IYENGAR YOGA AS A TREATMENT FOR SECONDARY TRAUMATIC STRESS IN MENTAL HEALTH PROFESSIONALS

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By

Amanda Coleman

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IYENGAR YOGA AS A TREATMENT FOR SECONDARY TRAUMATIC STRESS

IN MENTAL HEALTH PROFESSIONALS

This dissertation by Amanda Coleman has been approved by the committee members signed below who recommend that it be accepted by the faculty of the California School of Professional Psychology- San Francisco Campus in partial fulfillment of the requirements for the degree of

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DEDICATION

I dedicate this dissertation to my mom and my dad. Mom, your courage has given me drive and determination to take life head on. Dad, your wisdom and support have guided me in becoming the person that I am.

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ABSTRACT

IYENGAR YOGA AS A TREATMENT FOR SECONDARY TRAUMATIC STRESS IN MENTAL HEALTH PROFESSIONALS

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As a result of engaging intimately with clients who have endured trauma, mental health professionals risk becoming vicariously traumatized suffering what has been called secondary traumatic stress (STS). Those experiencing STS typically suffer from anxiety, depression, social isolation, and other symptoms similar to those experienced by the clients they are treating. In addition to personal distress, STS has negative consequences on professionals' work with their clientele.

While several therapeutic modalities have been used to assist mental health professionals suffering from STS, interventions typically ignore physical and spiritual components that may improve treatment efficacy. More comprehensive biopsychosocial-spiritual treatments would be a desirable improvement in the care for traumatized professionals.

Yoga is an historic practice with increased popularity in western countries that stresses the holistic aspects of health and well-being by encompassing physical,

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psychological, and spiritual aspects of life. The evidence showing that yoga could be a well-suited treatment modality for secondary traumatic stress is reviewed in this presentation. Iyengar yoga, in particular, addresses personal problems such as anxiety, depression, fatigue, and stress. Therefore, the practice of Iyengar yoga is suggested as treatment for STS by showing that the domains of functioning that STS victims suffer are directly addressed by the this yogic practice. To this end, I present a manual of Iyengar yoga poses that may be helpful to those suffering from STS, or as a prophylactic protecting mental health practitioners (and others) from developing stress/trauma symptoms.

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Chapter 1

Statement of the Problem

Mental health service providers in community agencies, private practice, school-based programs, hospital settings, jails, child protective services, and crisis intervention teams all potentially work with clients who suffer from traumatic experiences (e.g., sexual or physical assault, domestic violence, violent crime, kidnappings, automobile accidents, death of a loved one, natural catastrophes and war). It is, therefore, prudent for clinical psychologists to be well educated about the stress associated with the provision of crisis intervention services because it is probable that, at some point, a psychotherapist will encounter one, or several, trauma victims. It has been estimated that in 2002, in the United States alone, 5,342,410 people above the age of 12 were victims of a violent crime. In 1997, approximately 984,000 children were victims of abuse and neglect (U.S. Department of Health and Human Services, 1999). Furthermore, the attack on the U.S. on September 11, 2002, reminded all Americans of the reality of their vulnerability to danger and trauma.

Unfortunately, traumatic events are not likely to subside. No doubt, most psychotherapists and social service providers will treat someone who has been impacted by tragic events. Secondary trauma can emerge as traumatic material and stress that a client experiences and shares begins to manifest in the therapist as well, potentially threatening the caregiver's well being (Pearlman & Saakvitne, 1995). Now that awareness of this problem is on the rise, secondary stress is considered an occupational hazard for counselors (Figley, 1999). It is essential not to ignore the struggles that many psychotherapists face, as it is imperative that services for trauma victims continue. If

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psychotherapists providing trauma services become overwhelmed by their work, they will not only suffer themselves, but will also run the risk of harming the clients that come to them for treatment.

Since mental health care professionals are at risk for developing adverse reactions from working with traumatized clients (Figley, 1999; Pearlman & Saakvitne, 1995), there has been growing interest in the phenomenon of secondary traumatic stress (STS). Because the awareness of this construct is new, it is important to continue to understand its symptoms and to educate those who are at risk for developing it. Some have claimed, for example, that there is even an ethical "duty to warn" those who are planning on entering the field of trauma work about the possibility of developing significant work related stress reactions (Munroe, 1999).

In order to help their clients achieve optimal mental health, it is important for psychotherapists to safeguard their emotional and physical well-being (Valente & Marotta, 2005). Though there is substantial evidence supporting the phenomenon of secondary stress, the occurrence and severity of symptoms may be even more prevalent than reported because of the possible stigma about having psychological stress reactions that may exist for therapists. Specifically, it might be difficult for psychologists to admit symptoms because of the possibility of this being seen as a weakness, or a fault of the psychotherapist; or worse, fearing they will be less capable of serving their clients. The solution to STS, is not for treatment personnel to leave the field; therefore, it is imperative to take appropriate measures in continuing to study, to educate new trauma workers of the impending risks, and to promote efficient healing within the affected therapist.

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Contrarily, researchers assert that developing secondary reactions to the material a psychotherapist is exposed to, is not a weakness on the part of the practitioner (Figley, 1999). In like manner, secondary stress reactions are not necessarily a sign of pathology or indicative of faulty work (Figley, 2002). It should also be noted that it is not the fault of the client when traumatization of a therapist occurs. Secondary traumatic stress can be considered an inevitable and normal response to the challenging work with victims of trauma that needs to be resolved for effective work to continue. It is crucial to find a treatment that addresses all aspects of secondary traumatic stress symptomology.

Presently, strategies for dealing with the debilitating effects of STS highlight the importance of supervision, colloquial support groups, and personal therapy (Stamm, 1999). Though these techniques offer some help in ameliorating symptoms, more holistic approaches are needed. For example, self-actualization practices could both treat the effects of STS as well as provide psychotherapists with a foundation to maintain their mental health amidst their demanding work with clients. Additionally, cultivation of deeper levels of mental awareness could help inform a therapist's work even after STS subsides. It could also benefit those mental health care providers who have not developed symptoms of STS.

One means to opening new perspectives regarding awareness and deepening consciousness is through the practice of Iyengar yoga (Desikachar, 1995; Iyengar, 1966, 2005). Yoga can help distressed people promote their inner strength and find serenity; "yoga is about healing rather than curing" (Feuerstein & Payne, 1999, p.25). A distressed mind (which is associated with a distressed body and distressed spirit) needs to be restored in order for the clinician to be effective. In the therapeutic relationship, if the

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psychotherapist is troubled, the relationship with the client will likely suffer. Resolution is needed. Yoga may help the clinician obtain inner peace, balance, and awareness, in order to bring harmony to his/her life and work. In this dissertation, I argue that yoga can effectively alleviate a person's experience of secondary stress.

The literature on secondary traumatic stress is presented in Chapter 2. I review current theories, accounts, and empirical evidence supporting the existence and manifestation of secondary stress. Because people have referred to secondary traumatic stress using other names (e.g., vicarious traumatization, compassion fatigue, and even burnout), definitions and distinctions between names pertaining to secondary traumatic stress are examined. A definition of secondary traumatic stress is then provided and limitations of the literature regarding this syndrome are presented.

In Chapter 3, I discuss risk factors associated with the development of STS (i.e., personal trauma history, length of clinical practice, ethnicity, ability to empathize, existence of social support, and coping abilities). Chapter 4 reviews current treatment models and prevention strategies that are in place for dealing with STS.

Chapter 5 presents the literature on yoga, primarily Iyengar yoga. I also offer an explanation of why Iyengar yoga was chosen for this study. Also included in this chapter is an explanation of philosophical foundations, lifestyle, and spiritual aspects of yoga, followed by a description of the eight-limbed path, and obstacles to achieving a yogic way of being. The empirical research regarding yoga, mediation, and exercise are given in Chapter 6.

The last chapter illustrates how yoga can be used as an intervention with the above syndrome in order to create more peace and better working conditions for those

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therapists who are experiencing STS. Finally, a manual with specific postures and instructions to address symptoms associated with STS is provided.

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Chapter 2

Secondary Traumatic Stress

In recent years, there has been a growing interest in the unique stresses of professional psychotherapeutic practice. Though psychological impact following direct exposure to extreme traumatic events is well documented (e.g., Figley, 1995, 1999; Friedman & Schnurr, 1995), most of the literature on trauma focuses solely on those who are directly affected, excluding those who are traumatized indirectly or secondarily (Figley, 1995, 1999, 2002). Secondary traumatic stress response, which is its own unique form of trauma, occurs when a person is affected by the traumatic events experienced by another person. In other words, people who work with the suffering also suffer as a result of the work.

Before addressing secondary trauma, I will briefly review the definitions of primary trauma. The DSM III (APA, 1990) was a milestone in the progress of defining traumatic reactions. Posttraumatic stress was viewed as a psychiatric disorder that could be identified, diagnosed, and treated. The revision of the DSM-III and the DSM-IV both modified the symptom criteria. Nevertheless, understanding of posttraumatic stress disorder (PTSD) has grown over the past decade. Currently, according to the DSM-IV criteria, posttraumatic stress disorder may be diagnosed in a person who experienced, witnessed, or was confronted with a traumatic event where intense fear, helplessness, or horror was felt. Symptoms resulting from trauma must persist for a month and cause distress or impairment in social, occupational, or other functioning (DSM-IV, TR, 2000). Specific symptoms will be further explored later in this chapter.

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Trauma can occur instantaneously and randomly, (e.g., natural disasters or accidents), or it can occur from a premeditated personal violation (e.g., abuse or neglect). It can affect large groups of people, (e.g., terrorists attacks) smaller groups of people, (e.g., shootings at a school) or individuals (e.g., assaults). A traumatic event can cause a variety of negative reactions both in the immediate moment that it occurs and also in the long-term. Valent (1995) stated that:

> Because trauma is situated between life and death, health and illness, normality and abnormality, it occupies a crucial place for humans. As such, it ramifies all aspects of life...biological, psychological, and social (p. 46).

Psychological trauma may accompany physical trauma, or exist independently. A large body of research began to develop around the study of trauma due to war atrocity. In times of war, psychological trauma was formerly referred to as "shell shock."

According to The National Center for PTSD (2004), the diagnostic category, posttraumatic stress disorder, emerged after the Vietnam War. Individuals can directly experience trauma, or can be indirectly traumatized through second–hand exposure, such as being a witness to a traumatic event or through a relationship with the primary victim (Figley, 1989b). In the 1980's, literature began to emerge in relation to the secondary stress responses seen in emergency service workers, and in critical incident responders (Dumming & Silva, 1988; Marmar, Weiss, Metzler, Ronfelt, & Foreman, 1996).

Two important studies reveal the adverse impact of STS among critical incident workers. Marmar, Weiss, Metzler, Ronfelt, and Foreman (1996) identified stressors related to critical incident exposure in emergency service workers. Level of critical incident exposure, personality attributes, coping strategies, locus of control, and peritraumatic dissociative experiences were assessed. It was found that certain

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personality traits of the rescue individuals were significantly correlated with subsequent posttraumatic stress disorder among 157 rescue workers responding to the Nimitz Freeway collapse during the 1989 Loma Prieta Earthquake in the San Francisco Bay Area. The control group consisted of 201 rescue workers who were not involved in the disaster. It was found that rescue workers responding to the earthquake who were inhibited, uncertain about their identity, had an external locus of control, and displayed a tendency for emotional suppression and wishful thinking, were significantly at risk for developing acute dissociative responses to the trauma, or a diagnosis of PTSD. The control group showed much less risk of feeling overwhelmed and distressed.

In another study by Wee and Myers (2003), behavioral, psychological, cognitive, and physical symptoms of psychological stress were found in more than half (58%) of the 374 critical incident responders surveyed. Of the participants, 40% were found to be a high to extremely high risk for compassion fatigue (or secondary traumatic stress).

Within the last decade, more research related to secondary exposure to a traumatic stress among service providers has been done, though the majority of the literature to date is theoretical and reports mostly anecdotal evidence (Kassam-Adams, 1999). There are a small number of empirically based studies that have documented the acquisition of secondary traumatic stress. I will review the literature on secondary traumatic stress, addressing issues of nomenclature, as well as risk factors associated with secondary stress, and the sequelae that result.

Definitions and Distinctions

Adverse consequences of working with traumatized individuals have been recognized for some time. However, operationalizing this problem has been difficult.

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During the past decade researchers have defined the secondary stress reactions of therapists using several names, but essentially all referring to the same problem. The common idea between the various labels is the "cost of caring" (Figley, 1995).

Pearlman and Saakvitne (1995) provided a basic theory for understanding secondary traumatization in which they noted that there are several terms used to describe the exposure experience to another person's traumatic material. Similarly, in a review of the literature, Stamm (1997, p.1) stated that, "the great controversy about helping-induced trauma is not 'Can it happen?' but 'What shall we call it?"

After evaluation of much of the literature about the impact on a person who is indirectly involved with traumatic experiences, it is apparent that there is still not a consistent definition of the acquired stress disorder following this type of exposure. The terms that come up most often in the literature are "vicarious traumatization," "compassion fatigue," "secondary traumatic stress," "countertransference," and "burnout". Measures have been taken to both distinguish between, as well as to assimilate these different terms (Figley, 1995, 1999; Stamm, 1997).

At this point, there is no standard vernacular to describe this phenomenon. Lack of operational clarity may hinder further research and measurement of the construct, which in turn will impair future empirical advancement.

Definitions and distinctions are given with regards to the various terms. Research will be presented that has been done using different names to assess a very similar phenomenon. Although one name is chosen for the purpose of this dissertation, the research that follows under the guise of separate names together encapsulates varying aspects of the cost of caring,

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Secondary Traumatic Stress. Charles Figley (1999, p.10) defined "secondary traumatic stress" as "the natural, consequent behaviors and emotions resulting from knowledge about a traumatizing event experienced by a significant other. It is the stress resulting from helping a traumatized or suffering person". Figley argued that primary traumatic stress disorder should refer directly to those who experienced a traumatic event, while secondary traumatic stress disorder characterizes disorders present in supporters or helpers of those experiencing posttraumatic stress disorder (PTSD). He further stated that people with secondary traumatic stress disorder develop similar symptoms of PTSD as those described in the Diagnostic and Statistical Manual of Mental Disorders. Figley (1995) hypothesized that those who work with trauma victims are just as likely to develop traumatic stress symptoms as those who experience trauma first-hand. Symptoms of secondary traumatic stress which nearly mirror PTSD symptoms include: (a) re-experiencing the traumatic event cognitively or during dreams (McCann & Pearlman, 1990; Stamm, 1995), (b) avoidance or numbing of things associated with the client's traumatic event/material such as avoidance of thoughts, feelings or situations related to the traumatic event/material (Figley, 2002; McCann & Pearlman, 1990), (c) loss of interest in activities previously found pleasurable (Stamm, 1995) (d) diminished affect, detachment, sense of foreshortened future, somatic complaints including headaches, gastrointestinal distress, and heart palpitations (Figley, 1986, 2002), (e) difficulty sleeping or concentrating (Figley, 2002; Stamm, 1995), (f) exaggerated startle response, hypervigilence (Figley, 2002; Stamm, 1995), (g) feelings of dissociation with friends or family (Figley, 2002; McCann & Pearlman, 1990), and (h) decrease in functioning at work, home, social settings (Figley, 2002).

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It is important to note that criterion (1) for the diagnosis of PTSD states, "the person experienced, *witnessed*, or *was confronted with* an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of oneself or *others* (italics added) ..." (DSM-IV-TR, 2000, p. 467). The manual also indicates that "...*learning about* unexpected or violent death, serious harm, or threat of death or injury by a family member or other close associate" (italics added) is a criterion for PTSD (criterion A1, p. 425). This indicates that merely being confronted with traumatic experiences can elicit symptoms of PTSD.

The parallel of secondary traumatic stress symptoms and PTSD symptoms was demonstrated in a study done by Meldrum, King, and Spooner (2002). Of three hundred mental health professionals surveyed practicing in Australia, 17.7% were found to be experiencing symptoms equivalent to those experienced by people who meet the criteria for a PTSD diagnosis in quantity, quality and intensity. An additional 18% of the caregivers showed significant, but sub-clinical, levels of PTSD/ STS symptoms. These data can be better understood against the lifetime prevalence of PTSD among American adults, which is 7.8% (Stamm, 2002). The percentage of therapists in this study experiencing PTSD symptoms was considerably higher than the average adult population.

In another important study concerning PTSD symptoms in caregivers, Kassam-Adams (1999) surveyed 100 masters and doctoral level psychotherapists, and found that nearly half experienced a "high level" of intrusive and avoidant symptoms related to their work with trauma clients. On the other hand, work with other difficult types of clientele did not produce PTSD symptoms as measured by the Impact of Event Scale

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The phrase "secondary traumatic stress" is frequently used in the literature to address this type of traumatic response. Variations of this label include "secondary traumatic stress disorder", or "secondary traumatization". It has been suggested that secondary traumatic stress represents the broadest term, with compassion fatigue, vicarious traumatization, and some forms of countertranference representing specific types of secondary traumatic stress (Stamm, 1997).

Vicarious Traumatization. McCann and Pearlman (1990) proposed the phrase, "vicarious traumatization" to describe negative cognitive schemas and behavioral changes in therapists resulting from empathic connection to a client's traumatic experience. Pearlman and Saakvitne (1995) went on to note that vicarious traumatization differs from secondary traumatic stress and compassion fatigue because it is founded within a constructivist personality theory, which emphasizes meaning and adaptation rather than overt symptoms.

Constructivist Self Development Theory (CSDT) emerged from postmodern consideration and was developed by McCann and Pearlman (1990). It blends aspects of contemporary psychoanalytic theory, self-psychology, and object relations, with social cognition and schemas theories to provide a basis for comprehending the varied experiences of trauma victims. This therapeutic approach is based on the premise that people are unique and complex, characterized by a variety of behaviors, beliefs, and attitudes. The core assumption in CSDT is that an individual's adaptation to a traumatic event is comprised of the interaction between one's personality, history, social and cultural context, the traumatic event, and its distinctive nature (Pearlman & Saakvitne, 1995). Several others have also argued that all forms of secondary stress reactions

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produce changes in life's meaning, cognitive functioning, behavior, and ability to adapt, while integrating the traumatic information (e.g., Boscarino, Figley, & Adams, 2004; Figley & Figley, 2001; Paton & Violanti, 1996; Stamm, 1997).

In their important empirical study, Pearlman and Mac Ian (1995) used the expression vicarious traumatization when examining the effects of providing trauma treatment on therapists. Vicarious traumatization in 188 self-identified trauma therapists who completed a questionnaire regarding their work with trauma survivors was assessed. Variables used in the analysis related both to the exposure to trauma material (e.g., hours/week, percentage of caseload are trauma victims, and how long a therapist has practiced), as well as age, income, education, work setting, use of personal therapy for affects of working with trauma clients, and therapist's personal trauma history. The researchers defined vicarious traumatization in their study as:

> The transformation that occurs within the therapist (or other trauma worker) as a result of empathic engagement with client's trauma experiences and their sequelae. Such engagement includes listening to graphic descriptions of horrific events, bearing witness to people's cruelty to one another, and witnessing and participating in traumatic reenactments (p. 558).

Pearlman and MacIan found therapist's personal trauma history to be an important predictor variable and they decided to divide their sample into therapists with a trauma history and those without. Although both groups showed a significant increased level of distress, therapists with a trauma history reported more disruptions in schemas and higher distress levels than therapists without a personal trauma history. Because the sample was a self-selected group of trauma therapists, the results must be interpreted with caution. Nevertheless, results indicated the need for more training and support for both subgroups of survivor trauma therapists. The results were also consistent with previous studies

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showing adverse effects from working with trauma clients (though again, different names were used).

