THE TRANSFORMATION OF ASHTANGA YOGA: THE MYTHOPOETIC JOURNEY FROM BODY TO PSYCHE AMONG FEMALE SURVIVORS OF RELATIONAL TRAUMA

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ABSTRACT

The Transformation of Ashtanga Yoga: The Mythopoetic Journey from Body to Psyche among Female Survivors of Relational Trauma

by

Ida Chi LaChiusa

This mixed methods study explored whether body-work such as Ashtanga yoga can lead to improved affect regulation and body awareness among survivors of complex childhood trauma. It examined the prevalence of complex trauma among Ashtanga yoga practitioners to determine qualitatively whether their perceptions of emotions, their ability to manage affective states, and their body awareness changed over the course of their practice. In addition, this study also explored relevant dreams and images which arose for participants during the course of their practice. The study is based on the hypothesis that body-work such as yoga can help survivors of complex childhood trauma integrate traumatic experiences, resulting in greater levels of affective regulation and body acceptance.

A total of 31 female participants who practiced Ashtanga yoga on a regular basis were administered the Childhood Trauma Questionnaire. The findings suggested that the majority of these participants had experienced some form of emotional, physical, or sexual neglect/abuse, and found yoga practice to be helpful in regulating emotions and improving body awareness. Those who scored at least moderate levels in at least one of the subscales for self-reported abuse and neglect were selected for qualitative interviews. A total of 6 participants agreed to qualitative interviews. The emergent themes from the

interviews revealed that participants found that practice did help them with affect regulation and body acceptance. The process of change for these participants contained numinous themes as they confronted the more negative emotions that also arose in their practice. Moreover, dreams and images which emerged spontaneously for these participants have been helpful in their psychological growth. Such findings suggest that a consistent Ashtanga yoga practice may help female survivors of complex trauma improve their ability to regulate their emotions as well as improve their body awareness, as well as provide a sense of connection with the mythopoetic aspect of experience.

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Chapter 1

Introduction

This dissertation will examine the effects of yoga—in particular, Ashtanga yoga—on affect regulation and body awareness among female survivors of relational trauma. The pervasive effects of trauma in the United States, and more specifically, the effects of post-traumatic stress disorder, relational and complex trauma on the individual will be explored. The importance of treatment bridging the enormous disconnection between body and mind for those with relational trauma will be also examined. Finally, Ashtanga yoga will be examined in terms of its ability to uniquely treat trauma and heal both body and mind. A research study will be proposed to study the ability of Ashtanga yoga to treat trauma.

Trauma

Trauma is widely prevalent in contemporary American society, with studies indicating that over 50% of the American population has suffered at least one traumatic event in their lifetime (Emerson, Sharma, Chaudhry, & Turner, 2009; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Perhaps trauma can be best understood as a disorder of memory (van der Kolk, 1991; Herman, 1992). The mind and body continue to react and respond as if the original threat still exists, sometimes with intense or severe symptoms including heightened vigilance, paralyzing anxiety, and the startle response characteristic of post-traumatic stress disorder (PTSD). Yet, traumatic events can also be less dramatic and exert more subtle effects on the psyche, which are often disguised as more common symptoms such as anxiety and depression (Courtois, 2008).

The term "complex trauma" is relevant here, as it refers to events such as physical, verbal, or sexual abuse which occurred for an individual over extended periods

of time (Lawson, 2013). According to Courtois (2008), complex trauma can also include events such as witnessing domestic violence or war, being a refugee or prisoner of war, or experiencing or witnessing a gang rape; however, for the purposes of this dissertation, complex trauma would be defined as physical, sexual, or emotional abuse/neglect.

Perhaps the more precise term is relational trauma (Schore, 2002; Summerlin, 2013), as the abuse or neglect typically occurred in one's childhood or adolescence, and are often perpetrated by the survivor's caregiver system (Lawson, 2013).

The results of relational trauma are equally devastating, as these individuals can suffer from severe symptoms such as self-harm, social isolation, aggression, substance abuse, and dissociation (van der Kolk, 2005; Lawson, Davis, & Brandon, 2013; Herman, 1992). Those who suffer from relational trauma are often found to be treatment resistant to many forms of psychotherapy interventions (Courtois, 2008). Last, many survivors of relational trauma also present with significant affective dysregulation as well as a feeling of disconnection from their physical bodies (van der Kolk, 2005; Herman, 1992). Schore (2002) states that "the most significant consequence of early relational trauma is the lack of capacity for emotional self-regulation, expressed in the loss of ability to regulate the intensity and duration of affects." (p. 11). As a result, there are often difficulties in maintaining healthy attachment relationships along with deficits in self esteem, due to impairments in functioning across the various domains of life such as social outlets, work, and/or school (van der Kolk, 2005).

Concurrent with the adverse effects on mind and behavior, relational trauma also exacts a toll on the body (van der Kolk, 1994). Survivors of relational trauma often have comorbid issues related to affect dysregulation as well as poor body image, eating

disorders, body dyspmorphic disorders, and psychosomatic complaints (Didie et al., 2006; van Dijke, 2012; Sansone, Whitecar, & Wiederman, 2009; van der Kolk, 1997). Trauma has been connected with the aetiology of body image disturbance due to "an assault on body integrity" (Neziroglu, Khemlani-Patel, & Yaryura-Tobias, 2006). Moreover, such trauma results in a deep sense of disconnection from the body that extends beyond the empirical and into the cultural and spiritual dimensions of being (Kalsched, 2013; Johnson, 2009; Woodman, 1982).

Most traditional psychotherapy methods to address such issues are verbal in nature and considered to be effective modalities of treatment for a range of mental health issues, from post-traumatic stress disorder to borderline personality disorder (Emerson et al., 2009). However, some studies have shown that traditional methods such as cognitive behavioral therapy or cognitive restructuring are not as effective as originally thought as some patients still remained symptomatic or had higher incidences of relapse after treatment (Emerson et al., 2009; Courtois, 2008). Verbal therapies, while effective for some patients, are limited in that the physical and bodily dimensions of trauma are often unaddressed (Emerson et al., 2009; Price, McBride, Hyerle, & Kivlahan, 2007).

Given that trauma has often been inflicted on the physical body, treatment interventions addressing the somatic realm have relevance. Recent discoveries have highlighted the significant relationship between the mind and body, which can potentially change how clinicians are treating clients who present with relational trauma (Dale et al., 2011; Emerson et al., 2009; Price, 2007; Clance, Mitchell, & Engelman, 1980). Bessel van der Kolk, one of the chief researchers in trauma treatment, noted that physical action is necessary for the integration of traumatic experience (1991). Among body-oriented

treatments for trauma (such as EMDR), yoga has emerged as an effective modality to address such issues particularly due to its emphasis on the felt sense of the body and the mind (Dale et al., 2011; Emerson et al., 2009; Emerson & Hopper, 2011; Courtois, 2008). This dissertation will explore the effects of yoga—in particular, Ashtanga yoga—on affect regulation and body awareness among female survivors of relational trauma.

Yoga and the Psyche

In Sanskrit, the word yoga is derived from *yuj*, which means "to yoke," "to bind together," or just "union" (Feuerstein, 2011). The most common understanding of yoga in the West is often the intention of uniting mind and body. In Western culture, such an intention carries special significance as the body has long been overlooked due to the dominance of Cartesian thought in Western philosophy. Such a split between body and mind is especially true in traditional mental health practices today (Emerson et al., 2009; Emerson & Hopper, 2011). Could this partly explain the continuing growth in the popularity of yoga in the West? The idea of union implied through yoga also seems particularly relevant for this research study, as often survivors of relational trauma suffer from a deep disconnection between the mind and the body.

In recent times, the essential relationship between body and mind is becoming increasingly clear (Harris, 2001). Breath and movement are domains of physical experience which have the potential to effect powerful changes in the mind and body. Though many Westerners have approached yoga as a primarily physical practice, there is growing empirical evidence of its benefits in mental health and psychological well-being (Bergemann, 2009; Casden, 2005). Watts (2000) notes that "there is good scientific understanding on how the mind affects the body. . . . However, there is currently much less understanding of how the physical states in turn affect the mind" (p. 77).

The paradox of radical transformation lies in the fact that there must be the complement of the felt physical sense along with the mental (Emerson, 2009). Likewise, there is an imbalance when one is too much in the body or the mind. The sense that the psychological self can emerge from the somatic realm has been recapitulated in more recent literature (Wilkinson, 2006). More importantly, the idea that mind and body are interdependent on one another for a new emergent consciousness has gained increasing attention (Cambray, as cited in Wilkinson, 2006). The role of the right brain hemisphere, with its connection to affect regulation, the coherent sense of self, and somatic awareness, may prove to be crucial in the relationship between the psychological self and the body.

In light of such discoveries, this dissertation will explore Ashtanga yoga as a means of addressing relational trauma. But why Ashtanga yoga, one may ask? To begin with, Ashtanga yoga refers to the eight limbs of yoga practice, of which the physical poses, or *asanas*, comprise only one limb (Maehle, 2009). The distinctive features of the physical practice involve three aspects: drishti (gazing during asanas), pranayama (long and even breathing), and bandhas (engagement of core muscles during poses). It is believed that the combination of drishti, pranayama, and bandha, with sustained and consistent practice, characterizes the powerful effects of Ashtanga yoga on the mind and body (Maehle, 2009). Such characteristics of the practice may also prove to be invaluable tools in honing one's interoceptive awareness or coping with the intense emotions or thoughts that may arise from traumatic experiences.

Today, Ashtanga yoga is considered one of the most physically challenging yoga practices, and its effects on the mind are equally powerful. Yoga and other body-based practices such as meditation and breath-work have also shown increases in empathic

attunement, a skill necessary for the cultivation of fulfilling social relationships and a hallmark for emotional growth (Bergemann, 2009). Yoga practice had an effect on emotional regulation among practitioners (Gootjes, Franken, & van Stein, 2011), while another study indicated that consistent yoga practice can lead to development of emotional competence (Bulut-Jakovljevic, 2011). Thus, the effects of yoga—and Ashtanga yoga in particular—on the mind and body as related to complex trauma are worthy of exploration.

Yoga, Gender, and the Body

Gender is also a crucial aspect that requires closer examination. In Western culture, feminist theorists have contended that women are sexually objectified and subjected to evaluations based on their physical appearance (Impett, 2006). The cultural pressure on physical appearance leads to self-objectification, or "the act of observing and evaluating one's own appearance from an outside perspective" (p. 39). Such a process often results in negative psychological consequences such as poor body image, increased negative emotions, decreased positive affect, lower self-esteem, and eating disorders (Impett, 2006). It is believed that body-work such as yoga can increase one's body acceptance as well as body awareness, resulting in more positive affect and sense of self. For women especially, issues related to body image, body acceptance, and body awareness carry increased significance. Thus, this dissertation will focus on the issues of body awareness and affect regulation among women.

Just as we have recognized the dichotomy between mind and body, there is also the acknowledgement of the divide between masculine and feminine. This split has manifested itself as an over-valuation of the patriarchy, with long-standing effects on women on political, cultural, sociological, and psychological levels (Woodman & Dickson, 1996). In fact, Woodman and Dickson note that:

A duality in which one valence is valued over the other causes dichotomies within our perception of ourselves and others. We begin to live a one-sided reality, an illusion created by our own mind. Among our most dominant dichotomies are masculine/feminine, mind/body, feeling/thinking, and life/death. Feminine, body, feelings, and death have all been subjugated by their opposite. (pp. 50-51)

Additionally, these authors associate feminine with the body and state that "the feminine leads us to the sharp edge of experience. There we have to feel our feelings in our bodies; there our secrets become visible in the darkened, unvisited corners of our psyches" (p. 52). Given the long history of the devaluation of the feminine, it may be highly relevant to examine how Ashtanga yoga practice can affect the woman's sense of her own body, emotions, and self, especially in a world culture that remains highly patriarchal and diminishing of the feminine force (Woodman & Dickson, 1996; Dittman & Freedman, 2009). Thus, it would appear that the role of the body becomes crucial for the female psyche and our attempts to connect with its unconscious contents.

Yoga implies union, and a woman's journey of individuation towards wholeness also involves a union with the masculine (Woodman & Dickson, 1996). Can yoga facilitate a woman's awareness and acceptance of the masculine—the animus—within herself? As such, the effects of Ashtanga yoga on the female psyche are worth exploring, though there has not been substantial literature on this aspect of practice. Although Ashtanga yoga practice has great numbers of female practitioners in current times, it seems to possess a certain appeal to the male psyche with its extraordinary demands for

strength and endurance, as well as flexibility. One may surmise there is something intrinsically powerful in Ashtanga yoga practice that compels the female practitioner to sustain and remain with it; as she does so, her ability to regulate emotions and to increase her awareness of the body may undergo an equally powerful change. In such a context, I wish to explore Ashtanga yoga to elucidate how this practice may facilitate psychological transformation within the female practitioner.

Researcher's Transference to the Topic

Having discovered yoga in the 1990s, I loved the feeling of mental well-being and calm stillness after a yoga session. Despite such palpable benefits, I did not maintain a consistent practice; I took a class here and there, and the demands of everyday life usually distracted me from returning to practice. Then over 2 years ago I discovered Ashtanga yoga through a friend, and my life began to change. I did not have the dramatic visions or sensations that have been described in typical Kundalini awakenings, but it has been the increasing sense of stability and shifts over time which stayed with me.

Edward Stern, a certified teacher in Ashtanga yoga, notes that "one comes to yoga in his life only by having practiced it in a previous life, and is pulled towards it against one's will, as toward a magnet—a verse that Guruji was fond of saying" (1999/2010, p. xv). Likewise, something about this particular practice stayed with me. I too was inexorably pulled to it, almost against my will. Yet perhaps one could say that there were components of my past that propelled me also. As a survivor of complex trauma, I endured emotional and verbal abuse in early childhood, and later, suffered a sexual assault that indelibly affected me for many years. In my early adult life, emotions became difficult to contain, and I felt equally disconnected from my body. It was not

until many years (decades later) that I finally found some measure of peace through the combination of analysis and yoga practice.

Just as one goes as deeply as one can into the psyche in psychoanalysis, one goes deeply into the body with yoga practice. Confronting one's fear is a big component in yoga practice, just as it is in psychotherapy or psychoanalysis. Yoga, however, makes one encounter fear in the somatic realm, and I have found that, in my own experience, the process of overcoming fear somatically can be powerful. In Ashtanga yoga, there is quite a focus on arm balances, inversions, and back bends, some of which can feel extremely challenging and fearsome when learning them for the first time. After a set sequence of poses, one always concludes with three back bends, followed by three drop-backs, which is when you bend backwards to touch the floor from a standing position. Having to master this step was an emotional milestone for me, especially given my own traumatic experiences in early childhood. Having to bare open my belly and throat in back bends and drop backs felt terrifying, and for many months I struggled with my teacher, who helped me patiently with this process.

If there has been trauma, the body may remember even if we cannot recall the details in the conscious mind (Rothschild, 2000; Schore, 2002; van der Kolk, 1994). The body awareness gained from yoga practice can help those of us with trauma to access our reactions to it. During yoga practice, especially during poses which instilled a sense of fear, I have had memories of my own early trauma arise, and I was able to contain them within the confines of practice. Having a concurrent analysis was crucial as I was able to process the memories and reactions in a safe place, and ironically, I may not have been able to access those dimensions of experience through just verbal psychoanalysis alone.

Several months later, I was finally beginning to feel less fear with back bends and drop backs. A small flame of trust began to rise up in my consciousness: through the safe guidance of my teacher, I trusted my body more and my ability to catch myself as I bent backwards from standing. The back bends expose the most vulnerable areas of our bodies which have no protection—the abdomen, heart, and throat. These areas also correspond to the *manipura* (solar plexus), *anahata* (heart), and *vishuddha* (throat) chakras (Edwards, 2009). In practicing these poses, I made a conscious effort to slow down and focus on these parts of the body as I entered into the poses. Paying attention to the gross physical aspects ultimately affects the subtle, as stated by Maehle (2009):

The practitioner starts with gross objects, those that are perceptible to the sense. Typically these are the so-called *drishtis* (focal points), such as the tip of the nose, the eyebrow center, the big toes, the tip of the tongue, the highest point of the palate . . . or other body parts; and of course the *bandhas*, principally the *Mula Bandha* (pelvic lock).

Once the yogi's focus is established on the gross level, subtle objects are chosen.

The typical subtle objects used for *pratyahara* are the chakras. (p. 10)

As I was beginning to get in touch with the more vulnerable aspects of myself through focus on these visual points, the traumatic memories felt less terrifying; I was more able to hold and contain them in my consciousness. Concurrently, I was also beginning to have less fear in voicing my own needs and in setting better boundaries in my work and personal life. Moreover, I was becoming more effective in voicing my needs, and holding difficult states of mind such as anger and resentment. At the same time, I also became more accepting of my body—being less preoccupied with numbers and feeling more in

tune to how my body truly felt rather than how it "should" be. These changes in the early stages of my practice inspired me a great deal, and seemed to emphasize even more the positive aspects of yoga practice. Yet, as Jung was often fond of saying, everything has a shadow side, which is also necessary for the individuation process.

The shadow side of yoga became more apparent to me when, after two and a half years of practice, I decided to travel to Mysore, India, in hopes of deepening my experience of yoga. Many of us who journey here have been inspired by the stories from other who have experienced Mysore, developing not only their practice but also experiencing the vibrant culture of India, as well as learning its history. Perhaps it is also the allure of undergoing an Odyssean journey to partake in a difficult practice in one of the most intense environments, with one of the strictest teachers in the living tradition of Ashtanga yoga.

Ironically it was here, in the birthplace of Ashtanga yoga, that I also came face to face with the ugliest aspects of the practice—something for which I was not prepared. As it turned out, India was a land of contrasts. There was a lot of beauty in it, but also a great deal of poverty, suffering, and filth. I was unprepared for the stifling heat, the myriad of smells, the chaotic traffic, and the incredible amounts of trash I saw in the streets. Yet I could turn a corner, and stand in front of a gorgeous and well-kept mansion, framed with coconut and banyan trees, surrounded by lush, tropical flowers. Even in the physical sense, India was a place of opposites—a great example of Jung's notion of *enantiodromia* (Sharp, 2001).

Consider, too, the socio-political climate of India as it pertains to gender.

Recently India had come to the forefront of the world's attention due to numerous sexual

attacks on women (Sharkey, 2013; Mangaldas, 2013). In Mysore alone, there have been increasing reports of women—particularly foreign yoga students—being groped, mugged, or sexually assaulted by males local to the area. Safety became a great concern as many students had early morning start times, which meant walking in the dark to the shala from one's residence. For me personally, the social and gender context brought more reverberations from my own past. Again, it seemed ironic that, in my efforts to overcome and make peace with my own history of complex trauma, I found myself in a potentially traumatic environment. And, in the midst of esoteric practices to experience the divine, such profane acts against the human spirit continue to occur. India is a place of contrasts psychologically as well.

