et al., 2017). As a holistic practice, yoga is able to positively affect the emotional, physical, social, cognitive, and spiritual health domains which may be beneficial in addressing the wide range of trauma-related symptoms (Beltran et al., 2016; Seena & Sundaram, 2018).

Specifically, yoga has been shown to decrease depression, muscle tension, and social isolation; and improve body image, proprioception, sense of empowerment, self-growth, and flexibility among individuals who have experienced trauma (Crews, Stolz-Newton, & Grant, 2016; Johnson, Worell, & Chandler, 2005; McCall, Ward, Roberts, & Heneghan, 2013; Mohanty, Pradhan, & Nagathna, 2014; Neumark-Sztainer, Eisenberg, Wall, & Loth, 2011; Wren, Wright, Carson, & Keefe, 2011). Individuals who have experienced trauma may also increase their ability to process negative ideations through a more positive lens by engaging in yoga (Crews et al., 2016).

The three elements of yoga (i.e., breath work, physical poses, and meditation) are incorporated differently within each style of yoga. For example, alignment and movement are the main focus of Iyengar yoga, while Yin yoga places a heavier focus on meditation (McGee, 2018). The broad range of yoga styles may provide the opportunity for yoga to support the unique needs of each individual while improving their overall health and well-being. Additionally, the ability to modify (e.g., pace, techniques, duration) yoga may allow individuals to engage in a treatment that best fits their unique trauma-related symptoms or needs (Spinazzola et al., 2011).

Among the research that supports the use of yoga with individuals who have experienced trauma, there are many inconsistencies concerning facilitation. Many of the studies that have utilized yoga as a therapeutic intervention for individuals who have experienced trauma have been clinical trials (Beltran et al., 2016; Price et al., 2017; Van der Kolk, 2017), which minimizes the focus on and acknowledgement of daily yoga practice with individuals in this population (Ross, Touchton-Leonard, Yang, & Wallen,

2016). As session structures and available resources in clinical trials may not be reflective of the structure and resources in daily practice, there may be a disconnect between the research and the ability for practitioners to implement evidence-based yoga practice. Specific inconsistencies in the literature related to implementing yoga with individuals who have experienced trauma include variations in the recommended credentials of the facilitators, the number of participants in each session, which trauma-related symptoms should be targeted using yoga as an intervention, and whether facilitators document participants' progress and outcomes (Ross et al., 2016). Research has indicated that these inconsistencies have led to a need to identify standardized guidelines for individuals who have experienced trauma (Ross et al., 2016).

Yoga with adolescents who have experienced trauma. Yoga may be an appropriate complementary and integrative health approach for addressing the effects of trauma among adolescents. For example, a study combined the use of yoga with psychotherapies (i.e., psycho-spiritual sessions) for 30 adolescent females between the ages of 13 and 18 with histories of maltreatment and sexual abuse (Seena & Sundaram, 2018). The participants attended one-hour psycho-spiritual sessions daily for 90 days. Data collected pre- and post-intervention found the psycho-spiritual sessions to be beneficial for participants (Seena & Sundaram, 2018). Specifically, the psycho-spiritual interventions improved participants' concentration, the ability to hold a positive outlook on life, and synchrony through the improvement of emotional, physical, cognitive, and spiritual health (Seena & Sundaram, 2018). The study listed the types of interventions (e.g., Super Brain Yoga, breath work, mantra chanting, meditation, cognitive behavioral

therapy, group counseling, and individual counseling for some participants) with a short description of each intervention's purpose and/or history (Seena & Sundaram, 2018). However, the study did not report information specific to the format or content of any of the interventions implemented, nor did it mention the yoga facilitator's credentials (Seena & Sundaram, 2018).

Inconsistencies in the literature on the use of yoga with adolescents who have experienced trauma, specifically how, why, and by whom these sessions are implemented, are in part due to insufficient standardized reporting procedures. It may be challenging for practitioners to plan and implement evidenced-based yoga sessions with adolescents who have experienced trauma due to these inconsistencies.

Trauma-informed and trauma-sensitive yoga. Through connecting the mind and body, trauma-informed and trauma-sensitive yoga work to address each individual's trauma-specific needs (Jackson, 2014; Justice et al., 2018). While the researcher was unable to identify a widely-accepted definition of trauma-informed yoga, the founder of Trauma Center Trauma-Sensitive Yoga, David Emerson, defines trauma-sensitive yoga as an adjunctive treatment used in a clinical setting with participants who have experienced trauma (Jackson, 2014). The researcher identified three commonalities within the literature describing trauma-informed and trauma-sensitive yoga: developing a sense of trust between the participant and practitioner, providing a safe space, and increasing participant autonomy (Jackson, 2014; Nolan, 2016). While the philosophies of trauma-informed and trauma-sensitive yoga are similar, the two terms are often used interchangeably within the literature and are not clearly differentiated, nor is there clarity

on whether the terms are synonymous. The literature also fails to clearly establish whether trauma-informed and trauma-sensitive yoga are facilitation styles that yoga instructors may apply to any style of yoga, or if they are considered standalone yoga styles (e.g., similar to Yin, Hatha, or restorative).

Practitioners can complete numerous trainings to become certified in “trauma-informed yoga” and “trauma-sensitive yoga,” including 300-hour Trauma Center Trauma-Sensitive Yoga (TCTSY) Certification Program for Yoga Teachers and Mental Health Career Professionals (TCTSY, 2017), YogaEd’s Trauma-Informed Yoga for Youth (Yoga Ed., 2020), and 50-Hour Trauma-Informed Yoga Teacher Training through the BodyWise Foundation (Rise Up, 2017). Although many trainings are available, no specific training(s) or curriculum(s) have been identified through research to be the most beneficial for practitioners who implement yoga with adolescents who have experienced trauma.

Components of trauma-informed and trauma-sensitive yoga. While the most beneficial certification and yoga facilitation strategy for implementing yoga with adolescents who have experienced trauma have not been identified in the literature, a few components specific to yoga facilitation have been common across studies that use yoga with individuals who have experienced trauma. These components that may be beneficial for practitioners to include in their yoga sessions for this population include a therapeutic relationship, a safe environment, and autonomy (Jackson, 2014; Nolan, 2016).

Therapeutic relationship. Experiencing trauma may have a negative short- or long-term impact on an adolescent’s relationships with others (Cook et al., 2005; Guerra

et al., 2011; Peltonen et al., 2010). After experiencing trauma, yoga may help adolescents rebuild healthy relationships in their lives, specifically through the development of a therapeutic relationship with the practitioner facilitating the yoga intervention (Ranjbar & Erb, 2019). Two elements of relationships that may be fostered through this therapeutic relationship are camaraderie and trust (Ranjbar & Erb, 2019). Practitioners may increase camaraderie through the use of invitational language and active listening, maintaining an approachable demeanor, and providing the opportunity for participants to create an interpersonal rhythm through breathing in unison (Emerson, Sharma, Chaudhry, & Turner, 2009; Emerson & Hopper, 2012). An increased feeling of trust between the participant, practitioner, and/or other participants may result from the sense of camaraderie developed through a therapeutic relationship. This improved sense of trust and camaraderie may further benefit the participant's emotional, social, and/or cognitive health that was diminished after experiencing a traumatic event(s) (Cook et al., 2005; Eccles, 1999). Practitioners should be mindful and intentional in working to build a therapeutic relationship with their participants throughout the entirety of the session, beginning when participants enter the room and continuing through the end of the debrief discussion. In addition to building a therapeutic relationship with participants, practitioners should also work to provide a safe environment for participants during yoga sessions.

Safe environment. Practitioners may create a safe environment during yoga sessions by minimizing external environmental stressors, allowing participants to have a space to address the impact(s) that trauma-related environmental stressors may have

(Anderson, Blitz, & Saastamoinen, 2015). Practitioners may do this by making changes to the physical environment of the yoga session, such as reducing the number of mirrors in the room, covering windows, minimizing external noises, and informing participants of any possible interruptions that may occur during the session (e.g., fire drill, mail delivery) (Beltran et al., 2016; Emerson et al., 2009). Practitioners may also work to create a safe space by using a safe, nonjudgmental, gentle tone, and by informing participants about what to expect during the session, including details about the warm-up, poses and flows, and cooldown (Beltran et al., 2016; Emerson et al., 2009). Unknown experiences and a lack of structure may be more challenging for individuals to navigate after experiencing trauma (Van der Kolk et al., 2014). Therefore, providing structure and reducing the unknown experiences within the yoga session by informing participants of the session content may increase their potential to achieve session outcomes, as they are more likely to remain focused on themselves (Van der Kolk et al., 2014). If they are able to focus on themselves in a safe environment, participants are also more likely to orient themselves to and experience the present moment; an ability that is often disrupted after experiencing trauma (Beltran et al., 2016; Emerson & Hopper, 2012). The safe, peaceful, informed, and distraction-free space that yoga may provide allows participants to practice experiencing the present moment with their mind and body (Emerson & Hopper, 2012).

Autonomy. Studies utilizing yoga with individuals who have experienced trauma have indicated that increasing participant autonomy by providing an opportunity for participants to make choices throughout the yoga session is important (Emerson et al., 2009; Justice et al., 2018; Nolan, 2016). Choices may relate to the lighting (e.g., on, off,

dimmed), presence of essential oils or music, and the extent to which participants complete poses (Emerson et al., 2009; Nolan, 2016). Participants are able to take control of their bodies by individualizing their yoga experience through these choices which allows them to value their own opinions, increasing their sense of empowerment and intrinsic motivation towards overcoming their trauma (Emerson et al., 2009; Powell, Gilchrist, & Stapley, 2008). Increasing an individual's sense of control is important, as a lack of control is often experienced by individuals post-trauma. As participants' sense of control improves through their making choices in yoga sessions, they may experience an increased ability and confidence in making choices in other areas of their lives (Emerson et al., 2009; Justice et al., 2018). While the importance of participant autonomy in yoga sessions with adolescents who have experienced trauma is mentioned in the literature, it is unknown the extent to which practitioners in the field include steps towards increasing participant autonomy in their yoga sessions.

Practitioners who Implement Yoga with Adolescents who have Experienced Trauma

Yoga sessions with adolescents who have experienced trauma may be planned and implemented by practitioners in a variety of healthcare fields including medical doctors, nurses, psychologists, social workers, and creative arts, physical, occupational, and recreational therapists (Libby et al., 2012). Practitioners may obtain certifications that are specific to yoga (e.g., Registered Yoga Teacher-200 Hour or 500 Hour, Certified Yoga Therapist) or both yoga and trauma (e.g., TCTSY facilitator) to better inform their facilitations (Covaleski, 2019; Libby et al., 2012).

Practitioners play an important role in facilitating yoga, yet the inconsistencies in literature specific to their purpose for using yoga, and their facilitation methods of yoga, with adolescents who have experienced trauma may have an impact on how they fulfill their role. Specifically, the inconsistencies in reported information related to facilitator credentials, the form and intensity of the yoga implemented, a detailed outline of the yoga session, delivery methods, and an overall study design may minimize the available information practitioners can use to inform their planning and facilitation of yoga sessions with adolescents who have experienced trauma (Macy et al., 2018; Nolan, 2016). Future recommendations in the current literature on yoga sessions with individuals who have experienced trauma include documenting delivery methods, facilitator training and experience, and logistics of the yoga session (e.g., duration, intensity, yoga style) (Macy et al., 2018). Therefore, the purpose of this study was to describe how, why, and by whom yoga is implemented with adolescents who have experienced trauma.

CHAPTER THREE

METHODS

Using a descriptive quantitative research design, the purpose of this study was to describe how, why, and by whom yoga is implemented with adolescents (ages 12-19) who have experienced trauma (Babbie, 2011). For this research study, trauma was defined as an adverse event(s) of any nature that causes an individual to experience extreme stress resulting in negative effects on overall health and well-being (Ranjbar & Erb, 2019). Results presented in this manuscript are part of a larger study that aimed to describe how, why, and by whom yoga is being used with youth, ages 2-19, who have experienced trauma (Sease, 2020).