The literature on vicarious traumatization provides an important contribution to understanding secondary stress by depicting the sequelae that may result from this demanding work. In addition to symptomatic responses, more profound impacts on the psychotherapist, such as one's altered beliefs, expectations and assumptions about the world, as well as possible feelings of hopelessness and powerlessness have been noted (MaCann & Perlman, 1990). Additionally, Pearlman (1999) suggested that therapists working with trauma victims, often expressed problems in the spiritual domain. Pearlman & Saakvitne (1995) declared that spirituality received the most devastating impact of STS. They claimed that a" loss of sense of meaning for one's life, a loss of hope and idealism, a loss of connection with others and a devaluing awareness of one's experience" together negatively affected one's spiritual well being. Many researchers agree that spirituality is altered or disrupted by traumatic experiences (Decker, 1993; Pearlman & Saakvitne, 1995)

Compassion Fatigue. Joinson (1992) first used compassion fatigue to describe emergency room nurses who were suffering from burnout due to their daily exposure to traumatized patients. Figley (1995) defined compassion fatigue as a reduced capacity to have empathy for, or bear the suffering of, clients. He described compassion fatigue as "the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a person" (p.7). This conceptualization of compassion fatigue implies that the psychopathology resulting from a trauma can be vicariously transmitted through the care giving process. This conception is similar to ideas of

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"vicarious learning", advocated by social learning theorists many years ago (e.g., Bandura, 1969), and though it has a different name than vicarious traumatization, or STS, the definition sounds remarkably similar.

Adams, Boscarino, and Figley (2004) assessed compassion fatigue among New York City social workers subsequent to the September 11th terrorist attacks on the World Trade Center. A random sample of 236 clinically active social workers treating directly traumatized clients completed an anonymous questionnaire related to their work/life situation. The research focused on two main outcome variables: compassion fatigue (symptoms similar to those of PTSD) and burnout (an inability to achieve one's goals in relation to one's work). Items were taken from three scales, to make a shorter, but valid measure of burnout and compassion fatigue. Initial data suggested that compassion fatigue was a unique feature of working with trauma clients and it was not merely a manifestation of negative life events, personal trauma sequelae, or lack of social support. The analysis offered evidence that controlling for demographics, years of counseling, social support, and personal trauma history, compassion fatigue was highly prevalent among these social workers. Outcome findings also suggested that "burnout" is different from compassion fatigue.

It should be noted that generalizing these results beyond social workers in New York should be done with appropriate caution, as there may be certain aspects of trauma inherent in this region of the country, or in this particular disaster. However, mental health care providers nationwide and across different aspects of care giving may face similar circumstances. It should not be overlooked that the social workers living in New York City may have also been affected by the attacks on a personal level themselves,

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which could have impacted the results of this study. Although the researchers used the term "compassion fatigue" for this study, they did not distinguish it significantly from the term "secondary traumatic stress" but referred to both interchangeably throughout the study.

Countertransference. "Countertransference" is a term derived from Freud's early work which emphasized both the patient's unconscious response to his/her therapist (transference) and the therapist's unconscious response to his/her patient (countertransference). Freud (1917) believed that a therapist's unconscious conflicts would be activated through interpersonal engagement with a client, thus resulting in countertransference. At times, when countertransference does emerge while working with a traumatized client, it is conceptualized as an unconscious taking on of client's hurt from a trauma, or the unconscious identification with the client's suffering, which can be very similar to secondary stress responses. Countertransference, however, can occur in many situations and is not limited to work with a trauma victim. Countertransference inevitably occurs in all counseling relationships and involves the therapist's emotional response and/or reactions to the client.

McCann and Pearlman's (1990) provided credence to the pervasive effects of working with trauma victims on the helper. Although countertransference was discussed, it was suggested that this construct was considered too narrow because it did not address the lasting schema alterations that occur for the therapist. According to Stamm (1997), countertransference is a more general concept than secondary stress reactions, since it refers to any reaction a therapist has to a client or the material brought in by a client. Despite the dangers inherent in countertransferance, Herman (1992) noted that effectively

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utilizing aspects of countertransference proved a useful component when treating trauma victims.

Burnout. Another commonly heard term related to secondary traumatic stress is "burnout". A significant body of research (conducted mostly in the 1980's) focused on burnout and the potentially high risk of burnout when practicing psychotherapy. This term has been used in the medical literature as well (Riordan & Saltzer, 1992). However, it appears that burnout is related more to increased workload and institutional stress, than to secondary trauma (Stamm, 1997). According to Figley (2002), burnout results from an inability to accomplish goals related to work and is marked by feelings of frustration and powerlessness. Maslach (1982) described burnout as the development of a detached or depersonalized stance often resulting in a disregard or indifference to others' feelings. Furthermore, burnout involves exhaustion and emotional numbing (Pines & Aronson, 1988), while secondary traumatic stress is characterized by hypervigilence, which may cause the therapist to develop a sensitivity to violence, to become cynicical or to experience pervasive grief or sadness (Pearlman & Saakvitne, 1995). In addition, secondary traumatic stress is specific to trauma workers, while burnout is non-specific and may occur in a variety of contexts. Although there are noted differences between burnout and secondary traumatic stress, both are cumulative and may result in depression, insomnia, loss of intimacy with friends and family (Arvay & Uhlemann, 1996).

Defining Secondary Traumatic Stress

As noted, there is no uniform designator, nor is there a meaningful classification for the multiple terms used to describe the stress a therapist often experiences when working with trauma victims. For the purposes of this presentation, the idiom secondary

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traumatic stress addresses the negative experiences among psychotherapists resulting from provision of services to victims of psychological, physical, or sexual trauma. STS refers to the result of *cumulative* effects of clinical work on the psychotherapist that develop over time and across clients and therapeutic interactions. It involves the enduring alteration in the therapist's identity, worldview, and sense of spirituality (Pearlman & Saakvitne, 1995). In addition, "vicarious trauma" and "compassion fatigue" will be used interchangeably with STS. I will not, however, use the terms countertransference and burnout as synonymous with STS. In summary, no unequivocal distinction has been made between vicarious traumatization, compassion fatigue, and secondary traumatic stress. The latter expression has been chosen because it best encompasses all secondary stress reactions experienced by a clinician.

Limitations of STS Research

Although this area of research is expanding, there are a number of limitations in the current studies. Primarily, the use of so many different names to address a very similar phenomenon seems to result in a disjointed platform from which to move forward in the research. Additionally, empirical work concerning secondary traumatic stress may be restricted because existing measures may not be sufficiently sensitive to accurately quantify this construct (Kassam-Adams, 1999). Until very recently, assessment instruments used in research on secondary traumatic stress were designed for trauma survivors who were directly exposed, and have been normed on such samples (Bride, Robinson & Figley, 2003). It is, therefore, unclear at this point if these measures accurately measured STS. Also, because most of the studies to date have used self-report measures, the possibility of social desirability and expectancy bias may be operative.

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An additional limitation concerns the number and severity of psychotherapists experiencing STS. Because of the possible stigma that therapists may feel if they reveal their level of distress, the true experience of STS may not be fully claimed and documented. Finally, STS, a complex and dynamic syndrome, encompasses many aspects of the psychotherapist's person. Most of the literature on STS has paid little heed to the somatic and spiritual components of the syndrome, which have been detected in much of the research on primary trauma (Levine, 1997; Herman, 1992; Gordon, 1996). Literature regarding secondary trauma, though argued to resemble primary trauma, falls short in making explicit the complex manifestation of the experience.

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Chapter 3

Risk Factors for Developing STS

Although anyone who works with traumatized people may be at risk for developing STS, it is important to explore what characteristics, either personal, or external, increase the risk for developing adverse reactions. Many predictor variables have been identified or hypothesized as predictors for STS. These factors include personal trauma history, amount of time working in field, ethnicity, ability to have empathy, existence of social support, and ability to cope with difficult situations.

Trauma History

It is likely that those working with trauma victims have experienced some form of trauma in their own lives (Figley, 1995; Pearlman & Mac Ian, 1995; Pearlman & Saakvitne, 1995). Thus much of the empirical research done in regards to who is at risk for developing STS has used the therapist's "personal trauma history" as a predictor variable. However, the results of investigations have varied in regards to the relationship between the development of STS and personal trauma history (i.e., not all correlations were significant).

As previously mentioned, Pearlman and MacIan (1995) examined harmful effects arising from the provision of therapy in 188 trauma therapists, finding that those with a trauma history (60% of original sample) showed significantly more negative effects from their work, than did those without a personal trauma history. In relation to their own work with trauma victims, therapists who had personal trauma histories scored lower in areas of perceived safety, self-trust, self-intimacy, and self-esteem than those without a personal history of trauma. They also reported higher levels of general distress.

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These findings are consistent with those of Kassam-Adams (1999), who surveyed 100 psychotherapists working with sexually traumatized clients. Personal trauma history, along with gender (female), and amount of exposure to traumatized clients, contributed significantly to the therapists' PTSD symptoms. Kassam-Adams noted that *childhood incident of trauma* proved to be the main factor that contributed most to the development of PTSD symptoms as a result of work with trauma victims.

At the same time, however, it should be noted that other studies have not found trauma history to be a predictor of STS. Follette, Polusny and Milbeck (1994), examined "secondary traumatization" in 225 mental health care workers and 46 law enforcement officers who were providing services to childhood sexual abuse victims. The respondent's own childhood abuse history, current personal stressors, current PTSD symptoms, and current coping strategies were assessed. A multiple regression analysis showed that personal abuse history was not a significant predictor of secondary trauma responses; rather, coping strategies and current stressors predicted secondary traumatic symptoms. This finding is consistent with research assessing STS in trauma workers associated with the 9/11 terrorist attacks (Boscarino et al., 2004). It was found that the number of traumatic events in a clinician's history was not significantly correlated with secondary trauma.

One limitation to the above studies is that they failed to quantify STS in mental health care providers with and without trauma histories that have not been exposed to traumatized clients. It could be argued that a therapist with an unresolved trauma history may develop symptoms similar to STS regardless of the clientele treated. If there is

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awareness of unresolved personal trauma, Pearlman and Saakvitne (1995) suggested that a therapist seek personal therapy before treating traumatized clients.

Though some studies have not shown trauma history to be a significant predictor of STS, many researchers, nevertheless, continue to believe it may play some role in the development of symptoms (Figley, 1995; Follette, Polusny & Milbeck, 1994; Kassam-Adams1999; Pearlman & MacIan1995; Pearlman & Saakvitne, 1995).

Length of Clinical Practice

Another identified possible risk factor that may contribute to STS has to do with amount of time working with traumatized clients and caseload (i.e., number of traumatized clients being cared for). Discrepancy exists among findings regarding this variable. Pearlman and MacIan (1995), for example, found that new therapists were particularly vulnerable to STS. They reported that therapists new to trauma work had the most difficulties and required more supervision than those who had been in the field longer. The researchers suggested that those therapists with highly disrupted schemas (e.g., disruptions in safety, trust, intimacy, esteem and power) left the field, leaving those who experienced less impact from the work.

However, in a more recent study assessing secondary traumatic stress symptoms in 360 Child Protective Service (CPS) professionals, it was found that those who had worked in the field for 5 or more years reported more severe STS symptoms than those who were employed for less than five years (Myers & Cornille, 2002). CPS workers who had been in the field longer had more anxiety and irresistible thoughts, impulses, and actions than their less experienced peers. It was also found that CPS workers who worked more than 40 hours/week self reported more anger, irritability, nervousness, exaggerated

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startle response, poor concentration, hypervigilence, nightmares and intrusive thoughts and images than those who worked 40 hours a/week or less. In conclusion, those who worked more years providing services as well as those who worked more than 40 hours/week reported more symptoms of STS than their counterparts.

Similarly, Myers and Wee (2002) also found that increased number of months providing services to the bomb survivors post Oklahoma City bombing was directly proportional to risk for developing STS. The sample studied included 34 disaster mental health workers who provided counseling following the bombing of the Alfred P. Murrah Federal Building in Oklahoma City using the Symptoms Checklist-90-R, the Compassion Fatigue Self-Test for Helpers, the Burnout Scale, the Global Severity Index, and the Frederick Reaction Index-A. Although 64.7% of mental health workers providing services after the bombing showed some degree of severity for stress disorder, those who had been working with the bomb survivors longer had higher mean stress scores, (which significantly correlated with STS), than those who had been working with the survivors for fewer months. Additionally, the severity of problems amongst clients in one's caseload was seen as associated with increased severity of secondary stress reactions. This was hypothesized because when the initial group was divided into two subgroups, administration and direct services, the administrators scored significantly higher on compassion fatigue, burnout, Global Severity Index, and Positive Symptom Total on the Symptom Checklist-90-R than did the direct service providers. One proposed reason for the discrepancy in scores between the administrators and those providing direct services may be due to the intensity of the cases presented to them for help; perhaps the most severe situations landed in the hands of the administration.

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Though the statistics are somewhat varied, it seems logical that one might experience more symptoms the longer s/he stays in the field, and thus is exposed to more traumatic material. Similarly, the more traumatized clientele one has in his/her caseload, the more it seems possible to experience adverse reactions to the work.

Ethnicity

Another potential risk factor for STS is ethnicity. For example, are mental health providers with ethnicities other than Caucasian at a high risk for developing STS? It should not be overlooked that many of the studies done on STS were largely based on middle-aged Caucasian women.

The study by Myers and Wee (2002) is instructive in this matter. They found a higher level of distress among Latino, African American, Native American and "other" ethnic groups, than was the case for Caucasians. Although distress levels were not statistically significant at the .05 level, symptoms were higher for minority groups, (e.g., the mean GSI score for Caucasians was 52.25, while it was 62.43 for the other ethnic groups, p=.065). The researchers noted the possibility that these higher levels of distress may have existed even before the bombing disaster due to many stresses faced by non-majority ethnicities. The sample used in the study was comprised of 73.5% Caucasian, 8.8% African American, 2.9% Latino, and 8.8% Native American. Clearly, more research is needed with a larger ethnic representation to clarify if the differences are significant and also what they are more precisely.

Psychosocial Risk Factors

Empathy. It has been theorized that the psychotherapist's level of empathic attachment to the patient is of central importance to the patient's progress in therapy

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(Skovholt, 2001; Valente & Marotta, 2005). Though empathy is crucial in helping a traumatized person feel more supported, cared for, and understood, devoting oneself to, and empathizing with another's suffering may make it difficult for the psychotherapist to distance him/herself from the terror, fear, and other stress responses experienced by the victim. In fact, empathy has been found to be a contributing factor in the development of STS. Pearlman (1999) defined STS, or vicarious traumatization, as resulting directly from empathizing with trauma survivors. Figley (1999) believes that the capacity for compassion and empathy seems to be at the core of our ability to do the work and at the core of our ability to be wounded by the work. Those who have a high capacity to feel and express concern towards others who are suffering tend to be more at risk for compassion stress (Figley, 1995; Pearlman & Saakvitne, 1995). This presents a delimma for the psychotherapist because if he/she were to avoid empathizing with a traumatized client, s/he might avoid developing STS; s/he also risks avoiding helping the client.

Social Support. One of the symptoms of being traumatized is a tendency towards isolation (Saakvitne & Pearlman, 1995). Many researchers have proposed that decreased social support, however, puts one at higher risk for STS (Stamm, 1999). In the study randomly surveying 100 masters or doctoral level outpatient trauma psychotherapists, Kassam-Adams (1999) found that higher support ratings were significantly associated with lower levels of work stress. Again, conclusions from the Boscarino et al. (2004) study that assessed STS after the WTC attack are revisited. In this research of war, it was found that having a supportive work environment (i.e., social support at work) was negatively associated with secondary trauma.

STS Buffers

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Coping

Finally, Antonovsky (1990) proposed that one's coping mechanism relates to amount of stress experienced. Therefore, it is hypothesized that one's ability to use effective coping mechanisms may decrease the development of STS responses. Myers and Wee (2002) emphasized that therapists manage work-related stress better when active coping mechanisms (i.e., pursuing activities that promote physical and spiritual well-being) are in place. Similarly, Herman (1992) claimed that mature coping strategies such as altruism and humor aid the trauma therapist in dealing with stressful material. Health care providers who have learned effective ways to cope with difficult work stresses may be a less risk for accruing STS symptoms; whereas therapists with less effective coping strategies may tend to develop more severe symptoms.

Compassion Satisfaction

Stamm (2002) has hypothesized that compassion fatigue (another way of referring to STS symptoms) also encompasses positive factors. How can one endure secondary negative reactions without the potential for also experiencing secondary positive reactions? The satisfaction one gets out of helping others may play a crucial role in identifying STS. Stamm recognized that an element of compassion fatigue (i.e., "feeling and acting with deep empathy and sorrow for those who suffer," p. 107) must exist and compel therapists to do the work that they chose to do. This definition provides opportunity for experiencing both negative and a positive aspects of compassion. Although challenging, many people who pursue the helping profession obtain satisfaction from helping those in need. It should not be overlooked that at times, the positive components of treating traumatized people outweigh the negative. Clinicians often enjoy

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bearing witness to the strength, creativity, and resilience of survivors; and rejoice in the courage and healing power of the human spirit (Herman, 1992; Saakvitne & Pearlman, 1995).

Until this point I have centered on the negative consequences of working with traumatized clients. However, it is obvious that many professionals continue to work with trauma victims and new workers pursue the field. Clearly, there are numerous rewards for compassionate care for others who are in the midst of significant distress.

In fact, the possibility arises that positive aspects of caring may act as a buffer against STS. Kassam-Adams (1999) noted that such positive attributes should be included in the assessment of STS in order to get a fuller picture of the experience of the psychotherapist:

> The potential positive effects of doing trauma work - personal growth, spiritual connection, hope and respect for human resiliency- should also receive attention, as they are factors most likely to retain talented and effective therapists in this important work (p. 46).

Stamm (2002) developed a set of queries corresponded to features of compassion satisfaction. Because this subscale was newly created and recently revised, validity issues have not been fully ascertained. The revised test is called the ProQOL, Professional Quality of Life Scale: Compassion Satisfaction and Fatigue Subscales: R-III, (Compassion Satisfaction Test).

As previously mentioned, Wee and Myers (2003) surveyed persons providing critical incident stress management services, and found that over half of the participants were at high to extremely high risk of developing compassion fatigue. Results demonstrated that of the same sample, 87% of respondents were found to have high to extremely high potential for compassion satisfaction. This finding suggests that although

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compassion satisfaction results from providing care, it does not inhibit the possibility of developing STS.

Compassion satisfaction has been identified as part of the process of caring for those who are suffering. Although compassion satisfaction has been recently taken into consideration when trying to further understand and detect STS, it is often disregarded as a factor in the treatment models for those suffering from this disorder. Though compassion satisfaction does not completely mitigate STS, some protective factors identified in the literature on compassion satisfaction are believed to buffer against the development of STS.

Conclusions

No doubt the world is filled with violence and trauma, which contributes to feelings of anxiety, depression, and stress. The psychotherapist is often exposed to disturbing images, stories, and the cruel potential to hurt one another that human beings possess. Trauma survivors share feelings of decreased safety, powerlessness, and increased distress, which can be assimilated by the therapist impacting his/her self-identity, worldview, and spirituality.

Certain risk factors make psychotherapists more susceptible to developing STS such as: personal trauma history, length of clinical practice, ethnicity, ability to empathize, and decreased social support. Alternatively, one's coping strategies and level of compassion satisfaction can act as a buffer against STS.

It is proposed that increased self-awareness by the psychotherapist renders him/her less vulnerable to the harmful personal effects that may occur from such a

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demanding profession. I chose yoga as a means to foster this deeper level of self-awareness.