Practitioners themselves are not immune to the darker sides of human experience. Likewise, some even say that psychopathology may be more pronounced amongst such a group of people seeking internal peace. During my stay in Mysore, I also became painfully aware of the envy, narcissism, aggression, competition, and gossip which can occur among those who are supposedly working toward their own enlightenment. Perhaps most disturbingly, I became aware of these aspects within myself. It brought to mind Jung's initial concerns about yoga practice among Westerners; he feared that the Western mind would be unable to assimilate the essence of Eastern yoga, and instead, transform it into another "hypertrophy of will" (Stein, 2010). Jung's statements about the difficulty of yoga practice among Westerners continue to cause debate, and this will discussed in more detail in the literature review section. In more recent times, Harris (2001) offers a Jungian perspective that examines the parallels between yoga practice and

Jungian ideas of individuation, and how yoga practice can contribute to profound spiritual and psychological growth.

This is not to say that the darker side of yoga does not occur in the West.

Feuerstein (2011) expressed a deep concern on the commercialization of yoga teacher training and the solipsistic focus on the body to illustrate how yoga has been misapprehended in Western consciousness. But do we do what Jung (1962) suggests, which is to forgo yoga practice as it is apparently not suited for our Western consciousness? I feel that to do so would be to fall into dualistic thinking again and to abandon the notion of *enantiodromia*, to maintain a tension between the opposites. Could it be possible to encounter and survive the shadow in yoga practice, and derive a new meaning from it? Moreover, it also brings to question on how consciousness is shaped and defined by culture.

My own direct experiences of a steady practice (in both asana and yoga philosophy) bring me more in line with Harris's (2001) viewpoint of yoga in the West. In my dialogues with long-term practitioners, realizing that others have had similar experiences helped me to make some sense of my own. Many of these practitioners also had histories of early childhood trauma or neglect. Certain themes emerged over and over again—how coming to Mysore to study was akin to being in a "pressure cooker," how certain things such as early memories of childhood trauma became amplified, and how the feelings of transformation occurred in surviving the darkest of moments. Last, despite the intense difficulties, each practitioner felt the desire to return. It seemed to me that the return to Mysore was not only a return to the physical city, but a return to the internal self

with a desire to reconcile earlier traumatic experiences and make meaning out of those experiences.

In this perspective, it is worth examining how practitioners are able to tolerate the darker aspects of practice and whether this can translate to a greater integration of early childhood traumatic experiences. Would this integration result in an improved ability to regulate intense affective states and develop a more positive relationship and awareness to the body? Finally, would the unconscious psyche also give indication of such changes, through dreams and images that may arise from practice?

Relevance of the Topic for Depth Psychology

The transformative effects of yoga on the mind and body are not new ideas; however, what is less discussed is whether yoga can help a female survivor of complex trauma come to a better relationship to the affect and body. Moreover, few studies have examined the darker aspects of yoga practice. Negative emotions, such as anger, envy, and competition, are also a common but rarely recognized aspect of practice.

Confrontation and integration of our own darkness and making that conscious is one of the tenets of depth psychology (Kalsched, 2013; Jung, 1958; Edinger, 1985). And, one's ability to work through the darker aspects of yoga is what can potentially deepen one's practice. As a result, one comes to a greater level of reconciliation to the self and body.

The connection between psyche and soma has been recognized in both psychoanalytic and Jungian thought, but the relationship between Jung and yoga is worth noting. Jung felt drawn to yoga and yet was bound by his own limitations (Stein, 2010). It seemed that Jung was attracted to yoga on an intellectual level, seeing parallels between individuation and Western alchemy; he even reported having practiced yogic breaths (Stein, 2010; Jung, 1961) to stabilize himself after the break with Freud. Although Jung

did not practice yoga physically to any consistent extent, he did recognize its value and role in psychological transformation (Harris, 2001).

Yoga practice has often been compared to the processes of alchemy and individuation, parallels that were noted by Jung as well (Harris, 2001; Stein, 2010, Wikman, 2004). The overall purpose of yoga is to transcend the ego and realize the higher Self, or as Feuerstein (2011) so aptly described:

This realization is an awakening to our Selfhood, which transcends body-mind, the ego-personality, and the horizon of the world reflected in our ordinary experience. All this, and more, is captured in the word *yoga*. (p. 2)

Feuerstein later makes the comparison of yoga to the ancient practice of alchemy, stating that "the goal of spiritual or esoteric alchemy has always been to generate a new state of being" (p. 45). From a more contemporary viewpoint, yoga is another form of modern alchemy in our day and time; through practice, we undergo a transformation of the body, the psyche, and the self.

Many yoga practitioners have reported a sense of a deeper connection to the self or divine (numinous) experience (Harris, 2001). One may wonder if it is also this aspect that compels many practitioners to continue with a sometimes difficult practice. Beyond the more concrete mental and physical benefits of yoga, there appear to be deeper changes at work as well. In yoga, the gross physical body is transformed, but more importantly, shifts occur within the subtle body as well. Edwards (2000; 2009) states:

It is within the subtle body what the energy form of universal consciousness known as Kundalini resides. Once activated from her resting place within it, the awakened Kundalini begins her work of

transforming and purifying the subtle and physical bodies. The ensuing experiences and shifts in consciousness constitute the seeker's unfolding spiritual journey, and the evolutionary potential becomes realized

The subtle body is an energy body that interpenetrates our physical body. . . . The subtle body is the "body" of our mind, thoughts, feelings, emotions, intuitions, and other less commonly identified forms of energy, known as *prana* in the yogic system. It's a subtle realm that is very real to us, even though science can't verify the existence of any specific thought or feeling we might be having in this realm. (pp. 23-24)

It is interesting how Edwards speaks in alchemical terms, although he does not refer to the concept of alchemy directly. Something in us is *transformed* and *purified* through the process of yoga.

Whereas this research will not be exploring the alchemical process specifically, working through the darker side of yoga would be great interest, especially with regard to how that relates to trauma, affective regulation, and body awareness. The increasing role of the right brain hemisphere in affect regulation and body awareness is also congruent within the classical and contemporary schools of psychoanalytic thought, which had posited the essential role of attachment between caregiver and child, and how the quality of the attachment relationship can influence the individual's ability to develop affect regulation and somatic awareness.

The ability to tolerate and/or communicate the more difficult ranges of human experience is also a hallmark of emotional development (van der Kolk, 2005). Can yoga practice facilitate this development more rapidly? Also, because of the complex

relationship between body and mind, can a yoga practitioner's emotional regulation and relationship to the body both change through the process of yoga? And, how might practitioners' internal experiences (such as dreams and images) speak to these processes? Because of my own experiences in the transformative nature of yoga practice, I am curious as to how such processes are at work in other yoga practitioners, and whether they have encountered similar phenomena.

Currently there is growing research on the relationship between yoga and emotional well-being in practitioners, but the studies have been very few or limited in nature. Most of these studies are quantitative, and focused only on outcomes, such as the effect of yoga on reduction of depression and anxiety. Others have examined only the qualitative aspects of emotional well-being in general practitioners. Few studies have focused on Ashtanga yoga in particular, or addressed the process of change among Ashtanga yoga practitioners from a depth psychological and Jungian perspective.

Concurrently, being immersed in a daily practice also involves an intimate knowledge of the darker aspects of yoga that many may experience but often do not express. I offer an additional conjecture that it is not only the physical practice with the body, but also the active engagement with these darker aspects of practice that ultimately helps that practitioner deepen his or her transformation of the emotions and body. This, too, is in alignment with the ideas in Jungian and psychoanalytic schools of thought, in that it is our active work on the base or dark material which will ultimately yield the invaluable gifts of individuation, empowerment, and personal freedom.

Definition of Terms

The Merriam-Webster definition of trauma is "an injury (as a wound) to living tissue caused by an extrinsic agent" or "a disordered psychic or behavioral state resulting

from severe mental or emotional stress or physical injury" (2013). Post-traumatic stress disorder is a diagnostic construct that refers to a set of maladaptive psychological responses that arose from exposure to a traumatic event (American Psychiatric Association, 1994; Phan, 2012). Complex trauma refers to a set of syndromes that do not fit within the criteria of post traumatic stress disorder (van der Kolk, 2005; Herman, 1992). A more comprehensive definition of complex trauma will be given in the literature review portion, but for the initial purpose of orienting the reader, the term refers to the repetitive incidences of maltreatment, usually from the survivor's caregiver system, over an extended amount of time (Lawson, 2013).

In terms of the psyche, this research will focus on affective regulation. Thus, it would be helpful to provide definitions of related terms from the outset, which include affect, affect regulation, affect dysregulation, attachment theory, alexithymia, and the implicit self. Affect refers to feelings and emotions involving a complex system of neurophysiological, motor, and cognitive processes within the mind and body (Bergemann, 2009). Affect regulation involves "a set of conscious control processes by which we influence, consciously and voluntarily, the conscious emotions we have, and how we experience and express them" (Schore, 2012). By contrast, affect dysregulation refers to a poorly modulated emotional response, especially to intense affects such as rage and sadness (Bergemann, 2009).

Affect regulation and dysregulation are now widely recognized to be connected to the quality of a child's early attachment to his or her caregivers (Schore, 2012; van der Kolk, 2005; Herman, 1992). Attachment theory refers to the relationships in the earliest stage of life which "indelibly shape us in basic ways, and, for the rest of the life span"

(Schore, 2012, p. 28). Moreover, the quality of our early attachment relationships influences all of our emotional and social functioning (Schore, 2012). A common result of poor early attachment is alexithymia, which refers to difficulties in identifying or expressing one's emotional states (Frewen, Dozois, Neufeld, & Lanius, 2012). The implicit self refers to a sense of identity which rises from set of "nonverbal, symbolic, and unconscious processes" (p. 119) which occurs in the right brain hemisphere (Schore, 2012). Body-work, such as yoga, is believed to access the implicit self more readily than traditional psychotherapies (Emerson, 2009). Accessing the implicit self is believed to be integral in trauma recovery (Schore, 2012).

With regard to the body, somatic memory refers to the memories stored by the gross physical body as well as in synapses of the nervous system, and usually residing outside of conscious awareness (Rothschild, 2000). This is also related to implicit memory, where the emotional (and also traumatic) experiences are stored in the brain before the individual can symbolize or verbalize them (Schore, 2012). The term body-self refers to the sense of one's own physical body, which creates and reinforces the internal psychological self (S. Epstein, 1973). Body acceptance refers to the sense of acceptance or appreciation for one's physical self, while body image refers to an individual's concept of his or her body which results from past and present perceptual and sensory experiences (Clance et al., 1980). Body awareness, or more specifically, interoceptive awareness, refers to an individual's sensitivity to physical (somatic) senstions, and has correlated with one's experience of emotions (Herbert, Herbert, & Pollatos, 2011). Embodiment refers to "an awareness of and responsiveness to bodily sensations" (Impett, Daubenmier, & Hirschman, 2006).

As this study involves yoga as a treatment modality, it would be helpful to orient the reader to common terms within yoga practice, and in particular, Ashtanga yoga.

Asana refers to the physical pose, and in Sanskrit, literally refers to the physical postures that one takes in an effort to purify the body in preparation for spiritual practice (Feuerstein, 2011). Ashtanga yoga is a form of yoga which entails an intense focus on eight facets of practice, with the goal of physical and spiritual development. Within the physical practice of Ashtanga yoga (asana), the term bandha refers to an energetic lock within distinct regions of the body (Maehle, 2006). Drishti refers to the focal point on which the practitioner fixates during practice to intensify the meditative effects of yoga (Maehle, 2006). Parampara is Sanskrit for lineage, the direct experience of learning over an extended amount of time from a designated teacher or master and transmission of that knowledge to future students. Shala is Sanskrit for "house," a term used in Ashtanga yoga to mean the place or studio where one regularly practices (Feuerstein, 2011).

Chapter 2

Review of the Literature

This overview of the literature examines three areas relevant to the research. First, trauma and the more specific term of complex trauma will be explored in context to its history and the effects on the psyche and body, and with focus on affect regulation and body (interoceptive) awareness. Second, the relationship between mind and body in classical psychoanalytic and Jungian literature will be reviewed, along with the psychospiritual effects of yoga on the psyche. Finally, the relevance of transformative dreams and images in the transformation of the practitioner's relationship to affect regulation and body awareness will be discussed.

Trauma, Affect Regulation, and the Body

There is a wide range of traumatic disorders, beginning from a single overwhelming incident to a more complex syndrome of prolonged and repetitive abuse. Likewise, there are many definitions and categories of trauma, but perhaps Judith Herman (1992) gives the most succinct and clear definition, stating that:

Traumatic events are extraordinary, not because they occur rarely, but rather because they overwhelm the ordinary human adaptations to life. Unlike commonplace misfortunes, traumatic events generally involve threats to life or bodily integrity, or a close personal encounter with violence and death. They confront human beings with the extremities of helplessness and terror, and evoke the responses of catastrophe. (p. 33)

Thus, one can see that traumatic events have indelible effects on the mind and often can be treatment resistant (Emerson et al., 2009). It seems apparent that many of the symptoms treated in mental health settings are often a result of trauma. One may go as far

to say that that the very beginnings of modern psychiatry over 100 years ago stemmed from Charcot and Freud's observations of patients' traumatic experiences in the past and how they continued to afflict these individuals in their present lives (Herman, 1992; van der Kolk, 1991, 2001).

The history of trauma research had its beginnings with Charcot and Freud at Salpetrier, where Charcot took (among many others) female patients who suffered from hysteria. Freud subsequently discovered that many of his female patients suffered from various childhood traumas, including physical and sexual abuse and developed a theory of trauma; however, he later recanted his trauma theory due to the cultural and societal pressures that marginalized women at the time (Herman, 1992; van der Kolk, 1991).

Nevertheless, the reality of psychological trauma remained and came again to the forefront after the First and Second World Wars and the Vietnam War (van der Kolk, 1991). In 1980, the syndrome of psychological trauma was finally recognized and became an actual diagnosis—post-traumatic stress disorder (Herman, 1992; van der Kolk, 2001) in the *DSM III*. Currently, post-traumatic stress disorder is used to describe the set of clinical symptoms that resulted from exposure to an event that involved actual or threatened death or serious injury. The survivor's response typically involved fear, helplessness, or horror, and the event is persistently re-experienced through images, thoughts, and perceptions. The intense psychological distress is combined with physiological reactivity, as both body and mind react to internal or external cues and triggers (Herman, 1992; Phan, 2012).

According to Herman (1992), traumatic memories have a distinctive quality – they lack verbal narrative and context, and are instead encoded in the form of vivid

sensations and images. In the absence of verbal narrative, affects are dissociated from the context of experience. The survivor experiences a sense of disconnection on many levels, from the emotional to the somatic realm.

Complex Trauma and Affect Regulation.

The term "complex trauma" arose when researchers discovered that certain types of trauma did not fit diagnostic criteria for PTSD, yet their effects seemed more pervasive and complicated (Courtois, 2008; Emerson & Hopper, 2011). Complex trauma is typically understood to be repeated incidents of maltreatment over periods of time and often begins in childhood or adolescence. The types of maltreatment include (and in the scope of this dissertation will be limited to) emotional abuse/neglect, physical abuse, and/or sexual abuse. The maltreatment is often perpetrated by family members or adult caregivers who were expected to provide a safe environment for the child but fail to do so.

Herman (1992) noted that repeated trauma in childhood "forms and deforms the personality" (p. 96). The child remains in a state of constant awareness of the perpetrator's state of mind, and as a result, develops uncanny abilities to scan for warning signs of attack. As s/he learns to recognize the subtle cues which may give clues to the abuser's inner states, nonverbal communication becomes highly automatic and outside of conscious awareness. In sum, the child attempts to cope with a dangerous situation with an "immature system of psychological defenses" (p. 96).

While complex trauma leaves behind a myriad of disorders, its effects on the affect and emotional awareness are relevant to this current study. Chronic dysregulation of the affect results in a secondary set of mental health issues, such as substance abuse, eating disorders, self-harm behaviors, attentional disorders, dissociative disorders, and

anxiety and depression (Kong & Bernstein, 2009; van der Kolk, 2001; van der Kolk, Burbridge, & Suzuki, 1997). The array of symptoms is often common in individuals with borderline personality disorder, and the association between borderline disorders and complex childhood trauma has been noted as well (van der Kolk, 2001). Additionally, the classical and current literature both show that trauma results in either dissociation from affect or more commonly, alexithymia—an inability to identify emotions correctly (van der Kolk, 2001).

Emotional awareness has been described as an essential facet of healthy psychological development (Frewen et al., 2012). Studies have shown that survivors of complex trauma show a decreased capacity to identify and express emotions (Frewen et al., 2012; Lane, Sechrest, Reidel, Weldon, Kaszniak, & Schwartz, 1996). Related to alexithymia is the inability to regulate affect—in other words, our psychological capacity to modulate intense emotions such as sadness and anger. In fact, a central hallmark of complex trauma is co-related with the inability to regulate affect (Zlotnick, Mattia, Zimmerman, 2001; Schore, 2002, 2012).

The role of the right brain hemisphere has been increasingly implicated in affect regulation (Schore, 2012). Indeed, much of the contemporary literature in neurobiology and psychology have discussed the relationship between early relational trauma, right brain processing, and affect dysregulation (Schore, 2002, 2012; Rothschild, 2000; van der Kolk, 1994). Schore (2012) posits that the limbic system, composed of the amygdala, thalamus, and hypothalamus, mediates memory processing, survival behaviors, and emotional expression through the right brain hemisphere. This system is also known as the hypothalamic-pituitary-adrenal axis which is intimately connected with the limbic

system, and controls our stress responses, moods, and emotions; moreover, the hypothalamic-pituitary-adrenal axis is involved in the neurobiology of mood, anxiety, and bipolar disorders as well as post-traumatic stress and attention deficit disorders (Rothschild, 2000; Pariente, 2003).

The autonomic nervous system is also important to note here, as it is highly connected with the limbic system and waits for instruction from the limbic system to either have the body rest or prepare for effort/fighting (Rothschild, 2000). The sympathetic branch of the autonomic nervous system is aroused in states of effort and stress, and the parasympathetic branch is activated in states of rest and relaxation (Rothschild, 2000). Affect synchrony between mother and child results in secure attachment and influences the limbic system that processes emotions and memory through optimal stimulation of both the sympathetic and parasympathetic branches within the caregiver-child dyad (Schore, 2002; Rothschild, 2000). Accordingly, the autonomic nervous system is also influenced by the limbic system, and generates the somatic aspects of emotions; ultimately, all of these systems are directly affected by the quality of the attachment relationship between child and caregiver (Schore, 2002).

There is a significant interconnection between the autonomic nervous system and the right brain hemisphere (Schore, 2002). While the right brain hemisphere is dominant for attachment affect regulation and modulation of the stress response, it is also the locus of dissociation, withdrawal, avoidance, and central to self-concept as well as the ability to maintain a coherent sense of self (Schore, 2002). The right brain hemisphere also contains a vagal circuit of emotion regulation; thus, early childhood or relational trauma dysregulates and changes the developmental track of the autonomic nervous system and

the right brain hemisphere, influencing the individual's ability to process and regulate affect and emotions (Schore, 2012; Summerlin, 2013).

