

Supporting Children who have Experienced Trauma: Yoga and Mindfulness

by

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Abstract

This capstone project presents an investigation into the therapeutic properties of yoga and mindfulness as an adjunctive therapy for children who have experienced trauma. Yoga and mindfulness were found to be effective interventions in the treatment of trauma that can be adopted and effective with children. However, risks and limitations are noted as using yoga and mindfulness should be assessed on an individual basis and as adjunctive treatments. A discussion of the research is used to outline the motivation for and creation of a six-week long yoga and mindfulness-based therapy group for this population. Further research could be beneficial in standardizing yoga and mindfulness as interventions for trauma with children for future practice for Clinical Counsellors.

Keywords: mindfulness, trauma, yoga

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Chapter One: Introduction

Overview of the Topic

Trauma is a common childhood experience that affects children worldwide. According to Statistics Canada, approximately 72% of Canadians reported experiencing at least one form of childhood maltreatment, such as abuse, neglect, harsh parenting, or witnessing violence before the age of fifteen (Statistics Canada, 2022). When trauma occurs it can have many effects on a child, which is unique to each child depending on contextual and sociodemographic factors. For example, children may respond to trauma psychologically, emotionally, physically, spiritually, cognitively and/or socially. Effects may be short-term or long-term. As demonstrated by the Adverse Childhood Experiences (ACEs) study, childhood trauma is linked to adverse outcomes across the lifespan (Felitti et al., 1998). Overall, children are a vulnerable population as their brains are growing rapidly. Therefore, developing effective, evidence-based interventions and support systems that can contribute to the healing and well-being of these children is critical for their development and long-term well-being.

Yoga and mindfulness-based interventions offer a complementary and holistic approach to traditional therapeutic methods that address the complex interplay between the mind and body in the aftermath of trauma. While traditional therapeutic models such as talk therapy are effective for many, they may not fully meet the needs of children who have experienced trauma. Yoga and mindfulness-based interventions support individuals to feel safer in their bodies, regulate their arousal, and control their own physiology (van der Kolk, 2014). These practices can be powerful as children often struggle to articulate their experience through words alone. Altogether, yoga and mindfulness-based interventions fill a critical gap in the treatment of trauma for children by providing developmentally appropriate, somatic tools for healing.

Purpose Statement

The intent of this research is to develop a body of writing that evaluates the scientific evidence that demonstrates the utility of yoga and mindfulness as adjunct interventions for children who have experienced trauma. Using this research, the aim is to develop a six week outline for a group-based intervention for this population that can be utilized in practice by counsellors or other mental health professionals, that can be modified based on the needs of the participants. In the community, children are not allowed to attend yoga classes, and if they are allowed it is only if they are able to stay on their mat for the duration of the class. Because of the limitations yoga studios have in place for children to attend, I feel that developing a program specific to children's needs and development would be greatly beneficial.

Theoretical/Conceptual Framework

The research completed for this capstone project will be completed through a trauma-informed lens. A trauma-informed approach recognizes the widespread and complex impact of trauma and integrates this understanding into research and intervention development (Substance Abuse and Mental Health Services Association [SAMHSA], 2014). This lens ensures that the proposed intervention considers both the neurobiological and relational dimensions of trauma. Utilizing a trauma-informed framework not only supports ethical, sensitive research design, but also strengthens the relevance and applicability of the proposed intervention for use by counsellors in diverse, real-world settings.

Contribution to the Field

Research into yoga and mindfulness-based interventions represents a growing area of interest within the counselling field, particularly in addressing trauma (Emerson & Hopper, 2011). As components of the third wave of therapies, mindfulness practices are considered

relatively new in terms of empirical study. While a substantial body of research has demonstrated the effectiveness of these interventions in adult populations, their application to children remains underexplored. This gap highlights the importance of expanding research efforts to evaluate how yoga and mindfulness can be developmentally adapted and clinically effective for children who have experienced trauma. By investigating these approaches, counsellors and researchers can contribute valuable insights into alternative, holistic strategies that support emotional regulation, body awareness, and resilience in children who have experienced trauma. Nance et al. (2022) discussed in their findings that with further research, there is potential for a yoga-based program to be a standardized facilitation protocol for children who have experienced trauma. Currently, there are organizations like Yoga Outreach based in British Columbia, Canada, that offer trauma-informed yoga, yet there is no standardization for the terms trauma-informed or trauma-sensitive yoga as anyone can use these terms.

Reflectivity and Positionality Statement

I am a Canadian born, English speaking, white, cisgender, heterosexual, and able bodied 29 year old that was raised within the Roman Catholic faith. My identity largely aligns within the dominant culture in Canadian society, and as such, I experience systemic privilege within many social structures. I have been practicing yoga for over ten years. In general, I often find myself in my head and not connected to how my body is doing throughout the day. It typically is not until something is wrong with my body that I notice and pay attention to it. By practicing yoga, it helps me reconnect my mind and body. The breathing and mindfulness exercises I have learned through yoga have been instrumental in helping me manage my stress in everyday life as I incorporate them outside of class. For instance, when I experienced the loss of an immediate family member, yoga supported me in grieving the loss and moving through my emotions.

I acknowledge that my experience with yoga will lead me to look for research that aligns with my experience. I will be challenged to look at the limitations and risks of yoga and mindfulness practices, and do a thorough review of the research in writing my literature review. Overall, it is my hope through this research to contribute valuable insights into the potential role of yoga and mindfulness as a therapeutic tool for supporting the mental health and resilience of children who have experienced trauma.

Definition of Terms

Mindfulness

Non-judgemental observation or one's ability of the mind to observe without criticism, biases, or analysis in the present moment, always moving with the flow of time (Gunaratana, 2005).

Trauma

The persistent imprint of overwhelming experiences on the nervous system, disrupting an individual's capacity to regulate emotions, process memories, and maintain a sense of safety in the present (van der Kolk, 2014).

Yoga

A practice that incorporates breathing exercises, physical poses, and meditation, yet in a majority of historical texts, yoga referred to the goal achieved through these prescribed set of practices: attaining a state of union within oneself (Mallinson & Singleton, 2017; Sullivan et al., 2018).

Outline of the Capstone Project Chapters

Chapter two will provide a review of the current state of knowledge on the research topic as evidenced by academic books and journal articles, which will be separated into three sections:

(1) trauma, (2) yoga, and (3) mindfulness. A review of what trauma is, the neurobiology of trauma, how trauma is diagnosed, the expression of trauma in children, limitations of what is known about trauma, and challenges of trauma in children will be examined. A historic review of yoga and mindfulness will compare Western, Eastern, and modern day philosophies; effectiveness of their use on trauma; and cautions of using them as an intervention for trauma will also be examined.

Chapter three will provide readers with a discussion on the research topic and questions explored with a practical approach to the findings emerging from the literature review.

Chapter Two: Literature Review

Introduction

Yoga and mindfulness have increasingly been integrated into therapeutic practices by Clinical Counsellors to support individuals who have experienced trauma (van der Kolk et al., 2014). This literature review critically examines the intersection of trauma, yoga, and mindfulness, exploring how these practices can facilitate healing. The review synthesizes and evaluates studies that investigate the benefits of yoga and mindfulness for trauma survivors, aiming to offer a comprehensive understanding of their therapeutic value. The first section highlights the manifestation of trauma in children, addressing the unique challenges this presents in understanding and treating trauma in younger populations. By examining the existing literature, this review aims to illuminate the potential of yoga and mindfulness as effective interventions for trauma recovery with children.