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Chapter 4

Primary, Secondary, and Tertiary Prevention and Treatment of STS

Empirical studies on effective prevention and treatment of STS are rare. There is, however, some theoretical literature addressing prevention and treatment of the disorder. Research must identify which treatment modalities are the most effective for specific types of mental health providers, taking into consideration moderating factors such as gender, ethnicity, age, and type of profession. In the meantime, clinicians must practice with appropriate self-care. Obtaining a proper balance of one's caseload, colleague and social supports, and supervision are vital to preventing and managing STS.

Major theories about preventing and treating STS will be presented in this section, including the Accelerated Recovery Plan and the Traumatic Stress Institute Program. Subsequently, components thought to be important in prevention and treatment of STS such as self-care, support systems, and supervision will be given. Stamm's proposition for Internet use, called Telehealth, to mitigate STS will be examined, and finally the promise of yoga will then be explored.

Accelerated Recovery Program

The Accelerated Recovery Program (ARP) designed by Gentry, Baranowsky, and Dunning (2002), was one of the first treatments developed specifically to assist professionals suffering from STS. The APR was originally created as a five-session intervention to aid professionals in reducing the intensity, frequency, and duration of symptoms associated with STS. Since its construction, the developers have also developed a one-day group session, and a three-day workshop. This program is

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comprised of theory from other brief trauma procedures, assessment of STS, and a self-care plan (PATHWAYS). The APR has incorporated a uniform component treatment model and includes the features given in Table1.

Table 1. **Accelerated Recovery Program Components**

1. Therapeutic Alliance – issues of care-givers seeking help are addressed
2. Assessment- quantitative and qualitative, which help professionals identify symptoms
3. Anxiety Management-anxiety reduction tools are given to participants
4. Narrative- allows the professional to tell his/her story
5. Exposure/Resolution of STS- exposure methods which are used in treatment of PTSD
6. Cognitive Restructuring- becoming aware of and challenging internal dialogue
7. PATHWAYS- Self-directed resiliency and aftercare plan- discussed below

Note. From Gentry, Baranowsky, & Dunning, (2002).

PATHWAYS identified five areas of life, which correlated with reduction of STS: resiliency skills, self-care, connection with others, skills acquisition, and conflict resolution. Each participant is asked to attend to each area on a personal level and is encouraged to resolve primary traumatization before partaking in the ARP. This treatment model has been used with individuals, groups, and communities with reported success, though there is no empirical validation for these claims.

Traumatic Stress Institute

The Traumatic Stress Institute (TSI), in South Windsor, Connecticut, is a therapy center which not only provides services for trauma victims, but also specializes in

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addressing indirect trauma experienced by therapists who work with trauma victims (Rosenbloom, Pratt, & Pearlman, 1999). This organization has developed a strategy that prevents and treats STS. Emphasis is placed on the training and supervision of all clinical staff. It is the aim of supervision to provide a safe environment for the clinician. An hour a week is also set aside for the entire staff to confidentially process feelings that may have come up in regards to their work. The philosophy of TSI assumes that STS is an inevitable part of doing trauma work. In addition, the organization encourages therapists to take time off when needed for illness or vacation, to continue their education, and to vary their caseloads and types of professional work.

Though this comprehensive system for treating STS addresses several areas of a psychotherapist's life affected by the syndrome, it fails to attend to the spiritual disruptions that often result. Further, issues such as perceived safety, self-esteem, and feelings of powerlessness are not directly addressed.

Preventative Activities

Self-care. According to Pearlman (1999), many aspects of the self are affected by doing work with traumatized clients. Different strategies for dealing with the various symptoms and personality characteristics of the distressed therapist were suggested. The following is a brief summary of some of the self-care activities suggested: (a) integrating different types of clients into one's caseload, not just trauma survivors, (b) diversifying personal work (e.g., teaching, research , or supervision), (c) remaining connected, or reconnecting if needed, to one's body and feelings, (d) continuing to stay connected to other people and (e) engaging in self-nurturing activities similar to those assigned to clients. Though Pearlman acknowledged the importance of self-care, particularly

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connecting with self, body, and others, she did not extensively explain how this can be done. I believe the practice of yoga can accomplish this goal.

Support Systems. Figley (1999) identified three factors that may prevent STS. First, he proposed that trauma-training programs should require their workers to process any information that may be distressing. He further emphasized that traumatic material should be discussed with workers' personal support system in a confidential manner. Lastly, he recommended that individuals experiment with different procedures that help the worker avoid STS, like developing a support system in which to share troubling information.

Consistent with Figley's suggestions, Catherall, (1999) highlighted a theory dictating the importance of professional peer groups when doing trauma work was highlighted as a crucial supplement to treating STS. This model for dealing effectively with trauma victims pronounced that consulting with other trauma therapists can combat STS by correcting distorted perceptions, providing occasion to reframe traumatic material, setting norms, and offering general support. Though Catherall identified the professional peers' capacity to dilute the effects of secondary trauma, he also recognized that these same people held the power to worsen the experience. He believed that therapists who do intimate work with trauma clients not only run the risk of getting adversely effected, but also may in turn become unable to offer appropriate therapy to their clients.

The foundation of this theory of treating secondary stress stemmed from the idea that when a therapists experiences STS, the mental health of both the client and the clinician are at risk. Thus, it is important for a therapist to adaptively manage symptoms

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and receive adequate support for these reactions. Also emphasized was the need for group cohesiveness and a recognition that STS is likely for those engaged in trauma counseling. The essential concept of a peer support group was that if one person experienced STS, then it became the problem of the entire group, not just of that individual. This component was fundamental to his proposition in order to avoid alienation of the therapist who was suffering, potentially worsening his/her traumatic symptoms.

Many researchers have proposed that increased social support may be a buffer against the development of STS (Stamm, 1999; Figley, 1995; Pearlman & Saakvitne, 1995). As noted earlier, Kassam-Adams (1999) found that higher support ratings were significantly associated with lower levels of work stress. It is feasible to say that social support may be an adequate component in preventing STS.

A limitation to social support acting as a major buffer to symptoms is that the quality of one's relationships gets overlooked. Whether these relationships are fulfilling or not must be taken into account. Furthermore, there is a risk that caregivers' symptoms may be damaging to their social support system/relationships. Figley, (1989) reported traumatized people complained that family and friends forbid them from continuing to talk about traumatic experiences because it was so distressing to the listeners. Similarly, Stamm (1999) raised an important question, "What if the quality of support we feel is fragile?" (p. xxv). Though support by friends, family, and colleagues may be crucial to battling STS, it is perilous for one not to rely solely on others to feel sustained.

Supervision. Figley (1999), among other researchers (e.g., Pearlman & MacIan, 1995), proposed that an important component thought to both prevent and decrease existing STS symptoms is the availability and use of supervision. Supervision was an

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important factor in mitigating STS in the TSI program, as previously discussed (Rosenbloom, Pratt, & Pearlman, 1999). However, Kassam-Adams (1999) found that among the 100 participants surveyed, neither availability of supervision, nor other forms of support in the workplace, was correlated with the level of PTSD symptoms reported by the therapist. Reliance on supervision alone creates a similar problem in the one explored in regards to social support, putting heavy emphasis on others to achieve well-being.

Telehealth. Stamm (1999) reminded therapists of the available resources online. She advocated for using email to check in with peers. Training, supervision and consulting are other possibilities that can be achieved online. She also proposes setting up online discussion lists and direct contact to colleagues. She calls this type of virtual community, Telehealth. Telehealth is especially useful for therapists who are practicing in remote areas and have less opportunity for colleague support or contact. Though Telehealth may be beneficial for many therapists in gathering resources and sharing feelings, thoughts and experiences, it also lacks in addressing the STS in its entirety.

Limitations of STS Treatments

Though the current methods of treating and preventing STS may temporarily relieve some aspects of distress in a mental health care provider, strengthening the potency of available interventions is desirable. Present treatment and prevention plans do not include spiritual aspects of healing even though researchers have found spiritual repercussions to the work (Pearlman & Saakvitne, 1995: Myers & Wee, 2002). Also few of the interventions addressed the physical aspects of STS. In order to fully treat trauma reactions, it is very important to address both the somatic and spiritual disruption resulting from trauma.

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Within the field of psychology, it is well accepted that the personal development of the psychotherapist is essential for achieving professional success (Valente & Marotta, 2005; Sutherland, Sutherland, & Hoehns, 2003). The commitment to self-awareness has been identified as a fundamental aspect of the professional development of the psychotherapist (Baker, 2002). Currently, none of the treatment or prevention programs for STS work directly on fostering self-awareness in the psychotherapist. Therefore, Iyengar yoga is presented as a viable treatment for those suffering from STS.

Yoga, unlike the existing treatment modalities, is a discipline that is geared towards promoting greater self-awareness. It equips the practitioner with a sense of spiritual identity (Iyengar, 2005). It also addresses the physical domain of a person, which is often effected by work stress. Yoga, when practiced in a group setting, can provide the opportunity for community and social support as well. It also tends to feelings of powerlessness, empowering the practitioner with inner strength. It calms and sooths an agitated mind and a tense body.

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Chapter 5

Yoga Background

> *Yoga is not merely a subject that one may choose for one's study, it is a system that must be accommodated into one's personal and practical life, as an art, by which one places himself [or herself] in a greater proximity to that great ideal of all life.*
>
> Sri Swami Krishnanada, 2004
> (Iyengar's Guru)

In the current chapter, the basics of yoga are explained. A definition is included, the origin of yoga is highlighted and the philosophy of a yogic lifestyle is also briefly explored. Empirical evidence regarding the positive outcomes of a practice is provided.

Yoga Defined

According to lifetime yoga student and teacher, T.K.V. Desikachar (1995), the son of Iyengar's teacher, Sri Tirumalai Krishnamacharya, yoga has been defined as '*chitta vritti nirodha*' . *Chitta* is the consciousness, which includes the mind, the intellect, and the ego. *Vritti* means fluctuations of the mind. *Nirodha* means restraint or suppression. According to Iyengar (1966), Patanjali believed that yoga was a method of silencing the vibrations of *chitta.* In total, *chitta vritti nirodha* can be translated as "suppression (*nirodha*) of the fluctuations (*vritti*) of consciousness (*chitta*)" (p. 20). Iyengar has conceptualized yoga as "wisdom in work, or skillful living amongst activities, harmony and moderation" (Iyengar, 1966, p. 20). A further definition of yoga is "to tie the strands of mind together" (Desikachar, 1995, p. 5).

The word *yoga,* derived from the Sanskrit root *yuj*, means "union" or "integration" (Feuerstein, 2001) and seeks this on many levels (i.e., mind/body, rational

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thinking/emotions, breath/movement). According to Iyengar (1966), the actual meaning of the word yoga refers to the coming together of the individual human spirit (*jivatma*) with the Supreme Universal Spirit (*Paramatma*), which in Indian thought permeates all being. Yoga teaches "the means by which the *jivatma* can be united to, or in communion with, the *Paramatma*, and so secure liberation (*moksa*)" (Iyengar, 1966, p. 19).

Another meaning of yoga is "to attain what is previously unattainable" (Desikachar, 1999, p. 5). The assumption underlying this latter meaning is that there is something that one is currently unable to do. When this realization becomes actualized, that process of bringing one's potential into action is awakened; yoga is taking place.

For some, yoga may merely be thought of as a physical pursuit to gain flexibility and strength in the body. Though yoga can cultivate cardiovascular health, musculoskeletal strength, increased respiratory, digestive and reproductive function (Cope, 1999; Thomas, Tori, Thomas & Mehta, 2000), it encompasses far more than purely physical benefits. Yoga uses the body, but includes all aspects human existence: mind, body, and spirit (Desikachar, 1995; Fields, 2001; Iyengar, 1966). According to Miller (1996) yoga practice that focuses only on physical remedies is limited.

In the United States, many people practice Hatha yoga: the physical pursuit that uses the breath to link the body and mind to function as a unit. This type of yoga attempts to achieve enlightenment through the body, stresses physical postures called *asanas,* breathing known as *pranayama,* and concentration, or *dharana* (Fields, 2001). There are many styles of Hatha yoga practiced in the US including, B.K.S. Iyengar, Kripalu, Integral, Bikram, Somatic, Ananda, and Sivananda. In this presentation, the exploration of yoga will be mostly limited to Iyengar yoga.

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Origin of yoga

According to Iyengar (1966), yoga is among the six orthodox systems of Indian philosophy. Because it predates written history, no one knows exactly when practice of yoga began. Pictographs of figures in yoga positions found in archeological sites date back more than 5,000 years (American Yoga Association, 2001). Yoga was systematized and put in place by Indian sage Patanjali over 2,500 years ago in his traditional work the *Yoga Sutras*. These texts, written in the ancient Sanskrit language, were comprised in the form of 185 aphorisms broken into four parts. These were the first written guidelines, which had previously been passed down orally from master to disciple for thousands of years (Weintraub, 2004). They provide direction on how to gain mastery over the mind and emotions in order to attain spiritual growth. (Iyengar, 1966). The sutras convey the essential ideas of yogic philosophy and lay out a way of life that allows each practitioner the chance to experience liberation (*mukti*) and self-realization (*kaivalya*) (White, 2006). Within the traditional style of yoga set forth by Patnajali, B.K.S. Iyengar, Indian practicioner and teacher of yoga, refined the practice and developed an interpretation of the yoga sutras. This style of practice became known as Iyengar yoga.

Iyengar is considered to be one of the leading yogis responsible for bringing yoga to the west (Thomas & Thomas, 2004b) It is increasingly believed that yoga is a viable supplement to western practices in obtaining health and peace of mind. (Feurerstein, 2001; Weintraub, 2004). Today yoga, relaxation, and various forms of meditation, are becoming more practiced and respected in both western medicine and in western psychotherapy (Fields, 2001; Gordon, 1996). Recent surveys revealed that more than eleven million Americans were practicing yoga on a regular basis (Cope, 1999) and

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several professional sports teams are beginning to incorporate yoga into their training programs including the Miami Dolphins and the Chicago Bears. Similarly, celebrities such as Madonna, Jane Fonda, Kareem Abdul Jabar, and Sting are practicing yoga (Cope, 1999).

Iyengar Yoga

Over 70 years ago, B.K.S. Iyengar interpreted the sutras by Patanjali and developed a distinctive style of yoga, which is today known as Iyengar yoga. He has systematized over two hundred *asana* techniques (Mira & Mehta, 1990). Based on the traditional eight limbs of yoga as written about in the yoga sutras, Iyengar yoga goes beyond the physical to include emotional and spiritual growth as well, emphasizing the integration of mind, body, and spirit. Though he has made yoga popular, he has not sacrificed the purity of its original teachings in the process (Mira & Mehta, 1990). According to Iyengar (2006), the style of yoga named after him was born out of research based experience and experience based research.

Iyengar yoga is unique in that Iyengar introduced the use of "props" (e.g., blocks, belts, ropes, blankets) to aid people in experiencing a pose they might not otherwise be able to practice. An emphasis is given to precision and body alignment in all postures. Additionally, Iyengar studied the sequence of postures in order to achieve different, perhaps deeper, effects. Iyengar sees yoga as an art, a science, and a philosophy (White, 2006). He has managed to make all aspects of yoga popular without sacrificing the purity of the original teachings (White, 2006). Any practitioner of yoga may use Iyengar methods.

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I will limit my discussion of yoga mainly to Iyengar yoga. When the term yoga appears in this document, it will refer to Iyengar yoga, unless otherwise specified.

Philosophy of Yoga

Yoga is a blend of theoretical understanding and practical application. Numerous practitioners have claimed substantial subjective benefits from following a yogic lifestyle. Many claims have been made about the psychological, physical, and spiritual benefits of yoga. Though these declarations are often based on theory or are testimonial in nature, yoga has undoubtedly helped many people become more conscious and take control of their lives.

Yogic Lifestyle

According to Desikachar (1995) and Iyengar (1966), yoga is a philosophy of life, aspiring to enable the practitioner the power to change one's life into the most desirable direction. A yogic lifestyle encompasses the physical, mental, and spiritual domains by applying the tenants of yoga to everyday life. It attempts to embody a system of ever-present consciousness and skillful living. The lessons that begin to unfold during one's actual practice may potentially carry over into all aspects of living: eating, sleeping, walking, and relating to others and self. Psychophysical health, refined awareness, discipline, and cultivation of the body/mind connection are integral to yogic life; this prepares one for the higher stages of consciousness leading to liberation from physical and psychological burdens (Little, 2003). Miller (1996) described this liberation as a gradual unwinding of misconceptions in order to allow for more accurate perception. She further emphasized that through the breakdown of defenses during yoga, one begins to

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know oneself in deeper ways. One who follows the path of yoga is called a yogi (if he is male) or yogin (if female).

Yoga practice aims to bring equanimity to one's life. Feelings of heightened energy are often associated with practice (Iyengar, 2005). These feelings boost one's morale and confidence (Desikachar, 1995). Knowledge of the wholeness of one's being is increased through practice.

According to Pritz (1998), the goal of yoga is to create awareness in the practitioner of an underlying unity of all things, and each piece's particular identity with this oneness. Fields (2001) claimed that "human beings are embodied beings and must come to terms with their physicality in the process of realizing their spiritual potential" (p. 11); this can happen through practicing yoga.

Spirituality and Yoga

Aristotle was among the first to discuss issues of the "soul" (*De Anima*). In his early works (translated and edited by McKeon, 1947), Aristotle claimed that knowledge of the soul contributes to the understanding of the truth, of nature, and of animal life. He further discussed questions regarding the nature of the soul and first cause of the universe. Aristotle defined the soul as "substance in the sense which corresponds to the definitive formula of a thing's essence" (p. 172). He referred to the soul as the "essential *whatness* of a body" (p. 172). Aristotle thought it not possible to separate soul from body explaining that if one tried to take away a soul from the individual, being would cease to exist. He asserted, "soul is an actuality or formulable essence of something that possesses a potentiality of being desouled" (p. 177), and claimed, "the soul is the essence of the whole living body" (p.180). He also claimed that "the soul is in a way all existing things;

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for existing things are either sensible or thinkable, and knowledge is in a way what is knowable, and sensation is in a way what is sensible" (p. 225). Finally, although Aristotle did not explicitly conclude weather or not one's universal soul existed, he recognized that soul exists within all living things, therefore implying both separateness and a oneness of this animating principal.

Similarly, Yoga has been said to be "a classical Indian science dealing with the search for the soul" (Mira & Mehta, 1990, p. 8). Yoga is the union between the individual soul and the universal soul. When the senses and mind are transcended through practice, one experiences the soul. Iyengar (2005) stated that the "whole practice of yoga is concerned with exploring the relationship between *Prakrit* and *Purusa,* between Nature and Soul" (p. 9). He concluded that consciousness is soul and that people are spiritual beings living in a physical body, in a material world. Iyengar stressed that macro-existence also has being in the microcosm of the individual. In other words, spiritual entities exist both universally as well as within each individual. As previously stated, Iyengar (1966) defined yoga as the coming together of the individual human spirit (*jivatma*) with the Supreme Universal Spirit (*Paramatma*). In conclusion, yoga attempts to explore similar questions about the soul as were originally pondered by Aristotle.

It is currently believed that religious and spiritual practices play a key role in many peoples' lives (Schwartz, 1988; Seeman, Dublin & Seeman, 2003). In a study done by Tori (1999), positive psychological changes were found in 204 teenage Thai girls after attending either a three-day Roman Catholic retreat or a three-day Buddhist retreat. When compared with 102 controls who did not attend a retreat, the participants scored significantly higher in areas of emotional maturity, achievement, and sympathetic

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warmth. These results demonstrate the benefits of both theistic and non-theistic spiritual experiences.

Similarly, yoga may provide some of the same benefits as other spiritual practices. It should be stressed, however, that yoga is not necessarily a religious expression. Though it is not a religious pursuit, it often becomes a spiritual endeavor. The yoga sutras are often considered a universal text because the focus is on the mind and neither rejects or endorses any specific religious creed. While yoga has its origins in the Hindu tradition, it does not follow a specific religious order. Yoga does not require a belief in a deity; it teaches one how to live life more successfully through cultivating a relationship to one's soul (Desikachar, 1999). Patanjali specified the eight limbs, or stages, of yoga as a "quest for the soul" (Iyengar, 1966, p. 21).