Participants

Following Institutional Review Board approval, participants for the larger study were recruited through national and international social media sites (e.g., Pediatric Occupational Therapists; Professional Mental Health Counselors, Social Workers, & Psychologists; The Yoga Alliance) and professional listservs (e.g., Recreational Therapy Listserv). A description of the study, including the estimated survey length, eligibility criteria, the survey link, and researchers' contact information, were distributed to approximately 200 sites. Using a criterion-based sampling strategy (Babbie, 2011; Endacott & Botti, 2007), individuals eligible for participation in the larger study: (1) were healthcare practitioners who self-reported having graduated from their professional degree program; and (2) self-reported implementing yoga in a clinical setting within the past year with youth, ages 2 to 19, who have experienced trauma. Individuals were

excluded from the larger study if they had only implemented yoga with this population during an internship, practicum, or other fieldwork experience. Participant data presented in this manuscript are reflective of individuals who met the aforementioned eligibility criteria, and self-reported implementing yoga in a clinical setting within the past year with adolescents, ages 12 to 19, who have experienced trauma.

Snowball sampling was also used for this study (Babbie, 2011). On the final page of the survey, participants were asked to share the survey link with other colleagues who implement yoga with youth who have experienced trauma. As an incentive for participation, upon completing the survey, participants could provide their email address to enter into a drawing for a \$50 Amazon gift card.

Data Collection

Survey development. Researchers developed a non-standardized, 27-item survey for data collection. The survey also included 35 sub-questions that participants were asked to complete depending on their responses to the 27 primary questions. The survey items were developed in order to provide information addressing the inconsistencies found in the literature regarding practitioners' use of yoga with youth who have experienced trauma. The survey contained two criterion questions; 15 primary questions and 27 sub-questions specific to how yoga is implemented with adolescents who have experienced trauma; one primary and five sub-questions specific to why yoga is implemented with adolescents who have experienced trauma; and nine primary and three sub-questions specific to demographics and who implements yoga with adolescents who have experienced trauma.

Pilot data. Prior to collecting data, researchers piloted the survey to increase the validity, readability, and usability of the survey (Creswell & Creswell, 2018). The survey was first piloted with five family and friends unfamiliar with the research topic. Each participant was assigned a different version of the survey and asked to complete the survey using a different type of device. For example, one participant was asked to complete the adolescent-specific survey on a tablet, while another was asked to complete the survey for practitioners who implement yoga with both children and adolescents on a laptop. After completing the survey, participants were asked to provide feedback on the formatting, length, and readability of the survey. Pilot participants unanimously indicated that the original survey was too long. This resulted in the deletion of two primary questions and 16 sub-questions to reduce the survey length.

In an effort to strengthen the face and content validity of the survey, the revised survey was piloted a second time with two individuals who worked with adolescents who have experienced trauma, and two individuals who were experts in yoga. Using different devices, participants completed different versions of the survey, and were asked to provide feedback regarding the survey length, readability, and appropriateness of yoga and trauma-related content. Minor formatting revisions and an adjusted estimated time of completion in survey instructions were made to the survey based on the professionals' feedback.

Final survey instrument. The final survey was administered to study participants using Qualtrics (Qualtrics^{XM}, Provo, UT) survey software. The survey contained 26 primary questions and 17 sub-questions, dependent on participant responses (see

Appendix B). The survey was anonymous, voluntary, and all respondents were asked to consent to participation in the study before any survey questions were presented.

Data Analysis

In preparation for data analysis, survey data were exported from Qualtrics into SPSS 24.0, coded, and cleaned (IBM Corp, 2016; Qualtrics^{XM}, Provo, UT). Participant email addresses, submitted by those who chose to participate in the drawing for the incentive, were deleted from their survey responses. The larger study yielded 107 survey responses. Of these 107 responses, 67 were completed by practitioners who implemented yoga with adolescents, or both children and adolescents who had experienced trauma. The 67 adolescent-specific surveys were cleaned, and 20 cases were deleted. Beyond the first two criteria questions, 14 respondents did not respond to any of the survey items and were deleted from the sample. Three respondents were deleted because they did not entirely complete the primary questions nor any demographic items; one respondent completed the demographic items but did not respond to any primary questions; and two participants had contradictory responses that caused the accuracy of the data to be questioned. The final sample presented in this study is reflective of 47 respondents.

Quantitative data were analyzed using descriptive statistics, including frequencies and percentages of categorical variables and the mean and standard deviation of continuous variables. Qualitative data were analyzed using conventional content and summative content analysis (Hsieh & Shannon, 2005). Conventional content analysis was used to analyze the responses in which participants were asked to provide their own definitions of the terms “trauma-informed yoga” and “trauma-sensitive yoga.” The

researcher analyzed the definitions and identified patterns among them. The patterns were coded based on commonalities, and the codes became themes.

Summative content analysis was used for all other open-ended responses (e.g., practitioner credentials, yoga styles personally practiced by practitioners) in which the researchers grouped the qualitative data provided for each of the open-ended survey items based on similar content. The data was then quantified based on frequency count for each group. For example, when asked about primary area of practice, the responses “*E-RYT 200 Yoga Teacher*,” “*yoga instructor*,” “*mindfulness education and yoga*,” “*yoga specific to the treatment of complex, developmental trauma*,” “*TCTSY*,” and “*trauma-sensitive yoga teacher*” were grouped into yoga-related professions (n=6).

CHAPTER FOUR

RESULTS

The following section describes study findings related to how, why, and by whom yoga is implemented with adolescents (ages 12-19) who have experienced trauma, as indicated by the 47 survey respondents. The majority of respondents were female (87.2%), white (85.1%), and United States residents (91.5%) spanning 20 states. On average, participants were 38.4 ± 11.3 years old. Participants reported working with adolescents who had experienced over 25 different types of trauma, including sexual abuse (n=26), physical abuse (n=23), and neglect (n=22). See Table 2 for a summary of participant demographics.

Table 2

Participant Demographics (N=47)

Survey Items & Answer Options	Mean \pm SD or n (%)
Gender	
Female	41 (87.2%)
Male	3 (6.4%)
Non-binary	2 (4.3%)
Prefer not to say	1 (2.1%)
Race	
White	40 (85.1%)
Asian	3 (6.4%)
Hispanic, Latinx, or Spanish	2 (4.3%)
Other	1 (2.1%)
Not reported	1 (2.1%)
Country of Residence	
United States	43 (91.5%)
Canada	2 (4.3%)
Finland	1 (2.1%)
Hong Kong (S.A.R.)	1 (2.1%)
Age	38.4 ± 11.3

As part of the survey, participants were asked if they believed the terms “trauma-informed yoga” and “trauma-sensitive yoga” were synonymous, as the researchers found that the two terms were often used interchangeably in the literature. Participants who indicated that they thought the terms were synonymous were asked to provide one definition for the synonymous terms, while participants who did not believe the terms were synonymous were asked to write a definition for each of the terms. Open-ended definitions were provided by 46 respondents; one respondent did not indicate if they believed the two terms were synonymous or provide a definition(s).

Twenty-six respondents (56.5%) indicated that they consider “trauma-informed yoga” and “trauma-sensitive yoga” to be synonymous terms. Analysis of participants’ definitions of these synonymous terms resulted in four commonalities: (1) grounded in understanding trauma, (2) a safe environment, (3) body awareness, and (4) the mind-body connection. Twelve of the 26 participants indicated that trauma-informed and trauma-sensitive yoga are grounded in understanding trauma and/or adverse childhood experiences. This includes the potential effects of trauma on individuals, how these effects of trauma may impact individuals’ participation in yoga sessions, and how facilitators can be “*prepared*” with “*specific knowledge*” in order to best serve this population. Six participants identified the importance of creating a safe environment when defining the synonymous terms. Increasing body awareness was also included in six definitions that emphasized the importance of helping participants become more “*in tune with their bodies*” in the “*present moment*.” Five participants mentioned the importance of the mind-body connection in trauma-informed and trauma-sensitive yoga.

Additional commonalities mentioned included awareness of trauma-related triggers and participant agency. The following participant's definition is most representative of the 26 respondents who considered the two terms synonymous:

Trauma-informed or trauma-sensitive yoga is yoga that is taught by someone who understands the physical, mental, spiritual, and emotional effects of trauma and the environment is set up in a way that reduces triggers so that the practitioner can establish a sense of safety [for participants] in the body. Trauma-sensitive or trauma-informed yoga aims to reconnect the mind/body/spirit because there is a deep understanding that trauma is not just in the mind, but primarily in the body. Healing must begin in the body before it can be fully processed by the mind.

Twenty participants (42.6%) did not believe “trauma-informed yoga” and “trauma-sensitive yoga” were synonymous terms. Participants were asked to differentiate between the two terms by providing a definition for each. Two main commonalities emerged from the definitions of trauma-informed yoga: providing trauma-related modifications, and facilitators having an understanding of trauma. Five participants mentioned that modifications (e.g., allowing participants “*to leave out parts of class they aren't comfortable with*”) may be made based on each individual's needs within the yoga session. Five participants also mentioned that facilitators of trauma-informed yoga have an “*understanding,*” “*knowledge,*” and “*skill set*” relevant to trauma and the impacts it may have on participants. Additional components mentioned by a few participants that are interesting to note are participant agency (n=3) and the lack of empirical evidence supporting the session (n=2). The following participant's definition best signified the ideas shared across the 20 trauma-informed yoga definitions provided:

1-a teacher that understands the benefits that yoga can provide to decrease the symptoms of unresolved trauma and knows how to implement these into class, 2-creating an environment where students feel supported, not judged and where

they can feel not disappointed with their 'performance' (a space that can build self-efficacy and self-worth)

Two commonalities emerged from the trauma-sensitive definitions: a facilitator knowledgeable on trauma, and providing choice. Six respondents described that trauma-sensitive yoga is led by a facilitator who is knowledgeable on trauma, which includes understanding potential triggers that may occur during yoga and lead the facilitator to “leave out certain poses.” Five respondents discussed the importance of including choice for participants which empowers them by allowing them “to be in charge” of their practice. Additional components mentioned were the absence of touch in sessions (n=3) and a goal-oriented structure specific to trauma (n=3). The following participant’s definition of trauma-sensitive yoga encompassed the various commonalities identified among the 20 participants’ definitions:

I consider this a “deeper dive” or more thorough, intentional practice weaving the principles of trauma informed care, throughout the entire class from setting up the space to the cues that are given... everything is given great care. With TSY not only is the class led by someone with an understanding of trauma, but many accommodations are made to ensure safety and choice...No physical assists are given and it is truly trauma work happening through the vehicle of yoga.

After defining these terms, respondents were asked to provide information on the yoga sessions they had implemented with adolescents who have experienced trauma.

How Yoga is Implemented with Adolescents who have Experienced Trauma

While 23 participants (48.9%) reported implementing one-on-one yoga sessions with adolescents who have experienced trauma, 31 (66%) reported offering group sessions, with the most common group size being six to seven adolescents (32.3%) per session. Survey participants reported having implemented 15 different yoga styles with

adolescents who have experienced trauma. The most commonly implemented yoga styles included trauma-sensitive yoga (61.9%), gentle yoga (59.6%), and trauma-informed yoga (57.4%). Participants reported incorporating all three yoga components in to their yoga sessions; 44 participants (93.6%) indicated utilizing breath work, 43 (91.5%) identified using physical poses, and 37 (78.7%) reported including meditation in their client sessions.

Participants were asked to speak to the strategies they use when preparing the environment and setting in which the yoga sessions with clients occur. Thirty-three participants (70.2%) indicated they prepared different lighting options, and 31 participants (66%) prepared for distractions. Participants were also asked about any trauma-specific adaptations that they utilized when preparing for or facilitating yoga sessions with adolescents who have experienced trauma. The most commonly reported adaptations focused on the importance of developing a sense of trust between the participant and practitioner (93.6%), establishing a non-judgmental tone that emphasized safety (91.5%), and providing choice for participants during yoga sessions (87.2%). Additionally, in the write-in responses respondents noted preparing for the environment by preparing equipment (e.g., bricks [blocks], blankets), considering the placement of yoga participants within the space, and providing participants with the opportunities to make choices for their own placement (e.g., facing towards or away from the door). It was also mentioned that a consistent preparation of the environment (from one session to the next) was vital in yoga sessions with adolescents who have experienced trauma.