Trauma

This section will discuss what trauma is, the neurobiology of trauma, diagnosis of trauma, the expression of trauma in children, the limitations of what is known about trauma, and the challenges of trauma with children. This information is based on the current understanding and research as there is an ongoing paradigm shift and integration of neurobiology and other fields contributing to the understanding of trauma.

What is Trauma

The definition of trauma is not consistent in the literature, as its interpretation differs based on the discipline or context in which it is studied or occurs. For the purpose of this review, trauma will be examined as a nervous system state. Trauma is not the event alone, but the effect and experience of the event(s) on the nervous system. Therefore, trauma consists of three

components: (1) event(s): exposure to a single or series of actual or perceived threats of physical or psychological harm; (2) experience of event(s): how the individual labels, assigns meaning to, and is disrupted physically and psychologically by an event; and (3) effect: the lasting, adverse effects of the event that are overwhelming, negative, and dysregulating for the nervous system (Malchiodi & Perry, 2022; SAMHSA, 2014).

What may be considered traumatic for one individual, may not for another; therefore, “trauma is dependent on subjective perspective” (Blehm, 2024, p. 17). How the event is experienced is linked to a range of factors including the individual’s demographic factors, characteristics of the stressor (ie. intentional violence versus not), and how those around the individual respond (Briere & Scott, 2014; SAMSHA, 2014). As well, research has found that traumatic events could induce intergenerational epigenetic changes among survivors of the Holocaust, as well as those experienced by other groups, such as the Indigenous Peoples in Canada, which can also be referred to as intergenerational trauma (Matheson et al., 2022). This suggests that trauma can be carried from one generation to the next. Recognizing trauma as more than an event is crucial for understanding its complexity and the impact it has on individuals and groups.

Neurobiology of Trauma

An individual must perceive they are in danger as trauma is thought to start when the amygdala is activated after a person judges the environment as a threat to their survival, initiating the fight-flight response (Blehm, 2024). van der Kolk (2014) stated that because the amygdala processes the information it receives faster than the frontal lobes do, that it decides whether incoming information is a threat to one’s survival even before one is consciously aware of the danger. When the energy created in the fight-flight response is not expended, the emotional

activation is held in the nervous system and not dissipated or released (Malchiodi & Perry, 2022). Accordingly, trauma is stored in the body as van der Kolk (2014) highlights in the title of his book that *The Body Keeps the Score* of emotional experiences. Trauma can also be conceptualized as an assault on the senses (Kearney & Lanius, 2022). As a result, post-traumatic stress has the potential to become deeply embedded in the nervous system (Kearney & Lanius, 2022; van der Kolk, 2014).

The amygdala is responsible for storing memories that have strong emotional resonance composed of one's senses with no language access, referred to as the implicit memory (Blehm, 2024; Malchiodi & Perry, 2022). The hippocampus is responsible for storing memories composed of facts, concepts, and ideas that has access to language to describe what one is thinking and feeling, referred to as the explicit memory (Blehm, 2024; Malchiodi & Perry, 2022). These two systems typically work together, yet can also work independently (Blehm, 2024), as explained by Malchiodi and Perry (2022) who note that "post-traumatic stress reactions may result when implicit memory of trauma is excluded from explicit storage; that is, an individual may not have context in which the emotions or sensations arose" (p. 11).

Brain scans of individuals having flashbacks revealed a deactivation in the left anterior prefrontal cortex, specifically in the Broca's area, which is the expressive speech center in the brain necessary to communicate what one is thinking and feeling (Emerson, 2015; van der Kolk, 2014). Under normal conditions, neurologists would expect to see some activity in the left hemisphere, but trauma appears to cause this activity to cease and their right brain reacts as if the traumatic event were happening in the present (van der Kolk, 2014). When Broca's area shuts down, individuals cannot "identify cause and effect, grasp the long term effects of [their] actions, or create coherent plans for the future" (van der Kolk, 2014, p. 44-45). This research suggests

that individuals who have experienced trauma may be unable to talk about their experience clearly because of the impact to Broca's area and thus loss of executive functioning while having flashbacks or memories of the event (van Dalen, 2001 as cited in Malchiodi & Perry, 2022).

What distinguishes traumatic memories from other memories is the lack of organization. Traumatic memories are stored in the limbic system and imprinted with somatic detail onto the person, rather than it being stored and processed in the prefrontal cortex because during the traumatic event the ability to catalog one's experience shuts down (Blehm, 2024; Emerson, 2015). This prevents traumatic memories from being integrated into a life narrative or linked to related cognitive and sensory perceptions, leaving individuals unable to fully process or contextualize the experience as part of their past or form a coherent record of the event (Blehm, 2024). As a result, trauma makes it hard for someone to connect their memory to their beliefs and experiences because their sense of self feels separated from the memory (Blehm, 2024). Altogether, humans function best when they can associate and integrate their identities with their experiences, yet trauma prevents this process from occurring (Blehm, 2024).

Diagnosis of Trauma

The Diagnostic and Statistical Manual of Mental Disorders Fifth Edition Text Revision (DSM-5-TR) defines trauma as:

exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways: (1) Directly experiencing the traumatic event(s); (2) witnessing, in person, the event(s) as it occurred to others; (3) learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental (4) experiencing repeated or extreme exposure to aversive details of the traumatic event(s)

(e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related. (American Psychiatric Association [APA], 2022, p. 301)

Trauma itself is not considered a disorder in the DSM-5-TR, yet there are diagnoses for what trauma and stressors can result in. For example, the following disorders list a traumatic or stressful event explicitly as a diagnostic criterion: reactive attachment disorder, disinhibited social engagement disorder, PTSD, acute stress disorder, adjustment disorders, and prolonged grief disorder (APA, 2022). Blehm (2024) explained that not all cases of trauma will result in a diagnosis, such as PTSD. For one to be diagnosed with one of the above disorders in British Columbia, Canada, a psychiatrist, psychologist, or medical doctor must assess the individual for the diagnostic criterion listed in the DSM-5-TR and must rule out any differential diagnoses. The DSM-5-TR states that “diagnostic criteria are offered as guidelines for making diagnoses, and their use should be informed by clinical judgement” (APA, 2022, p. 21). Briere and Scott (2015) “recommend that each client, whatever the presenting complaint, be assessed for trauma history as part of a complete mental health evaluation” (p. 67). Standardized tests that a clinician can be trained in to assess symptoms and disturbance include Posttraumatic Stress Diagnostic Scale, Davidson Trauma Scale, Detailed Assessment of Posttraumatic Stress, and Trauma Symptom Inventory-2 (Briere & Scott, 2015). Ultimately, there is no single biomarker or test that can diagnose trauma or trauma-related disorders.