Eight Limbed Path of Yoga

Patanjali wrote the eight-limbed path of Yoga in 200 CE in the *Yoga Sutras*. This path attempts to lead one to enlightenment. These eight stages are a means for attaining yoga or union (Iyengar, 1966); they are given below.

Table 2. **The Eight Limbs of Yoga**

Name of Limb	Description
1. *Yama* –	Moral discipline
2. *Niyama-*	Self-restraint, Self-purification
3. *Asana-*	Posture, consisting of meditation and health
4. *Pranayama-*	Breath control
5. *Pratyahara-*	Sensory inhibition
6. *Dharana-*	Concentration
7. *Dhyana-*	Meditation, Universal Consciousness
8. *Samadhi-*	To merge, super-consciousness

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Note. From Desikachar, (1995).

Traditional yogis believe that the last three limbs, *dharana, dhyana, samadhi*, are experienced as a result of practicing and actualizing the first five. Iyengar (1966; 2005) interprets the eight limbs from the *Yoga Sutras* as follows.

Yama. This first branch of yoga refers to the attitude one has towards people and things outside of oneself. It addresses one's social and environmental interactions. *Yama* means "attitude" or "behavior". These *yamas* are universal moral commandments that transcend creeds, countries, age and time. The five *yamas* laid out by Patanjali are non-violence, non-coveting, non-stealing, continence, (i.e., self-restraint) and truth.

Niyama. This branch specifically focuses on how one relates to oneself inwardly and how one deals with internal conflicts and states. It addresses the attitude one adopts towards self. It essentially refers to self-purification through discipline. Iyengar interpreted the first two stages as a means to help the yogi control his/her passions and emotions in order to keep him/her in accord with others.

Asanas. The term *asana* translates into "posture". The word comes from the Sanskrit word *as,* which means "to stay", "to sit" or "to be established in a particular position". According to Iyengar (1966), *asanas* keep one healthy, strong, and in harmony with nature. During this stage a yogis becomes free of body consciousness and submits his body as a fit vehicle for the soul. Iyengar stated that the first three stages of yoga, *yama, niyama* and *asanas* are outward quests of the soul for its creator (*bahiranga sadhana*).

Pranayama. Pranyama refers to rhythmic control of the breath in yoga. According to Desikachar (1995), the word *pranayama* consists of two separate words:

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prana and *ayama*. *Prana* refers to "that which is infinitely everywhere" (Desikachar, p. 54). *Ayama* means to "stretch" or "extend". In yoga, it is believed that one's state of mind is directly linked to the *prana*, which is inside the body and refers to the smoothness and evenness of the breath.

Pratyahara. This branch of yoga has to do with the senses. It is the removal and liberation of the mind from the domination of the senses and sensual objects. According to Desikachar (1995), the word ahara means "nourishment". Pratyahara translates, "to withdraw oneself from that which nourishes the senses". During pratyahara, the tie between mind and senses is severed, and the senses become uninfluenced by external stimuli. When one is fully engaged in pranayama, and meditation, the mind is so focused that pratyahara occurs automatically. One cannot force pratyahara to happen, it occurs as a result of mindfulness focus.

These two stages of yoga, *pranayama* and *pratyahara* are known as the inner quests of the soul (*antaranga sadhana*) whereby the mind is brought under control and the set free from desire (Iyengar, 1966).

Dharana. The Sanskrit word for concentration is *dharana*, which means literally "holding". One holds his/her attention by focusing on a specific bodily process such as breathing, or intentional movement. During *dharana*, one holds the focus in a specific direction. Yogic concentration enables one to discover one's spiritual essence. *Dharana* requires a withdrawal from the external world, which involves a degree of sense withdrawal (*pratyahara).*

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Dhyana. This stage of yoga is mediation. One needs to reach *dharana* before *dhyana* can be achieved. During this stage, a link is made between the object of focus (*dharana*) and one's self. It is the connection between self and other.

As the awareness of one's life unfolding in the present moment is developed, Desikachar (1995) believed the foundation is being laid for insight to take place. While applying simple attention to the stream of thoughts, emotions and bodily sensations, the practitioner refrains from judging these thoughts, feeling and sensations. Through practice, the meditator will be able to distinguish between experiences themselves and the habitual reactions or conditioned responses to the experiences. The meditator realizes that he/she has a conscious choice about how to respond to internal and external events. With this awareness comes, an empowering freedom and an ability to shape one's life.

Samadhi. Iyengar (1996, p.21) defined *samadhi* as "a state of super-consciousness brought about by profound meditation, in which the individual aspirant (*sadhaka*) becomes one with the object of his meditation- *paramatma,* or the Universal Spirit". *Samadhi* means, "to bring together" to "merge". During *samadhi*, one's personal identity disappears. The person in the state does not feel separate from the external world, or object of focus.

According to Iyengar (1966), the last three stages of yoga, *dharana, dharana,* and *samadhi* take the yogi into the inner most parts of the soul (antaratma sadhana). At this point, the yogi no longer looks outward to his/her maker, but knows that the Universal Spirit is within.

Obstacles to Successful Yoga Practice

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Desikachar (1995) noted the nine distractions, or obstacles, to inner awareness as identified by Patanjali within the Yoga Sutras: (a) *vyadhi* (disease), (b) *styana* (dullness), (c) s*amsaya* (doubt), (d) *pramada* (carelessness), (e) *alasya* (laziness), (f) *avirati* (addiction), (g) *bhranti darsana* (false perception), (h) *alabdha bhumikatva* (failure to attain continuity of thought and (i) *anavasthitattva* (instability in concentration). The four pathological states that accompany these barriers are depression, anxiety, trembling in the limbs, and unsteady breath. These states, he claimed, can be managed with the eight treatment goals: restraint, observances, postures, breath control, withdrawal of the senses, concentration, absorption, and cosmic concentration (the eight limbs of yoga). The yogi does not necessarily need to know that he or she is engaging in this complex systematic treatment; the benefits are still the same.

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Chapter 6

Empirical Studies Pertaining to Yoga

Based on theory and anecdotal reports, it is postulated that mental, spiritual, and physical gains will be obtained through a yoga practice. A few have claimed that yoga can be useful in ameliorating everything from the common cold to insomnia, or even some forms of cancer (Russinova, Wewiorski, & Cash, 2002). It is important, however, to take an empirical approach to such claims. Although scientific evidence regarding yoga is in its infancy, there have been a few crucial studies that show that yoga is a credible treatment for many ailments. Additionally, research exists documenting the benefits of meditation and exercise on both physical and psychological health. Because Iyengar yoga encompasses both of these practices, I will now review research regarding meditation and exercise along with quantitative evidence of psychological, physical, and spiritual benefits of practicing Iyengar yoga.

Meditation Research

Because meditation is part of an Iyengar yoga practice (7^{th} limb), it is pertinent to look at empirical evidence related to mediation. As with yoga, there is an abundance of methods and styles of meditation ranging from seated meditations to those with movement (e.g. yoga, shi gong, and tai chi). There are also differing techniques of meditation such as concentrative techniques (e.g., Transcendental and Zen meditation) where one directs his/her attention on an object or mantra; and mindfulness techniques (i.e., vipassana) where one brings his/her attention to the present experience which changes moment-to-moment (Delmonte, 1985). Following will be an account of scientific evidence from a few exemplary studies that assessed mindfulness meditation practices

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(which is in direct relation with how meditation is used in Iyengar yoga). Yoga is used to teach mindfulness of bodily sensations as they arise during practice (Baer, 2003).

The empirical literature on the effects of mindfulness based meditation suggest that it may lead to reductions in various symptoms including psychological (i.e., anxiety and depression), physical (i.e., heart disease) and coping styles (i.e., less reactive) (Baer, 2003; Emavardhana & Tori, 1997; Kabat-Zinn, 1982; & Teasdaleet al., 2003). All practitioners of mindfulness meditation suggest that it be done with an attitude of non-judgmental acceptance of whatever arises and falls in conscious experience.

Vipassana meditation practice is a type of mindfulness mediation that aims to create mindful observation of reality (i.e., observance of whatever emotions, thoughts, and/or sensations come up in consciousness) without attachment or judgment. In a study conducted by Emavardhana and Tori (1997), positive changes were found in self-concept and ego-defense mechanisms in two cohorts of participants (cohort 1 = 222 participants, cohort 2 = 216 participants)and compared to no treatment controls following seven-day vipassana meditation retreats. Those attending the retreats showed increases in overall self-esteem, feelings of worth, benevolence, and self-acceptance. They were also found to be less effected by external stimuli.

Research by Shapiro, Astin, Bishop, and Cordova (2005) actually measured the effects of a mindfulness-based stress reduction program on health care professionals who were experiencing stress related to their jobs. A decrease in perceived stress and greater self-compassion was found among the 18 participants who completed eight 2-hour sessions of mindfulness meditation when compared to the control group of 20 health-care professionals who did not participate in the treatment, but were instead waitlisted.

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Similarly, Tacom, McComb, Caldera, and Randolph (2003) found significant improvement in anxiety, emotional control, and reactive coping in 9 women with cardiac disease following an 8-week mindfulness mediation program, when compared to 9 female cardiac disease patients in a control group. Anxiety ratings significantly decreased for the women who engaged in a mindfulness meditation program, while the levels did not change in the control group. Additionally, the treatment group reported a decrease in the control of negative emotions (e.g., the decrease in the suppression of negative emotions was seen as an improvement in health behavior). A decrease in the use of reactive coping style was also found among the treatment group. Although the treatment group in this study was small and only conducted on women, the findings indicated that mindfulness meditation produced significant positive effects on these cardiac patients.

It has been hypothesized that mindfulness meditation may be beneficial for people who are struggling with depression because it systematically enhances attentional awareness and allocation (Teasdale, Segal, & Williams, 2003). Ramel, Goldin, Crmona and McQuaid, (2004) reported that mindfulness mediation significantly reduced rumination and dysfunctional attitudes, which are associated with depression, in 23 participants. The participants in this study partook in an 8-week mindfulness meditation program. At the conclusion, it was found that mindfulness meditation was effect in reducing rumination, which accounted for reduction in maladaptive cognitive content and affective symptoms (i.e., depression and anxiety and dysfunctional beliefs relating to need for approval).

Finally, increased quality of life, and decreased physical and psychological symptoms were found in a study on a heterogeneous patient population following an 8-

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week mindfulness based program by Reibel., Greeson, Brainard, and Rosenzweig (2001). Mindfulness based stress reduction course with 136 patients for 8 weeks, during which time they were also required to practice 20-mintues/day of meditation. Before engaging in the mindfulness program, the participants scored well below the general population norm on all standardized health outcome instruments that were used.

After the group participated in the intervention, it was found that a significant increase in health related quality of life was found (i.e., vitality, decreased bodily pain, and decreased role limitations due to physical illness). A decrease in psychological stress was also found (i.e., decease in anxiety and depression and an increase in mental clarity). Medically, participants experienced a reduction on reported medical distress (i.e., GI problems, headaches, chronic pain and hypertension) as well. Finally, a one-year follow-up study showed maintenance of the majority of initial improvements in health-related quality of life, medical and psychological distress.

As can be seen, evidence suggests that mindfulness based interventions are effective for modifying many types of distress and symptoms. These practices used alone, or in conjunction with other types of treatment, may provide a technique for acquiring physical, mental, and spiritual benefits.

Exercise Research

It is widely recognized that physical activity contributes to both physical and mental well being (Thogersen and Fox, 2005; Leith & Taylor, 1990). It has been well documented that exercise training has antidepressant and anti-anxiolytic effects and helps to protect against harmful consequences of stress (Salmon, 2001; Broman-Fulks, Berman, Rabian, and Webster, 2004; Callaghan, 2004; Sutherland, Sutherland & Hoehns, 2003).

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Because yoga is in part a physical endeavor, it is relevant to provide a very brief summary of the evidence that exercise can benefit a person's psychological as well as physical state.

In a study by Broman-Fulks, Berman, Rabian, and Webster (2004), it was found that anxiety was reduced in 54 participants following six 20-minute treadmill exercise sessions. Self-ratings of anxiety sensitivities (e.g., anxiety-related bodily sensations), fear of anxiety sensitivity, and generalized anxiety were rated pre-treatment and post-treatment and one week follow-up. All three forms of anxiety were reduced following the exercise regime prescribed.

It has been shown that to decrease depression, different types of exercises have been successful (Ossip-Klein, Doyne, Bowman, Osborn, McDougall-Wilson & Neimeyer, 1987). In their study, 40 women with a diagnosis of clinical depression (either major or minor) were assigned to a weightlifting program, a running program, or a control group. The participants assigned to an exercise program attended four individual exercise sessions per week for 8 weeks of either running or weight lifting; the control group was told that their exercise program would be delayed for 8-weeks. None of the participants were receiving any other type of treatment for their depression during the study. The researchers found that both weightlifting and running significantly reduced depression when compared to a control group. In fact, the two exercise groups were indistinguishable from each other in terms of decrease in depression. At 1, 7 and 12 month follow-ups both showed statistically and clinically significant decreases in depression in all participants. In another study conducted by the same researchers, on the same participants, they also found significant improvements in self-concept among the

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participants in both exercise groups when compared to the control (Ossip-Klein, Doyne, Bowman, Osborn, McDougall-Wilson & Neimeyer,1989). This study showed that exercise enhanced self-concept among clinically depressed woman, and again, no significant differences were found between exercise groups.

Netz and Lidor (2003) even conducted a study comparing mood alterations in mindful versus aerobic exercise. They measured state anxiety, depressive mood, and subjective well-being in 147 female participants prior to and following 1 session of either yoga, Feldenkrais (awareness through movement), aerobic dance, swimming, or a computer class (as the control). Significant mood improvement was seen in subjects participating in Feldenkrais, yoga, and swimming, indicating that low-impact mindfulness activities as well as one of the aerobic activities enhanced mood in one single session. The authors challenged an assumption that aerobic exercise is superior to non-aerobic mindful modes of exercise in altering mood states.

Because the research has been so extensive in linking exercise to mental health, a meta analysis providing a summary of results across studies will be presented. Leith and Taylor (1990) conducted a comprehensive review of the literature, which included all empirical studies that were published from 1979 until 1990. In terms of overall research results, 56 of the 81 studies reviewed (70%) found significant improvement in psychological constructs (i.e., anxiety, depression, mood, stress, mental well-being, self-concept, global personality, locus of control and self-perception) as a result of participation in an exercise program. When partial improvement was measured, 65 of the 81 studies (80%) found psychological benefits resulting from exercise.

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As can be seen, physiological as well as psychological benefits from exercise have been found. Because of the extensive research being done in this area, exercise is increasingly being integrated into mental health treatment (Callaghan, 2004; Sutherland, Sutherland, & Hoehns, 2003).

Iyengar Yoga Research

Although research is limited on Iyengar yoga, astounding results have been found on the few studies that have been done. Yogis/yogins have been found to experience profound psychological, physical and spiritual benefits following an Iyengar yoga path.

In a pioneer study by Thomas, Tori, and Thomas (1998), coping strategies used for stressful encounters were assessed in 57 Iyengar yoga practitioners. When compared to the norms of the general public, it was found that the yoga practitioners had better emotional and cognitive coping abilities. Specifically, they demonstrated significantly higher coping styles in three areas: POS (positive meaning created by focusing on personal growth and sometimes use of religious aspects), DIST (cognitive efforts to distance and detach), and ACC (accepting responsibility for one's role in the problem). Additionally, the Iyengar yoga practitioners were found to have a less than average emotional tension and anxiety, as well as less anger and hostility towards others. When compared to normal individuals, the participants in were also found to be more goal-oriented, imaginative, resourceful, resolute and ingenious. The subjects also tended to posses positive stable moods, good psychological adjustments, and healthy lifestyle habits.

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Because of the small sample size used in this study, generalizability is limited. The sample did, however, include participants from around the world demonstrating that the benefits of yoga practice can be experienced by all, and are not culturally bound.

Another study conducted by Thomas, Tori, Thomas and Mehta (2000) found significant physical, psychological, and spiritual benefits due to Iyengar yoga practice in 367 participants. Among the participants, the years of yoga practice ranged form 1 to 40, with an average of 12 years, and together they represented 28 different countries and many different religions, including nonreligious-affiliates. The researchers found that physical health of the practitioners significantly improved overall after the practice of Iyengar yoga. Sixty-one percent of the sample reported having medical problems before they started practicing yoga (e.g., digestive disorders, nervous system disorders, respiratory disorders); most indicated that after maintaining a yoga practice their health improved, with some claiming to be cured or in remission. The participants reported that the physical health benefits of yoga were far superior than had been expected when starting a yoga practice, and also provided a strong motivation to continue practicing.

In addition to improved physical conditions, improvement in overall mental and emotional health was also reported from practice. In fact, all categories of psychological health were reported as improving due to Iyengar yoga practice. These categories included emotional problems (e.g., confusion, low self-esteem), mood disorders (mostly depression and anxiety), substance related disorders, and eating/sleeping problems. Other psychological benefits from practice included greater equanimity and increased self-control.

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Finally, participants also experienced a significant overall growth in spiritual development following a yoga practice. Practitioners reported their sense of well-being and knowledge of mind/body connection were significantly impacted from practice. These metaphysical gains, resulting from practice, were experienced in spite of differing religions. This shows again, that following a yoga path does not require one to follow any specific religious doctrine and that yoga can be compatible with any existing religious orientation or spiritual belief.

Benefits from practicing yoga have not just been found in long-term practitioners. In a recent longitudinal study, Thomas, Tori, Thomas, Dearborn and Mehta (2004) found psychological, physical, spiritual benefits along with reduced stress in 190 novice yoga participants. Gender differences were also noted in this study. After engaging in 11 weeks of Iyengar yoga practice, significant positive changes were experienced in all areas by both genders. Changes in medical conditions (e.g., digestive functioning, back pain, musculoskeletal, genitourinary, nervous system, ENT and hormonal) improved after practicing yoga for 11 weeks; it should be noted that none of the participants were seeing an outside doctor for their conditions during the study. It was also found that both genders experienced a significant decrease in depression, anger, fatigue, and confusion as well as an increase in vigor. In addition, a reduction of tension was also found among the female participants.

Participants stress levels were measured through questionnaires regarding coping styles. It was found that the female participants increased their use of positive reappraisal coping method (i.e., focusing on personal growth in effort to create positive meaning), while the male participants significantly reduced the use of confrontive coping methods

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(i.e., using aggression). Finally, overall changes in personality function were found after the yoga practice. Women showed significant gains in achievement, personal adjustment, ideal self, and adult (i.e., being confident, practical, productive, reliable, ambitious, work-centered), and men showed increased nurturance, personal adjustment, reduced aggression and adult.

The 11-week yoga instruction was repeated two more times (follow up 1 and follow up 2). At each follow-up re-evaluation phase, more significant gains were found. It was reported that the practice of yoga had a tremendous impact on the participants. Because things such as coping styles and personality traits are relatively fixed, "the changes observed clearly testify to a conclusion that there is a magnitude of emotional benefits provided by Iyengar yoga" (Thomas et al., 2004. p. 44).This study also showed that yoga can benefit new practitioners, not merely those who have dedicated a lot of time to a practice.

Iyengar yoga has also been found to benefit people suffering from PTSD. Carter and Byrne (2003) measured the effects of Iyengar yoga on eight Vietnam Veterans who carried a DSM-IV diagnosis of PTSD. The participants did one hour, once a week, of *asanas* described by Iyengar (2001) as targeting depression. This pilot trial lasted for six weeks (the study went on to follow participants for two years, but other treatments were added along with yoga and therefore are not relevant to this presentation). The participants were tested for depression before they began a yoga practice, and then again after six weeks. An improvement in depression and overall mood was found in every participant. Though the number of participants was small, they all had a DSM-IV diagnosis of PTSD, which are the same symptoms that are experienced by people with

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STS, therefore can be easily generalized to the target population in this paper. Clearly, more studies, with larger numbers of participants need to be done.