Complex trauma does not necessarily have to be physical. The caregiver's paucity of response and emotional neglect can also induce "traumatic states of enduring negative affect in the child" (Schore, 2002, p. 5). Such a cascade of events can alter right brain hemispheric functions due to biochemical changes in the developing brain. As a result, the child is left in a dysregulated psycho-biological state which is beyond his or her immature coping strategies. In short, negative affective states through the paucity of caregiver interactions induces dramatic biochemical (hormonal) changes in the developing right brain, leading to enduring, cumulative trauma (Schore, 2002).

It has been suggested that the stress hormones released in a traumatic environment can adversely affect the early development in cortical and subcortical limbic connections that control self regulation and attachment systems (Schore, 2002; Schore, 2012). The effects of relational trauma and defences evolved against such trauma become woven into the central structures of the personality over time (Schore, 2002; Herman, 1992). In the dysregulated implicit process, the right brain hemisphere is easily triggered in individuals with early relational trauma. One can surmise that this is why emotional or verbal abuse alone can also be counted in as aetiological agents in relational trauma.

Somaticized trauma—The body after trauma.

As we have seen from the literature, the role of the right brain hemisphere is critical for the development of our ability to identify and regulate our emotions. The right brain is also central for our somatic awareness. Rothschild (2000) states that "trauma is a psychophysical experience" (p. 5) and that its impact is equally felt by the body, giving

rise to the phenomenon of somatic memory. Thus, survivors of relational trauma hold an implicit memory of traumatic events both in the mind and body.

The right brain hemisphere and autonomic nervous system also appear to be the connecting point between one's emotional state and somatic awareness. Changes in one's bodily states are mediated by the autonomic nervous system and thus crucial for ongoing emotional experience (Schore, 2002). The right brain hemisphere is also dominant for somato-sensory processing, storing an internal model of the attachment relationship though bodily experiences and is encoded in one's implicit memory (Schore, 2012). More specifically, the right prefrontal cortex—with its connection to the hypothalamus of the limbic system—controls the somatic components of emotional states (Schore, 2002).

Early physical handling and misattunements from the caregiver are deeply remembered on a physiological level in later life, and such memories are manifested through disconnected physiological responses, emotions, and acting out behaviors (Schore, 2002; Herman, 1992). In other words, early relational trauma is expressed through right brain hemisphere deficits in the processing of socio-emotional and somatic information.

The bodily component of trauma is the least examined area on trauma research (Johnson, 2009; Schore, 2002; Rothschild, 2000). Central to the somatic aspect of trauma is the interoceptive system, the sensory nervous system that registers all of the body's internal stimuli. The interoceptive system is further comprised of one's proprioception and vestibular senses (Rothschild, 2000). One's proprioception is further comprised of the kinesthetic sense and the internal sense (Rothschild, 2000). While usually unconscious, the kinesthetic sense is crucial to one's physical functioning and also

important to implicit memory (Rothschild, 2000). The internal sense registers the state of the body's internal environment and suggested to be foundational for the concept of somatic markers (Rothschild, 2000; Damasio, 1994).

Internal stimuli are comprised of interoceptive information from the body and the basis of the corporeal self (Schore, 2002). Indeed, embodiment theories suggest that we derive our sense of self from the body; the body is viewed as an important locus of experience, especially though social interaction (Johnson 2009; Wiens, 2005). The quality of the caregiver's interaction can thus mold one's sense of self through the somatic realm. Further, the experience of emotions is influenced by bodily sensations that are evoked by responses to different stimuli (Damasio, 1994). Rothschild (2000) states:

Each of the senses discussed above is germane to the discussion of the somatic basis of memory in general and traumatic memory in particular. Our first impressions of an experience usually come from our senses—both exteroceptive and interoceptive. These impressions are not encoded as words, but as the somatic sensations they are: smells, sights, sounds, touches, tastes, movement, position, behavioral sequences, visceral reactions. (p. 44)

These emotions and sensations are then encoded into one's implicit memory which can be triggered when similar conditions are present, although their origin may not always be recalled.

The reported experience of trauma has been highly correlated with somatic dissociation, and it has been suggested that individuals with complex or relational trauma are missing the explicit information needed to derive meaning from disturbing somatic symptoms (Johnson, 2009; Nijenhuis, 2001; Scaer, 2001). Thus, one of the main goals of

through identifying these sensations and using language to name and describe them in a meaningful narrative (Rothschild, 2000). Relational trauma causes deficits in the right brain hemisphere in recognizing, processing and integrating external with internal stimuli (Schore, 2002). This cascade of events results in deficits of interoceptive awareness, as noted by Herbert (2011), who suggested a connection between interoceptive awareness with emotional awareness. The current research in trauma indicates the growing role of the body in mediating traumatic experiences (Johnson, 2009).

Somaticized trauma also extends beyond neurobiology. The felt sense of the traumatized individual expresses itself through persistent fear, constriction of movement, and a range of somatic complaints for which there are no words (Johnson, 2009). Yet their existence defines one's identity; the contemporary theories on embodiment and somatic psychology state that our bodies are a critical locus of experience that contributes to our sense of self (Hanna, 1970; Merleau-Ponty, 1962). Johnson (2009) states that "trauma is significantly mediated through the body and manifested in embodied experience" (p. 21). In her research findings, she discovered that women who suffered from traumatic experiences presented with vivid sensations of confusion, disruption and disorientation (embodied memory) as well as somatic withdrawal and alienation. Most significantly, however, is the positive effect of body-work for these survivors of trauma. Johnson (2009) states:

Somatic psychology relies on the internal felt sense of the body as the basis for working with and understanding lived human experience. In working with the body, somatic practitioners address not only the mechanical, physical body, but

also the engaged body—the one that feels and connect us with our emotions, sensations, memories, ideas, and beliefs. (p. 27)

M. Epstein (1995) also offers a complementary perspective on how meditative practices can repeat instances on trauma through the combination of silence and bodywork. The silence of meditative practice can bring the survivor of relational trauma to the state of dread and anxiety, but it is in the therapeutic or teacher relationship where healing can occur. Yoga, in particular, has emerged as a means of reconnecting with the body and developing a greater sense of engagement to our feelings, thoughts, and memories within the psyche.

The Psycho-spiritual Healing Potential of Yoga

In recent years, yoga has emerged as a modality that can address the various psychological issues due to its dual focus on both body and mind. We now turn to the psycho-spiritual healing potential of yoga, beginning first with classical psychoanalytic and Jungian literature on the relationship between mind and body. However, very little academic literature was available on the effects of Ashtanga yoga on the psyche. Thus, we finally explore the effects of general hatha yoga on the emotional regulation and body awareness, as well as its potential as a healing modality.

The connection between mind and body.

While traditional psychoanalytic perspectives have not specifically noted yoga as a factor in emotional development, the unique relationship between body and mind was recognized, albeit reluctantly (Bergemann, 2009). Freud's well-known notion of the psychosexual stages of development and the mother's breast facilitating the infant's initial ego development already hints at the important connection between body and the developing mind in traditional psychoanalytic theory (Klein, 1981; Freud, 1949). In fact,

Freud's (1949) initial vision of the body and mind had been articulated decades before the current realization of such an important connection:

The phenomena with which we were dealing do not belong to psychology alone; they have an organic and biological side as well, and accordingly in the course of our efforts . . . we have also made some important biological discoveries and have been able to avoid framing new biological hypotheses. (p. 81)

This statement would fit with Freud's philosophy that our minds are governed primarily by strong biological drives of sex and aggression, and as such, biology and psychology are intimately connected.

The body-ego was a term that Freud (1960) came up to describe our sense of self as related to the body. In this physical-mental apparatus, Freud states that "The ego is first and foremost a bodily ego; it is not merely a surface entity, but is itself the projection of a surface" (p. 19). Freud goes on to explain that both the lower and higher passions reside in the unconscious, but exert their influence on this body-ego:

If we come back once more to our scale of values, we shall have to say that not only what is lowest but also what is highest in the ego can be unconscious. It is as if we were thus supplied with a proof of what we have just asserted of the conscious ego: that it is first and foremost a body ego. (p. 21)

As mentioned previously, Freud makes numerous references to the body in the formation of ego consciousness, and that certain physical symptoms, such as hysteria or pain, have symbolic meaning (Jung, 1964, pp. 9-14). Perhaps the limitation of Freud's view is that, while he acknowledged the role of the body in the psyche, he also viewed the psyche reductively—it was influenced primarily by the bodily drives of sex and aggression.

The role of the physical environment and the body was emphasized in a number of Winnicott's works. The concept of holding comes from Winnicott (1960a) and has significant relevance to the role of the body, especially with this passage:

Holding includes especially the physical holding on the infant, which is a form of loving. It is perhaps the only way in which a mother can show the infant her love of it. There are those who can hold an infant and those who cannot; the latter quickly produce in the infant a sense of insecurity, and distressed crying. (p. 594) Winnicott goes on to elaborate that proper holding is crucially significant in establishing the baby's sense of self, its object relationships, as well as its experiences of gratification. It appears that Winnicott emphasizes a simple and often overlooked part of the caregiver-infant relationship—the bodily handling and general physical care of the infant.

Attentiveness to these somatic realms of experience lays the groundwork for healthy psychological development. And, only the body can inhabit the three dimensional and temporal relationships in time and space. Winnicott (1964) suggests that, in the normal maturational processes of the infant, bodily-based experiences are essential for mental development.

The notion of the holding environment and the body is further explored through the ideas of being, experiencing, and knowing within the therapeutic relationship (Khan, 1969). At this point, the proper "handling" of the transference can also translate to the physical aspects of experiencing, which Khan describes as:

A concomitant of the act of *experiencing* is that of *knowing*—that is, insight. Here I am trying to relate the function of the analytic setting in terms of "holding" to

being, and transference through object relationships to experiencing in the patient. (p. 385).

While it seems that Khan discusses the body less explicitly than Winnicott, his passage implies the essential role of somatic experiencing in the analytic setting and relationship. The individual experiences his or her being through the body. Concurrently with the somatic experiencing in the container of the transference relationship, the analyst can facilitate this change through less verbal interpretation rather than more. Similarly, M. Epstein (1995) stresses the necessity of "holding" in the interactive moments of silence between patient and analyst. Here, Epstein offers the argument that the patient is continuously accessing (through unconscious right brain communication) whether the analyst can hold these traumatic states so as to render the "ghosts that haunt patients into ancestors" (p. 200).

In more contemporary psychoanalytic thought, Michael Eigen (2011) notes again that the body is intimately involved in our emotional, affective responses to the world around us; furthermore, to ignore this relationship is to blind ourselves to the potential healing that can occur if we were to integrate the perspectives of mind and body. By the same token, Schore (2012) insists that the body is the very basis of human subjectivity, and that psychotherapy is also an inherently embodied process. Intersubjective transactions take place between mind and body, suggesting a connection between the domain of psychological and somatic arenas. Perhaps yoga can facilitate such connections in practitioners?

Additionally, Eigen (2011) suggests that the body is as much a part of the personal transformation as the mind is, and that the affective experiences of the patient

cannot be separated from the body. While there is no quantitative data to support his claim, Eigen draws from his personal reflections from case material and theory. His perspective in the role of the body is emphasized in the following statement:

There is smaller and larger mind, psychospiritual and spiritual reality. . . . If we were cognitive therapists, we might emphasize ways that ideas and attitudes, especially affective attitudes, shape experience-behavior. Ideas imprint body. As a psychoanalyst, I like to say that affective attitudes mould body and vice versa....Physical <-> Mental. When we penetrate either side, we find the other. (p. 59)

Eigen persuasively notes the reciprocal and important connection between the body and mind, which are crucial in the argument that yoga practice can also influence psychological functioning and development.

Jung and yoga.

While the classic psychoanalysts have not mentioned yoga specifically, they have made specific references to the importance of the body and physical environment in the process of change for the individual. By contrast, Jung's interest in yoga and other Eastern philosophies (such as Zen Buddhism) have been well-noted, and perhaps marked the distinction between traditional psychoanalytic and analytical psychological approaches to diversity and various cultures. In his autobiography, Jung (1961) describes turning to yoga practice to stabilize himself after the split with Freud, when the contents of his own unconscious psyche became too overwhelming for him to bear:

When I endured these assaults of the unconscious I had an unswerving conviction that I was obeying a higher will, and that feeling continued to uphold me until I had mastered the task.

I was frequently so wrought up that I had to do certain yoga exercises in order to hold my emotions in check. But since it was my purpose to know what was going on in myself, I would do these exercises only until I had calmed myself enough to resume my work with the unconscious. As soon as I had the feeling that I was myself again, I abandoned this restraint upon the emotions and allowed the images and inner voice to speak afresh. The Indian, on the other hand, does yoga exercises in order to obliterate completely the multitude of psychic content and thoughts. (p. 177)

Later in his autobiography, Jung made another reference to yoga, in seeing his own face in a yogi in seated meditation, and remarking that when this presence awoke, his own life on this world would end. It does seem that Jung's intuition, interest and knowledge of yoga and Buddhism is unparalleled especially in his particular era, when Western philosophy still held a great dominance. One may surmise that Jung's own account of yoga in his autobiography drew more attention to yoga philosophy due to the greater accessibility to general public, but it should be noted that Jung's appreciation for Eastern thought took root well before his autobiography. Jung (1958) gave his own definition of yoga in the following passage:

What, then, is yoga? The word means literally "yoking", i.e., the disciplining of the instinctual forces of the psyche, which in Sanskrit are called *kleshas*. The yoking aims at controlling these forces that fetter human beings to the world. The *kleshas* would correspond, in the language of St. Augustine, to *superbia* and *concupiscentia*. There are many different forms of yoga, but all of them pursue the same goal. Here I will only mention that besides the purely psychic exercises

there is also a form called *hatha yoga*, a sort of gymnastics consisting chiefly of breathing exercises and special body postures. In this lecture I have undertaken to describe a yoga text which allows a deep into the psychic processes of yoga. (p. 560, para. 912)

Jung understood these psychic processes to consist of an intense series of psychic exercises, through which one can wrest away from the delusions of ego consciousness responsible for our suffering and finally reach the state of blissful consciousness, or samadhi.

Yet for all of his enthusiasm for the potential that yoga has to offer, Jung has a very complex perspective about yoga practice for Westerners in a number of his writings. Primarily, Jung felt that the social and cultural factors influencing the Western psyche would present certain difficulties with the intrinsic goals of yogic practice, given the influence of Cartesian philosophy which has been so deeply entrenched into our civilization (Johnson, 2009). Jung (1958) notes his own apprehension in this passage:

The split in the Western mind therefore makes it impossible at the outset for the intentions of yoga to be realized in any adequate way. It becomes either a strictly religious matter, or else a kind of training like Pelmanism, breath-control, eurthythmics, etc., and not a trace is to be found of the unity and wholeness of nature which is characteristic of yoga. The Indian can forget neither the body nor the mind, while the European is always forgetting either the one or the other. (p. 533, para. 867)

Jung's statements about the difficulty of yoga practice among Westerners continue to cause debate. Richard Stein, a Jungian analyst practicing in San Francisco, offers an

interesting perspective on Jung's ambivalence toward Indian yoga. While Jung felt drawn to yoga and saw parallels between yogic philosophy and individuation, he was also bound by his own limitations and European perspectives. In particular, Jung's own childhood and adult experiences of non-being have had an influence on his own perception regarding yoga systems; Jung feared that the practice of yoga may result in "a hypertrophy of will and a further repression of the unconscious, which he considered to be the main source of neurosis in Westerners" (p. 71). Stein draws his ideas from an extensive analysis of Jung's autobiography and personal communications, considered within the historical context of his scholarly work.

Jungian analyst Judith Harris (2001) draws connections between Jung's ideas regarding individuation, which can also be experienced on a somatic level. Harris feels that bodywork such as yoga practice can also be a deep conduit to one's individuation process, something which she believes that Jung had acknowledged. As we have read before, yoga implies union. Jungian analysis involves the union of the opposites within ourselves, or at least one's ability to hold the opposites until there is the resolution and transformation of the opposites. As such, the practice of yoga (especially with Jungian analysis) can be deeply healing. Harris (2001) also notes that while there is acknowledgement of the psyche-body connection in the Jungian world, most wrongly assume that the body will follow after the psyche has been strengthened. Instead, both the body and mind must be equally addressed:

the body does not simply follow the progress of the psyche. It often has a "mind" of its own and needs to be treated accordingly. In my experience, the

simultaneous transformation of the body and psyche is only possible if both sides are worked on at the same time. (p. 19)

Such a statement is also congruent with the current psychoanalytic and neurobiological views that that body must be accounted for, especially with regard to relational trauma.

Harris (2001) also attempts to address Jung's apprehension of yoga practice among Westerners first by noting his cautionary statements. However, Harris interprets Jung's passages differently, stating that he would find certain yogic practices to be fit for the Western psyche:

We can see in Jung's writings that he did not actually advocate the practice of yoga for his patients as he understood yoga to be *only* a striving upward which he felt, and rightly so, to be dangerous. However, I feel that Jung explains what he means by this warning in a very clear way. We can extrapolate from that explanation that the yoga I am discussing here would not have been considered dangerous in his mind; in fact I believe he would rather have felt it to be the opposite. Grounding in order to bring freedom and suppleness into the upper body can only be extremely helpful, especially in working with people who have never before experienced grounding in their life and who do not live in their bodies. (p. 96).

Harris's perspective would be congruent with patients who have suffered complex trauma, as most find it difficult to connect with their feelings and bodies, and would require the grounding influence that yoga can offer. If there is only a striving upwards because of will of the ego, yoga can indeed be dangerous. Yet one can surmise that if yoga is practiced with the attitude of humility and a willingness to connect with the body,

perhaps Jung may be in more agreement for its compatibility among Westerners. In light of this awareness, we now turn to more contemporary and quantitative studies on yoga and the psyche to see what information they can offer.

The Effects of Yoga on Psychological Functioning and Trauma

Yoga continues to grow in popularity in the West, and it has grown as a treatment intervention for various psychological issues. Due to the increasing acceptance of yoga practice as a complementary or adjunct treatment, there has been considerable interest on the effects of yoga on various domains of psychological functioning. Numerous studies have shown that yoga can be an effective modality for the treatment of depression and anxiety (Shapiro, Cook, Davydov, Ottaviani, Leuchter, & Abrams, 2007; Pilkington, Kirkwood, Rampes, & Richardson, 2005; Woolery, Myers, Sternlieb, & Zeltzer, 2004). Li and Goldsmith (2012) explored the role of yoga in the treatment of anxiety and stress through a meta-analyses of prior experiments conducted to elucidate the effects of yoga on such parameters. A statistically significant number of trials indicated a significant decrease in stress/anxiety symptoms upon implementation of a yoga regimen. In addition to improvements in mood, anger levels, and anxiety, those who participated in yoga practice were found to have significant reduction in physiological markers such as low frequency heart rate variability (Shapiro et al., 2007). Woolery's study also showed an interesting correlation between body posture and mood improvement, hinting again at the significant connection between body and affect.