When asked to identify what sources of information were the most prominent in planning and facilitating yoga with adolescents who have experienced trauma, 40 participants (85.1%) selected evidence/research, 38 (80.9%) selected literature and research publications, 34 (72.3%) selected trauma-specific training(s), and 34 (72.3%) selected yoga training(s). Participants were asked to specify what type of yoga training had informed their planning and facilitation processes; 26 (74.3%) said 200-hour yoga teaching training, 12 (34.3%) indicated having completed a yoga therapy training, and 13 (37.1%) selected they had completed “other” yoga trainings including Trauma Center Trauma-Sensitive Yoga and Yoga Ed. Trauma-Informed Yoga for Youth. See Table 3 for a summary of results related to how practitioners are using yoga with adolescents who have experienced trauma.

Table 3

How Yoga is Implemented with Adolescents who have Experienced Trauma (N=47)

Survey Items & Answer Options	n (%)
One-on-one sessions	23 (48.9%)
Group sessions	31 (66.0%)
2 to 3 adolescents	4 of 31 (12.9%)
4 to 5 adolescents	8 of 31 (25.8%)
6 to 7 adolescents	10 of 31 (32.3%)
8 to 10 adolescents	5 of 31 (16.1%)
> 10 adolescents	4 of 31 (8.5%)
Styles of yoga implemented*^	
Trauma-sensitive yoga	29 (61.9%)
Gentle yoga	28 (59.6%)
Trauma-informed yoga	27 (57.4%)
Restorative	25 (53.2%)
Vinyasa	19 (40.4%)
Average duration of yoga sessions^	
15 minutes	5 (10.6%)
30 minutes	13 (27.7%)
45 minutes	12 (25.5%)
60 minutes	13 (27.7%)

Other	2 (4.3%)
Percentage of yoga sessions used in adjunct with psychotherapy [^]	
1-25%	6 (12.8%)
26-50%	7 (14.9%)
76-99%	7 (14.9%)
100%	13 (27.7%)
Unknown	10 (21.3%)
Preparation of environment/space for yoga sessions* [^]	
Prepared different lighting options	33 (70.2%)
Prepared for distractions	31 (66.0%)
Set up music, speakers, etc.	25 (53.2%)
Cover windows that may lead to distractions	15 (31.9%)
Set out essential oils that may be used	15 (31.9%)
Trauma-specific adaptations made for the yoga sessions* [^]	
Developed trust between practitioner and participant(s)	44 (93.6%)
Set a non-judgmental tone that emphasized safety	43 (91.5%)
Provided choice for participants	41 (87.2%)
Used invitational language rather than demanding language	40 (85.1%)
Aided participants' ability to be present in the moment	38 (80.9%)
Informed planning and facilitation of yoga sessions* [^]	
Evidence/research	40 (85.1%)
Literature, research publications, etc.	38 (80.9%)
Trauma-specific trainings	34 (72.3%)
Yoga training	34 (72.3%)
Workshops	32 (68.1%)

*Participants were asked to select all answer options that applied.

[^]The data in the table reflects the five most common responses for items that had more than five answer choices.

Why Yoga is Implemented with Adolescents who have Experienced Trauma

Participants were asked to share the purpose for their implementing yoga with adolescents who have experienced trauma. Specifically, participants were asked to indicate what targeted outcomes associated with the five health domains they work to help clients improve in during or as a result of yoga participation (see Table 4). Forty-two participants (89.4%) indicated facilitating yoga for the purpose of improving adolescent's emotional health, with 88.1% identifying improved affect regulation as a primary goal. Thirty-three participants (70.2%) identified using yoga to help clients improve their

physical health, particularly as it relates to balance (81.8% of 33 respondents) and coordination (78.7% of 33 respondents). Open-ended responses related to physical health goals included practitioners implementing yoga to educate clients on how their body works, and to help support client’s nervous system, release tension, and increase body awareness.

Thirty-two participants (68.1%) selected improved social health as a targeted outcome; 77.4% of whom indicated focusing on increasing clients’ social competence. Additional goals stated by respondents related to social health included: “*offer[ing] experiences of non-coercion,*” “*to decrease social anxiety,*” to practice setting boundaries, and to improve assertiveness. Twenty-nine participants (61.7%) reported using yoga to improve client’s cognitive health. Unfortunately, the subcategories for this domain cannot be reported due to an error in the survey instrument. However, in relation to cognitive health, two participants wrote in that they utilize yoga as a means to empower clients to practice making their own choices, and to educate clients on the mind-body connection. Finally, 16 participants (34%) identified their implementing yoga to improve client’s spiritual health. All 16 participants (100%) specified that the goal was to help increase peace and harmony in client’s lives.

Table 4

Why Yoga is Implemented with Adolescents who have Experienced Trauma (N=47)

Survey Items & Answer Options	n (%)
To improve emotional health [^]	42 (89.4%)
To improve affect regulation	37 of 42 (88.1%)
To increase self-esteem	31 of 42 (73.8%)
To improve emotional expression	30 of 42 (71.4%)
To increase autonomy	30 of 42 (71.4%)
To increase self-concept	29 of 42 (69.0%)

To improve physical health	33 (70.2%)
To improve balance	27 of 33 (81.8%)
To improve coordination	26 of 33 (78.8%)
To improve motor skills	22 of 33 (66.7%)
To reduce heart rate	21 of 33 (63.6%)
Other (e.g., body awareness, feel safe in body, relaxation)	9 of 33 (27.3%)
To improve social health	32 (68.1%)
To increase social competence	24 of 32 (77.4%)
To increase interpersonal communication	23 of 32 (74.2%)
To improve nonverbal communication skills	18 of 32 (58.1%)
To improve verbal communication skills	13 of 32 (41.9%)
Other (e.g., decrease social anxiety, improve assertiveness skills)	4 of 32 (12.9%)
To improve cognitive health	29 (61.7%)
To improve spiritual health	16 (34.0%)
To increase peace and harmony in individuals' lives	16 of 16 (100.0%)
To increase sense of purpose	9 of 16 (56.3%)
To find meaning in life	4 of 16 (25.0%)
To develop an overall deeper understanding of spirituality	4 of 16 (25.0%)
Other (e.g., healing after loss)	1 of 16 (6.3%)
Other (e.g., reduce anxiety, process current or future trauma)	8 (17.0%)
No identified targeted outcomes	1 (2.1%)

Note: All survey items reflected in this table offered “select all that apply” answer options. Subcategories for “to improve cognitive health” were unable to be reported due to a survey error.

^ Reflects the five most common responses for items that had more than five answer choices.

Who Implements Yoga with Adolescents who have Experienced Trauma

Participants were asked to indicate their primary area of practice; while a predetermined list of healthcare professions were provided as answer options, fifteen participants (31.9%) indicated “other” as their primary area of practice. Participants were asked to write-in their professional disciplines; six of 15 participants identified that they were yoga professionals (e.g., yoga instructor, yoga studio owner), four stated they were in education (e.g., high school administrator), two worked in marriage and family therapy, and the other three participants reported being a hair stylist, equine therapist, and an applied behavioral analysis therapist. Following “other,” 21.3% of participants

reported social work as their primary area of professional practice. In follow-up to their sharing their professional discipline, respondents were asked to indicate how long they had been practicing in their professional discipline. Thirty-four percent had been working in their primary area for 4-10 years; 13 (27.7%) had been working in their professional practice for 1-3 years. The most commonly reported setting in which respondents implemented yoga with adolescents who have experienced trauma were community-based settings (36.2%), however, there was similar distribution across outpatient (31.9%) and inpatient (21.3%) mental health settings, and yoga studios (23.4%).

Thirty-eight participants (80.9%) indicated having a personal yoga practice. The majority of these participants had been personally practicing yoga for six to ten years (31.6%). When asked to provide their professional credentials, participants responded with yoga-specific credentials (e.g., 200-hour RYT, C-IAYT), certifications specific to yoga and trauma (e.g., TCTSY), population-specific certifications (e.g., Trauma-Focused Cognitive Behavior Therapy), and discipline-specific credentials (e.g., Licensed Clinical Social Worker, Licensed Marriage and Family Therapist). Five participants did not list any credentials. Forty participants (85.1%) believed that practitioners who implement yoga with adolescents who have experienced trauma should have a yoga certification or complete a yoga training. The majority of the recommended certifications and trainings were yoga-specific (e.g., 200-hour Yoga Teacher Training, 200-hour yoga), trauma and yoga-specific (e.g., TCTSY, trauma-sensitive yoga training, trauma-informed yoga training), and trauma-specific (e.g., Adverse Childhood Experiences training). See Table

5 for additional details regarding the professional background of practitioners who reported implementing yoga with adolescents who have experienced trauma.

Table 5

<i>Who Implements Yoga with Adolescents who have Experienced Trauma (N=47)</i>	
Survey Items & Answer Options	n (%)
Primary Area of Practice [^]	
Other (e.g., yoga instructor, high school administrator, hair stylist)	15 (31.9%)
Social Work	10 (21.3%)
Yoga Therapy	6 (12.8%)
Recreational Therapy	5 (10.6%)
Counseling	3 (6.4%)
Occupational Therapy	3 (6.4%)
Years of Experience in Clinical Practice	
< 1 year	3 (6.4%)
1 to 3 years	13 (27.7%)
4 to 10 years	16 (34.0%)
11 to 20 years	8 (17.0%)
> 20 years	7 (14.9%)
Setting in which practitioners reported implementing yoga with adolescents who have experienced trauma* [^]	
Community-Based Program	17 (36.2%)
Outpatient Mental Health	15 (31.9%)
Other (e.g., high school, juvenile justice center)	14 (29.8%)
Yoga Studio	11 (23.4%)
Inpatient Mental Health	10 (21.3%)
Personal Yoga Practice	
Yes	38 (80.9%)
No	9 (19.1%)
Personal Yoga Practice: Years of practice (n=38)	
1 to 5 years	6 (15.8%)
6 to 10 years	12 (31.6%)
11 to 15 years	8 (21.1%)
16 to 20 years	5 (13.2%)
21+ years	7 (18.4%)
Personal Yoga Practice: Most common yoga styles* [^] (n=38)	
Vinyasa	17 (48.6%)
Restorative	12 (34.4%)
Hatha	11 (31.4%)
Yin	10 (28.6%)
Ashtanga	6 (17.1%)

Personal Yoga Practice: Frequency of personal practice (n=38)

1-3 times/week	10 (28.6%)
3-6 times/week	16 (45.7%)
Daily	7 (20.0%)
Other	2 (5.7%)

Note. * Participants were asked to select all answer options that applied.

^ The data in the table reflects the five most common responses for items that had more than five answer choices.

CHAPTER FIVE

CONCLUSION

The purpose of this study was to describe how, why, and by whom yoga is implemented with adolescents (ages 12-19) who have experienced trauma. Experiencing a traumatic event(s) can negatively impact adolescents in all five health domains (Cook et al., 2005). As a holistic treatment, yoga may address the wide variety of the trauma-related symptoms (Beltran et al., 2016; Seena & Sundaram, 2018; West et al., 2017). However, there are many inconsistencies within the literature regarding the use of yoga with adolescents who have experienced trauma that may prevent practitioners from providing the most beneficial and well-informed yoga sessions. In an attempt to address these inconsistencies, practitioners who implement yoga with adolescents who have experienced trauma were surveyed on the foundational aspects of their yoga facilitations with this population. The results supported some of the current literature on yoga with adolescents who have experienced trauma, provided a general understanding of how, why, and by whom yoga is implemented with this population, and identified areas for future research to deepen this understanding.

Discussion of Major Findings

The purpose of this study was to describe how, why, and by whom yoga is implemented with adolescents (ages 12-19) who have experienced trauma. Study findings provide clarity to some of the inconsistencies reported in the literature, and can provide foundational knowledge specific to yoga facilitations with this population.