To date, there has been little empirical research on yoga's efficacy as a psychosocial intervention for the reduction of symptoms related to mental disorders. In part, this limited controlled research may be due to the fact that some of the most influential tenants of yoga, such as one's well being and spirit, are not clearly defined constructs, and are difficult to measure empirically.

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Chapter 7

Yoga as a Treatment for STS

Secondary Traumatic Stress is a biopsychosocial-spiritual phenomenon, permeating all dimensions of being for the psychotherapist. The stress that often results for psychotherapists providing care to trauma victims can manifest in victims' physical bodies, emotional and psychological functioning, social participation, and in their spiritual identities. Iyengar yoga is a multimodal practice that could address the wide range of areas impacted by STS. Through reviewing the symptoms of STS and the yoga research, this chapter demonstrates how Iyengar yoga could provide a broad and effective treatment modality for STS.

Dimensions affected by STS and addressed by yoga

Psychological. People who suffer from STS experience more anxiety and depression symptoms than the normal population (Figley, 1986). Anxiety symptoms in STS include difficulty sleeping (Stamm, 1995), heightened perceived stress levels, and heightened startle response (Figley, 2002). Depressive symptoms include feelings of helplessness, powerlessness, and fatigue (MaCann & Pearlman, 1990). People experiencing STS reported lower self-esteem. Additionally, it has been found that people who suppress their emotions are more likely to develop STS (Marmar, C., Weiss, D., Metzler, T., Ronfelt, H., & Foreman, C., 1996). More reactive coping mechanisms have also been associated with increased likelihood of STS (Herman, 1992).

Yoga is thought to have psychological benefits that could alleviate psychological symptoms associated with STS. According to Iyengar (1996), yoga is a method of

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quieting the mind. In yoga vernacular, it is believed that through movement and meditation, one learns to calm the mind directly, thus reducing anxiety, distress, and arousal. Metaphorically speaking, yoga provides a means to find inner strength to address feelings of powerlessness. Iyengar yoga attempts to teach the practitioner how to take control over his/her life (Desikachar, 1995).

Specific psychological benefits have been attributed to the practice of yoga and meditation through numerous studies. Iyengar yoga decreases depression, anger, fatigue and confusion, and simultaneously increases vigor (Thomas et al., 2004). Yoga practitioners have better emotional and cognitive coping abilities and higher self-esteem (Thomas, Tori & Thomas, 1998). In addition, Iyengar yoga improves sleep (Thomas et al., 2000). Meditation improves self-esteem, self-worth, self-acceptance, and self-compassion (Shapiro et al., 2005; Tori, 1997). It reduces anxiety, perceived stress, and depression (Baer, 2003; Kabat-Zinn, 1982; Shapiro et al.,2005). Furthermore, meditation improves emotional control and reactive coping, and decreases suppression of negative emotions (Tacom et al., 2003).

Physical. People experiencing stress often have somatic complaints, as well (Levine, 1997). Physical symptoms that correlate with STS include headaches, gastrointestinal problems, heart palpitations, dizziness, and tension (Figley, 1986, 2002). Though it is known that primary trauma victims experience somatic complications, the physical symptoms that result from secondary trauma have been incompletely defined. Yoga does, however, address the physical concerns that are currently known to be related to STS, plus many others.

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Iyengar has evolved the therapeutic application of *asanas*. According to Mira and Mehta (1990), Iyengar has been recognized by leading medical professionals in India for his understanding of the body and his knowledge of pathology from a yogic perspective.

Iyengar yoga has numerous physical benefits (Iyengar, 1966). Yoga cultivates cardiovascular health, musculoskeletal strength, and increased respiration (Cope, 1999). In the study by Reibel, Greeson, Brainard, and Rosenzweig (2001), a significant improvement in health related quality of life was found among meditation participants. Specifically, decreased role limitations due to physical illness were reported. Participants also experienced reduced headaches, gastrointestinal problems, chronic pain, and hypertension. Most practitioners of yoga reported improvements in digestive disorders, nervous system disorders, and respiratory system disorders (Thomas et al., 2000). Improvements in many medical conditions among broad ranging systems including musculoskeletal back pain, digestion, genitourinary functioning, ENT problems, hormonal issues, and immune system functioning have been demonstrated following yoga practice. An increase in physical energy and physical strength were also found. Additionally, reduction of tension was found in female participants (Thomas et al., 2004).

Spiritual. Valente and Marota (2005) believed that the therapist's sense of spirituality impacts his/her ability to be sensitive to the client's spiritual path. They further proposed that "the spiritual self nourishes vitality in therapists' lives and can counter emotional fatigue and burnout" (p. 69). Pearlman and Saakvitne (1995) wrote that a threat to one's sense of spirituality was the most devastating effect of STS. They believed that spiritual consequences of STS included a loss of meaning for one's life. Further, they observed that people with STS experienced breakdowns in connections with

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others and devaluing of their identities as care-givers. The sense of hopelessness, powerlessness, and uncertainty about identity that can accompany STS may threaten perceived spiritual well-being.

In consideration of the many negative spiritual effects of STS, it is desirable that a treatment program for STS would include benefits to participants' spiritual well-being. The guidelines of yoga are used to cultivate consciousness and promote spiritual growth. According to Iyengar (1966), yoga is the union of the individual spirit with the Universal Spirit. Iyengar yoga is aimed towards promoting self-awareness and gaining mastery over the mind and emotions to attain spiritual growth and inner peace (Iyengar, 2005). In the research done by Thomas et al. (2004), practitioners reported metaphysical gains regardless of differing religions. Participants also reported improvement in their sense of well-being and knowledge of mind/body connection.

In his research on mind-body practices, Benson (1975) maintained that spiritual practices (i.e., yoga) could serve as calming means to neutralize symptoms that coincide with stress. In the important study by Thomas et al. (2000), participants practicing Iyengar yoga reported overall growth in spiritual development even though this was not sited by participants as a reason that they started yoga practice. The 2004 study by Thomas et al. also evaluated spiritual aspects of Iyengar yoga practice. With participants practicing only 11 weeks, positive outcomes were still obtained. The aspects assessed in the spiritual domain included improved outlook on life, enhanced self-awareness, and enhanced overall state of happiness. Given these convincing results, it is evident that therapists suffering STS could experience benefits of yoga in their spiritual well-being, thereby reducing emotional fatigue and burn-out.

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Cognitive Changes. Many cognitive disruptions have been linked to STS. These include re-experiencing the traumatic event (McCann & Pearlman, 1990), ruminating (Pearlman & McIan, 1995), difficulty concentrating (Figley, 2002; Stamm, 1995), and intrusive thoughts (Pearlman & McIan, 1995).

Master practitioners of yoga including Iyengar (1966) maintain that yoga provides direction on gaining mastery over the mind and emotions and taking control over one's life. Mindfulness mediation reduces rumination and dysfunctional attitudes (Ramel et al., 2004). Furthermore, meditation improves mental clarity (Reibel et al. 2001). Finally, Iyengar yoga improves mental functioning, reduces fluctuations of the mind, heightens concentration, increases fortitude, and decreases mental confusion (Thomas et al. 1998; Thomas et al., 2000; Thomas et al., 2004). Through such literature review, it is apparent that yoga effectively addresses many cognitive disruptions that exist in STS reactions. If these benefits could be accomplished in psychotherapists who adopted practice of yoga, the cognitive impairments linked to STS could be mitigated.

Social Aspects. The social aspects of psychotherapists' lives also suffer in those experiencing STS. While lack of a social network has been identified as a risk factor for acquiring STS (Stamm, 1999), victims of STS tend to isolate and dissociate from friends and family (Saakvitne & Pearlman, 1995). Clinical markers of both STS and PTSD include diminished functioning in many areas of life: professional, domestic, and social (Figley, 2002). Addressing these adverse reactions in STS should be a goal of treatment directed at this disorder.

Looking toward yoga as potential treatment for STS, it is evident that practitioners of Iyengar yoga develop increased ability to relate to others and improved

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patience (Thomas et al. 2004). Practicing yoga in a group setting may provide a sense of community and support. Through joint yoga practice, psychotherapists might limit isolation that otherwise results from providing care to traumatized clientele.

Conclusions

Iyengar yoga potentially addresses and reduces anxiety, depression, isolation, fatigue, hopelessness, and powerlessness. Victims of Secondary Traumatic Stress have been described as suffering a similar constellation of symptoms related to psychological, physical, spiritual, cognitive, and social aspects of life. Therefore, the practice of Iyengar yoga could be a well suited treatment modality for STS in psychotherapists.

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Manual of yoga postures for STS

The practice of Iyengar yoga in general has been shown empirically to benefit practitioners of yoga in areas of medical diseases, psychological disorders, and spiritual states. Attributing specific benefits to certain poses has not been proven with scientific rigor, however. For the theoretical benefits of individual poses and sequences, we consider postulations by yoga masters such as Iyengar, Mira and Mehta, Thomas and Thomas, and others. The manual that follows is a summation of poses accompanied by the theoretical benefits attributed to each pose by such teachers. Though these ideas are drawn from extensive experience by gurus in the field, the lack of studies at this level suggests that the specific benefits of individual poses and sequences remain theoretical.

This manual is intended to guide psychotherapists through different *asanas* and sequences of *asanas* to address the various symptoms associated with STS. For each *asana,* a description of technique, the theoretical benefits of the pose, and a photograph of the pose are provided. Finally, the manual outlines several Iyengar sequences of *asanas* which theoretically attend to the distress specific to STS. It is important to note that the sequences, not the individual poses, are proposed to treat STS.

Preparation for Practice

Before beginning yoga practice, consult a physician about possible health risks. Participants should seek a certified Iyengar yoga instructor to assist with proper alignment and positioning. Poses should not be attempted without physician consultation and professional instruction.

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Prior to *asana* practice, Iyengar recommended that the bladder and bowels be emptied (1966). He also advised that *asanas* be practiced on an empty stomach. For beginners, *asana* practice should be done with open eyes. Breathing should be done through the nostrils, not the mouth. In order to achieve best results, *asanas* should be practiced at least a little bit every day. *Asana* practice should be avoided by women during the menstrual period.

Because Iyengar yoga uses props, it is advisable that practitioners purchase one sticky mat, two blankets, two bolsters, one yoga strap, two blocks, and one chair. If practice is done at a studio with a professional teacher, these props will generally be provided.

Theoretical Benefits

According to Mira and Mehta (1990), the standing poses are invigorating and refreshing to the body and mind. They suggest that these poses are best used to combat depressive symptoms. Standing poses are also thought to aid with digestion, regulate kidney functioning, and help to relieve constipation (Mira & Mehta, 1990). In addition, they may help build strength and vitality, increase mobility, and stimulate circulation and respiration (Thomas and Thomas, 2004a).

In general, sitting poses are thought to be good for anxiety symptoms and have a calming effect. Sitting postures potentially soothe the nerves, help regulate blood pressure, and aid in sleep and recovery from illness (Mira & Mehta, 1990). Seated poses are also thought to lessen bodily tension and remove sluggishness (Thomas & Thomas, 2004a).

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Twisting poses stretch the spine. It is believed that they benefit digestion and stimulate the internal organs (Thomas & Thomas, 2004a).

Supine and prone poses can be either restful or energizing. Some open and expand the chest and are thought to lift the spirit. Others are meant to help relax the mind and body (Thomas & Thomas, 2004a).

Backbends are believed to increase energy and combat depression (Sparrowe & Walden, 2002). They are often experienced as being exhilarating and invigorating. They may build courage and uplift the spirit (Thomas & Thomas, 2004a).

Inverted poses are thought to help with concentration, improve circulation, and relieve insomnia. These poses may also calm the nervous system and encourage emotional regulation. Additionally, many practitioners find these poses invigorating, improving mental strength (Mira & Mehta, 1990).

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APPENDIX A

Manual

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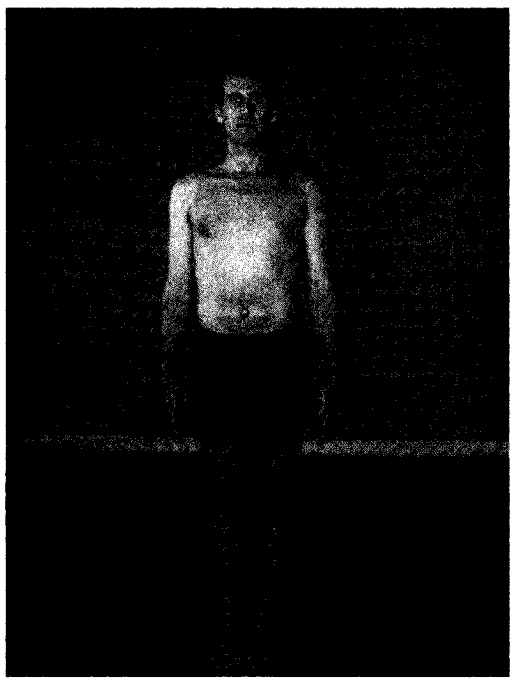
Asanas

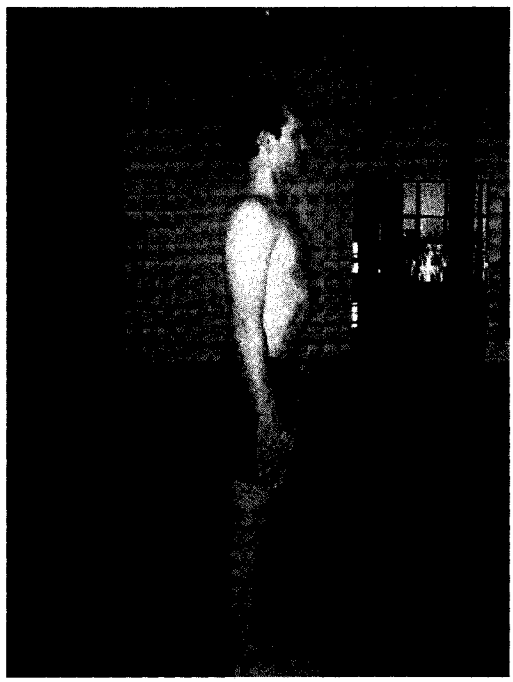
Standing Poses

Mountain Pose (*Tadasana*)

Stand up straight, legs together, arms down by sides, fingers together. Distribute weight evenly between front and backs of feet. Tighten thigh muscles. Roll shoulders back and down. Lift abdomen and draw tailbone down. Breathe normally keeping head, neck, and throat relaxed. Stand in this pose for 20-30 seconds (Sparrowe & Walden, 2002).

This pose is often the first one practiced to help notice postural problems. Sparrowe & Walden (2002) suggest this pose may help keep the mind attentive and create balance. Thomas and Thomas (2004a) propose that the Mountain Pose helps the mind to be more alert.





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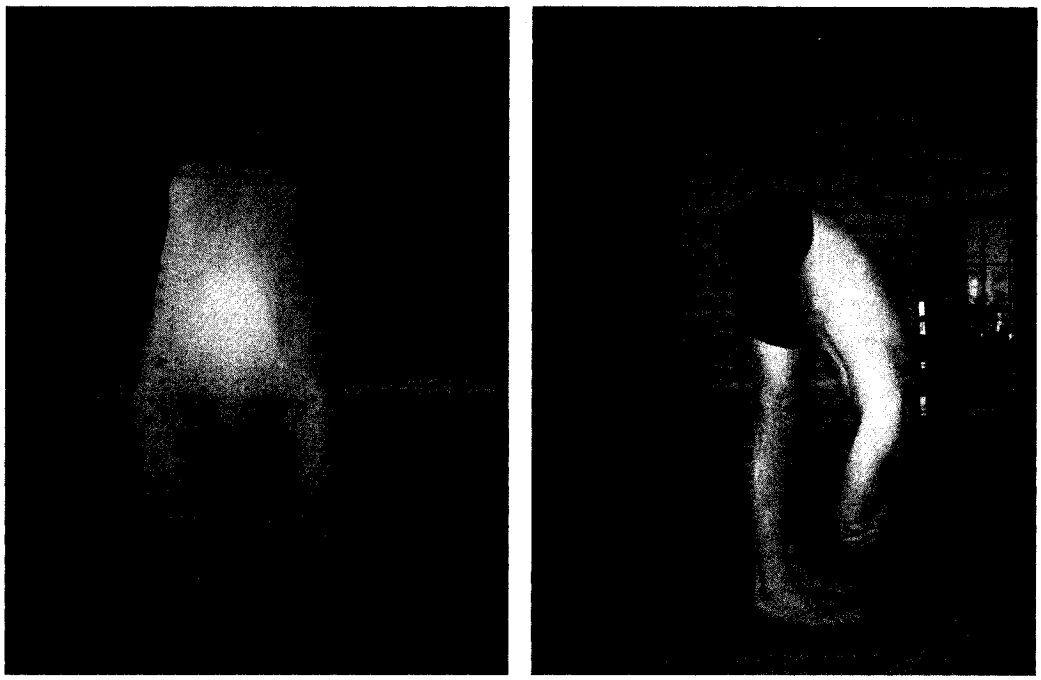
Standing Forward Bend (*Uttanasana*)

Stand in Mountain pose and keep legs firm. Lift arms overhead. Fold arms and cup elbows with hands. Exhale and bend forward at hips. Release sides of body down towards floor allowing spine to release. Breathe normally and stay in pose for 30- 60 seconds. To come out, release arms, place hands on hips, keep legs tight. Lift torso slowly bringing head up last (Sparrowe & Walden, 2002).

Iyengar (2005) and Thomas and Thomas (2004a) suggest that this pose helps to calm the mind. It may also bring feelings of peacefulness to an agitated and anxious person (Sparrowe & Walden, 2002) and may help reduce depression (Thomas & Thomas, 2004a).



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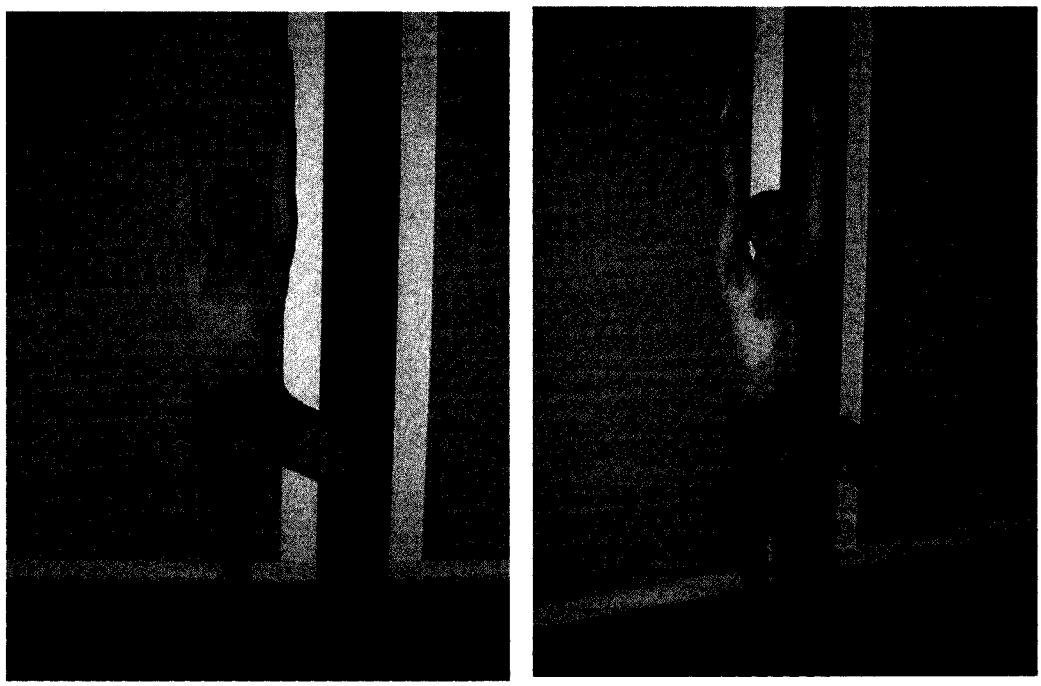
Tree Pose (*Vrksasana*)

Stand with feet hip-width apart. Lift left leg and place sole of left foot on inside of right thigh. Press left foot into right thigh. Raise arms over head. Stay in pose for 10-15 seconds. To come out, place left foot back onto floor. Repeat this pose on other side using right foot on left thigh (Sparrowe & Walden, 2002).