Given the important role of the body in mental health issues, many studies have examined the effect of yoga on eating disorders and body image. Dale et al. (2009) explore the role of yoga practice in female practitioners who suffer from eating disorders. The authors begin their argument by stating that traditional interventions (verbal and

pharmacological therapy) may overlook some key aspects of eating disorders, namely mood and body awareness. Their study attempted to explore whether yoga can be an effective adjunct to traditional treatments of eating disorders, and showed statistically significant improvements in mood, psychological adjustment, physical and emotional awareness, and eating disorder symptoms. The authors suggest that complementary modalities such as yoga can be effective in the treatment of mood and psychological functioning for females with history of eating disorders. While the limitations of the study included a small sample size and the short term nature of the intervention, it was relevant in respect to the role of yoga practice among female practitioners.

Dittman and Freedman (2009) also explored the effects of yoga practice among females with history of eating disorders. Their study examined how yoga practice may influence body awareness, body responsiveness, and spiritual beliefs among women with history of eating disorders. The authors found that female yoga practitioners had high scores on measures of body awareness, body responsiveness, and intuitive eating.

Improvements were also noted in self acceptance and body appreciation, and the results support the clinical application of yoga as an adjunctive therapy in eating disorder treatment.

Yoga has also been studied as a treatment for those who have suffered trauma. Studies have shown that yoga can be highly beneficial for individuals who have suffered various types of trauma (Mendelson, Greenberg, Dariotis, Gould, Rhoades, & Leaf, 2010; Lilly & Hedlund, 2010; Johnson, 2009; Rothenberg, 2004). Perhaps it is the absence of "talk-therapy" that mediates the effectiveness of yoga practice for traumatized populations who find verbal therapies particularly difficult (Longaker & Tornusciolo,

2003). Yoga practice had been shown to increase one's ability to build attachment, improve self regulation, and increase a sense of self among males who have suffered complex trauma (Longaker & Tornusciolo, 2003). Mendelson et al. (2010) found that youth in under-served, urban communities benefited from yoga practice, which enhanced their self-regulatory capacities. Lilly and Hedlund (2010) suggest that, while yoga can be highly effective in helping traumatized individuals increase their body awareness and self esteem, certain poses (especially those that focus on the pelvic area or heart center) can be highly triggering and counter-productive, especially for those who have suffered sexual abuse.

With regard to affect regulation, Gootjes and van Strien (2011) explored whether yogic meditative practices are associated with increased emotional regulation. To do this, the authors examined the possible differences in cognitive reappraisal between active practitioners and non-practicing controls. Participants were asked to view 40 pleasant, aversive or neutral color pictures, and then to reappraise the aversive pictures.

Neurophysiological correlates of cognitive reappraisal were measured in terms of event related potentials in brain wave activity. Reduced magnitude of event related potentials (neurophysiological response to aversive photos) were found in yogic practitioners and found to be sustained in later intervals, while this effect was less significant in the control group. The results suggest a relationship between yogic meditative practices and sustained emotional regulation. In terms of study limitations, the authors note it is still unclear whether such results indicate a direct causal effect on the yoga practice on cognitive reappraisal, or whether they can be attributed to participants' characteristics.

Also, the authors state that the study was short-term and it would be beneficial to see the results from a longitudinal study.

Bulut-Jakovljevic (2010) considers the possible contribution of yoga practice to the development of emotional competencies, namely self-awareness and self-control. The author operates on the premise that there is a connection between yoga practice and the development self-awareness, followed by self control. Through hermeneutic analysis of yogic texts, the author concludes that yoga practice can lead to the development of self-awareness, which then results in increased self control. The study was limited since the author's conclusions were mainly theoretical, and conclusions were derived from exploration of general material. However, it did provide some helpful information with regard to the effects of yoga on affective regulation.

Mind-body approaches such as yoga practice was associated with increased body awareness, positive affect, and decreased negative affect in various populations (Mehling et al., 2011; Impett et al., 2006). The focus on both mind and body has the potential to enhance the process of embodiment—an awareness of and responsiveness to somatic sensations. According to Mehling (2011):

Patients described a shift in awareness of body sensations as part of the process of engaging in the practice. . . . This shift in awareness recounted by the patients corresponds to the practitioners' description of leading their patients to notice, and to differentiate and discern among their bodily sensations, cognitions, and emotions. (p. 8, doi:10.1186/1747-5341-6-6)

The refined inner awareness of bodily signals contributes to emotional experience as well as the ability to identify and tolerate negative emotions (Mehling et al., 2011; Adhia,

Nagendra, & Mahadevan, 2010; Impett, 2006; Critchley, Wiens, Rotshstein, Ohman, & Dolan, 2004). Moreover, embodiment may be the connecting point between yoga practice and improved psychological functioning through the combination of affective regulation and somatic awareness.

Acebedo (2012) provides one of the few works exploring the psychological effects specific to Ashtanga yoga. The author offers a phenomenological analysis of prior texts and interviews to examine this process within the practitioner, on the premise that Ashtanga yoga has the potential to facilitate transformational process within the practitioner through the use of phenomenological data and participant interviews. While the study was limited due to a small sample size, Acebedo concluded that Ashtanga vinyasa yoga practice can produce transformational experiences within the body and mind which parallel Merleau-Ponty's (1962) concept of the pre-reflective, living body.

In summary, while there are numerous studies on the impact of yoga on psychological functioning, there are very few which focus on the psychological impact of Ashtanga yoga, much less among female practitioners. The limited literature suggests a need for more studies which can focus on the effects of Ashtanga yoga on the psyche, particularly on the areas of affect regulation and body awareness.

Transformative Dreams and Images

Thus far, we have discussed the increasingly crucial role of the right brain in the formation of the implicit self, affect regulation, and the relationship to the body. We have also examined the practice of yoga in the treatment of various psychological issues. Here, we explore another aspect of right brain functioning—dreams and imagery. Jung's notion of imagery and active imagination are also cogent points here, as such functions are believed to fall within the right brain hemisphere. Yet, the numinous energy of dreams

resides far beyond neurobiology. Jungians view dreams as messages from the psyche that symbolize our internal process through vivid imagery, and occupy the middle place between the outer and inner worlds (Whitmont & Perreira, 1989: Hillman, 1979; Kalsched, 2013). Jungian analyst Donald Kalsched merges ideas from psychoanalytic schools of thought and current affective neuroscience in his explanation of the self-care system that develops after trauma.

Kalsched (2013) defines trauma as any experience that causes the child unbearable psychic pain or anxiety. The psyche responds inwardly to overwhelming life events; in the face of unbearable trauma, dissociation occurs "to prevent annihilation of the unit self" (p. 11) and the intolerable affect is relegated elsewhere to different parts of the mind and body. Kalsched (2013) suggests that the trauma continues to live in the unconscious realm, especially dreams:

The self divisions have survival value because they save a part of the child's innocence and aliveness by splitting it off from the rest of the personality, preserving it in the unconscious for possible future growth and surrounding it with implicit narrative that is eventually made explicit in dreams. (p. 11)

Dreams can reveal inner object images which symbolize catastrophic outer events which are too much for the conscious ego to hold, and accordingly dreams can be a way for us to process our trauma, if we are receptive to the messages they carry (Kalsched, 1996, 2013). As such, the power of dreams and imagery can also carry significant healing potential. Therefore, it would be worthwhile to explore such phenomena in survivors of relational trauma.

With regard to dreams and the unconscious, it would be necessary to acknowledge Freud as the pioneer who outlined the unique topology of the mind. The id, ego, and superego are now terms readily understood by lay-people and scholars alike. Freud was the first to carry the dream up to its significance in revealing the unconscious contents of the psyche. Much less understood are the origin and function of dreams. Yet, their mystery and numinous power continue to intrigue many of us, even those who are prone to disregard dreams as useless. While Freud described dreams as the "royal road" to the unconscious, he also held a reductive view of dreams—as a "seething caldron" of repressed impulses, by-products of wish-fulfillment, displacement, and of our own erotic nature (Freud, 1937).

As we now know, Jung had collaborated with Freud for several years due to their shared interest in the contents of the unconscious, and ultimately, their models of the mind both held the common ground that the psyche is ultimately faced with the notion of lying and dying (Summerlin, 2013). However, Jung differed from Freud in his view that the unconscious—and thus dreams—extends beyond mere impulses of sex and aggression, and also served a prospective nature. That is to say, dreams are not only a byproduct of repressed impulses and past trauma, but also the manifestation of the psyche which also has a synthetic and future-forward nature (Sedgewick, 2001; Jung, 1964). Jung (1964) himself explained his view of the psyche and dreams as such:

The discovery that the unconscious is no mere depository of the past, but is also full of germs of future psychic situations and ideas, lead me to own new approach to psychology. A great deal of controversial discussion has arisen round this point. But it is a fact that, in addition to memories from a long-distant conscious

past, completely new thoughts and creative ideas can also present themselves from the unconscious—thoughts and ideas that have never been conscious before. They grow up from the dark depths of the mind like a lotus and form a most important part of the subliminal psyche. (p. 25)

This great difference in the function of the unconscious psyche, among others, ultimately led to the infamous split between Jung and Freud. However, the literature on the phenomenology of dreams and confrontation with the unconscious strongly supports Jung's view, and that such a view can also hold relevance with regard to survivors of relational trauma (Kalsched, 1996, 2013; Knox, 1999).

In recent times, dreams still hold a privilege in psychoanalytic schools of thought as they are believed to lead not just toward the unconscious but also to memories of actual traumatic events. De Saussure (1982) suggested that recall of the dream can be helpful while the original trauma has been forgotten. Brenneis (1994) also examined the efficacy of dreams in the reconstruction of trauma. While actual traumatic events could be reconstructed with validity from dreams, Brenneis concluded that such reconstructions depended more on the skill of the analytic clinician than any systematic application of dream interpretation.

Specific images and the affective content of dreams for trauma survivors are also significant. Hartmann, E., Zborowski, M., Rosen, R., & Grace, N. (2001) introduce the notion of contextualizing images (CI) in dreams—a powerful central image that provides context for the dominant affect within the dream. CI is a construct to represent the intensity of the image and can be scored. Trauma survivors had statistically significant differences in the CI score compared to a control group, and emotion rates as

contextualized tended toward more negative emotions; especially pronounced were the affects involving fear/terror and helplessness vulnerability (Hartmann et al., 2001). Phelps, Forbes, Hopwood, & Creamer (2011) found similar results among PTSD survivors. Their dreams often consisted of a repetitive replay of the traumatic event, complete with cognitive, affective, physical, and behavioral responses. Fear was the most common affect, with rich sensory detail and somatic involvement. Phelps et al. (2011) suggest that dream affects are consistent with emotions that may have been suppressed at the time of trauma.

For a survivor of relational trauma, multiple facets need to be addressed within the analytic dyad. Kalsched (2003) suggests that ego development—a necessary part of trauma recovery—is a numinous process. Drawing on Winnicott's concept of the transitional space and its equivalent to Jung's notion of the transcendent function, trauma forecloses the transitional space or transcendent function, and destroys our capacity for symbolic thinking (Kalsched, 2003). Further, what has been damaged on a relational level must be repaired in the same way—through affectively focused treatment within the analyst-client relationship (Kalsched, 2013).

There is also an archetypal dimension to trauma which, as we know, is revealed through dreams and images. Kalsched (2013) terms this quality as the "mytho-poetic" function of the unconscious, which Jung also first recognized in his work as a young psychiatrist at the Burgholzi Hospital. Our ability to hold and contain dream images, along with their symbolic meaning in the context of a healing relationship, can bridge the gap between the ego and unconscious (Kalsched, 2003). Within the slow process of relational repair and recognition of archetypal forces revealed through dreams and

images, the constricting qualities of the self-care system can dissipate for the survivor of relational trauma.

Finally, we examine the potential relationship between dreaming and meditative practices such as yoga. Faber et al. (1978) suggests that such a relationship can exist, and that Jung also noted the connection between meditative techniques and the compensatory function of dreams. While Faber's study did not establish the causal relationship between meditation and dreams, they found that the dreams of meditators contained significantly more elements of a transpersonal and archetypal nature than those who did not meditate. Such images are found to be both spontaneous and autonomous, and reminiscent of Jung's account of archetypal images encountered in active imagination. Thus, it is possible that meditation may facilitate a greater receptivity to inner experience.

Moreover, Faber et al. (1978) address the phenomena of imagery in relation to dreams and meditation practice, drawing on the connection to Jung's idea of active imagination:

[A] pivotal role is ascribed to Jung's technique of active imagination in the historical development of this movement. A highly relaxed physiological state is considered necessary by many of the psychotherapies using imagery techniques. Experimental evidence indicates that meditative techniques induce a state of relaxation, as might be predicted from the steps outlined by Patanjali which are designed to reduce proprioceptive input by means of yogic postures (asanas), to reduce breathing rate to approximate that experienced during sleep (pranayama) and to reduce sensory stimulation of the brain (pratyahara) whilst nevertheless maintaining a state of alert awareness. (p. 18)

It is interesting to note that Faber et al. drew references to yoga as well as to the notion of somatic awareness (proprioceptive input), and how meditative practices can facilitate the process of active imagination with such components in place.

Dreams are a phenomenological process which is difficult to quantify or contain. They remain mysteries, and perhaps it is best that they are so. As such, there is little literature to demonstrate the efficacy of dreams to various psychological conditions. Yet, there is literature to evince the numinous power of dreams. Whitmont and Perreira (1989) state that "the dream itself is a natural and necessary expression of life" (p. 2). Through vivid imagery, dreams give voice to the unconscious and our task is to understand the dreams in order to bring an alternative viewpoint to the unconscious (Edinger, 1972; Hillman, 1979; Sedgwick, 2001; Kalsched, 2003). This task would be highly relevant to the dreams and images of those who have suffered various forms of trauma, particularly relational trauma, as well as their recovery through body-based meditative practices such as yoga (Faber, Saayman, & Touyz, 1978; De Saussure, 1981; Brenneis, 1994; Hartmann et al., 2001; Kalsched, 2003; Brown, 2006; Phelps et al., 2011).

Chapter 3: Research Methodology and Procedures

The methods chapter begins by first outlining general approaches to research in the social sciences, followed by a detailed description of the research methodology that will be used in this investigation. An overview of the participant population in the study will be discussed next. Third, a description of the procedures and materials used to collect and measure the data will follow. Analysis of the data and study limitations will also be explored, and ending with a discussion of the ethical issues related to the study.

Research Approach

Research is essentially a form of inquiry, though the approaches to such an inquiry may differ greatly (Coppin & Nelson, 2005; Creswell, 2009). One's method of inquiry is largely dictated by one's philosophical stance as well as what the researcher wishes to examine (Creswell, 2009). Research based on the social sciences typically falls within three types: quantitative, qualitative, and mixed methods (Creswell, 2009).

The most common form of research inquiry is the scientific, quantitative approach, and such a design is generally influenced by a post-positivistic worldview, focusing on determining causal relationships between variables and outcomes (Creswell, 2009). According to Creswell (2009), quantitative approaches typically would employ true experimental designs or non-experimental designs, such as surveys. Moreover, the research plays an impartial part of this investigative process, drawing heavily upon the results of an empirical and scientific methods to draw conclusions on the initial set of hypotheses. An experimental approach would attempt to examine "whether a specific treatment influences an outcome" while survey research designs can provide a "numeric description of trends, attitudes, or opinions of a population" (p. 12).

On the other end of the continuum, qualitative approaches differ in that the researcher is not an impartial but significant part of the research process and a key instrument to data collection (Creswell, 2007). Typically using a constructivist or participatory worldview as a philosophical stance, the researcher explores meaning that individuals or groups associate to a particular issue in qualitative inquiry. Moreover, the qualitative researcher considers his or her own subjectivity as well as the participants in a co-created reality (Creswell, 2009; Romanyshyn, 2007). Reflective self-examination of the researcher's own subjectivity is then an integral part of the process, with focus given to phenomenological, narrative, or hermeneutic points of view (Romanyshyn, 2007).

Less common is the mixed methods approach to research, which began when Campbell and Fisk used multiple methods to study the validity of psychological traits (Creswell, 2009). As can be guessed from the term, mixed methods uses both quantitative and qualitative tools to gather data. Mixed methods can typically be organized as a combination of survey (quantitative) with observations and interviews (qualitative).

Often, mixed methods is informed by a pragmatic worldview, meaning that the researcher is not committed to any particular system of philosophy, but instead is open to multiple methods and different worldviews (Creswell, 2009).

Research Methodology

Because the use of either quantitative or qualitative methods feels incomplete in addressing the complexity of the problems encountered in relational trauma, this study will employ a mixed methods approach. Relational trauma in of itself is a phenomenon and construct that can be quantified and generalized, so a survey approach would be suitable. However, the subjective experiences of transformation and the phenomena of dreams and imagery are much harder to quantify in a tight experimental or even a survey

design. Thus, a qualitative approach is deemed ideal in extracting all the relevant information in this aspect of experience.

Given the previous argument, this researcher intends to conduct a mixed-methods consisting of quantitative and phenomenologically-based inquiry into the participants' experiences of Ashtanga yoga practice among survivors of trauma. In particular, a survey questionnaire will be used to first gather quantitative data on history of complex trauma among female Ashtanga yoga practitioner. Another questionnaire will be developed by this researcher to be administered along with CTQ to collect relevant information on the participants' yoga practices and other demographic information. Factual information such as age, profession, educational level and other demographic factors as well as the frequency and length of time spent in Ashtanga practice will be gathered.

In the second part of the study, the essence and emergent themes associated with Ashtanga yoga practice will be explored from personal narrative accounts of at least several participants from the initial pool of survey respondents, with particular attention given to affect regulation and somatic awareness. Interviews conducted with the participants would be based on a semi-structured, researcher-developed questionnaire. Participants would also be invited to share their own thoughts, emotions, and fantasy material in written form that would be then be submitted to the researcher.

Participants.

Participants in the study will be female Ashtanga yoga practitioners. The intent is to recruit a sample of at least 20-25 participants to take a survey questionnaire on complex trauma. From this initial sample, five to seven practitioners who are able to articulate their personal experiences of their practice will be selected. Inclusionary criteria will be the following: practitioners who have maintained a steady Ashtanga yoga

practice (defined by at least 1-2 days a week for at least 1 year). Participants will be limited to those of adult age (20-69 years of age) and be of female gender.

Materials.

The instrument used in this study will be the short form version Childhood
Trauma Questionnaire (CTQ) developed by Bernstein and Fink originally in 1998. The
original instrument had 70 items which assessed for various aspects of abuse and neglect
in childhood. The shortened version CTQ is a 28-item retrospective self-report and can be
completed in 5 minutes by those with a 6th grade reading level (Bernstein et al, 2003).
There are five subscales in all, with three assessing abuse (Emotional, Physical, and
Sexual), and two assessing for neglect (Emotional and Physical). Additionally, there is
also a three-item Minimization/Denial Subscale to address for respondents' potential
tendency to minimize their prior abuse/neglect histories. The short form CTQ has been
shown to be good overall reliability (stability coefficients near .80) and validity
(Bernstein & Fink, 1998; Bernstein et al., 2003) across various populations.