The Expression of Trauma in Children

Trauma is a common childhood experience that comes in various forms, such as abuse, neglect, violence, or loss. When trauma occurs it can have many effects on a child, both

psychological and physiological, which is unique to each child depending on contextual and sociodemographic factors Trauma can affect children in a wide range of ways, including:

- psychological responses, such as hyperarousal, hypoarousal; re-experiencing of the trauma, such as nightmares, intrusive thoughts, or reminders in the form of auditory, visual, olfactory, and vestibular; avoiding activities or situation that evoke memories of the trauma; persistent and distorted sense of self-blame; and decreased interest in previously pleasurable activities (e.g., Malchiodi & Perry, 2022; Spinazzola et al., 2011);
- emotional impact, such as difficulty regulating emotions; inability to label emotions; persistent fear, dysphoria, or emotional distress; and emotional developmental delays (e.g., Malchiodi & Perry, 2022; Nance et al., 2022);
- physical impact, such as elevated cortisol levels; impairments on immune and digestive functions; disturbed sleep; and a heightened fear response, such as a rapid heartbeat and increased startle response (Razza et al., 2020; Spinazzola et al., 2011);
- spiritual impact, such as a diminished sense of safety; afraid to trust others and their environment; and feeling disconnected from others (e.g., Malchiodi & Perry, 2022; Nance et al., 2022);
- cognitive impact, such as challenges with attention, problem solving, and learning and retaining information; and cognitive developmental delays (e.g., Malchiodi & Perry, 2022; Nance et al., 2022; Razza et al., 2020); and
- social impact, such as detaching from family or friends; social isolation due to shame about the trauma; difficulty understanding emotions and perspectives; attachment disorders caused by disrupted relationships with parents/caregivers; and high-risk

behaviours like self-harm, violence towards self or others, or substance abuse (e.g., Malchiodi & Perry, 2022; Nance et al., 2022; Spinazzola et al., 2011).

However, trauma, at times, may not be directly observable. Children are able to hide their distress in order to not add further stress to their caregivers or they may feel the need to over-achieve and please others (Hagen & Nayar, 2014). van der Kolk (2014) reports that children are “particularly adept at compartmentalizing experience” (p. 267). Children are vulnerable as their brains are developing rapidly, therefore; when they experience trauma it has the potential to disrupt their development across all areas and have long-term effects. Altogether, the expression of trauma in children can vary greatly, with some signs being more noticeable while others are more subtle.

A traumatic event that a child experiences or witnesses can also be referred to as an ACE. The original study completed by Felitti et al. (1988) looked at seven categories of ACEs: “psychological, physical, or sexual abuse; violence against mother; or living with household members who were substance abusers, mentally ill or suicidal, or even imprisoned” (p. 245). They found a strong, graded relationship between the number of ACEs and increased risk for a wide range of adult health issues. Those with four or more ACEs faced significantly higher risks, up to twelve times greater, for health issues including alcoholism, drug misuse, depression, and suicide attempts. Altogether, the ACEs study demonstrated how traumatic events in childhood, like abuse, neglect, and family dysfunction place individuals at a higher prevalence for health risks later in life.

Limitations of What is Known About Trauma

Blehm (2024) describes that a challenge in researching trauma is the inability to directly observe the traumatic event due to ethical and practical considerations. As trauma involves

distressing or harmful events, researchers cannot ethically expose children to trauma for study purposes. Additionally, trauma occurs unpredictably making direct observation impractical. As a result, much of the research on trauma about children is performed after the traumatic event through observing play or behaviour, neurobiological or physiological measures, clinical interviews or self-reports with the children if appropriate or with their caregivers, or longitudinal studies.

Despite trauma being a global phenomenon, trauma responses vary considerably across cultures. Patel and Hall (2021) discuss how PTSD is a Western biomedical diagnosis and that the DSM-5-TR does not capture the experiences across diverse cultural groups. Relying too much on Western psychiatric diagnoses can overlook how culture shapes mental health. They suggest and provide a framework for how diverse cultural perspectives should be actively studied and included in assessment and treatment, such as, examining idioms of distress and explanatory models of illness. By integrating a culturally sensitive approach into diagnosis and care that goes beyond the DSM-5-TR alone, clinicians can better recognize culturally relevant trauma reactions and ensure assessments reflect the lived experiences of diverse populations.

Challenges of Trauma with Children

Trauma in children often shows up differently than in adults and can be hidden within or disguised by other issues, even without obvious signs of posttraumatic stress (Spinnazola et al., 2011). The broad presentation of trauma in children and comorbid clinical presentations can lead to misdiagnosis or stigmatizing labels, such as oppositional, aggressive, or antisocial (van der Kolk, 2005 as cited in Spinnazola et al., 2011). For example, the symptoms of Attention Deficit Hyperactivity Disorder (ADHD) like hyperactivity, impulsivity, and struggling to focus can mirror the symptoms of trauma in children. In this example, a child who has experienced trauma

and is presenting with symptoms of ADHD has the potential to be treated inappropriately, and as Spinnazola et al. (2011) states, “a failure to accurately diagnose trauma likely leads to inappropriate treatment” (p. 433). Rather than verbalizing their distress, children often express their trauma through behaviours and dysregulation. These behavioural and somatic expressions can be misunderstood by caregivers and professionals, leading to interventions that do not address the underlying trauma. Without trauma-informed assessment and care, children who have experienced trauma risk being overlooked, stigmatized, or misdiagnosed rather than receiving the support they need.

Reactive attachment disorder (RAD) develops in children who have experienced a pattern of extreme insufficient care and therefore have an inability or grossly underdeveloped attachment to caregivers (APA, 2022). When children with RAD are distressed, there is no consistent effort to obtain comfort, support, nurturance, or protection from caregivers, and they have no or minimal response to comforting efforts of caregivers, which consequently “impairs young children’s abilities to relate interpersonally to adults or peers” (APA, 2022, p. 297). This presents a significant challenge for caregivers, professionals, and peers to support in the regulation of the child and to form relationships. This disorder demonstrates how the accumulation of severe trauma can have significant impacts on a child’s development. The child’s inability to regulate emotions and seek comfort can manifest in unexplainable episodes of extreme negative emotions. Early intervention and a consistent caregiving environment are essential in addressing the complex needs of children with reactive attachment disorder and helping children to learn to self-soothe, ask for help, and being able to navigate stressors with less harm.

Summary

Trauma is not just the event itself, but the impact it has on an individual's nervous system, shaped by subjective perception and various contextual factors. The neurobiology of trauma shows how the amygdala triggers a fight-flight response, storing traumatic memories in ways that disrupt cognitive processing and emotional regulation, often making it difficult for individuals to verbalize their experiences clearly. In children, trauma can impact their psychological, emotional, physical, spiritual, cognitive, and social well-being, sometimes resembling other disorders, which highlights the need for trauma-informed assessments and culturally sensitive approaches for diagnosis and treatment.

Yoga

This section explores what yoga is, the history of yoga, yoga's philosophical foundations, the effectiveness of yoga for trauma, and the cautions of using yoga as a trauma intervention. Despite the rich, complex, and ancient history of yoga, much of this research is based on how yoga is currently practiced and implemented in the Western world.

What is Yoga

The definition of yoga is ever-evolving. Because yoga is a complex phenomenon it is difficult to provide a concise definition as "yoga has adapted to social and cultural conditions often far removed from those of its birthplace" (Mallinson & Singleton, 2017, p. 1). The word yoga stems from a Sanskrit word which can be roughly translated to English as to join and to harness (Mallinson & Singleton, 2017). Yoga has come to be understood as a practice today that incorporates breathing exercises, physical poses, and meditation, yet in a majority of historical texts, yoga referred to the goal achieved through these prescribed set of practices: attaining a state of union within oneself (Mallinson & Singleton, 2017; Sullivan et al., 2018). Emerson

(2015) discusses how yoga has come to be generally practiced as a physical fitness to strengthen and stretch muscles. In addition to the physical emphasis, breathing practices and mindfulness, or purposeful attention, make up the yoga practice in the Western world today.

History of Yoga Practice

The practice of yoga is found in texts as early as the early vedic period from 1500 to 1000 BCE (Mallinson & Singleton, 2017). The first recorded definition of yoga appears in the Kaṭha Upaniṣad from the third century BCE, presented as a conversation between the young Naciketas and Yama, the god of death. Utilizing a metaphor rooted in Vedic literature but reinterpreted within a framework of liberation, it compares human life to the experience of riding a chariot.