According to Sparrowe and Walden (2002), this is a grounding pose that may be good to practice when feeling unstable. It is also thought to be energizing and may help to reduce fatigue and depression.



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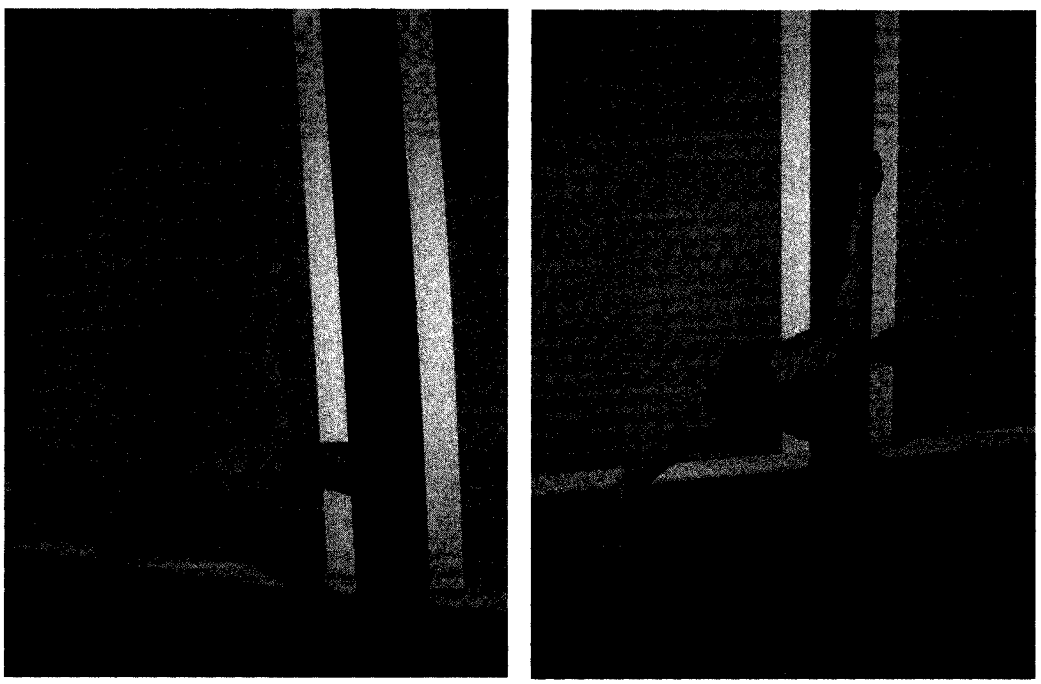
Triangle Pose (*Trikonasana*)

Start in mountain pose, then step feet about three and a half feet apart. Turn left foot out 90 degrees and turn right foot 45 degrees inward. The heel of left foot should line up with arch of right foot. Stretch arms out to sides, palms facing down, and lift torso towards the ceiling. On exhale extend trunk to left and place left hand on floor (or block). Keep back straight. Stretch right arm up towards ceiling. Look up at right hand. Breathe normally. Hold pose for 20-30 seconds. To come out, keep torso straight and lift it back upright. Repeat on other side (Sparrowe & Walden, 2002).

According to Sparrowe and Walden (2002), this pose may help to build determination and mental strength. It is also believed to improve circulation.



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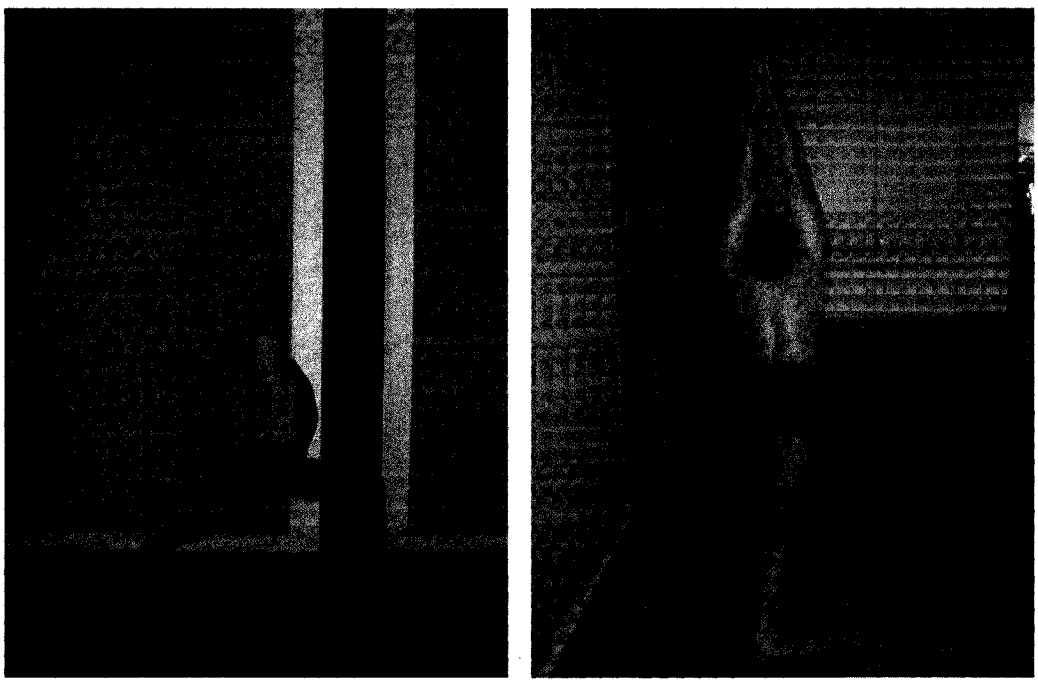
Warrior I (*Virabhadrasana I*)

Start in mountain pose. Step feet about three and a half feet apart, toes pointing forward. Raise arms overhead, palms touching, elbows straight. Turn torso and left foot 90 degrees to the left, turn right foot about 60 degrees to the left. Stretch arms up to ceiling while bending left knee so it is at right angle. Hold this pose for 10-15 seconds. To come out, straighten release arms to sides and straighten knee. Return to center and repeat on other side (Sparrowe & Walden, 2002).

According to Sparrowe and Walden (2002), this pose may aid in generating stability, strength, and balance. Thomas and Thomas (2004a) believe that this pose facilitates deep breathing by opening up the chest cavity.



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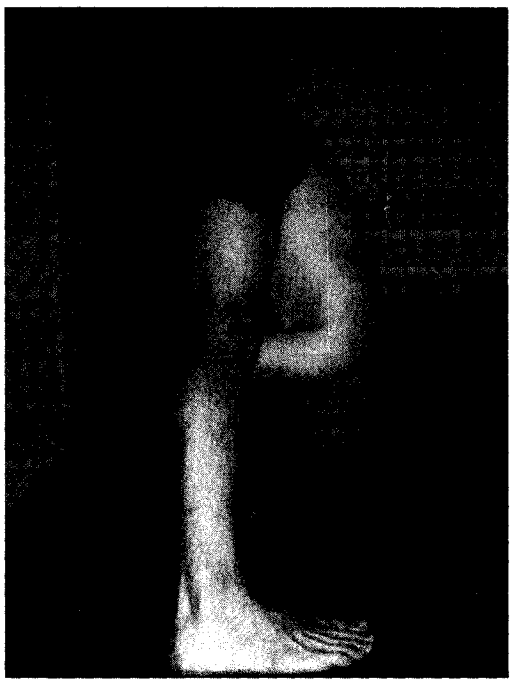
Wide Angle Standing Forward Bend (*Prasarita Padottanasana*)

Step feet apart about four feet, keeping outer edges of feet parallel. Tighten quadriceps to draw knee caps up. Exhale and bend forward from hips. Place hands on floor in line with shoulders. Breathe deeply and let trunk release downward. Stay in pose for 1 minute. To come out, concave back, put hands on hips, and lift trunk (Sparrowe & Walden, 2002).

This pose may combat fatigue, calm anxiety, and improve circulation. It may also be effective for treating many headaches (Sparrowe & Walden, 2002).



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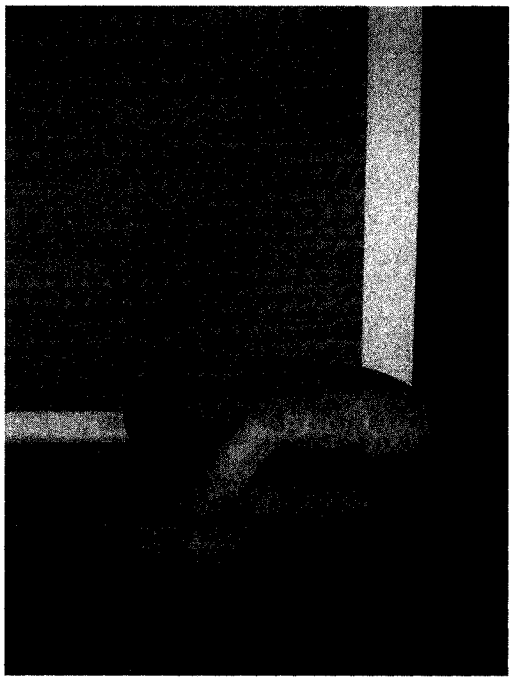
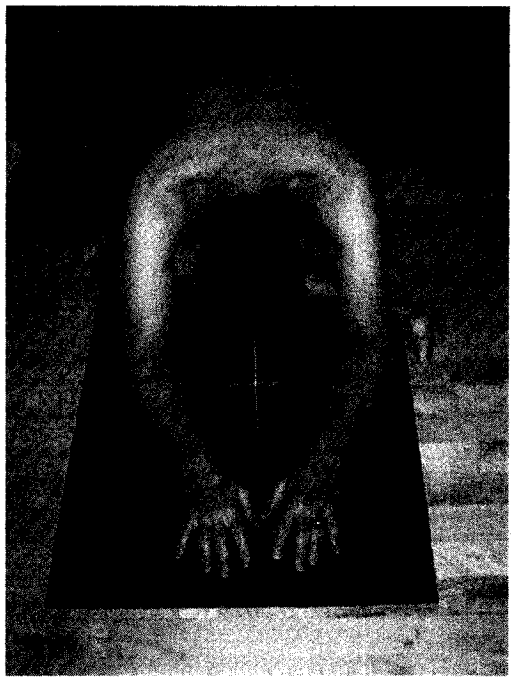
Seated Poses

Seated Forward Bend (*Sukhasana*)

Sit cross legged on mat. Exhale and fold over legs. If possible, rest head on block beyond legs. Do not let buttocks come off of floor. Stay in pose for 20-30 seconds then slowly sit back up (Sparrowe & Walden, 2002).

According to Sparrowe and Walden (2002), this pose may reduce anxiety and improve digestion. Iyengar (2005) asserted that it is useful for focusing the mind and becoming more in touch with the emotions.





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Head to Knee Pose (*Janu Sirsasana*)

Sit on floor with legs outstretched. Bend right knee 45 degrees towards your left leg, sole of right foot touching left inner thigh. Turn torso so it is in line with center of left straight leg. From hips, bend forward towards left foot while exhaling. Grab either left foot, or calf with both hands, keeping head and back lifted. Hold pose for 30 seconds, then repeat on other side (Sparrowe & Walden, 2002).

This pose may reduce stress in the mind and body. Physically, this pose may relieve stiffness in the hips (Sparrowe & Walden, 2002). Sparrowe and Walden suggest that this pose may alleviate headaches. It may also calm a jittery stomach and aid in digestion (Thomas & Thomas, 2004a).

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Bound Angle Pose (*Baddha Konasana*)

Sit with back straight and abdomen lifted. Bring soles of feet together holding the tops of the feet and drawing heels toward the pubic bone. Gently lower knees towards the ground as much as possible. Stay in this position for 30 seconds, breathing normally (Sparrowe & Walden, 2002).

This pose is thought to increase circulation in the pelvic region and improve digestive function. (Sparrowe & Walden, 2002).

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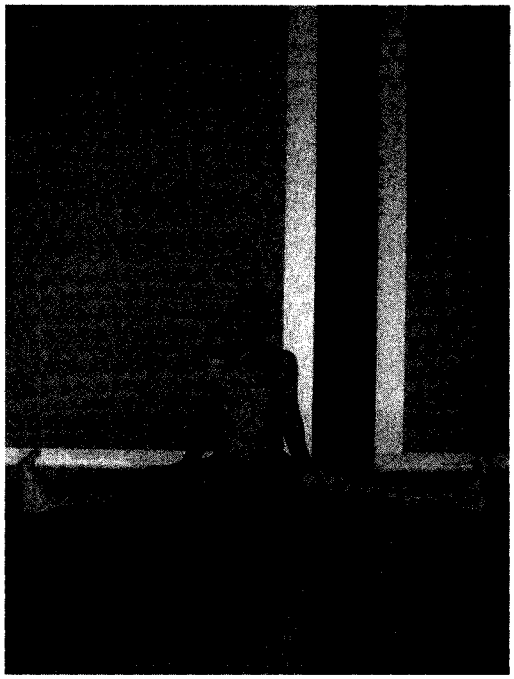
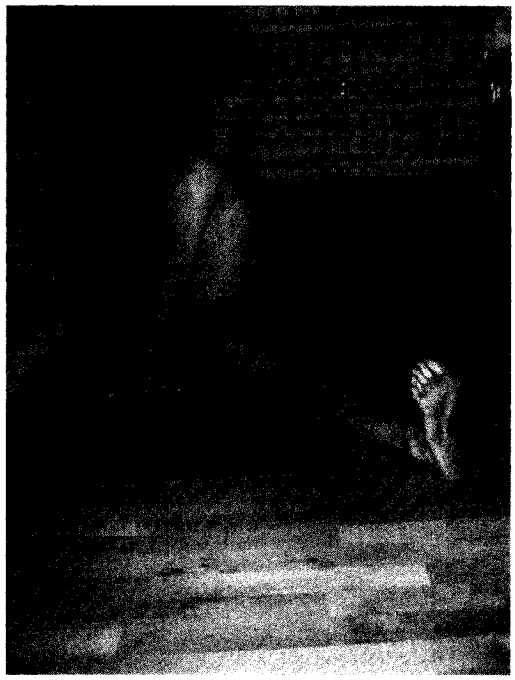
Seated Angle Pose (*Upavista Konasana I*)

Sit on mat, stretch legs out wide, feet flexed. Place hands on floor behind buttocks. Draw abdomen and floating ribs up towards chest, and move shoulder blades into upper ribs. Sit up tall, pressing down through legs, extending up through spine. Hold pose for 30-60 seconds. To come out, relax arms and release legs (Sparrowe & Walden, 2002).

This pose is thought to increase circulation to the abdomen and pelvis, improving digestive function (Sparrowe & Walden, 2002).





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Seated Forward Bend (*Paschimottanasana*)

Sit on mat with legs outstretched. During exhalation, bend forward over legs. Round spine evenly forward. Hold onto calves, or feet. If this is not accessible, then hold on to the legs wherever possible. Stay in this pose for 20-30 seconds breathing normally (Sparrowe & Walden, 2002).

Sparrowe and Walden (2002) recommend this pose for reducing anxiety and blood pressure and instilling a sense of peace. This pose may also help to slow down racing thoughts (Thomas & Thomas, 2004a).

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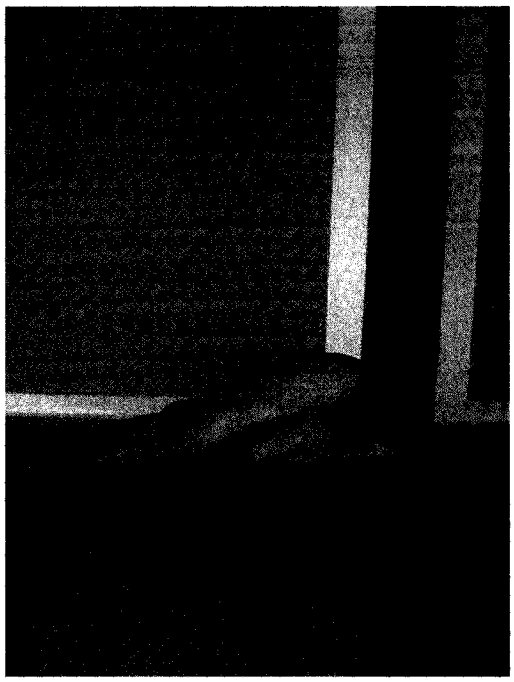
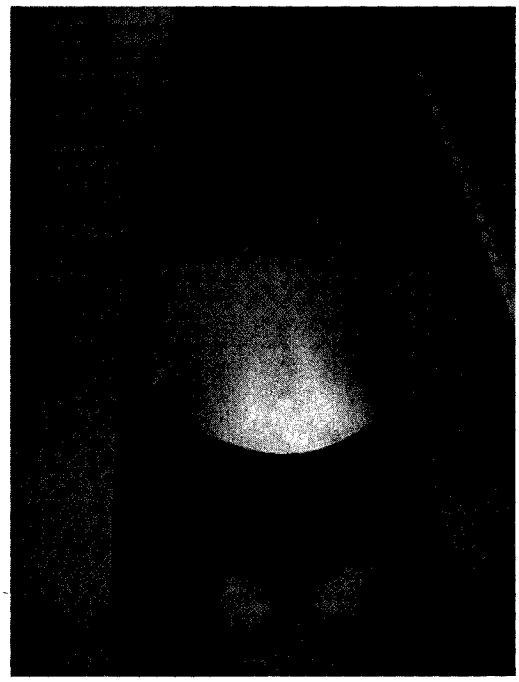
Child's Pose (*Adho Mukha Virasana*)

Kneel on mat with knees slightly wider than hips. Bend forward, stretching arms and trunk forward. Rest head on the floor. Stay in pose for 1 minute (Sparrowe & Walden, 2002).

According to Sparrowe and Walden (2002), this pose may calm the mind and aid in digestion. It may also bring peace and strength.





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Hero's Pose (*Virasana*)

Kneel with knees together and feet slightly wider than hips and pointing straight back. Buttocks should be on the block, in between the feet. Stay for 3-5 minutes (Sparrowe & Walden, 2002). If pain is experienced in the knees, sit on a block.

According to Thomas and Thomas (2004a), this pose helps with digestion and reduces subjective fullness from over consumption. This is a good pose to use for seated meditation.