Numerous studies have utilized the short form CTQ with fair to good results (Aslan & Alparslan, 1999; Thombs, Lewis, Bernstein, Medrano, & Hatch, 2007). Childhood trauma was found to be statistically significant among those who were found to be diagnosed with personality disorders (Zlotnick et al., 2001; Beirer et al., 2004; Lee, Geracioti, Kasckow, & Coccaro, 2005). High CTQ scores were also positively correlated with high levels of self-injury, obsessive-compulsive disorder, anxiety, depression, and stress hormones (Bernet & Stein, 1999; Lee et al., 2005; Lochner et al., 2002; Şar, Akyüz, Kundakçı, Kızıltan, & Doğan, 2004; Paivio & McCullough, 2004; Yehuda, Halligan, & Grossman., 2001).

Research Procedures.

Participants will be recruited using various methods. A flyer (Appendix A) requesting participant involvement will be posted to various Ashtanga yoga studios in the San Diego and Orange County regions. Additionally, participants will be invited through email message posted to an online social media group (Facebook) that includes Ashtanga yoga practitioners in the mentioned catchment areas.

Participants will take the survey in-person at the researcher's private practice office or at a private location convenient to the participant. Before completing the survey, participants will be shown the Informed Consent Form (Appendix B), and asked to read and complete the form. Participants would not be able to complete the survey until they have read and agreed to the terms in the Informed Consent. Completion of the survey is estimated to take five to ten minutes.

Demographic information will also be collected by the researcher-developed questionnaire (Appendix C) on the following: length and frequency of yoga practice, age, marital status, educational level, and employment. Upon completion of the CTQ survey and questionnaire, participants will be randomly invited for an interview. A phone, office or home visit will be scheduled with the participant, with the interview lasting no more than 60 minutes. During the interview, a semi-structured interview questionnaire (Appendix D) will be used with participants during the interviews. Interviews will be documented using audio recordings as well as notes taken during session.

In the quantitative portion of the study, the responses of the participants will be analyzed to provide descriptive demographic data, as well as to screen for potential interview candidates. Survey participants who scored at least a moderate level of trauma in at least one of the subscales in the CTQ will be invited to an interview.

For the qualitative portion of the study, data analysis and representation will consist of the following steps: data managing (creating and organizing files for data); reading and memoing (reading through transcribed text, making preliminary notes, forming initial codes); description (describing personal experiences through epoche and the essence of the phenomenon); classifying (developing significant statements and grouping statements into meaning units. Finally, data representation will involve the narration of the essence of the experience through tables, figures, and/or discussion (Creswell, 2007).

Ethical Concerns.

The study will be performed in concordance with university ethical and APA guidelines. Individuals will be informed of their freedom to terminate their participation at any point of the study without negative repercussions. Confidentiality of sensitive health information will be observed by protection of digital, audio, and written data in secured files; additionally, participants who completed the surveys and/or interviews will be identified by an assigned case number or a pseudonym.

Issues of potential harm include additional stress imposed upon participants due to the need for completion of surveys and interviews at set timelines. Interview questions may trigger psychological issues with more vulnerable participants, especially if questions are centered on painful or traumatic topics. Interviews with participants may also identify those who are at risk of severe depression or self harm; in such cases, participants will be referred to the appropriate agency or provider.

Limitations and Delimitations of the Study

It is hoped that this research project would contribute some valuable information on body-based practices, such as yoga, on affect regulation and somatic awareness among survivors of relational trauma. However, the author is also aware of some of the initial delimitations and limitations of the study.

One of the parameters placed on this investigation is to study only female participants. This was done as the psychobiology of men and women are different, and therefore may have great variations in their responses to trauma or trauma treatment. Second, only people who practiced Ashtanga yoga were selected, due to the specific qualities of this particular practice and because so many other forms of yoga exist. This researcher chose only Ashtanga yoga to narrow the focus of the study. Last, while the term "complex trauma" could also encompass single-time events (such as natural disaster or rape), the scope of the study was narrowed to include only the subset of relational trauma within the child and caregiver system.

A significant limitation of this research design included no control or test for participants' preexisting levels of affect regulation or somatic awareness prior to the incorporation of their yoga practice. This limitation could only have been resolved by a pre-/post-test experimental design where participants would have been put through a program of yoga practice and tested for differences before and after their participation in the program. Another limitation of the research design was that only one instrument (CTQ short form) will be used to explore early traumatic experiences. Thus, practitioners' accounts can be potentially retrospective in nature, and be subject to respondent bias. Moreover, additional measures could have been taken to account for affect regulation and somatic awareness in a more quantitative manner and provided more empirical data on these two variables.

Organization of the Study

The remainder of this dissertation proposal consists of the presentation of findings from the study, a discussion of the significance of the findings and the methodology utilized, a discussion of limitations of the research, implications for future research in the field, and a concluding summary.

Chapter 4

Results

Presentation of Findings

This chapter presents and summarizes quantitative and qualitative findings of the research study. The first section focuses on the quantitative data and is organized in the following manner: methods used to screen the data are discussed. Then the sample population is described, along with demographic data presented in tabular fashion. The second section will present the qualitative data, as well as descriptive quantitative information which had been gathered from the surveys completed by all of the study participants. Individual summaries obtained from the interviews of the study participants, are presented, as well as explore the common themes which emerged from the interviews.

Quantitative data.

Data screening.

As discussed previously, data were collected from the CTQ surveys and a supplemental questionnaire which had been completed by participants. The data were subsequently scored and screened by this researcher for accuracy and completeness. Two surveys were discarded as the respondents had not completed all of the questions. Additionally, a cut-off point was used to screen potential participants for qualitative interviews. For example, those who scored at least moderate to severe on one of the subscales of childhood trauma were invited to participate in an interview.

Description of sample population.

A summary of the sample population will be presented here, and the full descriptive data can be found in Appendix E. The total participants numbered 31. The majority of the participants (38.7%) were between 40-49 years of age. Most of the

participants reported having completed college (35.5%) while the others described themselves as having completed some college (22.7%) or a post-graduate degree (32.4% with masters and doctoral degrees combined). Nearly half of the participants described their marital status as single (45.2%) followed by married (38.7%), divorced (12.9%) and in a domestic partnership (3.2%). In terms of ethnicity, 3.2% described themselves as African-American, 16% were Asian, and 83.8% were Caucasian.

Participant responses to CTQ domains of abuse and neglect

Survey responses to the five subscales of childhood trauma can be found in Appendix F. As discussed before, the CTQ measures five common domains of abuse or neglect: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. With regard to the first domain of emotional abuse, only 3.2% reported that they had none to minimal emotional abuse. Nearly 30 percent (29.1%) reported having experienced low to moderate levels of emotional abuse, and only 3.2% reported moderate to severe levels of emotional abuse. Interestingly, more than half of the entire sample (20 participants out of 31) reported severe to extreme levels experienced in childhood (64.5%). By contrast, the majority of participants reported none to minimal physical abuse (61.3%), 12.9% reported low to moderate levels, and 9.7% reported moderate to severe levels of physical abuse. Severe to extreme level of physical abuse were reported by 16.1% of the participants.

In the domain of sexual abuse, over half (51.6%) reported no exposure. Low to moderate levels were reported by 6.5% of the participants. Nearly 13 percent (12.9%) reported experiencing moderate to severe levels of sexual abuse, and 29.1% reported experiencing severe to extreme levels of sexual abuse.

For the subscale of emotional neglect, only 16.2% reported none to minimal levels. The majority of participants (35.4%) reported low to moderate levels, 25.8% experienced moderate to severe levels, and 22.6% experienced severe to extreme levels of emotional neglect.

In the final domain of physical neglect, the majority (51.6%) reported none to minimal levels of exposure. Over 16% (16.1%) reported low to moderate levels of exposure, and 6.5% reported moderate to severe exposure to physical neglect. Severe to extreme levels of physical neglect were reported by 25.8% of the survey participants.

Overall, such results again show the higher prevalence of the more severe levels of emotional neglect and or abuse experienced by the survey participants. Examples of emotional abuse or neglect would include a sense of isolation within the family, or to the extent of feeling "hated" by someone in the family. Emotional abuse and neglect could also involve being called names within the family; certainly such examples are not inclusive of emotional abuse, but in this discussion they serve to clarify some of the experiences that the survey participants have identified as their own. Participant experiences of emotional and neglect were measured in the CTQ by the some of the following questions:

- 3. People in my family called me things like "stupid", "lazy", or "ugly."
- 5. There was someone in my family who helped me feel that I was important or special.
- 7. I felt loved.
- 13. People in my family looked out for each other.
- 18. I felt that someone in my family hated me.

By contrast, the more severe levels of physical and sexual abuse were less common, as indicated by the lower percentages shown in the CTQ survey. It is easier to conceptualize examples of sexual or physical maltreatment as such phenomena are more tangible and concrete. Questions used to measure participants' experiences of sexual abuse or physical abuse/neglect included the following:

- 1. I didn't have enough to eat.
- 6. I had to wear dirty clothes.
- 9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.
- 20. Someone tried to touch me in a sexual way, or tried to make me touch them.
- 21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them.

Again, these numbers emphasize the ubiquitous nature of emotional maltreatment within this sample of survey participants, despite the fact that it is less often the focal point in studies of childhood abuse and neglect, and perhaps a harder form of trauma to measure or quantify (Bernstein & Fink, 1998).

Participant responses to supplemental questionnaire on yoga practice

With regard to practice, the majority of participants (54.8%) reported practicing 5 to 6 days a week (the recommended frequency in Ashtanga yoga practice). The remainder reported practicing 3 to 4 days a week (41.9%) and 3.2% reported practicing 1 to 2 days a week. Most of the participants (45.2%) reported having practiced Ashtanga yoga for 1 to 2 years, 29% reported practicing for 3 to 5 years, 9.7% have been practicing for 6 to 10 years, and 16.1% reported having practiced for over 10 years.

In regard to whether yoga practice helped with emotions, a large majority of participants (90.3%) reported that yoga practice helped them "a lot". The remainder reported that yoga practice helped with emotions "a little bit" (3.2%) and "somewhat" (6.2%). In terms of yoga practice helping with body awareness, a large majority (96.8%) stated that practice helped them "a lot," while only 3.2% reported that yoga practice helped them "somewhat."

The high percentage of participants who found that yoga practice helped with regulating emotions and improving body awareness further supported the decision to hold qualitative interviews to explore practitioner's experiences in greater detail. Such data also resonated with my own personal experience where yoga practice helped me to face and acknowledge the darker emotions or memories that would emerge. In my own experience, the structure and consistency of Ashtanga yoga practice, combined with learning from a trusted teacher, served as a powerful container for difficult emotions which would sometimes arise.

In the beginning, I was more focused on the postures themselves; however, as my practice progressed, maintaining evenness of breath through difficult postures became (and remains) the center of my focus. At the same time, I maintained an acute awareness of my body, within and outside of practice; sometimes my own awareness of my physical state alerted me to an emotional state of which I had been unaware. With this change, it became easier to manage feelings such as anger and anxiety as they arose in practice; more importantly, this ease extended to life outside of practice. Thus, I was curious as to whether survey participants' accounts of improved emotional regulation and body

awareness correlated with their own yoga practices, and more importantly, how they internally experienced this process.

Qualitative data.

In this section, a brief description of the interview participants will be presented, along with the common themes which emerged from the interviews. Individual summaries of the six participants will also be included, with regard to their practice and their experiences with emotional regulation and body awareness.

Description of the interview participants

A summary of the interview participants will be described in this section, and the full descriptive data can be found in Table 1.1. As discussed earlier, the CTQ was used to screen for participants who scored at least moderate levels in one of the subscale of abuse or neglect in the CTQ. A total of six participants shared their experiences of their histories of abuse/neglect, and how yoga practice helped them to manage their emotions as well as to improve their body awareness.

A total of six survey respondents offered personal information regarding their lived experience of yoga practice, and how this practice helped them to come to terms with their histories of childhood abuse/neglect, as well as improve their emotional regulation and body awareness. As can be seen in Table 1.1, all of the interview participants scored at least moderate to severe levels of abuse or neglect in at least one of the CTQ subscales. Five reported severe to extreme exposure to neglect or abuse in at least one of the CTQ subscales, and one participant scored severe to extreme in all five subscales of abuse or neglect.

Table 1.1CTQ Profiles of Interview Participants

	Emotional Abuse	Physical Abuse	Sexual Abuse	Emotional Neglect	Physical Neglect
#1	20 (severe-extreme)	16 (severe- extreme)	16 (severe- extreme)	18 (severe-extreme)	14 (severe- extreme)
#2	13 (moderate- severe)	5 (none- minimal)	5 (none)	12 (low- moderate)	6 (none- minimal)
#3	18 (severe- extreme)	17 (severe- extreme)	5 (none)	10 (low- moderate)	14 (severe- extreme)
#4	17 (severe- extreme)	7 (none- minimal)	6 (low- moderate)	16 (moderate- severe)	6 (none- minimal)
#5	9 (low- moderate)	7 (none- minimal)	5 (none)	16 (moderate- severe)	16 (severe- extreme)
#6	22 (severe- extreme)	13 (severe- extreme)	21 (severe-extreme)	16 (moderate- severe)	13 (severe- extreme)

As the interviews were conducted, common themes were noted to emerge from the participants' lived experiences, and a full description is presented in Table 1.2. Finally, individual summaries of the participants are presented.

Table 1.2 Common Themes in Practice/Participant Comments

Theme	Interview Excerpts
Importance of Breath	"The breathing has been really good if
	I'm feeling stressed, I just go back to the
	breathing"

Back and Hips as Places that Bring up	"Baddha Konasana it's super hard for
Fear	me, and I kind of dread it it's one of
	those poses (a hip opener) where I don't
	know if I allowed it to, it would bring up
	more."
	"You are going deep into the back, the
	hips, belly, places where we hold a lot of
	stress, and memories, and all that sort of
	stuff."
Structure of Practice	"The repetition of the postures give
	security. The strict procedure gives a safe
	feeling."
	"When you are doing yoga in a studio,
	and you're in a pose, you can't run away.
	And I guess the thing that yoga has taught
	me is to face things that come up."
Importance of Relationship with the	"In a practice with a teacher, you never
Teacher	know which asana comes next and what is
	suddenly happening with you, and what
	inner story comes up."
	"When they do help you, you become
	more awareI love how they give you
	those cues so you don't hurt yourself."

Emergence of Difficult	"I'd be worried, stressed about different
Emotions/Memories in Practice	things and then in Intermediate, [there
	was] a lot of anger!"
	"I think there was the fear response
	anger. Sadness sometimes."
	"With yoga what it triggers sometimes is
	the feelings, the response of inadequacy,
	anxiety."
Practice as a Container for Difficult	"Ashtanga yoga becomes an allegory for
Emotions	life when one overcomes difficult
	moments in yoga practice, one also gains
	confidence to weather the difficult moments
	life."
	"Yoga practice gets me into this
	meditative state where you're able to
	confront the negative things that come
	up."
	"It (yoga practice) definitely helps me
	observe, and kind of in a sense, it helps
	me forgive."
	"There was anger and then when I
	practiced, I would feel it but then it would
	dissolve"

	"I got overwhelmed in verbal therapy, but
	yoga gave me a way of working through
	some really painful emotions."
Dreams/ Active Imagery	"I dream about practice and then I would
	dream about these different poses."
	"I've had dreams about yoga I'm
	usually anxious in the dream, about being
	able to make it in time to practice."

Individual summaries.

Participant #1(P1).

P1 is a 32-year-old married Filipina and mother of two boys. A relatively new practitioner, P1 has been practicing Ashtanga yoga for about two years, about three to four times a week. In our interview, P1 shared that she had an extensive history of physical, verbal, and sexual abuse, primarily from her father, while her mother was emotionally absent. "Our parents were divorced, and my dad was physically and verbally abusive . . . he loved the bachelor's life, and so he'd have all these parties, there'd be all these people around while we stayed with him. My mom was not there, so . . . when I'm practicing . . . something would pop in my head [about this]." The combination of physical, emotional and sexual maltreatment and abuse ultimately made it very difficult for P1 to give voice to her needs. She shared that her father often complained "that I was too loud," and thus for years, she learned to silence her own needs.

As evident in her prior statement, memories of trauma do arise in practice, but P1 states that the practice itself helps her to contain the emotions. "There's this side of my head that's like, OK, maybe this is why, or I might just go back to the breathing. I'm like, OK, I shouldn't be thinking about that! Then I really try to focus on my breath counts!" (In Ashtanga yoga, one counts five breaths per pose.) More negativity arises when she skips practice: "I notice that when I don't practice, I'm more crabby and grouchy." With consistent practice a priority, P1 shares that she feels not just physically strong but mentally strong enough to contain negative feelings, especially anger. P1 describes about the transformation of anger as she goes through practice, along with the development of compassion and the observing mind that comes from tolerating the intensity of "scary" postures like Kapotasana, one of the key postures in the Intermediate Series. In Figure 1

below, Kapotasana is an extreme backbend that involves bending backward from bent knees, and being able to catch one's feet (ideally, the heels). It involves the ability to open up the chest as well as the hips and shoulders, and this can be a very difficult process for those who have trouble with these areas of the body.



Figure 1. Kapotasana. Pigeon Posture in the Intermediate Series. Photo by author.

Kapotasana is also a "gateway" posture in Ashtanga yoga, meaning that one needs to execute this pose correctly before being able to advance into the next posture. The intensity of the posture can be overwhelming. P1 states, "It's not exactly pain, but it is just so intense, it feels so uncomfortable and awkward . . . and you try to breathe through it . . . see, just thinking about it makes me stiffen a bit! (laughing) but it's one of those things that once you get through it, you're done." For P1, the ability to tolerate and

survive the intense postures in yoga practice has been instrumental to a better sense of emotional stability and self-acceptance over time.

P1 expresses her sense of wonder toward the practice, feels positive energy from yoga and from everyone around her. "When you go to shala, it's like it's filled with this really positive energy from everyone else who is practicing there. It's different when I practice at home, at my house. For me, it's like I have to go there [the shala] I just feel so much better." As P1 describes this experience, her face brightens and her voice quickens, almost taking the quality of an excited child. Breath has also been instrumental to managing fear and anxiety. The cues from her teachers to breathe and to pay attention to the body helped P1 to ground herself when things start to feel really intense. She shares that even with difficult phases in practice, she usually feels better afterwards, that is, "all the senses, I feel more awake . . . more alive, especially when I'm inhaling, too. It's in my whole body that I feel lighter."

Dreams of practice are a frequent part of P1's experience. She shared a significant dream in which she was struggling with drop-backs, and telling her teacher that she could not do this pose. "Like, there was a dream where David was trying to help me with something, it felt like drop backs or some of kind scary backbend, and why can't I grab, and why is that elbow coming up? And I was saying, 'I can't, I can't, David!'"



Figure 2. Dropbacks. The backbends concluding yoga practice. Photo by author.

Author's note: Drop backs are an essential part of Ashtanga yoga practice, and are a necessary prerequisite if one is to advance to the next series. A drop back involves bending backwards from a standing position, touching the hands to the floor, and then coming back up to a standing position. It is an extreme back bend that requires a great deal of flexibility in the back as well as the thoracic area (chest). Bending and dropping backwards are not typical movements that one does, especially in Western society, so often this posture brings up a great deal of fear and anxiety for many practitioners.