Participant definitions of trauma-informed and trauma-sensitive yoga supported findings in the literature that there are commonalities between the two terms (Jackson, 2014; Justice et al., 2018; Nolan, 2016). However, there was a lack of agreement when determining if the two terms were synonymous. Three common components of both trauma-informed and trauma-sensitive yoga were identified in the literature: therapeutic relationship, safe environment, and autonomy (Emerson et al., 2009; Ranjbar & Erb, 2019). Many participants included concepts relating to a safe environment and increasing participant autonomy in their definitions of trauma-informed and trauma-sensitive yoga. The literature discussed building a therapeutic relationship between the practitioner and yoga participants (Ranjbar & Erb, 2019), but few survey participants included examples of a therapeutic relationship within their definitions of trauma-informed and trauma-sensitive yoga. The majority of participants' definitions discussed the practitioners' role in planning and implementing yoga based on their knowledge and understanding of trauma and its effects, rather than focusing on practitioners' rapport with participants.

Although commonalities in the two terms were identified, almost half of the participants did not believe trauma-informed and trauma-sensitive yoga were synonymous and defined the terms separately. Within the definitions of trauma-informed and trauma-sensitive yoga provided by practitioners who believe the two terms are not synonymous, similar themes were identified. These themes were also reflective of the themes identified in the definitions provided by practitioners who indicated that the two terms are synonymous. Further research should focus on the differences, if any, between trauma-informed and trauma-sensitive yoga in order to better understand their unique

distinctions. Future research may also consider identifying and understanding the differences between trauma-informed and trauma-sensitive yoga trainings for additional insight related to the similarities and differences of the two practices.

Additionally, the definitions provided by practitioners were not conclusive in determining whether trauma-informed and trauma-sensitive yoga are facilitation styles applied to any type of yoga, or if they are types of yoga themselves. Some definitions implied that the terms represent two distinct styles of yoga, while other definitions implied they were adaptations that could be incorporated into different yoga styles. Future research should consider directly addressing whether trauma-informed and trauma-sensitive yoga are facilitation styles used with any type of yoga or if they are standalone yoga styles.

In terms of how yoga is implemented with adolescents who have experienced trauma, the top three adaptations selected by the practitioners in this study aligned with the three components of trauma-informed and trauma-sensitive yoga identified in the literature: developing trust between participants and practitioners as part of a therapeutic relationship, emphasizing safety through a lack of judgement, and increasing autonomy through providing choice (Anderson et al., 2015; Emerson et al., 2009; Nolan, 2016; Ranjbar & Erb, 2019). Although participants were not asked about these adaptations in relation to trauma-informed and trauma-sensitive yoga, it is interesting to note that these three adaptations seem to be the most prevalent in yoga facilitations with adolescents who have experienced trauma, regardless of the type of yoga used, practitioners' background, or setting in which the yoga session is implemented. These findings support

the importance of building a therapeutic relationship, providing a safe environment, and increasing autonomy when implementing yoga with adolescents who have experienced trauma. Two additional adaptations identified in the literature on yoga with adolescents who have experienced trauma are using invitational language and helping participants learn to be present in the moment (Emerson et al., 2009; Emerson & Hopper, 2012). As the majority of survey participants indicated that they use invitational language and aid their yoga participants in being present in the moment, the results of this study also support the literature on the incorporation of these adaptations within yoga sessions with adolescents who have experienced trauma.

The literature on how yoga is implemented with this population contains many inconsistencies which the researcher believed would pose many challenges for practitioners working to translate research to practice. However, survey participants indicated that the planning and facilitation of their yoga sessions with adolescents who have experienced trauma were mostly informed by evidence/research. It should be noted that it is unknown if the evidence/research used by these practitioners to inform their yoga sessions is specific to adolescents who have experienced trauma, or to a different population (e.g., adolescents who have not experienced trauma, adults who have experienced trauma). Future research may consider investigating the specific research practitioners are using to inform their planning and facilitation of yoga sessions with adolescents who have experienced trauma.

Trauma has been found to affect all five health domains, but the traditional trauma treatments and exposure therapies that are often used to treat trauma primarily focus on

the cognitive and social health domains (Foa, 2011; Racco & Vis, 2015; West et al., 2017). Research states that yoga may address trauma-related symptoms that impact all five health domains (West et al., 2017), and this study found that practitioners are purposely using yoga to address each health domain with adolescents who have experienced trauma. Primarily, participants reported targeting the emotional and physical health domains during their yoga sessions with adolescents who have experienced trauma. As the emotional and physical health domains, including physical trauma-related symptoms, are not directly addressed through traditional trauma treatments and exposure therapies (West et al., 2017), yoga may be a unique treatment modality that allows practitioners to holistically address adolescents' minds and bodies including the health domains not well addressed through other treatment modalities. Further, this may support the use of yoga as an adjunctive treatment to traditional trauma treatments and exposure therapies to better target all health domains. Future research should be completed to better understand the effect of combined treatments, and practitioners' targeted outcomes specific to each treatment (i.e., yoga, traditional trauma treatments, and/or exposure therapies) to treat the effects of trauma on adolescents.

Practitioners were asked to specify their targeted outcomes within each health domain that they aim to address through yoga with adolescents who have experienced trauma. These targeted outcomes were specific to common trauma-related symptoms (e.g., increased difficulty with affect regulation, decreased self-esteem) that were identified in the literature (Cook et al., 2005). Based on the results of this study, practitioners are using yoga to address the prominent negative impacts of trauma on

adolescents' five health domains, supporting the literature's claim that yoga can be used to address all five health domains (Beltran et al., 2016; Seena & Sundaram, 2018; West et al., 2017). Within the emotional health domain, adolescents may experience decreased affect regulation, self-esteem, emotional expression, autonomy, and/or sense of self after a traumatic event(s) (Cook et al., 2005; Sevecke et al., 2016). Study participants indicated that these five trauma-related symptoms were the most common symptoms specific to emotional health that were addressed through yoga.

In terms of physical health, three of the most common outcomes selected by practitioners (e.g., to improve balance, coordination, motor skills) did not directly reflect adolescents' trauma-related symptoms related to physical health identified in the literature (e.g., decreased homeostasis, increased physical aggression; De Bellis & Zisk, 2014; Jacobs, 2001; Kisiel et al., 2009). While the social and spiritual health domains were not the most common domains addressed by the participants in this study, the targeted outcomes specific to these domains did align with trauma-related symptoms commonly experienced by adolescents that were identified in the literature. However, this study was unable to confirm if the targeted outcomes are achieved through yoga participation. Future research should work to determine which of these targeted health outcomes specific to adolescents who have experienced trauma are achieved through yoga participation.

This study supported the literature that indicates that a variety of healthcare practitioners implement yoga with individuals who have experienced trauma (Libby et al., 2012). The practitioners in this study also represented professions outside of

healthcare (e.g., school systems, hairdressing), which adds to the body of knowledge specific to who implements yoga with adolescents who have experienced trauma. Findings indicate that practitioners implement yoga with adolescents who have experienced trauma in a variety of settings, most commonly community-based settings, followed by outpatient mental health, “other” settings (e.g., schools, juvenile justice centers), and yoga studios. Future research should investigate the similarities and/or differences in yoga facilitations provided in different settings across the continuum of care with adolescents who have experienced trauma. Future research should also explore how practitioners’ professional areas of practice (e.g., healthcare and non-healthcare related) inform their facilitating yoga with adolescents who have experienced trauma. Similar to the variety of healthcare fields, the literature also indicates that practitioners who implement yoga with individuals who have experienced trauma hold various certifications (Covaleski, 2019; Libby et al., 2012). The findings of this study support this as participants reported a wide range of trainings and certifications specific to yoga, trauma, yoga and trauma, and/or other professional disciplines (e.g., education, social work). Future research should investigate which trainings and/or certifications may be the most beneficial, and therefore recommended, for practitioners who implement yoga with adolescents who have experienced trauma.

Limitations

There is limited literature that provides foundational knowledge related to yoga with adolescents who have experienced trauma, and the population of practitioners who implement yoga with adolescents who have experienced trauma is unknown. Therefore,

results are not generalizable as it is not known if the study sample was representative of the larger population. The study sample also lacked diversity, as participants were primarily female, white, and U.S residents. Future research should sample males and females of different racial and ethnic backgrounds, who reside within and outside of the U.S. Lastly, there were errors in the non-standardized survey questions and answer options that may have limited study findings. For example, two sub-questions (e.g., targeted outcomes specific to cognitive health and prevalence of the three yoga components in sessions) had to be eliminated from data analysis due to inapplicable answer options and ambiguous wording. Future studies should pilot the survey with a larger sample size and/or work to identify a standardized survey(s) that can be used for data collection to minimize survey errors.

Implications for Future Research

Many opportunities for future research have evolved from this study. The terms trauma-informed and trauma-sensitive yoga are often used in the literature, but a clear, standardized definition nor differentiation between the two terms were identified. Participants in this study were not unanimous in identifying whether these terms were synonymous. Also, the common themes for each of these terms that were identified in participants' definitions were very similar. Future research should continue to dissect these two terms in order to better understand the similarities and differences between the two practices. Future research may also consider investigating the similarities, differences, and evidence that informs the various trauma-informed and trauma-sensitive yoga trainings and certifications provided by numerous organizations across the world.

While this study contributed to a better understanding of how yoga is being used with adolescents who have experienced trauma, future studies should document the logistics (e.g., group size, session duration), adaptations, yoga styles, and planning processes (e.g., what informs planning, preparation of environment) of specific yoga programs and/or sessions with adolescents who have experienced trauma. This may contribute to the creation of standardized guidelines that will provide practitioners with a better understanding of how to implement yoga sessions with this population.

Survey participants identified targeted outcomes specific to common trauma-related symptoms identified in the literature that they aimed to address in their yoga sessions with adolescents who have experienced trauma. While this study provides information on practitioners' aims, additional studies should be conducted to address the correlation between these trauma-related symptoms, targeted outcomes that are aligned with these symptoms, and the progress adolescents make towards these goals through yoga participation.

Future research on yoga with adolescents who have experienced trauma may also consider identifying similarities and differences between yoga sessions implemented in community settings compared to yoga sessions implemented in treatment settings. Additionally, the similarities and differences between yoga sessions led by healthcare compared to non-healthcare related facilitators should be further investigated.

Contributions and Challenges

This study contributes to pre-existing literature by providing foundational knowledge related to how, why, and by whom yoga is being implemented with

adolescents who have experienced trauma. Having a solid foundation is the first step towards expanding research in this area, for the purpose of providing practitioners a deeper, well-rounded understanding of how to plan and implement yoga with adolescents who have experienced trauma.

The inconsistencies in the literature were one of the main challenges encountered throughout the completion of this study. Specifically, inconsistent terminology made it challenging to define and understand basic, foundational terms that were vital to designing this research project. For example, the larger study that this manuscript stems from focused on youth (ages 2 to 19) who have experienced trauma which includes children (ages 2 to 11) and adolescents (12 to 19). However, the literature is inconsistent in defining the age ranges of children, adolescents, and youth as they were defined differently in each study or were not defined at all. The researchers took various sources into account when defining these age groups for the research project. Similarly, terminology used in reference to trauma-informed and trauma-sensitive yoga was inconsistent as the terms were often used interchangeably and were not clearly defined or differentiated.

Another challenge was the extension of the research project timeline at various points throughout the process. Institutional Review Board approval took longer than expected which delayed the start of piloting the survey, further delaying the second round of piloting due to the overlap with the holiday season. Data collection was also extended from two to four weeks in an effort to recruit more participants for the study sample through the use of social media sites and professional listservs. An additional challenge

that may have contributed to the extended data collection was working with a population with an unknown size. As practitioners who implement yoga with adolescents who have experienced trauma were not collectively identified, it was challenging to know whether these practitioners were made aware of the study and presented with an opportunity to complete the survey for this study.

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APPENDICES

Appendix A

Survey Information for Social Media Sites and Professional Listservs

Hello! Do you implement yoga in a clinical setting with youth (ages 2 to 19) who have experienced trauma? We are graduate students in Clemson University's Recreational Therapy program researching practitioners' use of yoga with youth who have experienced trauma.

We have created a short survey for practitioners who have experience planning and facilitating yoga with youth who have experienced trauma. This survey should take approximately 15-20 minutes to complete. Upon completion of the survey, you will have the opportunity to enter your email address into a drawing for a \$50 Amazon gift card (your survey responses will be de-identified prior to data analysis).