The body is the chariot itself, the self (ātman) is a rider in the chariot, the intellect (buddhi) is the charioteer, the mind (manas) is the reins, the senses (indriya) are the horses, and the sense objects (viṣaya) are the paths taken by the senses. If the senses are not brought under control, the result is rebirth. On the other hand, one who is able to control the senses by means of the mind, as a charioteer reins in his horses, is not reborn. He attains the highest state, which is identified as puruṣa, the indwelling person.

(Mallinson & Singleton, 2017, p. 4)

The most well known early expression of yoga is the Yoga Sūtras, written around 200 to 400 CE by Patañjali that consists of one hundred and ninety-six short statements concerning yogic techniques and states. Patañjali outlined the eightfold path to achieve spiritual liberation, known as Ashtanga Yoga: the observances, posture, breath-control, withdrawal, fixation, meditation, and samādhi. Patañjali's work has profoundly influenced yoga practice and philosophy worldwide, serving as a philosophical framework for many modern yoga traditions. Even within ancient texts though, yoga's meaning varies.

Yoga first arrived in the West in the mid to late nineteenth century (Godrej, 2017). “Popular postural yoga came into being in the first half of the twentieth century as a hybridized product of colonial’s India’s dialogical encounter with the worldwide physical culture movement,” marking the beginning of yoga’s transformation in the West (Singleton, 2010, p. 81). This evolution continued when “in the late twentieth century, yoga’s popularity exploded as Euro-American practitioners began to invent their own systems of yoga, commodifying, branding, and marketing these innovations to global audiences” (Godrej, 2017, p. 776). Some different variations of yoga today include aerial yoga, acro yoga, stand-up paddleboard yoga, yogalates, and hot yoga, among many others.

Yoga’s Philosophical Foundations

Sullivan et al. (2018) discussed how yoga teaches that suffering arises from an individual's relationship with, reaction to, and misidentification with the various phenomena of the body, mind, and environment. Through yoga practices, individuals are taught to cultivate discernment in order to change their relationship with these phenomena and, ultimately, the experience of suffering itself. In this process, individuals learn both the behaviours and actions that may perpetuate their suffering and a path to shift those patterns, potentially alleviating the suffering. This discernment is taught through an inquiry into the difference between material nature, (prakiti) and spirit (purusha). Purusha refers to the spirit, the observer, or the experiencer of material nature. Prakriti refers to all of material nature: everything that is seen, changes, and manifests. The clarity that arises from this discrimination between purusha and prakriti shifts the individual’s relationship to the phenomena of the body, mind, and environment, potentially easing suffering and allowing for the emergence of steadfast joy or eudaimonia, a state of human flourishing.

Effectiveness of Yoga for Trauma

Yoga has been “proposed to benefit health and well-being through an integration of top-down and bottom-up processes facilitating bidirectional communication between the brain and body” (Sullivan et al., 2018, p. 1). Top-down mechanisms, such as attention regulation and intention setting, have been found to reduce psychological stress and decrease activity in the hypothalamic-pituitary axis (HPA) and sympathetic nervous system (SNS), which in turn influence immune function and inflammation. Conversely, bottom-up processes, facilitated through breathing exercises and movement practices, impact the musculoskeletal, cardiovascular, and nervous systems. These practices also affect HPA and SNS activity, leading to changes in immune function and improvements in emotional well-being.

Sullivan et al. (2018) demonstrated that yoga has been correlated with improvements in vagal regulation and psychological resilience. Resilience can be enhanced by downregulating defensive states and increasing adaptability through better activation of the ventral vagal complex (VVC), allowing individuals to navigate neural platforms like the sympathetic (SNS) and dorsal vagal complexes (DVC) more effectively during stressful situations. Mind-body practices, such as yoga and breathing techniques, help make the VVC more accessible, expand tolerance to neural fluctuations, and promote physiological restoration and positive psychological states. Consequently, yoga is a powerful tool to help decrease stress and develop resilience. This is reflected in the longitudinal study by Seppälä et al. (2014), where combat veterans with Post-Traumatic Stress Disorder were taught yoga and breath work over a 3-month program, and at the end of the program their symptoms were gone and did not return a year later.

Trauma Sensitive Yoga

Yoga has been demonstrated to be an effective adjunctive treatment for trauma as it has been developed into an intervention itself, called Trauma-Sensitive Yoga (TSY), developed by David Emerson and his colleagues in 2003 at the Trauma Center in Brookline, Massachusetts (Emerson, 2015). TSY follows a theoretical framework that has foundations in trauma theory, attachment theory, neuroscience, and hatha yoga, with an emphasis on body based yoga forms and breathing practices (Emerson, 2015). Through the integration of purposeful attention with movement, breath, and bodily sensations, individuals “learn to regulate affective arousal by raising awareness of internal states and reorganizing the physiological responses connected to symptoms” (Emerson, 2015, p. xix). In TSY, there is no attempt to make meaning out of a body experience or process the emotional content of trauma, rather the purpose is “to have and to notice the body experience as it is right now, to choose what to do with it once it is felt, and then to take action based on your choice” (Emerson, 2015, p. 13). TSY suggests that there is significant therapeutic value in not turning what is felt in the body into a story or an emotion.

TSY was developed specifically with trauma survivors' needs in mind (Nguyen-Feng et al., 2020). TSY takes into particular consideration five domains: environment, exercises, teacher qualities, assists, and language (Nguyen-Feng et al., 2020). For example, TSY uses trauma-sensitive language to support choice making through invitation and inquiry rather than using intrusive or command driven language (Nguyen-Feng et al., 2020). As well, teachers model and provide verbal assists to encourage the client to prioritize how they feel internally rather than on achieving the proper form or pleasing the therapist (Emerson, 2015; Nguyen-Feng et al., 2020).

TSY is the first yoga-based empirically validated clinical intervention for complex trauma or chronic, treatment-resistant PTSD (Emerson, 2015). A randomized controlled trial by van der Kolk et al. (2014) examined the effects of TSY on women with complex trauma who were unresponsive to traditional psychotherapy. Women in the 10-week TSY intervention were more likely than women in the control group to no longer meet criteria for PTSD post-treatment and to see a decrease in depressive symptoms and self-injury. In a long-term follow-up study by Rhodes et al. (2016), they found that patients who continued TSY for one to three years afterwards were more likely to show a loss of PTSD diagnosis and greater reductions in PTSD and depressive symptoms.

Emerson (2015) interviewed the women in the study two months after completing the TSY intervention. Although TSY focused specifically on present moment experiences in the body, the women in the study described benefits both on and off the mat: they had a greater introspective awareness and tolerance of inner sensations; they built skills for emotional regulation in order to soothe and comfort themselves; they felt more control and ownership over one's physical body, which led to an appreciation for one's body, including expressing less self-judgment and cultivating self-acceptance; and as they began to feel more connected to and accepting of themselves they began to feel more comfortable engaging authentically in relationships and setting healthy boundaries.

Most recently, Wehrmann et al. (2024) studied a 12-week TSY integrated peer support group for women sexual violence survivors that indicated benefits during and after the yoga practice including heightened capacity for self-regulation, increased tolerance for present-centered awareness, and improved relationship with self and others. Clients in the study described many of these effects lasting up to 33 months post-intervention. These studies suggest

that the addition of TSY to treatment for trauma may lead to long-term improvement in symptoms that had previously been considered unresponsive to other interventions.