Opening vulnerable areas like the stomach and chest are also challenging for survivors of trauma, so this pose often triggers more intense feelings for such practitioners. At the same time, it is equally important to heed one's own limits in difficult postures, and be able to tell the teacher that one needs to slow down.

Afterwards this dream was manifested in reality, where P1 was able to tell her teacher that she was not ready to do this pose in person. "Finally I was like, I don't want, to David, I can't today. . . . that was the point of it, I was dreaming of something in practice and I was like, 'no," and then when I really told him 'no', he said, 'I'm glad you told me that, because usually everyone just goes with it and doesn't say no. Don't worry about it, you're not going to hurt our feelings.' "In a moment of compassion and understanding, P1's teacher was able to acknowledge her decision to refuse a pose.

Moreover, he praised P1 for saying "no", which proved to be a powerful corrective emotional experience for her. For someone who had been told that her voice was "too loud" or disregarded by parents, or to have her own boundaries continually trespassed upon, the ability to voice her limits and boundaries to her teacher—who then acknowledged her ability to voice her limits—became a very empowering moment for P1. She shared that the dream of saying no finally gave her the confidence to do this in reality, and that it was one of the few times where she felt safe enough to do so.

Participant #2 (P2).

P2 is a 37-year-old, single, Caucasian, and practicing Ashtanga yoga for a little over one year at the time of the interview. She also describes an extensive trauma history in her family of origin, with a father who had bipolar disorder and this resulted in extensive verbal abuse. The family dynamics are complicated, with enmeshment and over-involvement on part of the mother for much of her childhood and adult life: "My

dad's bipolar, my brother's an alcoholic, my mom is sick with diabetes and overweight. Everyone has anxiety . . . and it's pretty much, like everyone in my family . . . has some major horrible thing. . . . I used to be the glue that held everyone together."

P2 states that she discovered Ashtanga while traveling in India, and that the practice became a grounding element in an otherwise unstable period of transition. "I guess it gives me something I didn't was lacking until I started? It grounded me, I felt more focused...when I started, when I found it, I was also going through a transitional period in my life. I was traveling to India, and that's how I found it. I didn't purposely try to find it, but it was nice that I did come across it." In this statement, there is a sense of P2 having come upon the practice by accident, and then discovering how much she loved it.

Since then, the practice has then become a priority for P2, to the point where it has changed her entire lifestyle, including diet, morning routines, and making healthier choices in relationships. P2 states that "with my new job, I made it clear to them when I started that I do yoga in the mornings, so I can't come in until later . . . and they were like, you were coming in too late and stuff, and can you not do it on certain days and I was like, no, that's not an option for me . . . and the old me would, like, I definitely would have accepted it. I'm not a morning person and now I get up at 4:30 in the mornings. Which is super early!" P2 states that the practice has given her enough confidence to give voice to what she feels is important to her, and that has been very therapeutic for her.

The cues from her teachers to be more aware of the body and breathing have also been enormously helpful for P2. She states that she is beginning to recognize that the

practice forces one to pay more attention to the body. On a relational level, P2 states that yoga has helped her to connect and relate more to others. "I realized that the stress in my life was a lot less, I was lot calmer, my relationship with my boyfriend improved, everything."

Hip-openers like Baddha Konasana are particularly difficult poses for P2—they bring intense feelings of vulnerability and tears. The strong response also indicate how certain postures force yoga practitioners to face what is emotionally painful, when one can otherwise negate and disconnect from it.



Figure 3. Baddha Konasana. Bound Angle Posture. Photo by author.

In Figure 3 above, one can see that flexibility is required not just from the hips but also from the hamstrings in order to touch the chin to the ground. Many students need time to develop this level of flexibility, and it is not uncommon for many to balk at this pose.

Baddha Konasana is also a gateway posture in the Primary Series; one needs to execute

this posture correctly in order to advance to the next pose. P2 describes her experience: "That is so hard for me! I think it is like torture for me. . . . I asked David, 'Why is it so hard for me?' And he said, 'Too much sin!' (laughs) I know he was joking but that's what I think about when I do it . . . oh, too much sin! I kinda dread it, and when they come over to help me, it takes awhile to get into it. I can put my chin to the ground but it's really hard, and when I'm in it, I'm thinking 'Uncle! Uncle! I give up!' and then Andrew is like, 'No crying!' It's one of those poses where I don't know if I allowed it to, it would bring up more . . . some days it's easier."

P2 cannot recall any dreams or images, but does share that the end practice of pranayama (breathing) can be very powerful and bring up deeper thoughts and feelings. "I focus on pranayama and for me, the big part is after the Ashtanga practice and that's more when stuff comes up. During pranayama...it's where things come up that are strong...a lot of things come up with my most recent ex, I thought he was the one...so it's been really hard. I think that I'm over it and then he will pop into my head...I remember one day it just clicked in my head, while doing pranayama, that that's not how I want to be treated. So that was a big help to finally acknowledge that." P2 says that while intense feelings come up and again during this meditation phase, focusing on the breath grounds and calms her. Her statement also emphasizes the importance of breath, and how it—in the bigger scheme of practice—is the backbone of the practice, rather than the postures themselves.

Participant #3(P3).

P3 is a 27-year-old, single female who works as paralegal and yoga teacher, and has been practicing Ashtanga yoga for three to five years. She also describes a significant trauma history, in which both parents suffered from bipolar disorder and mother is a

recovered alcoholic. P3 states that father is still an active alcoholic. Both parents were highly influenced by their church and often resorted to corporal punishment. P3 reports having survived physical and verbal abuse/neglect, and that yoga practice was important as it helped her to acknowledge and contain painful memories and feelings.

With regard to Ashtanga yoga, P3 stated that despite the regimented structure of practice, one cannot control what emotions or memories will come up. She stated that the nature of the practice forces one to pay attention to what is painful, and at the same time, the practice helps one achieve a state where s/he can confront what is painful. Her responses feel a little different from the first two interviews, which focused on the positive aspects of Ashtanga yoga; P3 emphasizes how the negative can be brought to consciousness and acknowledged within the container of practice. P3 admits to a history of denial on the painful aspects of her early childhood, but she credits the physicality and consistency of Ashtanga yoga practice to helping her face what had hitherto been unbearable.

P3 shared that she had been in traditional psychotherapy before, and found that verbal therapy to be "overwhelming"; however, the physical practice of yoga felt more grounding to her. She shares that in certain poses, one cannot run away or hide from unpleasant emotions and that "you are forced to confront things." The negative emotions which tend to come up for P3 have been fear, sadness, and anger. Hip openers, like Supta Kurmasana, are especially challenging as they bring up feelings of vulnerability. See Figure 4 below:



Figure 4. Supta Kurmasana. Reclining Turtle Posture. Photo by author.

As one can see in the image, Supta Kurmasana (Sanskrit for "sleeping turtle") demands a great amount of flexibility of the hip flexors as well as the shoulders. Both legs are crossed behind the head, and for the student initially learning this pose, it can trigger a high level of anxiety and fear. The fact the P3 had feelings of vulnerability in this challenging pose is no surprise, and like the other difficult postures, they demand a psychological component to tolerate the physical and emotional feelings which may arise.

P3 also admits that she had an initial disconnection, and almost hatred, of her body from her early trauma, and that yoga practice has gradually helped her to become more aware and appreciative of her body. P3 was also able to identify the concept of proprioception, the phenomenon of internal bodily awareness.

With regard to dreams, P3 shared a vivid waking "dream" that came at the end of practice:

I imagined myself descending into a forest, and I came upon a body of water. I saw a female figure in the water, and I was very curious about her...I realized that she was a version of myself in a pool of anger and resentment. I just stood there and looked at her. I looked at her and felt so much love for her all of the sudden. I reached out and hugged her, and it was after that I realized that I could love myself.

After the emergence of this spontaneous imagery, P3 stated that she was able to be kinder and gentler to herself on a consistent basis.

Participant #4 (P4).

P4 is a 50-year-old, married Caucasian and mother of two daughters. A licensed psychologist self-employed in private practice, P4 states that she has been practicing Ashtanga yoga for a little over a year at the time of our interview. She agreed to interview in a roundabout way; initially she expressed an interest in my research study as she thought that she may have clients who fit the criteria for inclusion into my study, and only afterwards, revealed that she herself fit the requirements of the study—having a steady Ashtanga yoga practice and also being a survivor of childhood trauma. P4 described her childhood experiences as more emotionally traumatic, witnessing domestic violence between her parents as well as suffering verbal abuse from her father. Mother was also a source of emotional trauma, often comparing P4 with her two sisters, resulting in a great deal of anxiety and self esteem issues.

As a psychotherapist, P4 brings an interesting perspective about the way the mind and body can or cannot intersect. Having had years of therapy to address her own childhood experiences, P4 stated that she gained a greater understanding of why she feels the way does or becomes triggered in certain situations. However, P4 still felt as though

she lacked the tools to cope with anxiety and stress in the moment. P4's experience reveals the gap between cognitive understanding and experiential understanding that comes from a somatically-based practice. Psychotherapy helped her to understand trauma on an intellectual level, but it was yoga practice that was the key in helping her feel calmer and more settled in the moment.

Ashtanga yoga practice, particularly with its emphasis on linking breath and movement, seemed to fill this gap. P4's experiences also highlight the importance of breath, which at times can be more effective than therapy in managing difficult states of mind. Yet, P4 shared that without therapy, she may not have recognized the need to practice yoga. Her experience also highlights the importance of the combination of somatic and psychologically oriented modalities. Somatic practice becomes a more concrete and experiential tool, while psychotherapy helps to build an intellectual understanding of one's self.

Whereas yoga practice has helped to improve P4's bodily awareness and emotional states, it also seems to trigger a great deal of anxiety and feelings of inadequacy. Childhood dynamics come into play, as P4 shares that she often compares herself to others in practice, and feeling frustrated that she cannot perform certain poses. Marichyasana D, one of the core poses in the Primary Series, is an intense twist involving external rotation of both the hip and shoulder socket; see Figure 5 below:



Figure 5. Marichyasana D. Posture of the Rishi Marichi D. Photo by author.

Understandably, P4 finds that this pose triggers the greatest amount of anxiety and insecurity. She states: "The ones that are . . . hard for me, that's when I start going into the, you know, the inadequate state of mind…like [Marichyasana D], the one where you have to put your leg into half lotus and then twist around. . . . That one, I'll go into it thinking, I'll never do this I can do it now on my right side, which is great, because I can do it on my own, but my left side, I need help and I feel like I'll never be able to do it."

With regard to dreams, P4 stated that she does not dream a lot; however, she was able to retrieve memories of dreams from "intermediary" states between dreaming and waking. The predominant feelings and themes from such "dreams" are of anxiety and not being able to arrive to practice on time.

Participant #5 (P5).

P5 is 42 years old, married, and a mother of two sons. She works as a technical writer and has also been practicing Ashtanga yoga for over 20 years. P5 has made extended trips to India to study with Pattahbi Jois as well as R. Sharath Jois at KPJAYI, and consequently holds an Authorized level II teacher certification. P5 shared openly and easily her early childhood experiences, which included her parents' divorce. She stayed with her mother and the two suffered extended periods of poverty. Mother became alcoholic which led to a great deal of instability in the sense that they lived a transient life, lost their home, got by without utilities and had to live with relatives. P5 describes this period as "I was always kind of squeezing into wherever we were...just squeezing into a little room and I never felt settled." There was also significant emotional upheaval/abuse and physical neglect. During P5's teenage years, mother was still drinking at this time and P5 tried to avoid her mother as much as she can. Maternal grandmother had also assisted the small family by helping them stay at an apartment. When P5 went to college, she was finally able to separate from her mother by living away. While an exchange student in Australia, she unexpectedly discovered Ashtanga yoga through a two-week workshop.

Like the other interviewees before her, P5 described the unplanned yet synchronistic encounter with Ashtanga yoga. Once immersed in practice, P5 stated that Ashtanga "felt like home" for her. P5 also highlighted the importance of breathing and

how this component helped her calm down and focus. She also described the importance of the regularity of the practice; she does not feel herself if there has been no practice for a few days. Yoga practice helped her to deal with stress, anxiety, and insecurity which pervaded most of her early adult life.

P5 also shared that yoga practice "transformed" the anxiety in such a way that after practice, she was no longer so "worried or stressed out." P5 also described that yoga practice was the one constant element for her amidst all the transitions in her life, especially with its minimal requirements; for example, one only needs a certain set of poses, a small space, and a yoga mat. Yoga helped P5 with the sense of being more genuine, and more accepting of emotions, even the negative ones. Through practice, P5 began to experience less guilt and judgment of herself. She also emphasizes how yoga helped her to realize that feelings, though intense at the moment, are transient. Over time, this ability to tolerate and observe intense feelings developed into a greater awareness of her thought patterns. P5 described Ashtanga as an allegory for life, in the sense that both can be so hard and challenging, but when one overcomes the challenging moments in yoga practice, one also gains the confidence to weather the challenges in outer life. P5 believes that yoga practice can change the body and perspective; one becomes stronger, yet kinder and gentler on oneself.

In regard to yoga practice and its effects on body awareness, P5 stated that Ashtanga is an intense practice, and barriers within the practice often bring up a great deal of emotion. She also shared that she had her own share of body image issues, never feeling comfortable within her own body and experiencing low self esteem. She shared that as she worked through practice, she developed a greater awareness of her own body

and thus a relationship with it. There was more acceptance of her body and herself, which then extended to others around her. "As a result," P5 states, "I think that practice helped me to be gentler to myself, and in so doing, to be gentler to others." Compassion develops in practice, first to oneself, and only then can one be more compassionate to others. P5 also notes that if we are not comfortable in our own bodies, this disconnection affects our own outlook and perspective. From the subjective experience, body can influence the mind and consequently, how one relates and behaves with others.

Darker emotions are also part of the practice. P5 shared that her experiences of dark emotions tended to be anxiety and anger. She recognizes how certain parts of the body hold stress and memories, like the hips and back, and Ashtanga yoga practice makes one more open to repressed memories through the intensity of certain poses. As one progresses through practice, the intensity fades but then one's perspective changes as well—the emotions are no longer so intense. She also recognizes that denial is a very common defense, even among yoga practitioners, but ultimately this does not work, especially as one progresses through the Intermediate Series. P5 shared her belief that the very difficult and intense postures in the Second Series often bring up repressed feelings and memories. Ultimately in the practice one must face these emotions, and P5 feels that one learns not to judge the negative feelings when they do come up. P5 stated that such dark feelings are part of the practice, and part of life is being able to acknowledge that dark parts of oneself and one's experiences.

Anger for P5 came from the feeling of being pushed in practice beyond her ability. This also beings back her own memories of being pushed to her emotional limits by her mother. Poses that include ankle and hip openers are the hardest for her—Mula

Bandhasana (in the Fourth Series) and Jana Sirsasana C in Primary—brought up pain, vulnerability and anger. Hip openers especially present intense physical and emotional challenges which are very painful and intense.

With regard to dreams, P5 was not able to share a specific dream related to yoga practice, though she does have vivid dreams. She did share that she has vivid dreams of flying, and likened this to yoga practice. "I've always wanted to fly, and Ashtanga yoga has helped me get there as close as I can . . . sort of getting that weightless feeling . . . it takes you into another world, just like dreams do." For P5, yoga is a metaphor for flying and dreams, being able to find the feeling freedom and weightlessness.

Participant #6 (P6).

The information from the sixth and last transcription did not come from a face-to-face interview, but rather from a spontaneous email communication with the participant. P6 heard about my yoga research study through my yoga teacher's posting on a social media site. She then expressed an interest in participating in my research, and met the inclusion criteria for the study. P6 is 54 years old, married, and works as a yoga teacher. She also shared a significant history of emotional and sexual trauma through her childhood, and discovered yoga in her adulthood. Yoga practice eventually became a gateway for her physical and psychological healing (yoga practice led her to seek psychotherapy). Initially she completed the survey, but then afterwards wanted to share her own experiences in a later email. Here are the main points from her letter:

"For me yoga has always been a vehicle to heal. It is a great way to get into the aches of the body." This was P6's first statement, which reiterates the healing properties of yoga practice which had emerged from the previous interviews. More importantly, she stresses how this practice can help one encounter "aches" of the body. Her statement

implies how practice can help one confront the pain in the body, and in so doing, the pain of the psyche.

"When I started my inner work, I needed a really soft practice. Just breathing and little moves. After years with a soft yoga practice, and psychologic help I could slowly start a deeper practice." With this statement, P6 emphasizes the importance of starting slowly and honoring the body's own timeline and limits. The combination of gentle yoga after many years and psychological help eventually helped P6 to begin a "deeper" or more intense yoga practice. It appears that P6 found that a deeper practice led to deeper experiences, and that one also needs to be stable, to have a strong foundation in a steady practice to face what may come up. More significantly, P6 shared how her own psychological work—similar to that of P4—helped her to contain the wider and deeper array of feelings and emotions that would come up in practice or daily life.

"Yoga brings me in a deep connection with my soul and Ashtanga yoga does this very intensively. I think the reason is because one can practice it all on it's (sic) own. The repeat of the postures give security. The strict procedure gives a safe feeling." With this statement P6 expresses how Ashtanga yoga practice, with its intensity and its repetition, gives a feeling of safety and security, a theme that has emerged in prior interviews as well. The repetitiveness of the poses helps to establish a foundation, and one also appreciates the subtle changes within the practice.

"The person doesn't need a teacher all the time and especially people with a difficult story from the past, can decide on her own, how intensive and how long they want to practice, how intensive and long you want to breathe in a posture. [But] in a practice with a teacher, you never know which asana comes next and what is suddenly

happening with you, and what inner story suddenly comes up." This powerful statement emphasizes a few key points. Foremost, P6 brings up the presence of those who have a "difficult story"—in other words, trauma. In this case, the trauma survivor does have the capacity to set her own limits as to how intense and far she wants to go in her practice; this is a theme which has emerged in a prior interview, and the ability to say how much one needs to go can be incredibly empowering for a survivor who has had such limits crossed before. Although P6 states that one does not necessarily need a teacher all of the time, her statement also indicates the importance of a teacher's presence when powerful feelings or memories arise in practice. And, as P6 states, one can never anticipate what "inner story" may come up.

"This is why I love Ashtanga yoga." P6 shares a simple statement which has also been echoed by many other participants. The practice, with its phases of fear and anxiety, also brings upon the necessity of confronting one's own limitations within its defined structure and repetition. While the practice itself is repetitive and structured, what arises internally is unpredictable and spontaneous; however, through the guidance of a trusted teacher and the safety of practice's structure, one can learn to develop the internal container needed to hold the difficult stories which may arise in one's consciousness. It is also love which allows one to continue with an intense and difficult practice. Perhaps it is in such a way that one can encounter the "soul," as P6 has expressed.

Chapter 5

Discussion

This chapter will review and interpret the quantitative and qualitative data gathered in the study. A discussion of the findings will also be discussed along with limitations of the study and implications for future research.