Participation in this survey is voluntary and responses are anonymous. Please note, by completing this survey you are indicating your consent to participate in the study and that the following statements are true:

1. Within the past year, you have facilitated yoga in a clinical setting (excluding fieldwork placement, practicums, volunteer work, and/or internship experiences) with youth (ages 2 to 19) who have experienced trauma.
2. You have graduated from your professional degree program.

Survey link: https://clemson.ca1.qualtrics.com/jfe/form/SV_0TyZeIh1KnrWOBn

If you have additional questions about this study or are interested in follow-up information, please feel free to contact the researchers.

Madeline Nance, Clemson University graduate student: mlnance@g.clemson.edu

Megan Sease, Clemson University graduate student: masease@g.clemson.edu

Dr. Brandi Crowe, supervising Clemson University faculty member:
bmcrowe@g.clemson.edu

If you have any questions or concerns about your rights as a volunteer in this study, please contact Clemson University's Institutional Review Board via email at irb@clemson.edu.

Appendix B

Yoga with Youth who have Experienced Trauma Survey

Start intro -

Dear Practitioner,

Voluntary Consent: Dr. Brandi Crowe is inviting you to volunteer for a research study. Dr. Crowe is an assistant professor in recreational therapy at Clemson University conducting the study with Madeline Nance and Megan Sease, recreational therapy master's students at Clemson University.

You may choose not to take part and you may choose to stop taking part at any time. You will not be punished in any way if you decide not to be in the study or to stop taking part in the study.

Study Purpose: The purpose of this research is to learn more about how, why, and by whom yoga is being used in clinical practice with youth, ages 2 to 19, who have experienced trauma. For the purpose of this survey, trauma will be defined as an adverse event(s) that causes an individual to experience extreme stress resulting in negative effects on overall health and well-being.

Activities and Procedures: Your part in the study will be to complete an online 26-item survey. Please note, depending on your survey responses, you may be asked to complete additional subquestions.

Participation Time: The online survey will take approximately 15-20 minutes to complete.

Risks and Discomforts: We do not know of any risks or discomforts to you in this research study.

Possible Benefits: You may not benefit directly for taking part in this study, however, your sharing your experience related to the use of yoga with youth who have experienced trauma will contribute to the evidence-base, and provide practitioners' a better understanding of what to consider when contemplating the use of yoga with youth who have experienced trauma.

Inclusion Requirements: In order to be eligible for participation in the study, you must meet the following criteria:

1. Within the past year, you have facilitated yoga in a clinical setting (excluding fieldwork placement practicums, volunteer work, and/or internships experience) with youth (ages 2 to 19) who have experienced trauma.
2. You have graduated from your professional degree program.

Incentives: Upon completion of the survey, you will have the opportunity to enter your email address into a drawing for a \$50 Amazon gift card (your survey responses will be deidentified prior to data analysis).

Protection of Privacy and Confidentiality: The results of this study may be published in scientific journals, professional publications, or education presentations. All survey responses will be anonymous. Email addresses entered in to the drawing will be removed from survey responses, so that all survey responses are deidentified. The gift card will be

awarded within two weeks of the survey closing. Records of email addresses will be destroyed once the gift card has been awarded.

The information collected during the study could be used for future research studies or distributed to another investigator for future research studies without additional informed consent from the participants or legally authorized representative.

Contact Information: If you have any questions or concerns about your rights in this research study, please contact the Clemson University Office of Research Compliance (ORC) at 864-656-0636 or irb@clemson.edu. If you are outside of the Upstate South Carolina area, please use the ORC's toll-free number, 866-297-3071. The Clemson IRB will not be able to answer some study-specific questions. However, you may contact the Clemson IRB if the research staff cannot be reached or if you wish to speak with someone other than the research staff. If you have any study related questions or if any problems arise, please contact Dr. Brandi Crowe at Clemson University at bmcrowe@clemson.edu.

CONSENT

By participating in the study, you indicate that you have read the information written above, been allowed to ask any questions, and you are voluntarily choosing to take part in this research. You do not give up any legal rights by taking part in this research study.

If you choose to consent, the prompt below will serve as your digital signature and your confirmation of consent.

You may print a copy of this document for your records.

Intro-2 The following survey includes 26 questions specific to how, why, and by whom yoga is implemented with youth who have experienced trauma. Demographic questions are included, and additional sub-questions may be presented based on your response to the primary questions.

Please answer each question based on your professional experience facilitating yoga with youth who have experienced trauma in clinical practice, within the past year. For the purpose of this survey, trauma will be defined as an adverse event(s) that causes an individual to experience extreme stress resulting in negative effects on overall health and well-being.

youth Within the past year, have you facilitated yoga in clinical practice with youth (i.e., individuals aged 2 to 19) who have experienced trauma?

- Yes (1)
- No (2)

Skip To: End of Survey If Within the past year, have you facilitated yoga in clinical practice with youth (i.e., individual... = No

age group Within the past year, what age group(s) of youth who have experienced trauma have you facilitated yoga with in clinical practice?

- Children (aged 2 to 11) who have experienced trauma (1)
- Adolescents (aged 12 to 19) who have experienced trauma (2)
- Both children (aged 2 to 11) and adolescents (aged 12 to 19) who have experienced trauma (3)

End of Block: Intro

Start of Block: Children

Intro The following questions will focus on your use of yoga with children aged 9-11

C-types Within the past year of implementing yoga with children who have experienced trauma, if known, what sources of trauma (e.g., physical abuse, neglect, medical trauma) have your participants experienced? If unknown, please type “unknown.”

C-P&F Within the past year, what has informed your planning and facilitation of yoga with children who have experienced trauma? (Select all that apply)

- Evidence/research (1)
 - Theory (2)
 - Personal yoga practice (3)
 - Clinical expertise specific to yoga (4)
 - Clinical expertise specific to youth who have experienced trauma (5)
 - Other (please identify): (6)
-

C-group type Within the past year when facilitating yoga with children who have experienced trauma, are your sessions primarily one-on-one or group sessions? (Select all that apply)

- One-on-one sessions (1)
- Group sessions (2)

Display This Question:

If Within the past year when facilitating yoga with children who have experienced trauma, are your s... = Group sessions

c-group size On average, how many children who have experienced trauma do you serve in a single yoga session?

- 2-3 children (1)
- 4-5 children (2)
- 6-7 children (3)
- 8-10 children (4)
- More than 10 children (5)

c-why Within the past year, why have you implemented yoga with children who have experienced trauma? (Select all that apply)

- To improve emotional health (4)
- To improve cognitive health (5)
- To improve social health (6)
- To improve physical health (7)
- To improve spiritual health (8)
- No identified targeted outcomes (10)
- Other (please identify): (11) _____

Display This Question:

If Within the past year, why have you implemented yoga with children who have experienced trauma? (S... = To improve emotional health

C-emotional When you have implemented yoga with children who have experienced trauma, what outcomes specific to emotional health have you focused on/targeted? (Select all that apply)

- To improve affect regulation (4)
- To improve emotion expression (5)
- To increase autonomy (6)
- To increase self-concept (7)
- To increase self-esteem (8)
- To improve body image (9)
- Other (please identify): (10) _____

Display This Question:

If Within the past year, why have you implemented yoga with children who have experienced trauma? (S... = To improve cognitive health

c-cognitive When you have implemented yoga with children who have experienced trauma, what outcomes specific to cognitive health have you focused on/targeted? (Select all that apply)

- To develop abstract reasoning (4)
- To increase ability to orient to time and space (5)
- To increase ability to adjust to plans and strategies (6)
- To increase ability to plan and anticipate (7)
- To address learning difficulties (8)
- To improve memory (9)
- To improve information-processing (10)
- Other (please identify): (11) _____

Display This Question:

If Within the past year, why have you implemented yoga with children who have experienced trauma? (S... = To improve social health

c-social When you have implemented yoga with children who have experienced trauma, what outcomes specific to social health have you focused on/targeted? (Select all that apply)

- To increase social competence (11)
- To improve verbal communication skills (12)
- To improve nonverbal communication skills (13)
- To increase interpersonal communication (14)
- Other (please identify): (15) _____

Display This Question:

If Within the past year, why have you implemented yoga with children who have experienced trauma? (S... = To improve physical health

c-physical When you have implemented yoga with children who have experienced trauma, what outcomes specific to physical health have you focused on/targeted? (Select all that apply)

- To improve balance (4)
 - To improve coordination (5)
 - To improve motor skills (6)
 - To reduce heart rate (7)
 - Other (please identify): (8) _____
-

Display This Question:

If Within the past year, why have you implemented yoga with children who have experienced trauma? (S... = To improve spiritual health

c-spiritual When you have implemented yoga with children who have experienced trauma, what outcomes specific to spiritual health have you focused on/targeted? (Select all that apply)

- To increase sense of purpose (4)
 - To find meaning in life (5)
 - To increase peace and harmony in the individuals' lives (6)
 - To develop an overall deeper understanding of spirituality (7)
 - Other (please identify): (8) _____
-

c-preparation Within the past year when facilitating yoga with children who have experienced trauma, what have you included in your preparation of the environment/space your yoga sessions take place in? (Select all that apply)

- Cover windows that may lead to distraction (1)
- Prepare for distractions (e.g., if mail is scheduled to be delivered during the session, make note that you will inform participants at the beginning of the session) (2)
- Cover or remove mirrors (3)
- Set out essential oils that may be used (4)
- Prepare options for different lighting (e.g., dimming lights to begin or having the option to dim lights after session has begun) (5)
- Set up music, speakers, etc. (6)
- Other (please identify): (7) _____
- I have not prepared the environment/space that my yoga sessions take place in, in any unique or particular way when facilitating yoga for children who have experienced trauma. (8)

c-synonymous Do you consider trauma-informed yoga and trauma-sensitive yoga to be synonymous terms?

- Yes (1)
- No (2)

Display This Question:

If Do you consider trauma-informed yoga and trauma-sensitive yoga to be synonymous terms? = Yes

c-define both How would you define trauma-informed and trauma-sensitive yoga?

Display This Question:

If Do you consider trauma-informed yoga and trauma-sensitive yoga to be synonymous terms? = No

c-define TIY How would you define trauma-informed yoga?

Display This Question:

If Do you consider trauma-informed yoga and trauma-sensitive yoga to be synonymous terms? = No

c-define TSY How would you define trauma-sensitive yoga?

c-styles Within the past year, what styles of yoga have you found most effective when implementing yoga with children who have experienced trauma? (Select all that apply)

- Anusara (1)
 - Ashtanga (2)
 - Bikram (3)
 - Gentle Yoga (4)
 - Hatha Yoga (5)
 - iRest Yoga/Nidra (6)
 - Iyengar (7)
 - Jivamukti (8)
 - Kundalini (9)
 - Pranayama for trauma (10)
 - Restorative (11)
 - Trauma-Informed Yoga (12)
 - Trauma-Sensitive Yoga (13)
 - Vinyasa (14)
 - Yin (15)
 - Other (please identify): (16) _____
-

Carry Forward Selected Choices from "Within the past year, what styles of yoga have you found most effective when implementing yoga with children who have experienced trauma? (Select all that apply)"

c-top styles Please rank the styles of yoga you have selected in order from most often used to least often used in regard to facilitating yoga with children who have experienced trauma.

- _____ Anusara (1)
 - _____ Ashtanga (2)
 - _____ Bikram (3)
 - _____ Gentle Yoga (4)
 - _____ Hatha Yoga (5)
 - _____ iRest Yoga/Nidra (6)
 - _____ Iyengar (7)
 - _____ Jivamukti (8)
 - _____ Kundalini (9)
 - _____ Pranayama for trauma (10)
 - _____ Restorative (11)
 - _____ Trauma-Informed Yoga (12)
 - _____ Trauma-Sensitive Yoga (13)
 - _____ Vinyasa (14)
 - _____ Yin (15)
 - _____ Other (please identify): (16)
-

c-components Within the past year, which of the following components of yoga have you included in your yoga sessions with children who have experienced trauma? (Select all that apply)

- Breath work (1)
 - Meditation (2)
 - Physical poses (3)
-

Display This Question:

If Within the past year, which of the following components of yoga have you included in your yoga se... = Breath work

c-breath work On average, what percentage of your yoga sessions with children who have experienced trauma is focused on breath work?