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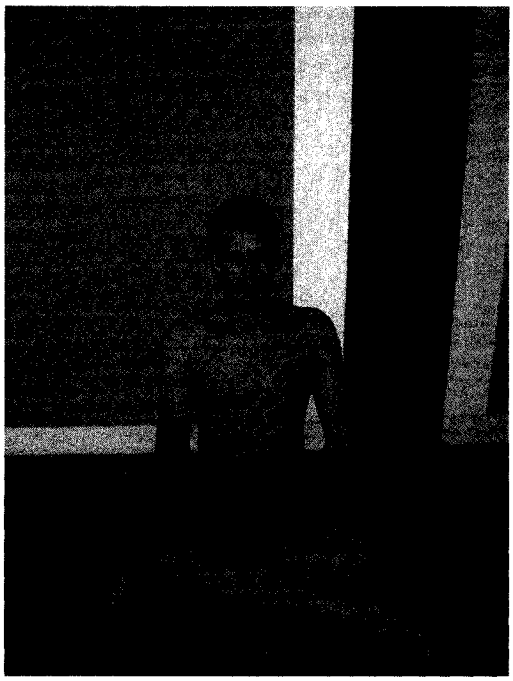
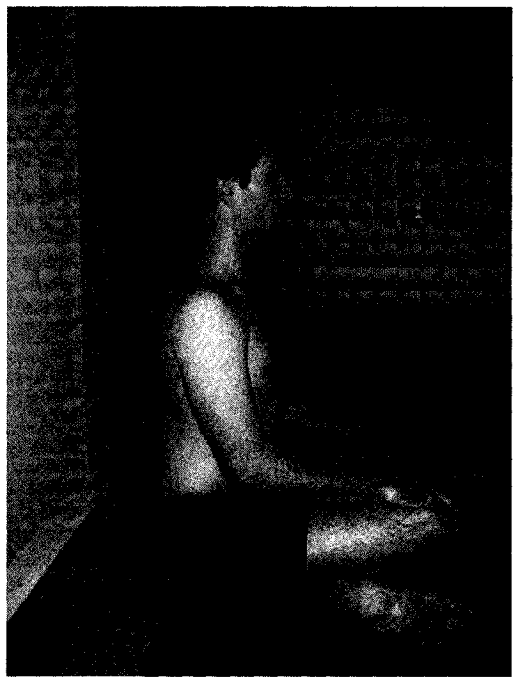
Easy Seated Pose (*Sukhasana*)

Sit cross legged on mat, or folded blanket, with spine vertical. Rest hands on knees. Breathe deeply. Stay in pose at for 3-5 minutes. This pose is typically used in meditation and breathing practices in yoga (Sparrowe & Walden, 2002).

According to Iyengar (2005), this pose allows one to experience inner silence. This is believed to for foster awareness and deeper consciousness.





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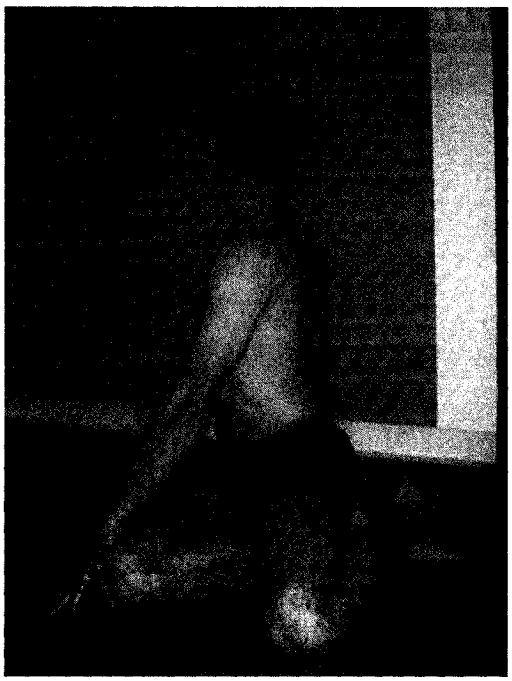
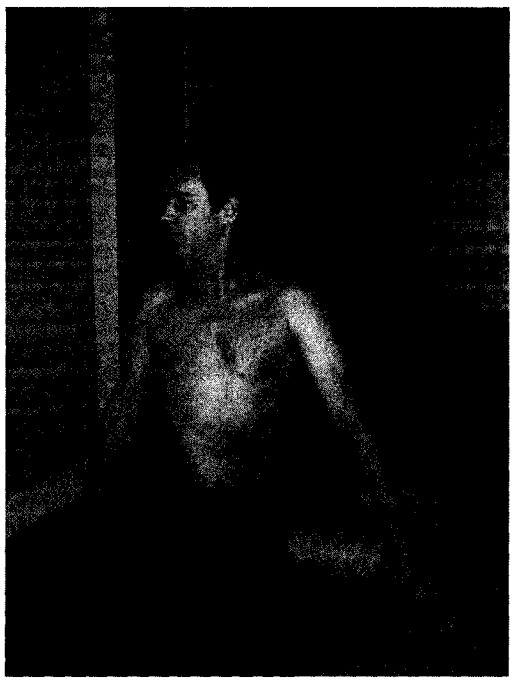
Twisting Poses

Simple Seated Twist (*Bharadvajasana*)

Sit up straight with legs stretched out in front of you. Bend both legs to the left, so that feet are next to left hip. Let left ankle rest on arch of right foot, and have buttocks on the floor, not on feet. Draw shoulder blades into back, expand chest, extend spine upward, on exhale turn abdomen, ribs, chest and shoulders to the right. Place right hand on floor behind and left hand on outside of right thigh. Hold posture for 20-30 seconds. Come back to center position, straighten legs and change sides (Sparrowe & Walden, 2002).

This pose can increase flexibility of the spine. Theoretically, it opens the chest and improves respiration and circulation. The simple seated twist is thought to help alleviate depression and anxiety (Sparrowe & Walden, 2002).





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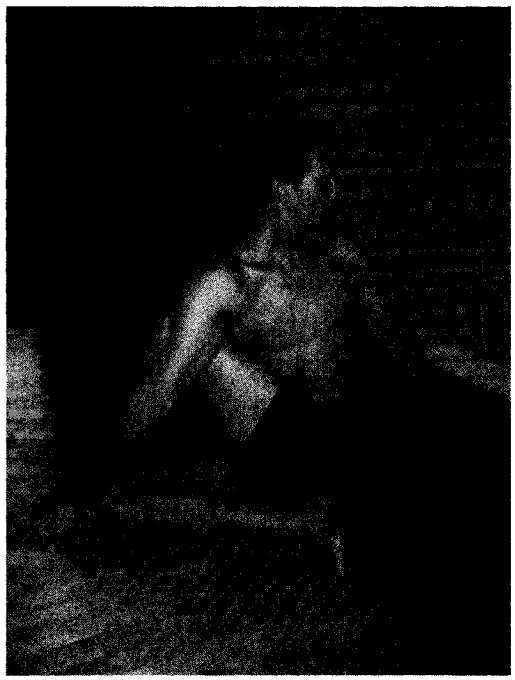
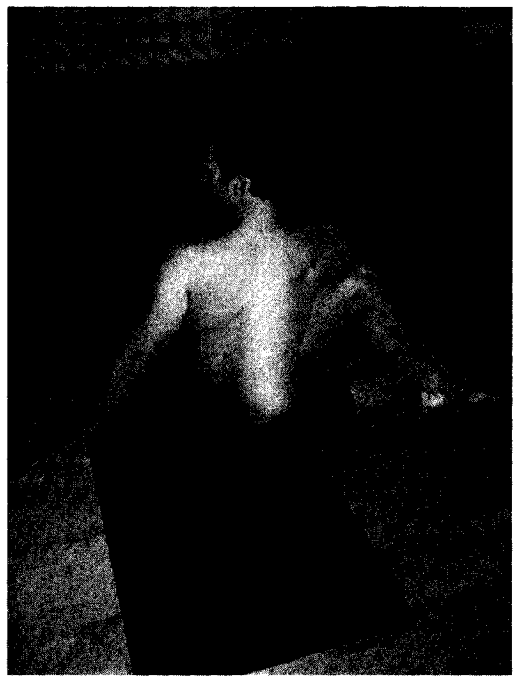
Twisting Poses

Spinal Twist (*Ardha Marichyasana*)

Sit on mat with legs stretched out straight. Bend left leg and put foot flat on floor on other side of right straight knee. Lift right arm overhead and wrap it around left bent knee, hold left ankle with right hand. Place left hand on floor behind buttocks. Exhale and rotate torso to the left. Turn head to look over left shoulder. Breathe normally. Hold pose for 10-20 seconds. To come out, release head, arms, and legs from twist. Repeat on other side (Sparrowe & Walden, 2002).

According to Sparrowe and Walden (2002), this pose may improve respiration and circulation. They postulate that it may reduce depression and fatigue. Thomas and Thomas (2004a) believe that regular practice of this pose may reduce frequency of headaches.





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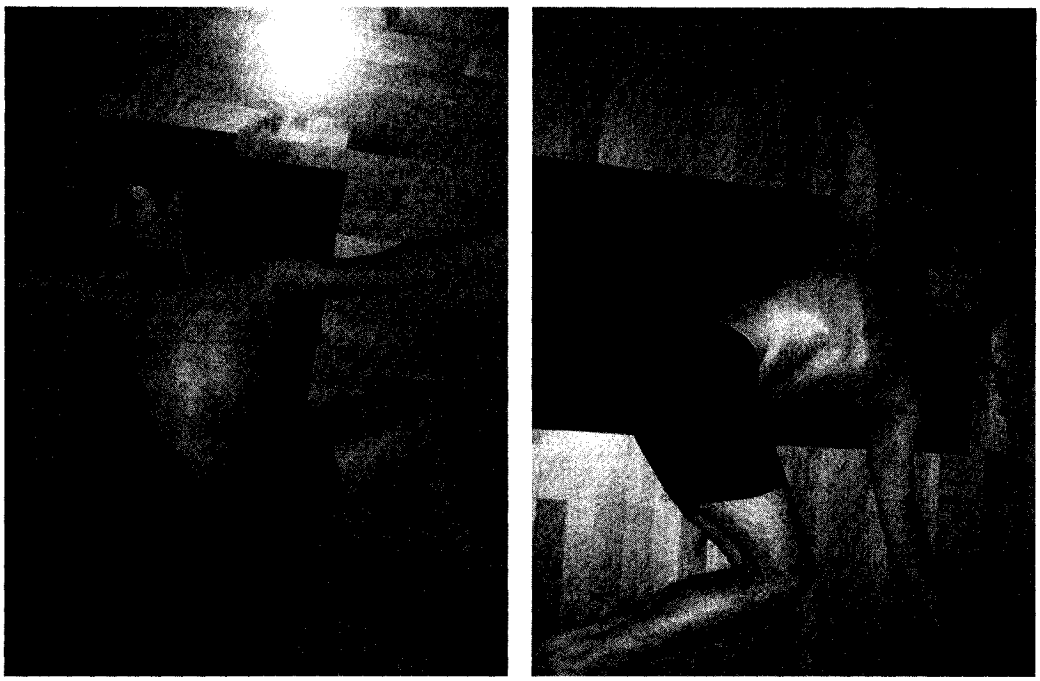
Twisted Stomach Pose (*Jathara Parivatanasana*)

Lie on back on mat and bend knees bringing feet flat on floor. Stretch out both arms sideways, so body resembles a cross. Raise both legs together and slowly bring them to the left and place them on the floor, keeping right shoulder blade down on the mat. Hold this pose for 20 seconds. Exhale and bring legs back up to center and then repeat on other side (Sparrowe & Walden, 2002).

This pose is thought to alleviate back pain. It is thought to help make the spine more flexible (Iyengar, 1966; Sparrowe & Walden, 2002).



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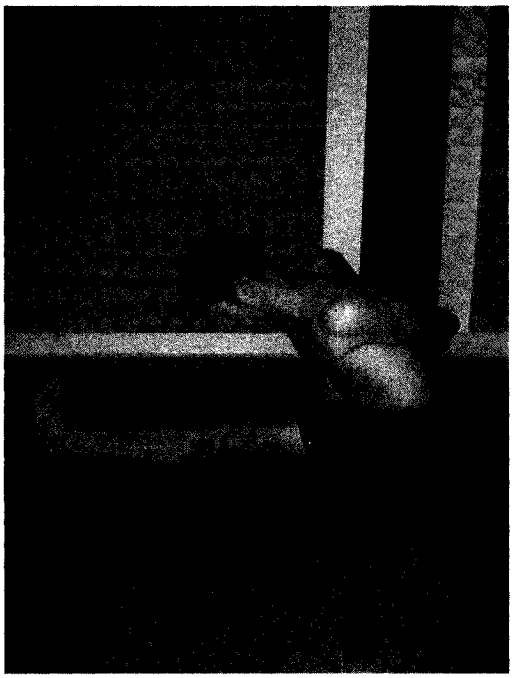
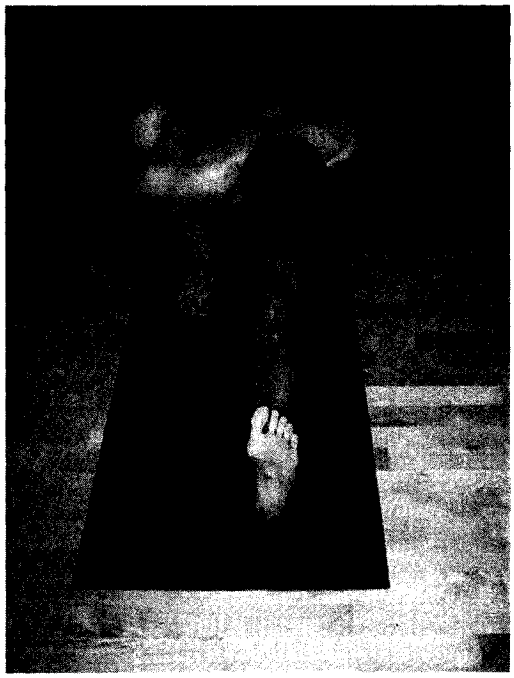
Son of Creator (*Marichyasana* I)

Sit with feet stretched out in front. Bend right leg, putting right foot flat on floor next to left inner thigh. Turn to the left and put left hand on floor. Extend right arm toward the left foot, bringing armpit to the inside of right knee, hold on to left toes. Then take right arm around the bent leg. Bend the left arm back and clasp the right arm, or wrist. Exhale, turn to the front and bend down over the left leg. Stay for 20 - 30 seconds breathing normally. Repeat on other side (Mira & Mehta, 2005).

This pose may improve digestion and reduce fatigue. In yoga vernacular, it is thought to open the chest, improve respiration and circulation, and help alleviate depression and tiredness (Sparrowe & Walden, 2002).





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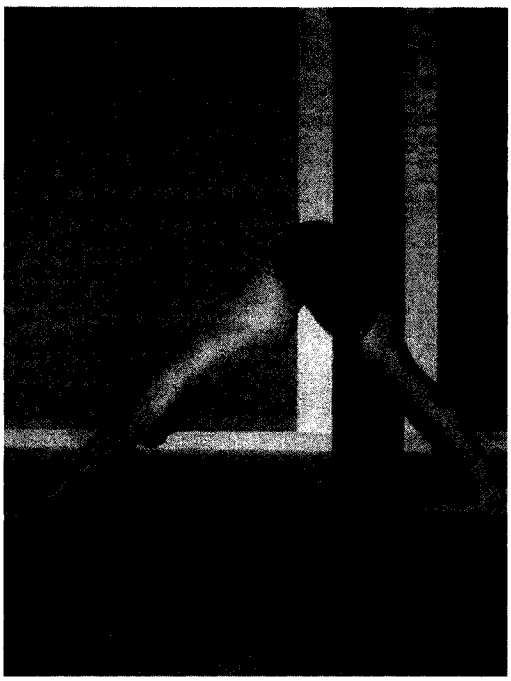
Supine and Prone Poses

Downward-Facing Dog (*Adho Mukha Svanasana*)

Lie face down with palms by sides of chest, come up on hands and knees, curl toes under and straighten legs. Press hands into mat while moving thighs up and back. Push heels downward towards floor. Keep thighs firm and elbows straight. Breathe deeply. Let head hang down and relax neck. Hold pose for 30-60 seconds. To come out, return to hands and knees and sit back on heels (Sparrowe & Walden, 2002).

This pose may be energizing and calming to the mind and reduce depression (Iyengar, 2005; Sparrowe & Walden, 2002). Additionally, this posture may improve alertness and concentration. Lifting the diaphragm to the chest cavity may slow the heart rate and relieve anxiety (Thomas & Thomas 2004).



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Lying Down Hero Pose (*Supta Virasana*)

Sit in hero pose and lie back onto the floor. Rest arms at side in a relaxed position. If pain is felt in the knees, lie back on a bolster. Place short end behind sacrum so that head will also be on bolster. Stay in pose for 1- 2 minutes Sparrowe & Walden, 2002).

This pose is thought to relieve digestive disorders and constipation (Sparrowe & Walden, 2002).

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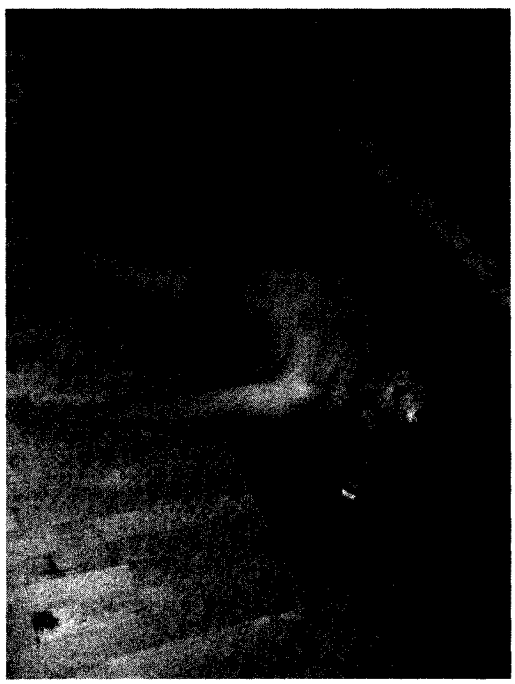
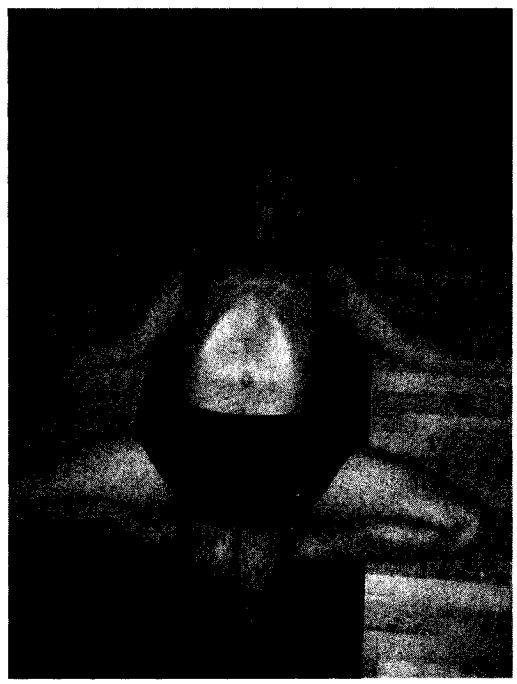
Lying Down Bound Angle Pose (*Supta Baddha Konasana)*

Sit in front of short end of bolster with knees bent and back side of sacrum touching the edge of bolster. Place a strap behind back at sacrum, draw it forward over hips, across shins, and under feet. Put soles of feet together, allowing knees and thighs to fall open. Cinch strap securely under feet. Lie back so head and torso rest comfortably on bolster and buttocks and legs are on floor. Stay in this pose as long as feels comfortable. To come out, draw knees together, slip the strap off, roll to one side, push up to a seated position using hands (Sparrowe & Walden, 2002).

This pose quiets the mind and calms the nerves. Yogis believe that this pose lifts the spirits by opening the chest. It may also be therapeutic for indigestion and headaches (Sparrowe & Walden, 2002).