Cautions of Using Yoga as a Trauma Intervention

It is important to approach yoga interventions with an understanding of potential barriers to engagement because “individuals from different cultures, socioeconomic backgrounds, and racial/ethnic identities may have preconceived notions about yoga and less interest in attempting practice as a form of intervention” (Randall Emmons et al., 2021, p. 277). Yoga has roots in Hindu, Sikh, and Buddhist religions (Mallinson & Singleton, 2017). Criticisms of yoga include cultural misappropriation as Westerners have altered and/or stolen elements of an intrinsically Hindu spiritual and religious tradition (Stoeber, 2017). Additionally, critics have argued that yoga has been transformed into a “commercialized multi-million dollar business empire, one that is centered on economic profit and focused solely on physical postures and movements, where its traditional association with Hindu religion has been virtually severed” (Stoeber, 2017, p. 3). Therefore, it is important to note that not all individuals will be receptive to a yoga-based intervention for trauma.

Yoga has been developed in the Western world for the able-bodied as it primarily focuses on physical fitness and thus has been criticized for its unhealthy preoccupation and attachment to one’s bodily image (Godrej, 2017; Stoeber, 2017). This approach disregards the core principles of several yogic traditions, which emphasize breathing and meditative practices over physical capabilities (Mallinson & Singleton, 2017). Yoga’s attention to one’s body and physical sensations has the potential to be triggering for individuals with trauma. “Many traumatized people have the experience of not feeling safe or at home in their bodies” (Emerson, 2015, p. 119). Emerson (2015) explains that individuals with trauma perceive a muscle contracting as

external sensory stimuli as if they are not in control of their bodies and it is happening to them from the outside. He describes how this experience exasperates the person's feelings of alienation from their body of feeling nothing at all or the terror of feeling something happening in their body that they cannot exactly pinpoint and over which they have no control. This feeling of terror and danger has the potential to evoke distressing traumatic memories or emotions, which could lead to re-traumatization, withdrawal, or immobilization (Emerson & Hopper, 2011). Overall, the command-oriented, perfection-focused, and judgment inducing practice of yoga in the Western world has the possibility of exacerbating trauma symptoms in individuals.

In regards to TSY, it is an adjunct therapy and not a stand alone therapy. This is indicative that yoga alone cannot address trauma treatment entirely. Emerson (2015) explains that TSY is not intended to target specific symptoms and does not identify particular forms with particular therapeutic goals. The only therapeutic goal he identifies is to give the client an opportunity to notice a feeling in their body and then be able to interact with what they feel in various self-directed ways. Therefore, yoga as a practice does not directly address the deeper psychological and environmental issues that could be underlying the trauma that requires additional treatment.

Although TSY is utilized across the world with Indigenous people, its initial creation was made by those who identify as white and western (TCTSY, n.d.). “The empirical data for TSY to date has focused on adult women who experienced chronic childhood abuse and neglect” (Emerson, 2015, p. 37). Randall Emmons et al. (2021) agreed that studies using yoga for treatment for PTSD were for the majority white women, college graduates, and employed, which may represent a sampling bias. As a result, further research on more diverse populations is

needed to increase generalizability and to expand on the few qualitative studies that exist in the literature.

At this time, TSY has only been researched on those with PTSD or complex trauma, yet other forms of trauma-informed yoga practice are being used on other populations. TSY is not a standardized term and any yoga teacher could describe their class as trauma-aware, trauma-sensitive, or trauma-informed without any additional training, which could be misleading or potentially harmful.

As discussed, yoga's target population is for the able-bodied; therefore, for those with disabilities or limited mobility, the mainstream portrayal of yoga as a physically demanding practice can create feelings of exclusion and inaccessibility (Newham et al., 2019). Emerson (2015) demonstrated how TSY is done seated, yet every form can be modified to suit any body, such as for someone laying in a hospital bed. However, he advises that individuals should check with a doctor before proceeding if they have a health condition.

Summary

Altogether, yoga, originally a spiritual and religious practice, has evolved in the West into a primarily physical discipline that integrates breathwork and mindfulness. Yoga has been developed into an evidence-based treatment for PTSD and complex trauma called TSY that has demonstrated its effectiveness within that population, yet potential barriers still exist including the cultural appropriateness, the accessibility of it, and the possibility of re-traumatization. Yoga is not designed to be a stand alone treatment for trauma and thus is an adjunct treatment or tool to a clinician's treatment plan.

Mindfulness

In this section, an overview and discussion of the research around mindfulness will be provided. Alike trauma and yoga, the definition and use of mindfulness is dependent on its context and scope. Mindfulness has evolved from its original Buddhist form, to its Western interpretations of John Kabat-Zinn, Daniel Siegel, and its mainstream form in Western society. To gain a comprehensive understanding of mindfulness, this section will explore each aspect, including its historical background and philosophical foundations. A discussion about the effectiveness of mindfulness on trauma and the cautions of using mindfulness as a trauma intervention will proceed.

Mindfulness in Buddhism

Buddhist schools of thought such as Zen, Theravada, and Tibetan all have slightly different views of mindfulness, and therefore this paper does not intend to address all Buddhist views, but to provide an overview of their main theories. Gunaratana (2005), a monk, stated in his book that, “mindfulness is the English translation of the Pali word *sati*,” which means activity (p. 71). He further discussed that “the meditation technique called *vipassana* (insight) that was introduced by the Buddha about twenty-five centuries ago is a set of mental activities specifically aimed at experiencing a state of uninterrupted mindfulness” (Gunaratana, 2005, p. 71). He explained that mindfulness is non-judgemental observation or one’s ability of the mind to observe without criticism, biases, or analysis in the present moment, always moving with the flow of time. In mindfulness, one observes everything as if it was occurring for the first time. He stated that mindfulness includes observing all phenomena, physical, mental or emotional, within oneself. He differentiates mindfulness from concentration, which is a forced activity to keep the mind focused on one static point. However, mindfulness and concentration are connected as

mindfulness directs the power of concentration. He explained that mindfulness is not trying to achieve anything-it is just looking. Whatever is seen must simply be accepted, acknowledged, and dispassionately observed.

Gunaratana (2005) described three fundamental activities of mindfulness: (1) mindfulness reminds us of what one is supposed to be doing, (2) it sees things as they really are, and (3) it sees the true nature of all phenomena. First, mindfulness is the act of noticing when one's attention has wandered and bringing it back to the present moment, whether during meditation or in daily life. Through consistent practice, mindfulness becomes a habit that allows one to break free from getting stuck in thought patterns, creating a clear awareness. Second, Gunaratana (2005) refers to mindfulness as bare attention, which is noticing things exactly as they are without adding or subtracting anything to one's perception. Lastly, only mindfulness can perceive that the three prime characteristics that Buddhism teaches are the deepest truths of existence: "anicca (impermanence), dukkha (unsatisfactoriness), and anatta (selflessness-the absence of a permanent, unchanging entity that [they] call Soul or Self)" (p. 73). Altogether, mindfulness is a process that acts as a unit where

you notice your own lack of mindfulness; and that noticing itself is a result of mindfulness; and mindfulness is bare attention; and bare attention is noticing things exactly as they are without distortion; and the way they are is impermanent (anicca), unsatisfactory (dukkha), and selfless (anatta). (Gunaratana, 2005, p. 73)

Fully developed mindfulness is a state of complete nonattachment, free from clinging and mental obstructions, leading to liberation from human weaknesses. It is a deep, unwavering awareness that transcends concepts and opinions, fostering clarity, stability, and the dissolution of mental defilements, resulting in an undisturbed and resilient mind.