Display This Question:

If Within the past year, which of the following components of yoga have you included in your yoga sessions = Meditation

c-meditation On average, what percentage of your yoga sessions with children who have experienced trauma is focused on meditation?

Display This Question:

If Within the past year, which of the following components of yoga have you included in your yoga sessions = Physical poses

c-physical poses On average, what percentage of your yoga sessions with children who have experienced trauma is focused on physical poses?

c-informed What has informed your planning and facilitation of yoga with children who have experienced trauma? (Select all that apply)

- Continuing education units (1)
 - Formal education (2)
 - Literature, research publications, etc. (3)
 - Self-help books (4)
 - Trauma-specific trainings (5)
 - Workshops (6)
 - Yoga training (7)
 - Other (please identify): (8) _____
-

Display This Question:

If What has informed your planning and facilitation of yoga with children who have experienced trauma... = Yoga training

c - info yoga train Please describe the yoga training(s) that has informed your yoga facilitations with children who have experienced trauma.

- 200 hour yoga teaching training (4)
 - Yoga therapy training (5)
 - Other (please specify): (6) _____
-

c-adaptations Within the past year when facilitating yoga with children who have experienced trauma, have you made any of the following adaptations that are specific to trauma? (Select all that apply)

- Created a sense of camaraderie among participants (1)
 - Developed a sense of trust between myself and the participants (2)
 - Addressed potential trauma-related triggers (3)
 - Set a non-judgmental tone emphasizing safety (4)
 - Began sessions by providing an outline of the session (5)
 - Aided my participants' ability to be present in the moment (6)
 - Provided choice for participants (7)
 - Used invitational language (e.g., language that includes “if you would like” or “when you are ready”) rather than demanding language (e.g., "do this now") (8)
 - I have not made any adaptations specific to trauma when working with children who have experienced trauma. (11)
 - Other (please identify): (9) _____
-

c-duration Within the past year, what has been the average duration of your yoga sessions with children who have experienced trauma?

- 15 minutes (1)
 - 30 minutes (2)
 - 45 minutes (3)
 - 50 minutes (4)
 - 60 minutes (5)
 - 75 minutes (6)
 - 90 minutes (7)
 - Other (please identify): (8) _____
-

c-unique clients Within the past year, on average how many unique children who have experienced trauma do you serve in a seven-day (one-week) period?

- 1-5 children (1)
- 6-10 children (2)
- 11-15 children (3)
- 16-20 children (4)
- Other (please identify): (5) _____

c-psychotherapy Within the past year, approximately what percentage of your yoga sessions with children who have experienced trauma have been used in adjunct with psychotherapy?

- 0% (1)
- 1-25% (2)
- 26-50% (3)
- 51-75% (4)
- 76-99% (5)
- 100% (6)
- Unknown (7)

c-cert opinion Do you think practitioners should complete any yoga training(s) or obtain formal yoga certification(s) prior to utilizing yoga with children who have experienced trauma?

- Yes (1)
- No (2)

Display This Question:

If Do you think practitioners should complete any yoga training(s) or obtain formal yoga certificati... = Yes

c-cert rec Please list any formal yoga training(s) or certification(s) you would recommend practitioners complete prior to facilitating yoga with children who have experienced trauma.

End of Block: Children

Start of Block: Demographics

demo intro statement The following demographic questions will provide data for one of the main purposes of this study: Who facilitates yoga with youth who have experienced trauma?

age What is your age (as of today)?

gender What gender do you identify as?

- Female (1)
 - Male (2)
 - Non-binary (3)
 - Prefer to self-describe (4) _____
 - Prefer not to say (5)
-

race What is your race or ethnicity?

- American Indian or Alaska Native (1)
 - Asian (2)
 - Black or African American (3)
 - Hispanic, Latinx, or Spanish (4)
 - Middle Eastern or North African (5)
 - Native Hawaiian or other Pacific Islander (6)
 - White (7)
 - Other (please identify): (8) _____
-

country In which country do you currently reside?

▼ Afghanistan (1) ... Zimbabwe (1357)

Display This Question:

If List of Countries = United States of America

state In which state do you currently reside?

▼ Alabama (1) ... I do not reside in the United States (53)

area of practice What is your primary area of practice?

- Activity Therapy (1)
 - Counseling (2)
 - Occupational Therapy (3)
 - Physical Therapy (4)
 - Psychology (5)
 - Recreational Therapy (6)
 - Social Work (7)
 - Speech-Language Pathology (8)
 - Yoga Therapy (9)
 - Other (please identify): (10) _____
-

credentials Please list all of your professional credentials, including any yoga-specific, trauma-specific, or other professional credentials. If you do not hold any credentials, please type "N/A."

experience How long have you been clinically practicing within your field?

- Less than 1 year (1)
 - 1 to 3 years (2)
 - 4 to 10 years (3)
 - 11 to 20 years (4)
 - More than 20 years (5)
-

settings Within the last year, in what setting(s) have you implemented yoga with youth who have experienced trauma? (Select all that apply)

- Acute care (1)
 - Community-based program (2)
 - Inpatient mental health (3)
 - Outpatient mental health (4)
 - Psychiatric care (5)
 - Yoga studio (6)
 - Other (please identify): (7) _____
-

personal practice Do you have a personal yoga practice?

- Yes (1)
- No (2)

Display This Question:

If Do you have a personal yoga practice? = Yes

PPtime Approximately how long have you been personally practicing yoga?

Display This Question:

If Do you have a personal yoga practice? = Yes

PPtype What type of yoga do you personally practice?

Display This Question:

If Do you have a personal yoga practice? = Yes

PPfrequency How often do you personally practice yoga within one week?

End of Block: Demographics

Start of Block: Ending

email for giftcard To enter the drawing to receive a \$50 Amazon gift card, please enter your email here:

End of Block: Ending

Start of Block: Adolescents

Intro The following questions will focus on your use of yoga with Adolescents aged 12-19

a-types Within the past year of implementing yoga with adolescents who have experienced trauma, if known, what sources of trauma (e.g., physical abuse, neglect, medical trauma) have your participants experienced? If unknown, please type “unknown”

a-P&F Within the past year, what has informed your planning and facilitation of yoga with adolescents who have experienced trauma? (Select all that apply)

- Evidence/research (1)
 - Theory (2)
 - Personal yoga practice (3)
 - Clinical expertise specific to yoga (4)
 - Clinical expertise specific to youth who have experienced trauma (5)
 - Other (please identify): (6) _____
-

a-group type Within the past year when facilitating yoga with adolescents who have experienced trauma, are your sessions primarily one-on-one or group sessions? (Select all that apply)

- One-on-one sessions (1)
 - Group sessions (2)
-

Display This Question:

If Within the past year when facilitating yoga with adolescents who have experienced trauma, are you... = Group sessions

a-group size On average, how many adolescents who have experienced trauma do you serve in a single yoga session?

- 2-3 adolescents (1)
 - 4-5 adolescents (2)
 - 6-8 adolescents (3)
 - 8-10 adolescents (4)
 - More than 10 adolescents (5)
-

a-why Within the past year, why have you implemented yoga with adolescents who have experienced trauma? (Select all that apply)

- To improve emotional health (197)
- To improve cognitive health (198)
- To improve social health (199)
- To improve physical health (200)
- To improve spiritual health (201)
- No identified targeted outcomes (202)
- Other (please identify): (203) _____

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve emotional health

a-emotional When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to emotional health have you focused on/targeted? (Select all that apply)

- To improve affect regulation (4)
- To improve emotion expression (5)
- To increase autonomy (6)
- To increase self-concept (7)
- To increase self-esteem (8)
- To improve body image (9)
- Other (please identify): (10) _____

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve cognitive health

a-cognitive When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to cognitive health have you focused on/targeted? (Select all that apply)

- To improve affect regulation (4)
 - To improve emotion expression (5)
 - To increase autonomy (6)
 - To increase self-concept (7)
 - To increase self-esteem (8)
 - To improve body image (9)
 - Other (please identify): (10) _____
-

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve social health

a-social When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to social health have you focused on/targeted? (Select all that apply)

- To increase social competence (4)
 - To improve verbal communication skills (5)
 - To improve nonverbal communication skills (6)
 - To increase interpersonal communication (7)
 - Other (please identify): (8) _____
-

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve physical health

a-physical When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to physical health have you focused on/targeted? (Select all that apply)

- To improve balance (62)
 - To improve coordination (63)
 - To improve motor skills (64)
 - To reduce heart rate (65)
 - Other (please identify): (66) _____
-

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve spiritual health

a-spiritual When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to spiritual health have you focused on/targeted? (Select all that apply)

- To increase sense of purpose (63)
- To find meaning in life (64)
- To increase peace and harmony in the individuals' lives (65)
- To develop an overall deeper understanding of spirituality (66)
- Other (please identify): (67) _____

a-preparation Within the past year when facilitating yoga with adolescents who have experienced trauma, what have you included in your preparation of the environment/space your yoga sessions take place in? (Select all that apply)

- Cover windows that may lead to distraction (1)
- Prepare for distractions (e.g., if mail is scheduled to be delivered during the session, make note that you will inform participants at the beginning of the session) (2)
- Cover or remove mirrors (3)
- Set out essential oils that may be used (4)
- Prepare options for different lighting (e.g., dimming lights to begin or having the option to dim lights after session has begun) (5)
- Set up music, speakers, etc. (6)
- Other (please identify): (7) _____
- I have not prepared the environment/space that my yoga sessions take place in, in any unique or particular way when facilitating yoga for children who have experienced trauma. (8)

a-synonymous Do you consider trauma-informed yoga and trauma-sensitive yoga to be synonymous terms?

- Yes (1)
 - No (2)
-

Display This Question:

If Do you consider trauma-informed yoga and trauma-sensitive yoga to be synonymous terms? = Yes

a-define both How would you define trauma-informed and trauma-sensitive yoga?

Display This Question:

If Do you consider trauma-informed yoga and trauma-sensitive yoga to be synonymous terms? = No

a-define TIY How would you define trauma-informed yoga?

Display This Question:

If Do you consider trauma-informed yoga and trauma-sensitive yoga to be synonymous terms? = No

a-define TSY How would you define trauma-sensitive yoga?

a-styles Within the past year, what styles of yoga have you found most effective when implementing yoga with adolescents who have experienced trauma? (Select all that apply)

- Anusara (1)
 - Ashtanga (2)
 - Bikram (3)
 - Gentle Yoga (4)
 - Hatha Yoga (5)
 - iRest Yoga/Nidra (6)
 - Iyengar (7)
 - Jivamukti (8)
 - Kundalini (9)
 - Pranayama for trauma (10)
 - Restorative (11)
 - Trauma-Informed Yoga (12)
 - Trauma-Sensitive Yoga (13)
 - Vinyasa (14)
 - Yin (15)
 - Other (please identify): (16) _____
-
-

Carry Forward Selected Choices from "Within the past year, what styles of yoga have you found most effective when implementing yoga with adolescents who have experienced trauma? (Select all that apply)"

a-top styles Please rank the styles of yoga you have selected in order from most often used to least often used in regard to facilitating yoga with adolescents who have experienced trauma.

- _____ Anusara (1)
- _____ Ashtanga (2)
- _____ Bikram (3)
- _____ Gentle Yoga (4)
- _____ Hatha Yoga (5)
- _____ iRest Yoga/Nidra (6)
- _____ Iyengar (7)
- _____ Jivamukti (8)
- _____ Kundalini (9)
- _____ Pranayama for trauma (10)
- _____ Restorative (11)
- _____ Trauma-Informed Yoga (12)
- _____ Trauma-Sensitive Yoga (13)
- _____ Vinyasa (14)
- _____ Yin (15)
- _____ Other (please identify): (16)

a-components Within the past year, which of the following components of yoga have you included in your yoga sessions with adolescents who have experienced trauma? (Select all that apply)

- Breath work (1)
- Meditation (2)
- Physical poses (3)

Display This Question:

If Within the past year, which of the following components of yoga have you included in your yoga se... = Breath work

a-breath work On average, what percentage of your yoga sessions with adolescents who have experienced trauma is focused on breath work?