Quantitative Analysis

This section will review and interpret the results obtained from the CTQ surveys. Thirty-one Ashtanga yoga practitioners completed the CTQ survey. Demographically speaking, the typical practitioner would most likely be single, Caucasian, college-educated, and have been practicing Ashtanga yoga for one to two years. The majority of these participants were in the 40-49 age group, followed by those in the 30-39 age group. Additionally, the typical participant would be practicing at the traditionally recommended frequency of five to six days a week. Given the demanding nature of Ashtanga yoga practice, such results would seem to make sense; those who are younger or older than the 30-49 age range may find it more difficult to sustain the frequency or intensity of such a practice.

As discussed previously, the CTQ measures five subscales of abuse and neglect – emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. It is interesting to note that emotional abuse appeared to be the most common experience among the practitioner participants, with the majority (64.5%) describing their experience as severe to extreme. Nearly thirty percent (29.1%) reported low to moderate levels of emotional abuse, while only a small percentage (3.2%) reported none to minimal levels. Emotional neglect appeared to be the second most common experience, with nearly 26

percent reporting moderate to severe levels of neglect, and close to 23 percent reporting sever to extreme levels of neglect.

By contrast, physical and sexual abuse appeared to be the least common experiences among the participants. Over 60% state they had none to minimal levels of physical abuse, and over 50% reported no levels of sexual abuse. Similarly, over 50% reported none to minimal levels of physical neglect.

Finally, as shown in Table 1.7, a large majority (90.3%) of the participants reported that Ashtanga yoga practice helped "a lot" with their emotions (in the researcher designed portion of the survey). Similarly, close to 97 percent (96.8%) reported that this yoga practice helped them "a lot" with their body awareness.

The wide prevalence of self-reported emotional abuse and neglect among the survey participants would suggest that such events can affect the psyche in negative ways. The repetitive stress of emotional trauma can have tangible effects on the developing brain and lasting sequelae on the lifespan of the survivor; moreover, such survivors of trauma often suffer from both a disconnection from their emotions as well as their bodies (Van der Kolk, 2014; Kalsched, 2013; Schore, 2009).

Kalsched (2013) also empahisizes how early trauma creates a division between mind and body, and how the body must also be attended to during the process of emotional healing. Both Kalsched (2013) and van der Kolk (2014) state that traumatic memories are often "encoded" as psychosomatic symptoms, and thus, careful attention must be given to both the unconscious as well as the body. It would appear that yoga practice may help to mediate such a division, and the themes that emerged from the qualitative interviews, discussed in the following section, seem to support this hypothesis.

Qualitative/Thematic Analysis

This section reviews common themes which have emerged from the interviews.

The common themes would include the following: being "at home," connecting with the present moment, starting slowly, holding difficult emotions in specific sites, and finally, healing the body to transform the psyche.

The transformative properties of yoga practice are noticeable yet, in a sense, difficult to quantify. All of the participants were able to describe how yoga practice helped with their emotions and body awareness, yet each process felt individual and specific to each person. P5 described it best in that yoga practice mirrors the difficulties and intensities of life challenges; how one can master the difficulties in the body somehow translates to confidence and ability to mastering the difficulties in psychological life. This also brings to mind that our encounter with the shadow—with what it most difficult and frightening in our own practice—is what can also lead to our internal sense of freedom and empowerment.

Theme 1: Being "at home".

All of the participants share that they came upon Ashtanga yoga practice by accident, but then discover how much "at home" they feel with the practice. "I felt like I had come back home," said one practitioner. Yoga practice usually became the one constant element amidst turmoil or transition in the participant's life. Moreover, they notice the transformative quality of Ashtanga yoga practice, as negative emotions change after practice. The unique qualities of Ashtanga yoga practice, with its repetition and set sequences of poses, the focus on breath and drishti as well as the pose itself, and its physical intensity is what makes this particular practice so effective.

Theme 2: Connecting to the present moment.

Breath is a crucial component in helping participants calm down and connect back to the present moment. "If I'm feeling stressed, I just go back to the breathing," P1 had stated. As a result, practice becomes a safe container and helps them develop a more effective way to manage negative emotional states. This process, however, takes time. The women have shared how they have experienced an initial disconnection from the body, but practice inevitably resulted in more body awareness as well as acceptance.

Theme 3: Starting slowly.

Participants have shared that it is important to start slowly. Then, over time, one can take on a more intense practice. As P6 had shared, "When I started my inner work, I needed a really soft practice. Just breathing and little moves. After years with a soft yoga practice, and psychologic help I could slowly start a deeper practice." Deeper practice leads to deeper and more intense experiences, as one already has the psychological scaffolding to tolerate the emotions which can emerge spontaneously. Additionally, it is common to have memories and feelings, especially the traumatic ones, arise during practice. These experiences tend to emerge especially during very difficult poses. Finding a trusted teacher, as with a psychotherapist, is important. With a teacher and through the postures, one never knows what inner emotional story may come up, but there is faith that one can survive and learn from it. Interestingly, participants have shared that their experiences in traditional psychotherapy have helped them to cognitively understand their trauma, but there was still a gap between understanding and experience. Yoga practice, with its emphasis on breath and the body, helped them to cope more effectively with negative emotional states such as anxiety, sadness, and/or anger.

Theme 4: Holding difficult emotions in specific sites.

The most common emotions were fear, anxiety and anger. Moreover, participants shared that certain parts of the body hold memories or emotions; thus, poses which involve hip or back opening like Supta Kurmasana, Baddha Konasana, Kapotasana, or Marichyasana D tend to bring such feelings up on a very intense level. P5 had stated: "You are going deep into the back, the hips, belly, places where we hold a lot of stress, and memories, and all that sort of stuff." As one progresses through practice, the intensity fades but one's perspective changes as well.

Theme 5: Healing the body to transform the psyche

Finally, all the participants agreed that Ashtanga yoga practice had significant effects on the psyche. They shared that the practice eventually changes their mind and self; one becomes more genuine and compassionate, more accepting of emotions. Over time, one realizes that emotions, even the negative ones, are transient although very intense at the time. P5 had expressed that "Yoga becomes a metaphor for life. As one overcomes the challenges in yoga practice, one also gains confidence in overcoming fearsome situations in life." Such a process occurs because in practice one must face what comes up. One cannot run away; ultimately, one learns how to tolerate and be compassionate to negative feelings, and oneself.

The development of compassion arises out of practice and the women shared that it needs to start with oneself. One needs to develop her own comfort and compassion to her own body; only then can one develop a relationship to the body, and then be able to relate to others with more gentleness and compassion. If one is not comfortable in her own body, this somatic disconnection can influence one's outlook and perspective. This

recurring theme among the participants emphasizes how the body can influence the psyche. A full discussion of this overarching theme is the subject of the next chapter.

The high prevalence of emotional abuse within this research study suggests the ubiquitous nature of emotional trauma. The effects of any kind of trauma, however, are undeniable—physiologically and psychologically (van der Kolk, 2014). Contemporary neuroscience has demonstrated that traumatic events can alter the brain and impair the communication between the right and left hemispheres, resulting in emotional dysregulation and somatic disconnection (van der Kolk, 2014; Schore, 2009). Certainly this would be true for the survey participants as well, and it appears that yoga practice can address the disconnection between emotional dysregulation and the body. How exactly could yoga address this, one may ask? It seems that there needs to be a combination of several factors—the focus on breath as well as the body, and the container of practice that is supplemented by a trusted teacher. In doing body work, the right brain becomes more dominant and this is probably when traumatic memories or difficult emotions—usually held in check by the conscious ego—arise. The repetition of sequenced postures, as well as the progression to more difficult poses, will also trigger more memories and feelings. A structured practice with the focus on breath may help the practitioner tolerate these difficult states of mind, and over time, be able to tolerate difficult states of mind for longer periods, and for more instances outside of practice. P1 had stated that "it's one of those things, once you get through it, you're done." A similar theme is echoed by P3, who states that "I was a big repressor, especially when it comes to my own childhood history. For the longest time, I would tell myself that everything was ok, but inside something didn't feel right. Yoga really helped me to face things. . . . I feel

like it gave me a safe place to work through stuff. You know, I got overwhelmed in verbal therapy, but yoga gave me a way of working through some really painful emotions."

While the neurobiological theories of trauma offer valuable information on how the brain is altered by traumatic events and can be healed by yoga practice, it is also important to consider again the Jungian archetypal perspective with regard to developmental trauma. Kalsched (2013) elaborates further on this point in the following passage:

holes in personal history, which are filled with defenses because the suffering is too overwhelming to be experienced consciously. In these places, body/mind integration is wounded and the core of the self cannot incarnate...major parts of the narrative of a life remain unconscious. . . . They are (just) unavailable to be processed consciously until a witness is available and affect can be experienced again in-the-body. (p. 164)

In this passage, Kalsched suggests once more the importance of the body in the containment of overwhelming affect from a Jungian lens. Our sense of self cannot come only from the psychological realm, but also from the somatic. Trauma splits off the self and integration can be attained only if such affects are experienced in our bodies. Could yoga be such a vehicle for the containment and conscious processing of overwhelming affect from trauma? The results from the CTQ survey and participant interviews seem to say "yes" to such a question. As noted previously, the practice itself has served as a container for dark or even unbearable emotions which have come up for the participants, with the use of controlled breath being the most important factor.

The dreams or images shared by the interview participants also revealed a wide range of experiences. Dreams in themselves offer a portal into what Kalsched (2013) refers to the daimonic, mythopoetic or archetypal realm, which may also offer an opportunity for healing and is rarely discussed in trauma literature. It would seem that the dreams shared by the participants reflected their own emotional state; one participant (P4) reflected that many of her dreams carried the feeling of anxiety, of not being able to make it to practice in time.

Interestingly, for another participant (P1), a dream of a pose which she had been struggling with gave her the ability to say "no" in reality and this became a learning moment for her. Such a dream would reflect the psyche's own wisdom in helping a person realize her own needs and voice them. The waking dream shared by P3 also reflects the spontaneous wisdom of the autonomous psyche, in which the vision of a female figure immersed in a pool of water provided the participant a needed reflection of herself, leading to a sense of deeper compassion and self-acceptance.

Finally, there is a question of whether yoga practice supersedes psychotherapy in its effectiveness. It would seem so from some of the responses in the interviews; with the participants revealing how therapy alone felt overwhelming or ineffective in giving them concrete ways to manage difficult emotions. Yet it also became apparent that the combination of both yoga practice and psychotherapy yielded optimal results; participants who experienced both modalities were able to conceptualize their experience through psychotherapy, and yoga practice gave them a concrete way to manage difficult emotions. One could even say that Kalsched's idea of a "binocular vision" (2013) applies here—to have one eye turned towards the psyche, and one eye turned towards the body.

In the psychotherapeutic sense, to cultivate Kalsched's idea of the "binocular vision," the therapist would certainly need to attune her/himself to the client's affective state within the intersubjective field. At the same time, the therapist's own attunement to his/her somatic state can also serve as a powerful tool. One eye is turned toward the internal psychological state, while the other eye is attuned to the external physical state. For example, the client's own anxiety and fear may be not expressed explicitly but instead through non-verbal communication. If the therapist is adequately attuned to his/her own somatic state, this affective energy would also serve as information. In my own practice, I have found this to be accurate; clients who have experienced severe trauma may not be able to verbally express their fear and anxiety, but in my attunement to both their and my own somatic states, I am informed of their state of mind. Choosing when to reflect this extends beyond the scope of this paper, but certainly one may surmise that the somatically aware therapist can use such information to the client's benefit.

If the client engages in a consistent body-work practice such as yoga, s/he may also be more informed of the internal states of mind that are communicated by the body. Kalsched (2013) provided a beautiful example of how one traumatized client utilized her own body-work to process and ultimately express her early, unbearable childhood experiences that had been repressed by the psyche:

A part of the story was missing—a dismembered part connected to her feelings—in the body. . . . Without this piece of darkness and despair—its affects locked up in her constricted, tense body . . . she could not remember herself. She could not personalize and her soul was preventing from "indwelling." In order for this to happen, she had to grow strong

enough to tolerate the affects associated with her worst experiences, because without a living body there was no place for that missing piece of Spirit to indwell. [Through body-work] with the affect in the body and the image in her mind now experienced together, and witnessed in her therapy, her traumatic story could finally be told in its fullness and she was free. (p. 315).

One could say that a very similar process is at work with the survey participants who dedicated themselves to a consistent yoga practice as well as partook in psychotherapy. Kalsched's statement also highlights the importance of the body—traditionally overlooked by both psychoanalyst and Jungians alike—in the individuation process. The affects that were hitherto inexpressible would find a somatic release through the yoga practice; combined with psychotherapy, the experience of being witnessed would bring meaning to the suffering.

Kalched's idea of binocular vision has relevance on a multitude of levels. He also expressed the binocular vision as one that incorporated both the mythopoetic, numinous realm as well as the transference field between the therapist and client. We discussed how the therapist can maintain an awareness of the internal psychological state as well as the somatic states of being. One could also say that the body can also serve as a portal to the mythopoetic realm which Kalsched has described. This would be true of the numinous dreams and visions experienced by the interview participants such as P1, P3, and P5, and such dreams and visions allowed them to deepen their own psychological growth.

Limitations of the Study

The limitations of the study included a small sample size (N=31 participants). The study design was only descriptive and focused on qualitative experience. The study was

limited to only the practice of Ashtanga yoga and may not be generalized to other common yoga practices. Selective bias may also have been a factor in that participants may have been influenced to answer questions a certain way. Last, there may be a lack of sensitivity to the subtler forms of trauma in the CTQ.

Implications for Further Research

For participants who had scored higher in one or more subscales of trauma in the CTQ, might they have more difficulty in the more challenging postures of the Second Series? This question would be specific only to the practice of Ashtanga yoga.

For male practitioners of Ashtanga yoga, how may they have responded or acknowledged their experiences of trauma and neglect? How may they experience the helpfulness of the practice in the regulation of emotions and body awareness? How may their experiences mirror or contrast from the experiences of female practitioners?

There is also more need for empirical research in the effectiveness of Ashtanga yoga in emotional regulation and somatic awareness, with an effective study design that would include a null hypothesis. Such a study design could also further illustrate the relationship between emotional regulation and body awareness.

Chapter 6

Healing the Body to Transform the Psyche

In this chapter, we discuss an overarching theme which has emerged from the research study through the participants' responses—how the healing of the body can transform the psyche. We end with a conclusion to the potential of yoga practice in the healing of developmental trauma, and whether this can be channeled effectively amidst Jung's caution of yoga practice in the West.

The Alchemy of Yoga

Yoga practice has often been described as an alchemical process (Miller, in Donahaye & Stern, 2010). It would seem important to consider first the idea of alchemy – it is an ancient process founded in the East, Mid-East, and European societies, with the overt goal of transforming lead into gold (Burckhardt, 2006). However, the symbolic meaning of alchemy sheds light into psychological transformation as well. In the process of the tangible and manifest change, the alchemist undergoes a profound psychological change (Jung, 1962; Edinger, 1985).

In a similar vein, Ashtanga yoga practice begins with what is tangible and manifest, the physical body. In so doing, the practitioner experiences a deep internal change of the psyche. Alchemy, too, is a theme that often arises among yoga practitioners. Ashtanga yoga teacher David Swenson stated "There is a saying of the alchemists: through repetition the magic is forced to arise. It's only through repetition that we can gain depth of understanding" (Donahaye & Stern, 2010, p. 101). Tim Miller, another noted Ashtanga yoga teacher, stated that "the rewards of yoga are tangible and immediate, and especially in the beginning. . . . Staying connected to the practice...continues to unfold itself in some kind of organic way, creating greater health

. . . greater possibility, greater things" (Donahaye & Stern, 2010, p. 75). With this statement, Miller reiterates how yoga begins with the external and what is most observable—the body. Yet it is through consistent practice of body-work that one experiences the internal psychological change, a primary theme which has emerged from the interviews and is the overarching theme of this research study.

Indeed, the recurring theme from the interviews was how the connection to the body became a process and means of psychological changes. This feels dramatically different from our everyday perspective of placing priority on the mind and how the body would follow. Here it would seem that the mind—or rather, the psyche—follows the body. Again, this reaffirms how body-work can serve as a container to encounter, tolerate, and acknowledge what had hitherto been unbearable and thus parallels the function of analysis and/or psychotherapy. One can say that the body can serve as an alchemical container or vessel for the psyche. Through the medium of yoga practice, the body changes; in such a process, so does the psyche. Indeed, van der Kolk (2014) found that the practice of yoga was more effective than traditional forms of psychotherapy (DBT) in helping patients manage PTSD symptoms and improving body awareness.

Traditional psychoanalytic perspectives have often overlooked the body, but Winnicott's idea of psycho-somatic in-dwelling (attaining "unit status") speaks to the recognition of the body's importance even during that time period (Kalsched, 2013, p. 271). For those who have experienced trauma and the subsequent disconnection from the body and mind, the practice of yoga may indeed re-initiate the arrested process of psycho-somatic indwelling.

The body as an unconscious container for traumatic memories and experiences is also significant, and bears far-reaching implications for future endeavors within this area of research. As we now know, early trauma arrests the process of one's developing life (Kalsched, 2013). In psychotherapy, the therapist follows the patient's life narrative back to the "unstoried, unprocessed" trauma, which is the point where the patient's potential was interrupted by unbearable and overwhelming psychological pain. The traumatic event also results in the development of primitive psychological defenses that initially protect against psychic pain but ultimately obscures emotional life, leading to gaps in experience. The body, however, continues to "keep the score," as Van der Kolk (2014) suggests, and certain areas of the body may hold more traumatic memories than others. For example, Lampe, Solder, Ennemoser, Schubert, Rumpold, & Sollner, (2000) found a significant association between female survivors of sexual abuse and chronic pelvic pain. Likewise, the responses from the interview participants echo similar themes, mentioning the areas of the hips and back as holding the most tension or fear, and thus presenting the greatest challenges in poses that focus on opening the hips and the back.

The therapeutic process involves delving into frightening places and being able to tolerate what had previously been unbearable on part of both therapist and patient. Jung has once stated that "as a psychotherapist I do not by many means try to deliver my patients from fear. Rather, I lead them to the reason for their fear, and then it becomes clear that it is justified" (Adler, 1973, p. 400). However, it also appears that psychotherapy alone can be less effective in teaching complex trauma survivors basic skills in regulating their emotional experiences (van der Kolk, 2014). Interestingly, this same theme has emerged from at least three of the interview participants, who shared that

they had been in therapy previously to address the trauma but somehow the process became too overwhelming or did not give them the necessary tools to manage emotional stress in the moment. One of the participants was herself a psychotherapist. They stated that therapy had been helpful up to a point; for example, helping them to understand cognitively their experience—but what ultimately helped them was the yoga practice. The role of the body again feels important here, and body-work such as yoga seems consonant with the idea of bridging the psychological separation wrought by early trauma. Finally, this is not to say that psychotherapy alone is ineffective, but more to emphasize how both facets of experience (mind and body) need to be in place for the trauma survivor to make the best use of the healing modalities available to her.

Kalsched's case study again shows how the body can serve as an alchemical vessel for psychological change.