Jon Kabat-Zinn on Mindfulness

In the late 1970's, Jon Kabat-Zinn applied the ancient ideas of mindfulness to a modern medical setting as he developed the Mindfulness-Based Stress Reduction (MBSR) for those with chronic medical conditions followed by developing Mindfulness-Based Cognitive Therapy (MBCT) (Siegel, 2007). MBSR and MBCT are a part of the third wave of therapies that include elements of dialectical philosophy, mindfulness, acceptance, relationship, and spirituality that go beyond what is typically recognized as behaviour therapy. Kabat-Zinn and his colleagues at the University of Massachusetts Medical Center developed MBCT to reduce relapse in recurrent major depression disorder and they developed MBSR relevant to a wide range of clinical conditions including anxiety disorders (Hayes et al., 2004). Kabat-Zinn utilized a decentering approach to mindfulness to support in relapse prevention as he described:

It is remarkable how liberating it feels to be able to see that your thoughts are just thoughts and that they are not 'you' or 'reality.' . . . The simple act of recognizing your thoughts as thoughts can free you from the distorted reality they often create and allow for more clear-sightedness and a greater sense of manageability in your life. (Kabat-Zinn, 1990, p. 69-70)

Altogether, the emphasis in MBCT is on changing the awareness of and relationship to thoughts, feelings, and bodily sensations rather than changing the content of one's thoughts (Hayes et al., 2004).

In Kabat-Zinn's (2003) view, "an operational working definition of mindfulness is: the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (p. 145-146). The phrase on purpose implies that this state is intentionally created to maintain focus on the present

moment. Despite the crossover between the definition of mindfulness in Buddhism and third wave therapies like MBSR and MBCT, the key difference is that the Western utility of mindfulness is a means to resolve stress and other specific mental health concerns.

Daniel Siegel on Mindfulness

Clinical Psychiatrist, physician, psychotherapist, and educator Dr. Daniel Siegel explains mindfulness from a primarily scientific point of view, yet acknowledges “the clinical application of the practice of mindfulness meditation derived from the Buddhist tradition has served as a focus of intensive study on the possible neural correlates of mindful awareness” (Siegel, 2007, p. 19). Today, scholars such as Siegel (2007) view mindfulness as a study of the nature of mind rather than a theistic tradition in Buddhism. Siegel aims to provide an integrative approach to bring together various ways of knowing in order to understand mindfulness in a broader way than any single perspective might permit, by combining insights from neuroscience and attachment research.

Siegel (2007) explains that in mindfulness, one directs their attention to intention and where attention goes, neurons fire. When neurons fire, they can rewire. Siegel called this process SNAG (stimulate neuronal activation and growth). Siegel stated that in mindful awareness one is snagging their brain by focusing attention on one’s intentions in a way that stimulates their middle prefrontal regions and promotes integration. As well, he proposed that internal attunement snags the brain to promote integration and can thus be seen to catalyze similar neuronal activation and growth. Essentially, Siegel demonstrates that mindfulness practice increases neuroplasticity.

Siegel (2007) discusses that the “clinical benefit of mindfulness is that the acceptance of one’s situation can alleviate the internal battle that may emerge when expectations of how life

should be do not match how life is” (p. 26). Emerging from this mindful way of being is a fundamental process that Siegel calls discernment, which is a form of disidentification from the activity of the mind. In other words, it is the ability to see sensations, images, feelings, and thoughts one observes as activities of the mind. Discernment makes it possible to be aware that the mind’s activities are not the totality of who one is, which may help alleviate suffering.

Mindfulness in Mainstream Society

Overall, mindful awareness is a universal goal across cultures. “Almost all cultures have practices that help people develop awareness of the moment” from meditation, prayer, yoga, and tai’chi (Sigel, 2007, p. 8). In Western society, mindfulness has become a buzzword attached to numerous activities like walking, eating, learning, and parenting. Influential figures in Western society like Jay Shetty, Gabby Bernstein, and Mel Robbins have promoted mindfulness as it has evolved into a self-care and self-improvement technique. Mindfulness has saturated the public through media, cell phone apps, and literature. However, the commercialization of mindfulness risks losing its deeper philosophical and ethical foundations. Chachignon et al. (2024) reviewed the widespread diffusion of mindfulness shaped by neoliberal values, focusing on individualism, self-optimization, and personal responsibility. They argue that while mindfulness has physiological benefits, its widespread promotion often aligns with market-driven goals, framing personal well-being as an individual responsibility rather than addressing the broader, systemic or social issues.

Effectiveness of Mindfulness on Trauma

“A number of different empirically validated mindfulness interventions have been developed over the last several decades, all of which are relevant to trauma-related distress” including MBSR, MBCT, Mindfulness-Based Relapse Prevention (MBRP), and Dialectical

Behaviour Therapy (DBT) (Briere & Scott, 2015, p. 218). DBT has a well established history of success with clients where trauma is especially prevalent, particularly among those with borderline personality disorder (Briere & Scott, 2015). van der Kolk (2014) stated that mindfulness opens the path to safely reconnecting with the inner life. This occurs as practicing mindfulness calms down the sympathetic nervous system, thus one is less likely to engage the fight-or-flight mechanism (Fosha, et al., 2009; Kabat-Zinn, 1990; van der Kolk, 2014). van der Kolk (2014) explained that becoming aware of how one's body organizes particular emotions or memories provides an opportunity to release sensations and impulses that were previously blocked in order to survive as a result of trauma. Altogether, mindfulness has been shown to have a positive effect on numerous psychiatric, psychosomatic, and stress-related symptoms including:

- reducing depression and chronic pain (e.g., Grossman, et al., 2004; Hofmann, et al., 2010; Teasdale, et al., 2000);
- improvements in immune response, blood pressure, and cortisol levels (e.g., Carlson, et al., 2007; Davidson, et al., 2003);
- activating the brain regions involved in emotional regulation (e.g., Hölzel, et al., 2007; Hölzel, et al., 2008; Hölzel, et al., 2010; Hölzel, et al., 2011);
- changes in the regions of the brain related to body awareness and fear (e.g., Craig, 2003; Farb, et al., 2007; Grant, et al., 2010); and
- decreases the activity of the amygdala and thus decreases reactivity to potential triggers (e.g., Banks, et al., 2007; Milad, et al., 2005; Rauch, et al., 2006).

Cautions of Using Mindfulness as a Trauma Intervention

Dr. Ronald Siegel (2019) discussed at his webinar several issues with mindfulness in the treatment for trauma in therapy. He stated that the issue around mindfulness is for whom when. For instance, he explained the concern around which mindfulness practices are safer for clients depending on their distress tolerance. He identified there is danger in uncovering more trauma affect than the client can handle, hence placing the client outside of their window of tolerance. Briere & Scott (2015) describe how individuals with trauma “may suffer from significant intrusive symptomatology, comorbidity, and reduced affect regulation capacities... These issues and problems mean that some traumatized people are more easily overwhelmed than others, and possibly more vulnerable to interventions that increase access to negative internal states” (p. 220).

Similarly, the Varieties of Contemplative Experience project conducted by Dr. Willoughby Britton and her colleagues have provided evidence-based research on meditation related challenges and adverse affects. Particularly, in a study published by Britton et al. (2021), they found that 83% of their sample reported at least one meditation related side effect while engaging in MBCT or components of MBCT. Results of the study demonstrated that components of MBCT, focused attention and open monitoring, alone or in combination “was associated with both transient distress and enduring negative impacts on life and functioning at similar rates to other psychological treatments” (Britton et al., 2021, p. 1199). They found lasting bad effects in 6% to 14% of the sample that were associated with signs of dysregulated hyperarousal (hyperarousal and dissociation).