Display This Question:

If Within the past year, which of the following components of yoga have you included in your yoga sessions = Meditation

a-meditation On average, what percentage of your yoga sessions with adolescents who have experienced trauma is focused on meditation?

Display This Question:

If Within the past year, which of the following components of yoga have you included in your yoga sessions = Physical poses

a-physical poses On average, what percentage of your yoga sessions with adolescents who have experienced trauma is focused on physical poses?

a-informed What has informed your planning and facilitation of yoga with adolescents who have experienced trauma? (Select all that apply)

- Continuing education units (89)
 - Formal education (90)
 - Literature, research publications, etc. (91)
 - Self-help books (92)
 - Trauma-specific trainings (93)
 - Workshops (94)
 - Yoga training (95)
 - Other (please identify): (96) _____
-

Display This Question:

If What has informed your planning and facilitation of yoga with adolescents who have experienced trauma = Yoga training

a - info yoga train Please specify the yoga training(s) that has informed your yoga facilitations with adolescents who have experienced trauma.

- 200 hour yoga teaching training (4)
 - Yoga therapy training (5)
 - Other (please identify): (6) _____
-

a-adaptations Within the past year when facilitating yoga with adolescents who have experienced trauma, have you made any of the following adaptations that are specific to trauma? (Select all that apply)

- Created a sense of camaraderie among participants (1)
 - Developed a sense of trust between myself and the participants (2)
 - Addressed potential trauma-related triggers (3)
 - Set a non-judgmental tone emphasizing safety (4)
 - Began sessions by providing an outline of the session (5)
 - Aided my participants' ability to be present in the moment (6)
 - Provided choice for participants (7)
 - Used invitational language (e.g., language that includes “if you would like” or “when you are ready”) rather than demanding language (e.g., "do this now") (8)
 - I have not made any adaptations specific to trauma when working with adolescents who have experienced trauma (11)
 - Other (please identify): (9) _____
-

a-duration Within the past year, what has been the average duration of your yoga sessions with adolescents who have experienced trauma?

- 15 minutes (1)
 - 30 minutes (2)
 - 45 minutes (3)
 - 50 minutes (4)
 - 60 minutes (5)
 - 75 minutes (6)
 - 90 minutes (7)
 - Other (please identify): (8) _____
-

a-unique clients Within the past year, on average how many unique adolescents who have experienced trauma do you serve in a seven-day (one-week) period?

- 1-5 adolescents (1)
 - 6-10 adolescents (2)
 - 11-15 adolescents (3)
 - 16-20 adolescents (4)
 - Other (please identify): (5) _____
-

a-psychotherapy Within the past year, approximately what percentage of your yoga sessions with adolescents who have experienced trauma have been used in adjunct with psychotherapy?

- 0% (1)
 - 1-25% (2)
 - 26-50% (3)
 - 51-75% (4)
 - 76-99% (5)
 - 100% (6)
 - Unknown (7)
-

a-cert opinion Do you think practitioners should complete any yoga training(s) or obtain formal yoga certification(s) prior to utilizing yoga with adolescents who have experienced trauma?

- Yes (1)
 - No (2)
-

Display This Question:

If Do you think practitioners should complete any yoga training(s) or obtain formal yoga certificati... = Yes

a-cert rec Please list any formal yoga training(s) or certification(s) you would recommend practitioners complete prior to facilitating yoga with adolescents who have experienced trauma.

End of Block: Adolescents

Start of Block: Adolescents for both

a1-intro The following questions will focus on your use of yoga with Adolescents aged 12-19

a1-types Within the past year of implementing yoga with adolescents who have experienced trauma, if known, what sources of trauma (e.g., physical abuse, neglect, medical trauma) have your participants experienced? If unknown, please type “unknown”

a1-p&f Within the past year, what has informed your planning and facilitation of yoga with adolescents who have experienced trauma? (Select all that apply)

- Evidence/research (1)
 - Theory (2)
 - Personal yoga practice (3)
 - Clinical expertise specific to yoga (4)
 - Clinical expertise specific to youth who have experienced trauma (5)
 - Other (please identify): (6) _____
-

a1-group types Within the past year when facilitating yoga with adolescents who have experienced trauma, are your sessions primarily one-on-one or group sessions? (Select all that apply)

- One-on-one sessions (1)
 - Group sessions (2)
-

Display This Question:

If Within the past year when facilitating yoga with adolescents who have experienced trauma, are you... = Group sessions

a1-group size On average, how many adolescents who have experienced trauma do you serve in a single yoga session?

- 2-3 adolescents (1)
 - 4-5 adolescents (2)
 - 6-7 adolescents (3)
 - 8-10 adolescents (4)
 - More than 10 adolescents (5)
-

a1-why Within the past year, why have you implemented yoga with adolescents who have experienced trauma? (Select all that apply)

- To improve emotional health (197)
 - To improve cognitive health (198)
 - To improve social health (199)
 - To improve physical health (200)
 - To improve spiritual health (201)
 - No identified targeted outcomes (202)
 - Other (please identify): (203) _____
-

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve emotional health

a1-emotional When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to emotional health have you focused on/targeted? (Select all that apply)

- To improve affect regulation (4)
 - To improve emotion expression (5)
 - To increase autonomy (6)
 - To increase self-concept (7)
 - To increase self-esteem (8)
 - To improve body image (9)
 - Other (please identify): (10) _____
-

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve cognitive health

a1-cognitive When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to cognitive health have you focused on/targeted? (Select all that apply)

- To improve affect regulation (4)
 - To improve emotion expression (5)
 - To increase autonomy (6)
 - To increase self-concept (7)
 - To increase self-esteem (8)
 - To improve body image (9)
 - Other (please identify): (10) _____
-

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve social health

a1-social When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to social health have you focused on/targeted? (Select all that apply)

- To increase social competence (4)
 - To improve verbal communication skills (5)
 - To improve nonverbal communication skills (6)
 - To increase interpersonal communication (7)
 - Other (please identify): (8) _____
-

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve physical health

a1-physical When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to physical health have you focused on/targeted? (Select all that apply)

- To improve balance (62)
 - To improve coordination (63)
 - To improve motor skills (64)
 - To reduce heart rate (65)
 - Other (please identify): (66) _____
-

Display This Question:

If Within the past year, why have you implemented yoga with adolescents who have experienced trauma?... = To improve spiritual health

a1-spiritual When you have implemented yoga with adolescents who have experienced trauma, what outcomes specific to spiritual health have you focused on/targeted? (Select all that apply)

- To increase sense of purpose (63)
 - To find meaning in life (64)
 - To increase peace and harmony in the individuals' lives (65)
 - To develop an overall deeper understanding of spirituality (66)
 - Other (please identify): (67) _____
-

a1-preparation Within the past year when facilitating yoga with adolescents who have experienced trauma, what have you included in your preparation of the environment/space your yoga sessions take place in? (Select all that apply)

- Cover windows that may lead to distraction (1)
 - Prepare for distractions (e.g., if mail is scheduled to be delivered during the session, make note that you will inform participants at the beginning of the session) (2)
 - Cover or remove mirrors (3)
 - Set out essential oils that may be used (4)
 - Prepare options for different lighting (e.g., dimming lights to begin or having the option to dim lights after session has begun) (5)
 - Set up music, speakers, etc. (6)
 - Other (please identify): (7) _____
 - I have not prepared the environment/space that my yoga sessions take place in, in any unique or particular way when facilitating yoga for children who have experienced trauma. (8)
-

a1-styles Within the past year, what styles of yoga have you found most effective when implementing yoga with adolescents who have experienced trauma? (Select all that apply)

- Anusara (1)
 - Ashtanga (2)
 - Bikram (3)
 - Gentle Yoga (4)
 - Hatha Yoga (5)
 - iRest Yoga/Nidra (6)
 - Iyengar (7)
 - Jivamukti (8)
 - Kundalini (9)
 - Pranayama for trauma (10)
 - Restorative (11)
 - Trauma-Informed Yoga (12)
 - Trauma-Sensitive Yoga (13)
 - Vinyasa (14)
 - Yin (15)
 - Other (please identify): (16) _____
-

Carry Forward Selected Choices from "Within the past year, what styles of yoga have you found most effective when implementing yoga with adolescents who have experienced trauma? (Select all that apply)"

a-type styles Please rank the styles of yoga you have selected in order from most often used to least often used in regard to facilitating yoga with adolescents who have experienced trauma.

- _____ Anusara (1)
 - _____ Ashtanga (2)
 - _____ Bikram (3)
 - _____ Gentle Yoga (4)
 - _____ Hatha Yoga (5)
 - _____ iRest Yoga/Nidra (6)
 - _____ Iyengar (7)
 - _____ Jivamukti (8)
 - _____ Kundalini (9)
 - _____ Pranayama for trauma (10)
 - _____ Restorative (11)
 - _____ Trauma-Informed Yoga (12)
 - _____ Trauma-Sensitive Yoga (13)
 - _____ Vinyasa (14)
 - _____ Yin (15)
 - _____ Other (please identify): (16)
-

a1-components Within the past year, which of the following components of yoga have you included in your yoga sessions with adolescents who have experienced trauma? (Select all that apply)

- Breath work (1)
 - Meditation (2)
 - Physical poses (3)
-

Display This Question:

If Within the past year, which of the following components of yoga have you included in your yoga se... = Breath work

a1-breath work On average, what percentage of your yoga sessions with adolescents who have experienced trauma is focused on breath work?

Display This Question:

If Within the past year, which of the following components of yoga have you included in your yoga sessions = Meditation

a1-meditation On average, what percentage of your yoga sessions with adolescents who have experienced trauma is focused on meditation?

Display This Question:

If Within the past year, which of the following components of yoga have you included in your yoga sessions = Physical poses

a1-physical poses On average, what percentage of your yoga sessions with adolescents who have experienced trauma is focused on physical poses?

a1-informed What has informed your planning and facilitation of yoga with adolescents who have experienced trauma? (Select all that apply)

- Continuing education units (89)
 - Formal education (90)
 - Literature, research publications, etc. (91)
 - Self-help books (92)
 - Trauma-specific trainings (93)
 - Workshops (94)
 - Yoga training (95)
 - Other (please identify): (96) _____
-

Display This Question:

If What has informed your planning and facilitation of yoga with adolescents who have experienced trauma = Yoga training

a1-inf yoga train Please specify the yoga training(s) that has informed your yoga facilitations with adolescents who have experienced trauma.

- 200 hour yoga teaching training (4)
 - Yoga therapy training (5)
 - Other (please identify): (6) _____
-

a1-adaptations Within the past year when facilitating yoga with adolescents who have experienced trauma, have you made any of the following adaptations that are specific to trauma? (Select all that apply)

- Created a sense of camaraderie among participants (1)
- Developed a sense of trust between myself and the participants (2)
- Addressed potential trauma-related triggers (3)
- Set a non-judgmental tone emphasizing safety (4)
- Began sessions by providing an outline of the session (5)
- Aided my participants' ability to be present in the moment (6)
- Provided choice for participants (7)
- Used invitational language (e.g., language that includes “if you would like” or “when you are ready”) rather than demanding language (e.g., "do this now") (8)
- I have not made any adaptations specific to trauma when working with adolescents who have experienced trauma (10)
- Other (please identify): (9) _____

a1-duration Within the past year, what has been the average duration of your yoga sessions with adolescents who have experienced trauma?

- 15 minutes (1)
- 30 minutes (2)
- 45 minutes (3)
- 50 minutes (4)
- 60 minutes (5)
- 75 minutes (6)
- 90 minutes (7)
- Other (please identify): (8) _____

a1-unique clients Within the past year, on average how many unique adolescents who have experienced trauma do you serve in a seven-day (one-week) period?

- 1-5 adolescents (1)
- 6-10 adolescents (2)
- 11-15 adolescents (3)
- 16-20 adolescents (4)
- Other (please identify): (5) _____

a1-psychotherapy Within the past year, approximately what percentage of your yoga sessions with adolescents who have experienced trauma have been used in adjunct with psychotherapy?