While there are numerous articles and tests written on the relationship between trauma and yoga practice, there is still scant literature on Ashtanga yoga practice. Most yogic practices and schools of thought have left very little written work, and for many generations, the practice was sustained by a dissemination of an oral tradition (Maehle, 2009). This phenomena again highlights the concept of *parampala*, which indicates the devotion and learning through experiential practice with a trusted teacher. It is only more recently that written work has emerged on Ashtanga yoga. In the book *The Life of Guruji: A Portrait of Sri K. Pattabhi Jois* (2010), the experiences of numerous teachers and students of the late Pattabhi Jois were explored and written down. This text on Guruji, which is comprised on numerous interviews with his former students rather than on their own written work, again emphasizes the importance of the passing of knowledge through

oral tradition and direct experience. Again, this process of direct learning and oral transmission from a teacher in Ashtanga yoga parallels the transmission of knowledge in medieval alchemy. In the ancient times, alchemy was practiced in secret, and the student was chosen carefully by the teacher and vice versa (Burckhardt, 2006); likewise, even in today's era, practitioners of Ashtanga yoga are advised to keep their practice secret, and teachers are chosen with great care and commitment. It is common in Western yoga for students to drift from one practice to another, or go from one teacher from another; however, in Ashtanga yoga, one learns the deeper (secret) poses only through commitment to the practice and also to his or her teacher. Practically, this also makes sense; only a teacher familiar with the student's body *and* psyche could determine the readiness for the next posture.

Each posture contains its challenges which test the student's ability to learn and understand it on both a somatic and psychological level. Guy Donahaye, a certified Ashtanga yoga teacher, states that:

there are times (in the practice) when one encounters one's deepest fears and is pushed to the limits of endurance, both mentally and physically... But as the mind is transformed through yoga practice, we become better able to perceive the reality underlying our existence (Donahaye & Stern, 2010, p. xxii)

What are the implications of such a powerful statement? Ashtanga yoga practice can definitely test our mental and psychological limits, but it may allow an opportunity for the embodied trauma or "unstoried narratives" (Kalsched, 2013) to arise and be tolerated in the practitioner's consciousness. Physiology may also be a key element, as the use of controlled breath decreases the physiological arousal state associated with the stress

response (van der Kolk, 2014). Decreased arousal can ultimately allow such memories and feelings to be integrated in the psyche rather than going through the bypass mechanism of dissociation.

Breath, Sight, and Sound in Yoga

Breath has been emphasized as a crucial component in Ashtanga yoga practice. The roots of Ashtanga yoga, which date back to Vedic rituals thousands of years ago, also highlight the importance of the combination of breath, sight, sound, and mind in yoga practice (Maehle, 2009):

Significantly, sound, sight, breath, and mind are the defining factors in Ashtanga Vinyasa yoga.

Producing the *Ujjayi*_sound and listening to it represents sound. Keeping one's focus on *drishti* (focal points) represents sight. Breath, anatomical and *pranic*, is the permanent core focus of the practice. . . . When all these are bound together through *bandha* (*bandh* means "to bind"), then the mind is stilled. (p. 55) *Ujjayi* in Sanskrit means the "victorious breath," and this unique sound is produced by constricting the throat while breathing in and out. *Ujjayi*, once practiced only within the realm of Ashtanga yoga practice, is now a regular practice across various schools of yoga. The emphasis on sound in the breath does help with focus, as shared by what the interview participants have shared. *Bandha* is a more difficult term to define, as it does not relate to any specific body part, but refers to internal "locks" within the body which are believed to harness not just the physical musculature but also the energetic flow of the body (Maehle, 2006).

The three main areas emphasized within Ashtanga yoga are: *mula bandha*, or the root lock, which correlates to the root of the spine; *uddiyhana bandha*, which correlates

to the upper abdomen; and *jalandhara bandha*, the chin lock. Simply put, the correct execution of the postures within Ashtanga yoga involves the physical engagement of these three main locks, which then also helps the subtle energy flow within the body. Maehle (2006) states:

It is this process of gaining control of the life force [prana] that differentiates yogic exercise from mere gymnastics. Gymnastics and sport can make one fit, but they don't have the energy-preserving effect of yoga, because they do not use mudra and bandha. It is the combination of posture with pranayama and bandha that makes yoga so effective. (p. 11)

Pranayama refers to the breath, which has already been discussed previously. Drishti refers to a point of visual focus during practice. In Ashtanga yoga, the saying among practitioners (and from what I have learned from my own teachers) is that one must focus internally on oneself and observing others during practice is discouraged. For instance, when I studied Ashtanga yoga with Sharath Jois in India, he was quite strict about this. "No looking!" or "What you look at!" he would say sternly, if he caught me or others peeking at another student. This humbled me quite a bit and made me realize how yoga is truly an individual practice and it does not matter what the other student is doing, only your own practice matters.

As can be read above, the term bandha also means to bind – binding together breath (pranayama), the physical/energetic locks of the body (bandha), and the drishti, which in concert can produce an intense focus within practice. Indeed, at the end of practice, there is a sense of peace, contentment and stillness within the mind that lasts

beyond practice. As P1 states: "I feel more awake. . . . More alive, especially when I'm inhaling too. It's in my whole body that I feel lighter. It's an amazing feeling."

The participants' responses also highlighted the important role of the teacher in yoga practice. In both arenas of psychotherapy and yoga, the therapist/teacher's knowledge of the practice and accurate assessment of the patient/student's abilities and limitations become crucial. There are very similar parallels to both processes—the therapist/teacher serves as a trusted guide who can lead the client/student where s/he needs to go because (one would hope!) the guide has been there. At the same time, the therapist/teacher must not push too much lest they re-traumatize the client/student and arrest the process of individuation once more. In the interviews, what really emerged as a significant theme was the feeling of trust that each participant had for her teacher, and this only emerged through time and consistent practice.

The Mythopoetic Journey of Healing through Yoga

Finally, the mythopoetic realm deserves acknowledgement; this body of work—of the suffering in early trauma and healing through yoga practice—involves the engagement of the numinous and the ineffable which comprise the mythopoetic world.

Let us first consider the meaning of the term "mythopoetic." It was a term that initially came from Frederick Myers, a late 19th century scholar, who felt that the unconscious was not only a reality, but one that continually engages the imaginal psyche and is manifested in dreams and other semi-conscious states (Kalsched, 1996). This term is used to describe what is essentially mysterious and undefinable, a world that rests between the material and spiritual and connects to both realms (Kalsched, 1996, 2013). Moreover, this realm is not just internalized from external and concrete events, but also engages actively with autonomous psyche.

The term mythopoetic is also highly relevant for this study, as yoga practice bridges the material (bodily) and spiritual dimensions (psyche). Additionally, the personal journeys for these women trying to heal from their own early trauma possesses archetypal qualities; such a journey embodies the hero's journey through darkness and fear, and learning how to survive it through the body. The women's stories contain the experiences of suffering and redemption akin to the mythos of Innana-Ishtar, Odysseus or Heracles; all of these protagonists have undergone suffering and a frightening journey to the underworld, and emerged a transformed in large ways and small from the encounter. Indeed, there is an ineffable quality to the healing properties of the practice; each participant states that she feels profoundly changed, and yet found it difficult to describe exactly how the change occurred.

Yoga, too, has a quality which mysterious and ultimately un-nameable, yet can lead the practitioner to a sense of the Self, or the divine, which Jung has often discussed. Miller (Donahaye & Stern, 2010) has stated that:

Through the practice my mind really shut off, and underneath the mind there was just this presence that felt more like me than anything else. This was the seer, that grounded being that was my essential Self and I suppose it could be referred to as the spiritual Self. (p. 81)

Not only is the practice of Ashtanga yoga—or all other yoga practices, for that matter—indescribable and numinous, it also opens up the archetypal realm for practitioners who are open to its energy. The practice can lead one to the sense of the numinous, and the process of the practice itself can be part of the hero's journey. Last, the practice opens up

the archetypal realm through the dreams and images which spontaneously appear, almost as if beyond the conscious will of the practitioners.

One does feel that the essence of yoga itself cannot fully be described or quantified, and thus maintains a mystery to it. If we in the West can respect and accept what is mysterious and indescribable, perhaps we could approach yoga with the correct attitude. As discussed previously, Jung had cautioned about the practice of yoga among Westerners, fearing that they may misuse it due to an unconscious leaning towards the ego and one's will. Jung's hesitation is not unfounded, as there are many examples of how yoga has become misrepresented in the West, with the focus on physical ability over its more subtle and profound purpose. Indeed, Pattabhi Jois has disclosed a similar sentiment on yoga in the West in a letter to Yoga Journal in the November 1995 issue:

I was disappointed to find that so many novice students have taken Ashtanga yoga and have turned it into a circus for their own fame and profit. . . . The title "Power Yoga" itself degrades the depth, purpose, and method of the yoga system that I received from my guru, Sri T. Krishnamacharya. Power is the property of God. It is not something to be collected for one's ego. Partial yoga methods out of line with their internal purpose can build up the "six enemies" (desire, anger, greed, illusion, infatuation, and envy) around the heart. . . . It is unfortunate that students who have not yet matured in their own practice have changed the method and have cut out the essence of an ancient lineage to accommodate their own limitations. (Hall, 2011, para. 5)

Could the conundrum of ego and yoga practice in the West be resolved? It still remains an active discussion, but with the finding in this study, it is possible that yoga practice in the West can retain its original purpose. Ashtanga yoga practice in particular maintains its strict adherence to *parampara*, with little deviation from its origins in India.

Encountering and accepting the darker aspects of being within yoga practice can ultimately transcend the ego. Epstein's idea of thoughts without a thinker, to transcend the ego through the body and present moment, also reiterate this aspect of existence:

"Bare attention" requires an openness to both internal and sensory experience that does not often survive our childhoods. The child who is forced...to cope reactively with a parent's moods . . . loses touch with his or her own internal processes. Compelled to respond to the parent's needs, such a child relinquishes the ability to stay open to what necessarily seems less urgent, even if that is his or her own self. Thus, the false self is constructed and the narcissistic character, who does not really remember how to feel, is born.

By separating out the reactive self from the core experience, the practice of bare attention eventually returns the meditator to a state of unconditioned openness that bears an important resemblance to the feeling engendered by an optimally attentive parent. (1995, p. 117)

It would seem that the dually physical and meditative practice of Ashtanga yoga can also facilitate such an experience, with the trusted teacher being the mediator of this process for the practitioner. Additionally, the focus on breath and the structure of Ashtanga yoga practice serve as containers which shape the mind or ego to follow the body, rather than the other way around. This involves an element of surrender, a dissolution of the ego, and it seems that only in this way can yoga truly heal the practitioner.

Epstein (1995) had noted that while psychotherapy tries to address difficult issues

—"a particular agony—the longing and pain of self estrangement" (p. 159) through
verbal means, the patient can still remain in the grip of his or her suffering without a
breakthrough. However, the Eastern practices of meditation can provide "actual relief"
(p. 159). Drawing upon Freud's notion of remembering, repeating, and working-through,
Epstein states that searching for relief from suffering through psychotherapy alone may
not be enough. Similar to Kalsched, Epstein also notes that certain memories, especially
traumatic ones, are recorded in the body rather than in verbal memory. Only though
experiencing and working through can the individual integrate these dissociated
memories. The inclusion of meditative practices can facilitate a "working-through" of
early experiences and memories as well as help the patient develop ego strength for this
to occur.

One can simply—and erroneously—conclude that Eastern meditative practices such as breath-work and yoga would be answer to addressing psychological issues related to trauma. Epstein also emphasizes that while meditation can make one more aware of immediate feelings or memories, psychotherapy is essential to helping one make sense of it, to draw from experiences within the relational field and participation of the therapist. The second part of healing occurs when the patient/practitioner is able to tell their story or narrate their experience in the presence of another. This brings to mind a recent conversation I had with an experienced yoga practitioner. She herself had suffered extensive physical and verbal abuse and stated that while yoga practice had helped her a great deal, she still felt haunted by her memories and wondered if psychotherapy may be effective for her. Epstein (1995) expresses how meditative practice—like

psychotherapy—can only go so far and that "each need something from the other in order to work most effectively (p. 183). Kalsched's idea of "binocular vision" (2013, p. 31), which is to include an eye turned to the outer world and an eye turned inward to the mythopoetic realm, also fits here. Finally, one could say the binocular vision would include the psyche as well as the body.

Conclusion

The practice of Ashtanga yoga, with its intense postures, also offers opportunities to experience one's own brokenness from trauma. The practice allows one to experience and survive the shadow and thus arrive to the point of redemption and grace from numinous experience. Through the dissemination of Ashtanga yoga practice to the West by Pattabhi Jois, also known as "Guruji" among his students, one learns how to go as deeply and intensely as one can into the body. By the same token, Jung showed many of us how to navigate just as deeply and intensely into the psyche. The ability to narrate one's story in the presence of the other and to be witnessed also seems essential to healing. Somewhere, as suggested by both Epstein and Kalsched, it is possible for these two apparently opposite worlds to intersect and complement each other. In such an intersection, one's humanness connects with the divine. For the trauma survivor, it is possible that the combination of yoga practice and psychotherapy can serve as a way to union of the dissociated aspects of self splintered through trauma, and made whole again from the mythopoetic journey between body and psyche, into the darkness and surrender of the ego through shadow into light.

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Appendix A: Flyer/Email

Hello, I am seeking participants for a research study that I am conducting for my Ph.D. dissertation in depth psychotherapy at Pacifica Graduate Institute in Santa Barbara, California.

Participation consists of completing a brief survey on childhood trauma that should take no more than 10 minutes to complete. You are eligible for the study if you are female, have a history of childhood trauma, and have maintained a steady Ashtanga yoga practice for at least 1 year. Some participants who complete the initial survey may also be invited to share their experiences about Ashtanga yoga in a phone or in-person interview. The study investigates the effects of Ashtanga yoga on emotional and bodily awareness.

If you are interested in participating, please email me at idalachiusa@gmail.com. Your information will be kept confidential and your responses will be anonymous.

Thank you for considering participation in this study.

Ida LaChiusa

Appendix B: Informed Consent Form

Thank you for your interest in participating in this research study.

The purpose of this study is to investigate the effects of yoga on aspects of emotional and bodily awareness. Your participation in this study will provide useful information on this topic. It is performed as part of the researcher's dissertation in partial fulfillment of the requirements for a Ph.D. degree in depth psychology at Pacifica Graduate Institute.

You qualify for participation in this study if you are female, have a history of childhood trauma, and have maintained an Ashtanga yoga practice for the past year. Your participation consists of completing an online survey questionnaire of approximately 40 questions which is expected to take about 10 minutes of your time. There is also a possibility that a few of you may be selected to participate in a 45-minute in-person or phone interview that will inquire, in more detail, of various aspects of yoga practice on your personal experiences of emotional and somatic awareness.

By completing this research survey, you agree to the following:

- This study is of a research nature and may not offer any direct benefit to you, including no monetary gain from participation.
- Your participation is entirely voluntary and may be withdrawn by you at any time without penalty or adverse effect. The researcher may also choose to withdraw your data from the investigation.
- All responses will remain confidential. No names or otherwise identifying data
 will be collected. No one, including this researcher, will know the identity of the
 respondents. All data will be used for research purposes only and may be
 published in an academic journal or popular press at a later time.

The possible benefit of this study is to better understand aspects of yoga on trauma, emotional awareness, and body awareness. There are no foreseeable risks with this research. If any discomfort should arise as a result of your participation or if you have any questions regarding this research, you can contact this researcher, Ida LaChiusa, by e-mail at (email address) or by phone at (xxx) xxx-xxxx Monday through Friday from 8:00am to 6:00pm Pacific Standard Time.

By voluntarily completing the survey, you are giving your consent to participate in this
study. If you would like to obtain a copy of this Informed Consent form or a summary of
the final results of this research, they may be obtained by contacting the above researcher

Date

Signature

Appendix C: Researcher Developed Questionnaire

The remaining questions will ask you some specific information about yourself.

```
29. What is your age?
       20-29
       30-39
       40-49
       50-59
       60-69
30. What is your educational level?
       High school diploma
       Some college
       College degree
       Masters degree
       Doctoral degree
       Trade school or occupational certification
31. What is your marital status?
       Single
       Married
       Divorced
       Widowed
       In Domestic Partnership
32. Do you currently work?
       Yes
       No
33. If yes, what is your occupation?
34. If you regularly practice Ashtanga yoga, how long have you engaged in this practice?
       1-2 years
       3-5 years
       6-10 years
       > 10 years
35. How frequently do you engage in Ashtanga yoga practice on average?
       1-2 times per week
       3-4 times per week
       5-6 times per week
36. Do you feel that your yoga practice has helped you to manage your emotions?
```

Not at all A little bit

Somewhat A lot

37. Do you feel that your yoga practice has helped you to improve your body awareness?

Not at all

A little bit

Somewhat

A lot

Appendix D: Semi-structured Interview Questionnaire

- 1. How has Ashtanga yoga practice affected your ability to identify your emotions?
- 2. How has yoga practice helped you to contain or control strong (or darker) emotional responses?
- 3. How has yoga practice helped you to reconcile with the history of childhood trauma?
- 4. What are some of the darker emotional responses that have come up for you during practice?
- 5. Are there certain poses that you can associate to strong emotional responses?
- 6. How has yoga practice helped you with increasing body awareness?
- 7. Have you had meaningful dreams that have come up during yoga practice, and what did these dreams mean to you?
- 8. Have you experienced images or visions during yoga practice, and what did these images mean to you?

Appendix E

Quantitative Data

Table 1.1Five Subscales of Trauma

Emotional	Physical	Sexual Abuse	Emotional	Physical Neglect
Abuse	Abuse		Neglect	
5-8	5-7	5	5-9	5-7
none-minimal	none-minimal	none	none-minimal	none-minimal
3.2%	61.3%	51.6%	16.2%	51.6%
9-12	8-9	6-7	10-14	8-9
low-moderate	low-moderate	low-moderate	low-moderate	low-moderate
29.1 %	12.9%	6.5%	35.4%	16.1%
13-15	10-12	8-12	15-17	10-12
moderate-severe	moderate-	moderate-	moderate-severe	moderate-severe
3.2%	severe	severe	25.8%	6.5%
	9.7%	12.9%		
16+	13+	13+	18+	13+
severe-extreme	severe-extreme	severe-extreme	severe-extreme	severe-extreme
64.5%	16.1%	29.1%	22.6%	25.8%

Table 1.2Age Groups

20-29	16.1%
30-39	32.3%
40-49	38.7%
50-59	12.9%

Table 1.3

Educational Level

Some college	22.7%
College	35.5%
Masters	22.7%
Doctoral	9.7%
Trade	19.4%

Table 1.4

Years of Practice

1-2 yrs	45.2%
3-5 yrs	29%
6-10 yrs	9.7%
>10 yrs	16.1%

Table 1.5

Marital Status

Single	45.2%
Married	38.7%
Divorced	12.9%
Domestic Partner	3.2%

Table 1.6

Practice Frequency

1-2 days/wk	3.2%
3-4 days/wk	41.9%
5-6 days/wk	54.8%

Table 1.7

Help with Emotions

A little bit	3.2%
Somewhat	6.5%
A lot	90.3%

Table 1.8

Help with Body Awareness

Somewhat	3.2%
A lot	96.8%