Van Dam et al. (2018) point out that mindfulness-based interventions are not overseen by any regulatory college or agency; therefore, most of the clinical guidelines and recommendations

regarding risk and safety have been issued by the creators of specific interventions as well as various experts in the field. For example, the MBCT Implementation Resources was one of the first documents to list potential risks to participants including “increased likelihood of suicidality, depression, negative emotions, and flashbacks during meditation for individuals with trauma histories” (Van Dam et al., 2018, p. 48-49). They stated that many centres attempt to make clear that mindfulness is not intended to replace standard psychiatric care.

Briere & Scott (2014) discuss that mindfulness-based interventions are generally not implemented in the context of individual therapy, which is a central modality in work with significantly impacted trauma survivors. They found that empirically based mindfulness interventions occur in group settings and tend to be non-clinically oriented, focusing more on the development of skills than on psychological symptoms. They argue that mindfulness groups like MBSR or MBCT are helpful adjuncts in work with trauma survivors, but at the same time a significantly impact trauma survivor suffering from a combination of psychological symptoms would not have all or even most of their clinical needs addressed by a mindfulness-based group or a meditation practice alone.

Summary

This section explored the historical, philosophical, and clinical aspects of mindfulness, tracing its roots from Buddhist traditions to its contemporary applications in Western medicine and mainstream culture. While mindfulness-based interventions have shown promising benefits for trauma interventions, caution is necessary as not all individuals may tolerate mindfulness practices.

Conclusion

The above literature review was conducted to explore the therapeutic properties of mindfulness and yoga for individuals who have experienced trauma. Through a critical examination of various studies, the review reveals both the benefits and cautions associated with these interventions. The first section highlights the manifestation of trauma in children, emphasizing the unique challenges involved in understanding and treating trauma in younger populations. By synthesizing the findings from existing literature, this review demonstrates the significant potential of yoga and mindfulness as effective interventions for trauma recovery with children. The following chapter will integrate these findings, offering recommendations for evidence-based practice.

Chapter Three: Discussion and Applied Practices

Summary

Developing effective, evidence-based interventions and support systems that can contribute to the healing and well-being of children who have experienced trauma is critical as it is a common childhood experience that has the potential for misdiagnosis and disrupts their development across all areas. This capstone project has explored the potential role of yoga and mindfulness as a therapeutic tool for supporting the healing and well-being of children who have experienced trauma to address this concern. In this capstone project, trauma is conceptualized as a nervous system state. Yoga and mindfulness practices are examined for their demonstrated effects on the nervous system and regions of the brain associated with emotional regulation that can be incorporated into therapy as adjunctive interventions for trauma.

Yoga and mindfulness practices have the potential to be adapted and beneficial for children as “the use of movement and somatic experiences is common in early childhood education and practices like yoga, that involve sensory-motor coordination, are thought to reinforce the brain-body connection and neurological underpinnings of self-regulation” (Razza et al., 2020, p. 83). Because children may have issues processing and regulating their emotions after experiencing trauma, yoga and mindfulness are a tool that can help children develop these skills. Hagen and Nayar (2014) explained that “yoga may also aid in shifting self-awareness inward to children’s own cues and emotions, and thus, counteract negative social and cultural influences” (p. 4). Razza et al. (2020) found an improvement in self-regulation of behaviour and attention for children from communities exposed to high levels of trauma who engaged in an eight-week long yoga program. Hagen and Nayar (2014) further explained that when the parasympathetic nervous system is activated, it enhances one’s ability to focus and learn. As

children become more adept at regulating their emotions, they may be better equipped to empathize with and respond to the emotions of others. As well, yoga is primarily done in a group setting, creating a sense of community and shared experience. This communal aspect of yoga may contribute to social connectedness and a greater understanding of others. Overall, yoga and mindfulness have the potential to alleviate symptoms experienced by children after trauma; however, it is important to note that standard yoga and mindfulness practices are not classified as evidence-based treatments for this population and are considered adjunct interventions.

Understanding this, it is crucial that children who have experienced trauma receive support to address their specific symptoms. Hence, I am proposing a group-based intervention designed for children who have experienced trauma, implementing yoga and mindfulness interventions, which can be utilized as an adjunct treatment for a child already accessing individual therapy.

Recommendations

It is my recommendation to develop a group-based intervention for children who have experienced trauma utilizing yoga and mindfulness interventions. The goal of the group would be for children to build self-awareness, emotional regulation skills, and healthy coping strategies through movement, mindfulness practices, understanding how their bodies and minds respond to stress, and supporting the integration of mindfulness practices into daily life. Over six weeks, children would be introduced to mindfulness and yoga through engaging, sensory-based activities and group discussions. The lesson plan outlines weekly activities that incorporate yoga, breathwork, meditation, sensory exploration, and psychoeducation on the stress response (see Appendix A). Activities can be modified based on the needs of the group, such as integrating

movement breaks, using visuals to provide instructions, and offering sensory tools like fidget toys or weighted blankets/stuffed animals.

The group is designed to run for fifty minutes long on a weekly basis. The group could be led within a private practice or agency. The group would consist of six children led by one Registered Clinical Counsellor (RCC). The group would include participants who are between nine to twelve years old of any gender, sexuality, ability, or culture who have experienced trauma. A diagnosis is not required for participants to join the group due to barriers of getting assessed. As well, the group could be modified for younger or older ranges of children, yet I recommend running the group with similar aged children to support their appropriate developmental needs.

Parents/guardians of the children would have to attend an intake session with the RCC to receive consent for the child to participate in the group; to gain background information about the child and the trauma they experienced (see Appendix B); to complete a Pediatric ACEs and Related Life Events Screener (PEARLS); and to discuss the purpose, risks, and benefits of the group. This accords with Corey et al. (2017) who suggests when receiving written consent from parents or guardians for their child to participate in the group to include information about the purpose and goals of the group and the limits of confidentiality. As well, this will create an opportunity for parents/guardians to meet with the RCC and decide if the program is suitable for their child, and to discuss if their child has any needs that would require modifications to the program such as sensitivities to sound or light. Using this information, the RCC would determine if the child is eligible for the group. Based on Emerson's (2015) recommendations for TSY, mental health clinicians should rely on their clinical training to assess whether the intervention may be appropriate for a given client and whether the client can tolerate being present in the

body and to what extent. Briere & Scott (2014) concur as they state that clinicians should screen for the appropriateness of mindfulness and assess for possible risk factors, such as “clients who are subject to acutely overwhelming intrusive flashbacks, rumination, or easily triggered trauma memories” (p. 221).

The group excludes participants who do not have a history of trauma, who are not between the ages of eight to ten years old, and who do not have parental or guardian consent. This group also excludes children who require one-on-one support, children who do not assent to attending the group, and children who will be absent for more than one week during the six sessions to maintain group cohesion.

To avoid harm and to ensure the safety of participants, the RCC implementing the group will have competence in child development and group facilitation. As well, they will have training in trauma-informed care, mindfulness-based practices, and yoga (TSY training or a yoga teacher certification). If the RCC does not have training in these areas such as yoga, I recommend leading the group with an individual who does have training in TSY or a yoga teacher certification.