- 0% (1)
 - 1-25% (2)
 - 26-50% (3)
 - 51-75% (4)
 - 76-99% (5)
 - 100% (6)
 - Unknown (7)
-

a1- cert opinion Do you think practitioners should complete any yoga training(s) or obtain formal yoga certification(s) prior to utilizing yoga with adolescents who have experienced trauma?

- Yes (1)
 - No (2)
-

Display This Question:

If Do you think practitioners should complete any yoga training(s) or obtain formal yoga certificati... = Yes

a1-cert rec Please list any formal yoga training(s) or certification(s) you would recommend practitioners complete prior to facilitating yoga with adolescents who have experienced trauma.

End of Block: Adolescents for both

Appendix C

All Results

Table 6

Participant Demographics (N=47)

Survey Items & Answer Options	Mean ± SD or n (%)
Gender	
Female	41 (87.2%)
Male	3 (6.4%)
Non-binary	2 (4.3%)
Prefer not to say	1 (2.1%)
Race	
White	40 (85.1%)
Asian	3 (6.4%)
Hispanic, Latinx, or Spanish	2 (4.3%)
Other	1 (2.1%)
Not reported	1 (2.1%)
Country of Residence	
United States	43 (91.5%)
Canada	2 (4.3%)
Finland	1 (2.1%)
Hong Kong (S.A.R.)	1 (2.1%)
Age	38.4 ± 11.3

Table 7

Participant Demographics – States (N=43)

Item – State	n (%)
Utah	5 (12.2%)
Massachusetts	4 (9.8%)
Ohio	4 (9.8%)
New York	3 (7.3%)
North Carolina	3 (7.3%)
Colorado	2 (4.9%)
Indiana	2 (4.9%)
Michigan	2 (4.9%)
New Hampshire	2 (4.9%)
Pennsylvania	2 (4.9%)
Tennessee	2 (4.9%)
Texas	2 (4.9%)
Arkansas	1 (2.4%)
California	1 (2.4%)
Connecticut	1 (2.4%)
Georgia	1 (2.4%)
Idaho	1 (2.4%)
Illinois	1 (2.4%)
Montana	1 (2.4%)
Wisconsin	1 (2.4%)

Table 8

Types of Trauma Experienced by Adolescents, as Reported by their Practitioners (n=45)

Item - State	n (%)
Sexual abuse	26 (57.8%)
Physical abuse	23 (51.1%)
Neglect	22 (48.9%)
Emotional abuse	9 (20.0%)
Unknown	9 (20.0%)
Medical trauma	4 (8.9%)
Separation/loss	4 (8.9%)
Mental abuse	3 (6.7%)
Attachment	2 (4.4%)
Family violence	2 (4.4%)
Self-harm	2 (4.4%)
Witnessing interpersonal conflict	2 (4.4%)
Abandonment	1 (2.2%)
Abuse	1 (2.2%)
Asthma	1 (2.2%)
Bullying	1 (2.2%)
Cancer diagnosis and treatment	1 (2.2%)
Educational trauma	1 (2.2%)
Exposure to substance abuse	1 (2.2%)
Foster care	1 (2.2%)
Gang violence	1 (2.2%)
Gender identity	1 (2.2%)
Homelessness	1 (2.2%)
Immigration trauma	1 (2.2%)
Sexual assault	1 (2.2%)
Shelter living	1 (2.2%)
Substance abuse	1 (2.2%)
Trafficking	1 (2.2%)
Trouble with the law	1 (2.2%)
Verbal abuse	1 (2.2%)

Note. Participants were asked to provide all types of trauma experienced by the adolescents in their yoga sessions.

Table 9

How Yoga is Implemented with Adolescents who have Experienced Trauma (N=47)

Item	n (%)
Informed planning and facilitation*	
Evidence/research	40 (85.1%)
Literature, research publications, etc.	38 (80.9%)
Personal yoga practice	34 (72.3%)
Trauma-specific trainings	34 (72.3%)
Yoga-training	34 (72.3%)
200-hour yoga teaching training	26 of 34 (74.3%)
Yoga therapy training	12 of 34 (34.3%)
Other (e.g., Street Yoga Trauma-Informed Yoga)	13 of 34 (37.1%)
Workshops	32 (68.1%)
Formal education	31 (66.0%)
Clinical expertise: Yoga	29 (61.7%)
Clinical expertise: Youth who have experienced trauma	29 (61.7%)
Theory	27 (57.4%)
Continuing education units	26 (55.3%)
Self-help books	16 (34.0%)
Other (e.g., Yoga Ed. Curriculum, TCTSY)	3 (6.4%)
One-on-one sessions	23 (48.9%)
Group sessions	31 (66.0%)
2 to 3 adolescents	4 of 31 (12.9%)
4 to 5 adolescents	8 of 31 (25.8%)
6 to 7 adolescents	10 of 31 (32.3%)
8 to 10 adolescents	5 of 31 (16.1%)
> 10 adolescents	4 of 31 (8.5%)
Preparation of environment/space*	
Prepared different lighting options	33 (70.2%)
Prepared for distractions	31 (66.0%)
Set up music, speakers, etc.	25 (53.2%)
Cover windows that may lead to distractions	15 (31.9%)
Set out essential oils that may be used	15 (31.9%)
Other (e.g., placement of participants, lock door, blocks)	11 (23.4%)
Cover or remove mirrors	6 (12.8%)
I have not prepared the environment/space	5 (10.9%)
Styles of yoga implemented*	
Trauma-sensitive yoga	29 (61.9%)
Gentle yoga	28 (59.6%)
Trauma-informed yoga	27 (57.4%)
Restorative	25 (53.2%)
Vinyasa	19 (40.4%)
Hatha yoga	18 (38.3%)

Pranayama for trauma	12 (25.5%)
iRest Yoga/Nidra	6 (12.8%)
Yin	6 (12.8%)
Other (e.g., TCTSY)	5 (10.6%)
Anusara	3 (6.4%)
Bikram	3 (6.4%)
Iyengar	3 (6.4%)
Ashtanga	2 (4.3%)
Kundalini	2 (4.3%)
Yoga components included in sessions*	
Breath work	44 (93.6%)
Physical poses	43 (91.5%)
Meditation	37 (78.7%)
Trauma-specific adaptations*	
Developed trust between practitioner & participant(s)	44 (93.6%)
Set a non-judgmental tone that emphasized safety	43 (91.5%)
Provided choice for participants	41 (87.2%)
Used invitational language rather than demanding language	40 (85.1%)
Aided participants' ability to be present in the moment	38 (80.9%)
Addressed potential trauma-related triggers	31 (66.0%)
Began sessions by providing an outline of the session	31 (66.0%)
Created a sense of camaraderie among participants	25 (53.2%)
Other (e.g., participants may rest at any time, breath skills)	6 (12.8%)
I have not made any adaptations	2 (4.3%)
Average session duration	
15 minutes	5 (10.6%)
30 minutes	13 (27.7%)
45 minutes	12 (25.5%)
50 minutes	1 (2.1%)
60 minutes	13 (27.7%)
75 minutes	1 (2.1%)
Other	2 (4.3%)
Unique adolescents who have experienced trauma within seven-day period	
1 to 5 adolescents	12 (25.5%)
6 to 10 adolescents	20 (42.6%)
11 to 15 adolescents	4 (8.5%)
16 to 20 adolescents	4 (8.5%)
Other (e.g., 25, 30-40, 80, entire grades)	7 (14.9%)
Percentage of yoga sessions used in adjunct with psychotherapy	
0%	4 (8.5%)
1-25%	6 (12.8%)
26-50%	7 (14.9%)
76-99%	7 (14.9%)

100%	13 (27.7%)
Unknown	10 (21.3%)
Are “trauma-sensitive yoga” and “trauma-informed yoga” synonymous?, yes	26 (56.5%)
Yoga certification opinion, yes	40 (85.1%)

Note. * Participants were asked to select all answer options that applied.

Table 10

Why Yoga is Implemented with Adolescents who have Experienced Trauma (N=47)

Item	n (%)
To improve emotional health	42 (89.4%)
To improve affect regulation	37 of 42 (88.1%)
To increase self-esteem	31 of 42 (73.8%)
To improve emotional expression	30 of 42 (71.4%)
To increase autonomy	30 of 42 (71.4%)
To increase self-concept	29 of 42 (69.0%)
To improve body image	26 of 42 (61.9%)
Other (e.g., relaxation through affirmations, reduce self-harm)	4 of 42 (9.5%)
To improve physical health	33 (70.2%)
To improve balance	27 of 33 (81.8%)
To improve coordination	26 of 33 (78.8%)
To improve motor skills	22 of 33 (66.7%)
To reduce heart rate	21 of 33 (63.6%)
Other (e.g., increase body awareness, support nervous system)	9 of 33 (27.3%)
To improve social health	32 (68.1%)
To increase social competence	24 of 32 (77.4%)
To increase interpersonal communication	23 of 32 (74.2%)
To improve nonverbal communication skills	18 of 32 (58.1%)
To improve verbal communication skills	13 of 32 (41.9%)
Other (e.g., decrease social anxiety, increase empathy)	4 of 32 (12.9%)
To improve cognitive health	29 (61.7%)
To improve spiritual health	16 (34.0%)
To increase peace and harmony in individuals' lives	16 of 16 (100.0%)
To increase sense of purpose	9 of 16 (56.3%)
To find meaning in life	4 of 16 (25.0%)
To develop an overall deeper understanding of spirituality	4 of 16 (25.0%)
Other (e.g., healing after loss)	1 of 16 (6.3%)
No identified targeted outcomes	1 (2.1%)
Other (e.g., self-regulation, stress reduction, interoceptive awareness)	8 (17.0%)

Note. All items in this table were “select all that apply.”

Table 11

Who Implements Yoga with Adolescents who have Experienced Trauma (N=47)

Item	n (%)
Primary Area of Practice	
Other (e.g., high school administrator, hair stylist)	15 (31.9%)
Social Work	10 (21.3%)
Yoga Therapy	6 (12.8%)
Recreational Therapy	5 (10.6%)
Counseling	3 (6.4%)
Occupational Therapy	3 (6.4%)
Psychology	2 (4.3%)
Physical Therapy	1 (2.1%)
Activity Therapy	1 (2.1%)
Speech-Language Pathology	1 (2.1%)
Years of Experience in Clinical Practice	
< 1 year	3 (6.4%)
1 to 3 years	13 (27.7%)
4 to 10 years	16 (34.0%)
11 to 20 years	8 (17.0%)
> 20 years	7 (14.9%)
Setting	
Community-Based Program	17 (36.2%)
Outpatient Mental Health	15 (31.9%)
Other (e.g., schools, juvenile justice center)	14 (29.8%)
Yoga Studio	11 (23.4%)
Inpatient Mental Health	10 (21.3%)
Acute Care	5 (10.6%)
Psychiatric Care	5 (10.6%)
Personal Yoga Practice, yes	38 (80.9%)
Personal Yoga Practice: Years of practice (n=38)	
1 to 5 years	6 (15.8%)
6 to 10 years	12 (31.6%)
11 to 15 years	8 (21.1%)
16 to 20 years	5 (13.2%)
21+ years	7 (18.4%)
Personal Yoga Practice: Most common yoga styles* (n=38)	
Vinyasa	17 (48.6%)
Restorative	12 (34.4%)
Hatha	11 (31.4%)
Yin	10 (28.6%)
Ashtanga	6 (17.1%)
Gentle	5 (15.8%)
Power flow	3 (7.9%)

Yoga nidra	3 (7.9%)
Iyengar	2 (5.3%)
Kundalini	2 (5.3%)
TCTSY	2 (5.3%)
Aerial	1 (2.6%)
Anusara	1 (2.6%)
Hot yoga	1 (2.6%)
Meditative	1 (2.6%)
Trauma-sensitive yoga	1 (2.6%)
Pranayama	1 (2.6%)
Sivananda	1 (2.6%)
Slow burn	1 (2.6%)
Soma	1 (2.6%)
Vijnana	1 (2.6%)
Personal Yoga Practice: Frequency of personal practice (n=38)	
1-3 times/week	10 (28.6%)
3-6 times/week	16 (45.7%)
Daily	7 (20.0%)
Other	2 (5.7%)

Note. * Participants were asked to select all answer options that applied.