To determine progress in the group, the RCC can utilize scaling techniques for children to rate their stress at the start and end of session and can utilize the group discussion to reflect on changes in mood or shifts in energy after activities. The RCC would email parents after each session to summarize progress made and address any concerns directly with the parent if applicable.

Ethical and Diversity Considerations

Corey et al. (2017) suggests being clear with children about what you can and cannot promise in the way of privacy, such as, the duty to report a child at harm or suspected harm. It is

important to help children understand that the information they share within the group belongs to them, but the information they hear and learn from others in the group belongs to the group. They suggest tailoring the conversation about confidentiality by using developmentally appropriate language. By informing and discussing with children in advance their concerns about confidentiality and how it will be maintained, it can strengthen the child's trust in the group therapist.

When implementing yoga and mindfulness within a diverse group, it is important to consider the barriers that might hinder therapy. For example, the RCC should be aware of their cultural background and values and the impact it has on the group members. This is reflected in the B.C. Association of Clinical Counsellors (2023) *Code of Ethical Conduct* principle 2-*Respect for the Dignity of all Peoples*, under the heading "Respect for Peoples," subsection 2 that states:

RCCs practice awareness of their own social, cultural, emotional, spiritual, physical, and financial condition or status, recognizing where these characteristics are empowering and/or divergent from those of a client, and protect against the potential for harm that may arise from these differences. (p. 9)

To demonstrate this ethical principle, a group counsellor may recognize that the group norms generally associated with group participation may not be congruent with cultural norms and values of clients so to understand that it is not necessary that everyone participate in the same manner (Corey et al., 2017). Overall, when therapy is implemented with care in a diverse group, it can have significant results.

Conclusion

This capstone project outlines a group-based approach for RCC's supporting children who have experienced trauma through the use of yoga and mindfulness practices. Yoga and

mindfulness practices offer a complementary and holistic approach to traditional talk therapy, addressing the complex interplay between the mind and body in the aftermath of trauma. The context of this research is within the field of psychology to understand the effectiveness of yoga and mindfulness practices on those who have faced trauma. This capstone project has provided valuable insights into the role of yoga and mindfulness as therapeutic tools for supporting the mental health and resilience of children who have experienced trauma.

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Appendix A

Lesson Plan

Week 1

- 1) Introductions of participants and therapist - everyone introduces their name and play stand up if... game
 - a) Stand up if you have a pet
 - b) Stand up if you have a brother
 - c) Stand up if you have a sister
 - d) Stand up if you were born in Canada
 - e) Stand up if you can speak two languages
 - f) Stand up if you like to play video games
 - g) Stand up if you like school
 - h) Stand up if you like talking in front of the class
 - i) Stand up if you fall asleep fast at night
 - j) Stand up if you've laughed so hard your belly hurt
- 2) Creation of group rules - have all participants sign
- 3) Group discussion
 - a) What is mindfulness?
 - b) What does mindfulness mean to you?
 - c) What are ways we can express ourselves?
 - d) What activities have you tried that make you feel calm?
- 4) Progressive muscle relaxation activity

Week 2

- 1) Review of everyone's names and group rules
- 2) Teach what the stress response is (fight-flight-freeze) using metaphors on white board
 - a) The wise owl is the prefrontal cortex
 - b) The guard dog is the amygdala
 - c) The elephant is the hippocampus
- 3) Box breathing activity

Week 3

- 1) Review the different types of senses
 - a) Visual
 - b) Auditory
 - c) Touch/tactile
 - d) Olfactory
 - e) Gustatory
 - f) Proprioception
 - g) Vestibular
- 2) Discuss as group how our senses can change our mood and brainstorm examples
- 3) Painting with spices activity
- 4) Group discussion about activity
 - a) How did that activity make you feel?
 - b) Did you notice a change in mood or shift in energy?
 - c) How did your experience differ from painting with spices versus regular paint?
 - d) What smell did you like the most? What smell did you dislike?

Week 4

- 1) Review what the vestibular and proprioceptive senses are
- 2) Lead children through yoga postures and breathwork including:
 - a) Cat and cow
 - b) Cobra pose
 - c) Downward dog
 - d) Horses breath
 - e) Tree pose
 - f) Mountain pose
 - g) Frog pose
 - h) Lions pose/lions breath
 - i) Banana pose
 - j) Child's pose
 - k) Corpse pose/savasana
- 3) Group discussion
 - a) How did that activity make you feel?
 - b) Did you notice a change in mood or shift in energy?
 - c) Favourite pose? Least favourite pose?

Week 5

- 1) Mindful eating activity with jelly bean or any flavoured candy following this script:
 - a) Holding: first, take a jelly bean and hold it in your hand or between your finger and thumb.
 - b) Seeing: take your time to really see it. Look at it with your full attention, notice the details – the colour and shininess. Let your eyes explore every part of it,

including any lighter or darker areas, indentations, asymmetries or unique features.

- c) Touching: turn the jelly bean over between your fingers, explore its texture. If you're comfortable, close your eyes and continue to turn the jelly bean over, as this may enhance your sense of touch.
- d) Smelling: holding the jelly bean beneath your nose, inhale and notice the fragrance or aroma that may arise. Notice if you have any changes in your mouth or stomach as you do this.
- e) Placing: now slowly bring the jelly bean up to your lips, noticing how your hand and arm know exactly how and where to position it. Gently place it in your mouth, without chewing, and explore the sensations of having it in your mouth. Explore the jelly bean in your mouth by slowly and carefully moving it around with your tongue.
- f) Tasting: when you are ready, prepare to chew the jelly bean, noticing how and where it needs to be for chewing. Then, very consciously, take one or two bites and notice what happens – attend to any new flavors or tastes that come from biting it. Without swallowing yet, notice the sensations of taste and texture in the mouth and how this changes over time, moment by moment, as well as any changes to the jelly bean itself.
- g) Swallowing: when you feel ready to swallow the jelly bean, see if you can first detect the intention to swallow as it comes up, so that even this is experienced consciously prior to swallowing the jelly bean.

- h) Following: finally, see if you can feel what is left of the jelly bean moving down into your stomach, and sense how the body as a whole is feeling after completing this exercise in mindful eating.
- 2) Group discussion
 - a) How did that activity make you feel?
 - b) Was this process difficult for anyone?

Week 6

- 1) Create/decorate calming kits that include the scripts of the activities they engaged in during the group for them to take home
- 2) Lead group through yoga nidra, a guided imagery meditation
- 3) Group discussion
 - a) How did that activity make you feel?
 - b) Did you notice a change in mood or shift in energy?
 - c) Was this process difficult for anyone?

Appendix B

Intake Questions

Guiding questions for parent/caregiver intake:

1. What would you like us to know about your child?
2. Has your child experienced or witnessed any events that may have been frightening, harmful, or deeply upsetting such as loss, illness, accidents, abuse, neglect, violence, natural disasters, or separation from a loved one?
3. Does your child have any diagnoses we should be aware of?
4. Has your child participated in a group before? What did they like or dislike about that experience?
5. What will your child know about coming to the group and their diagnosis (if applicable)?
6. Has your child engaged in mindfulness or yoga before? What was their experience like?
7. What are your child's likes and dislikes?
8. How does your child seek comfort in distress/what helps your child self-regulate?
9. What are your child's sensory needs/sensitivities?
10. Is your child able to follow group rules? If not, please explain how best to support them.
11. How does your child best learn (e.g. visual, auditory, tactile, interpersonal, intrapersonal)?
12. What are your goals for your child joining the group?
13. Do you foresee any challenges with your child participating in the group?