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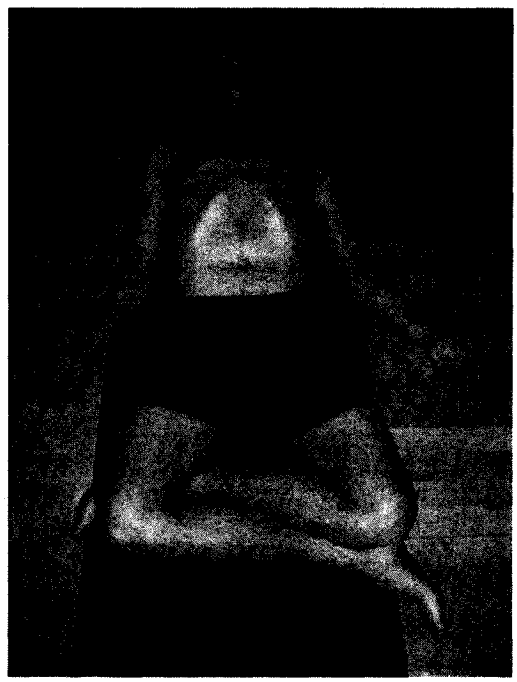
Reclining Easy Seated Pose (*Supta Sukhasana*)

Sit in front of short edge of bolster with back of sacrum touching bolster. Cross legs at shin and extend through spine. Using hands as support, lie back on bolster. Rest arms out at sides, bring shoulder blades into back ribs and lift chest. Stay in pose for 1-3 minutes. To come out of pose, uncross legs, put feet on floor and roll to one side. Use hands to push self up to seated position (Sparrowe & Walden, 2002).

This pose may be beneficial for reducing both anxiety and depression. Similar to the lying down bound angle pose, it may also be uplifting by opening the chest (Sparrowe & Walden, 2002).



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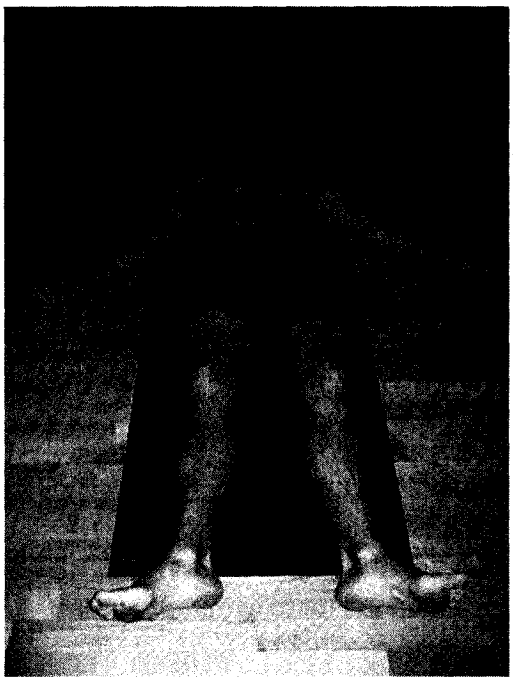
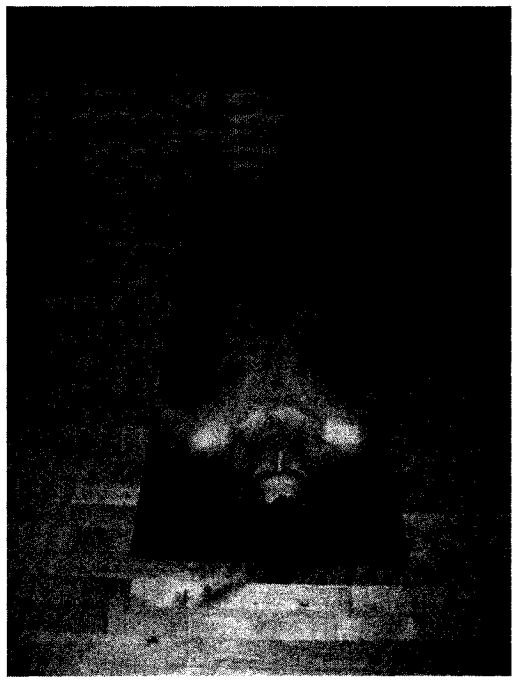
Corpse Pose (*Savasana*)

Lie on back with legs stretched out in front. Place arms at sides, slightly away from torso, with palms facing up. Allow arms and legs to release completely. Close eyes and release the tension from everywhere in body. Exhale body into floor, relaxing throat, neck, face, and shoulders. Allow abdomen to be soft and let lower back sink into floor. Remain in pose for at least 5-10 minutes. To come out, bend knees, roll slowly to one side, push up with hands to seated position allowing head to come up last (Sparrowe & Walden, 2002).

This is a relaxing and soothing pose believed to reduce anxiety, relieve fatigue, and restore balance (Sparrowe & Walden, 2002). Thomas and Thomas (2004) suggest that during this pose, joy may be experienced as increased awareness is focused on breathing. According to Iyengar (1996), every practice should end with *savasana* to enhance the effects of the other poses.





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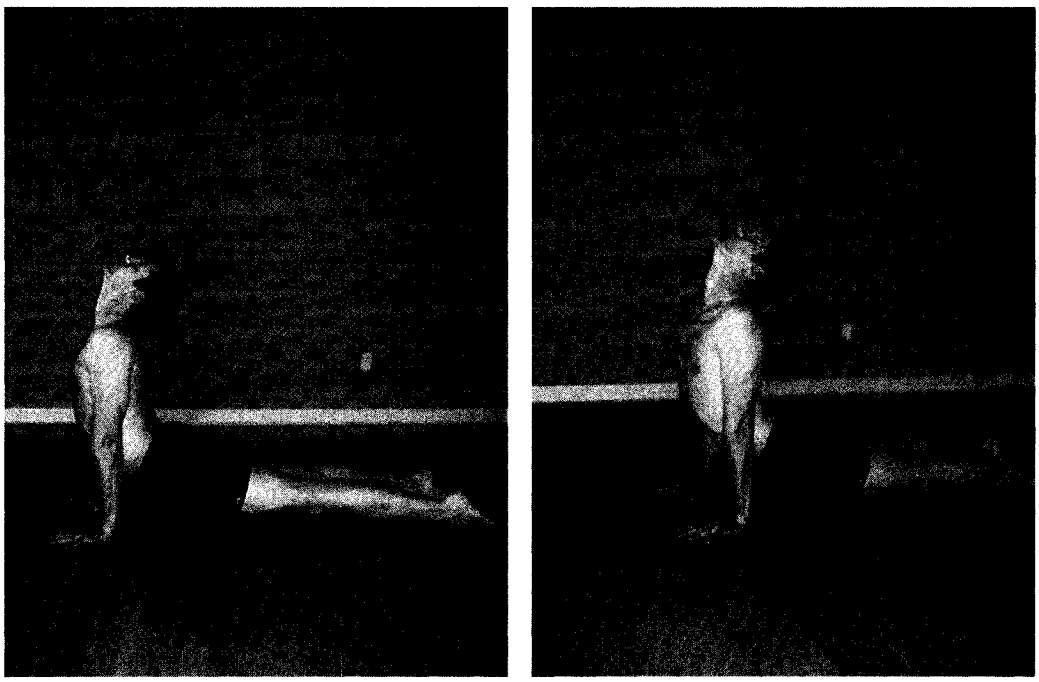
Backbend Poses

Upward Facing Dog (*Urdhva Dhanurasana*)

Lie facedown with feet hip width apart. Bend elbows and place hands next to ribs, fingers pointing straight ahead and chin resting on the mat. Push hands firmly into the mat and raise the upper part of body off the mat. Lift hips and knees off the mat, keeping the thighs strong and knees pulling up. Move shoulder blades into back ribs, expand chest and look up towards the ceiling. Hold this position for 15-20 seconds (Sparrowe & Walden, 2002).

Theoretically, opening the chest in this pose may lift spirits and help calm nervous energy (Sparrowe & Walden, 2002). This posture might also be beneficial for digestive disorders (Sparrowe & Walden, 2002).



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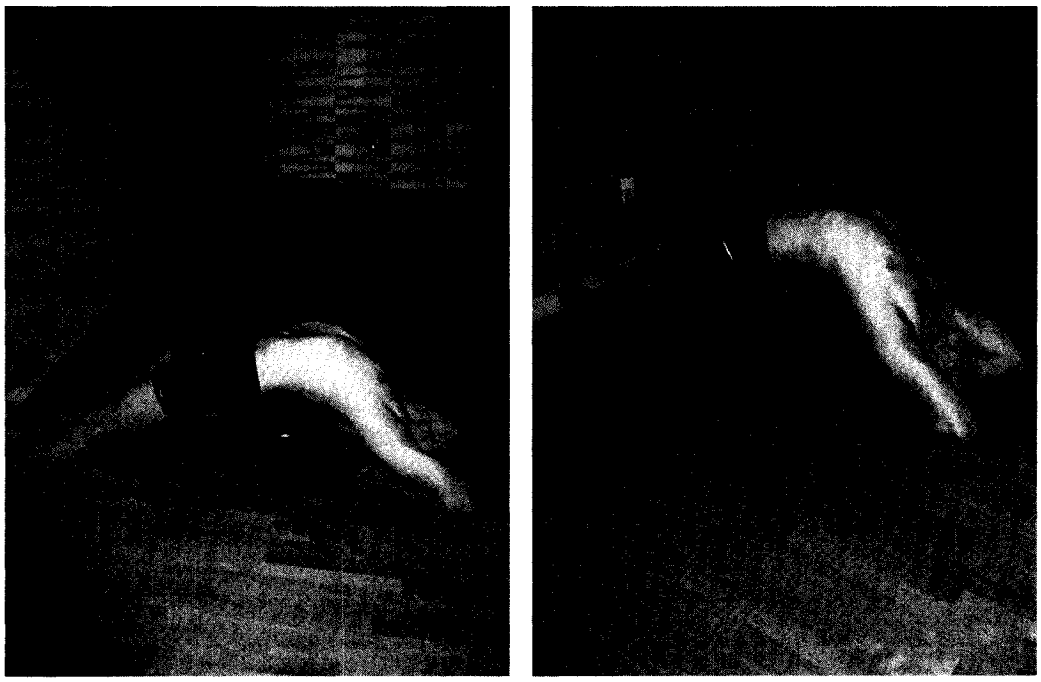
Inverted Staff Pose (*Vaparita Dandasana*)

Place folded blanket on chair that is placed approximately 2 feet from wall. Sit backwards on chair, facing the wall, with feet through the chair back. Holding on to sides of chair, lean back so that head and neck extend past front of chair. Arch the back so that shoulder blades are at front edge of seat. Take feet to the wall, straightening legs. Breathe for 30-60 seconds. To come out bend knees and put feet flat on the floor. Hold on to sides of chair and come up lifting from sternum. (Sparrowe & Walden, 2002).

The inverted staff pose is thought to be therapeutic in alleviating depression, improving respiration, and invigorating the body as it opens the chest (Sparrowe & Walden, 2002).



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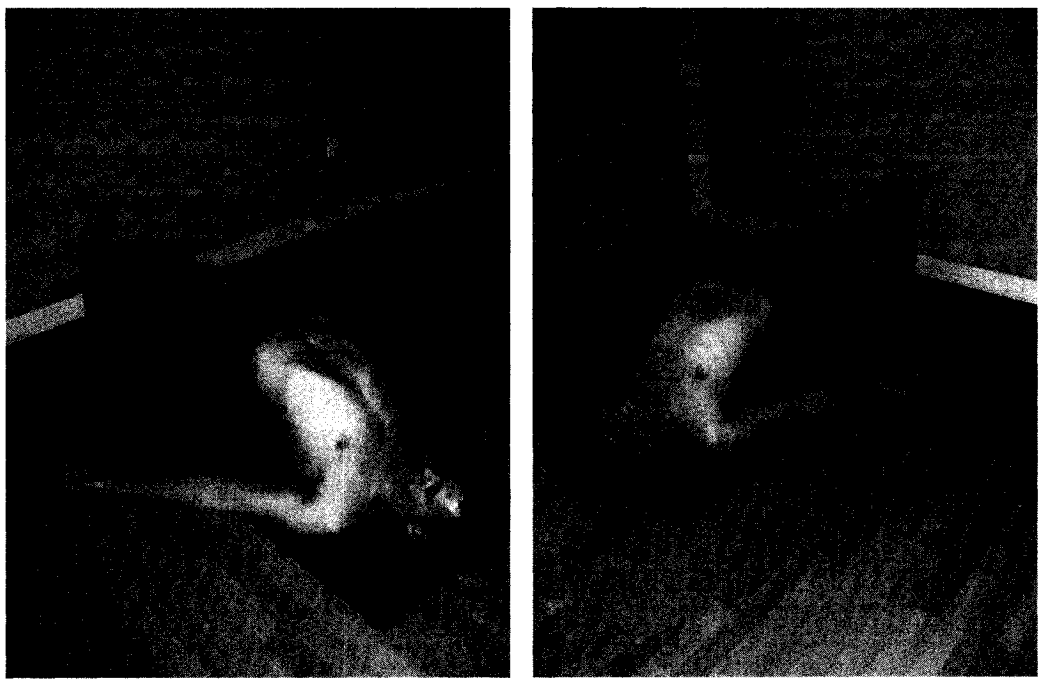
Inverted Poses

Bridge Pose (*Setu Bandha Sarvangasana*)

Place a block vertically against the wall. Lie on back with knees bent and arms down by sides. Roll shoulders away from head expanding chest. Raise hips and chest as high as possible and support back with hands, fingers pointing in towards spine. Lift spine even further, increasing the arch in back, and put another vertical block under buttocks. Rest heels on the block against the wall. Hold this pose for 1 minute, breathing normally. To come out, bend knees and place feet on floor. Remove block under sacrum (Sparrowe & Walden, 2002).

Sparrow and Walden (2002) suggest that the bridge pose relieves anxiety, depression, and exhaustion. This pose helps to stretch the spine. In yoga theory, Thomas and Thomas (2004a) propose, "A healthy and flexible spine indicates a healthy nervous system. If nerves are healthy a man is sound in mind and body" (p. 24).



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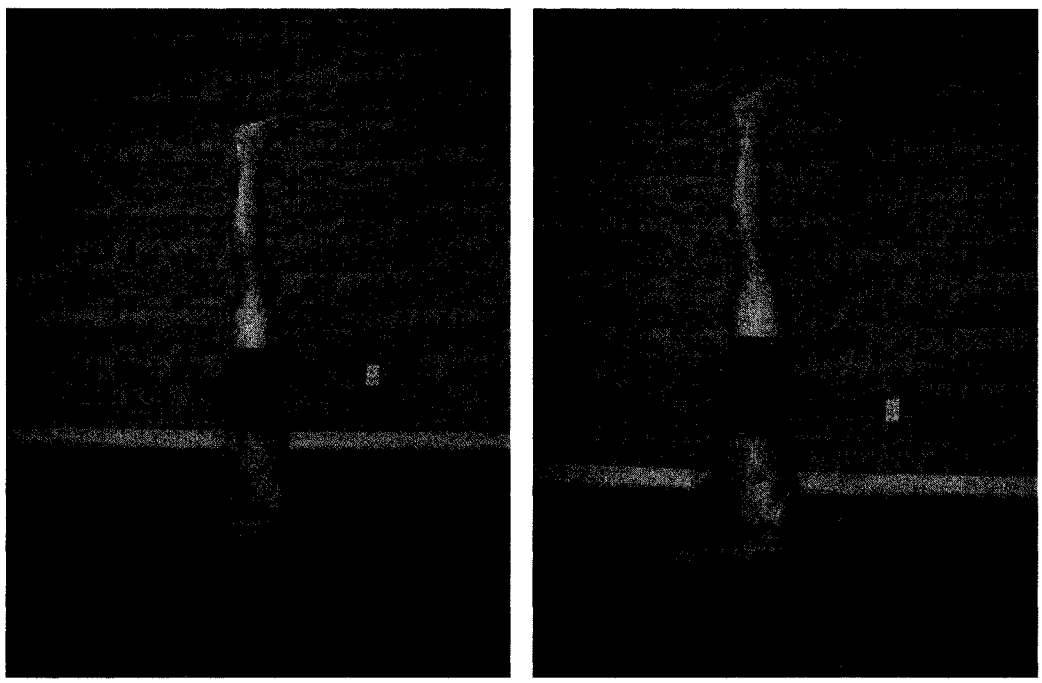
Shoulder Stand (*Sarvangasana*)

Lie on back with two folded blankets supporting your shoulders, arms down by sides, with palms facing down. Exhale, bend knees and roll legs in toward chest. Press bent knees over head and support back with hands, elbows pressed firmly into blankets. Straighten legs overhead. Stay in pose for 2-5 minutes. To come out, exhale as legs bend, slowly roll down onto back (Sparrowe & Walden, 2002).

Thomas and Thomas (2004a) reflect the many potential benefits of the shoulder stand in terming it "the Mother of all *asanas*." They suggest that regular practice of this pose develops vigor and strength, brings peace and confidence, and reduces temper, anxiety, and insomnia. This pose also provides relief from constipation, breathlessness, headaches, irritability, and throat ailments (Thomas & Thomas, 2004a).



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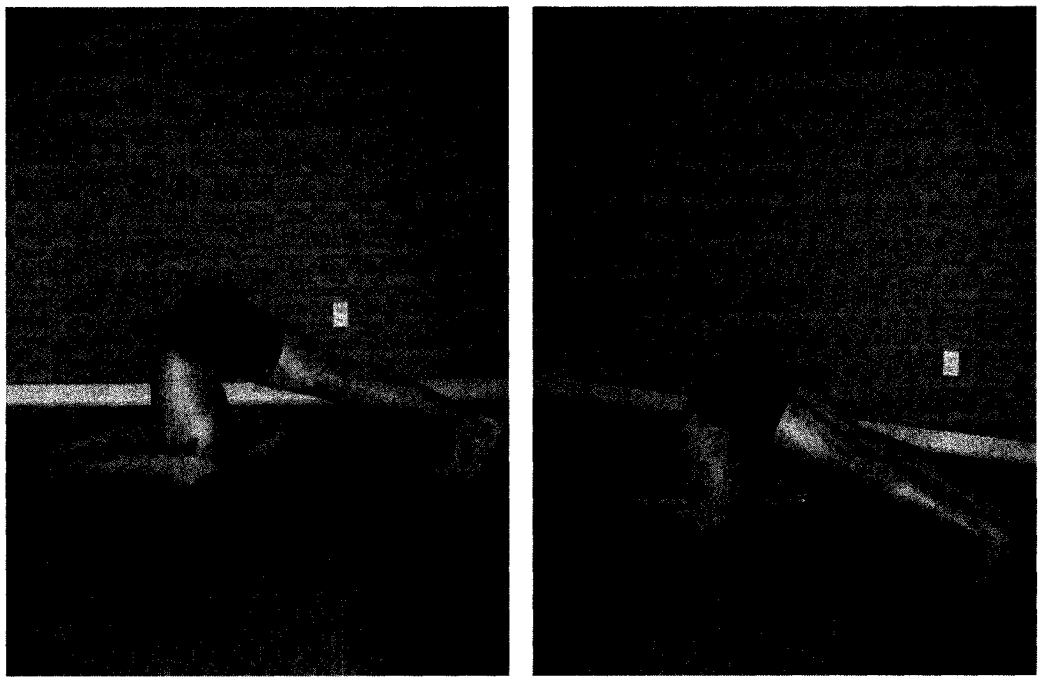
Plough Pose (*Halasana*)

Lie on back with two blankets supporting neck and shoulders, arms by side, palms facing down, legs straight out in front. Bend knees and bring thighs into chest. Exhale and swing legs over head placing toes on floor behind head. Back should be perpendicular to floor with legs straight. Stay in pose for several minutes, or as long as comfortable. To come out, roll down one vertebra at a time, very slowly. Rest lying flat on floor for several breaths (Sparrowe & Walden, 2002).

This pose is thought to relieve anxiety, release tension headaches, and reduce depression (Sparrowe & Walden, 2002). In yoga vernacular, Iyengar (2005) asserts that this pose helps balance the mind and emotions.



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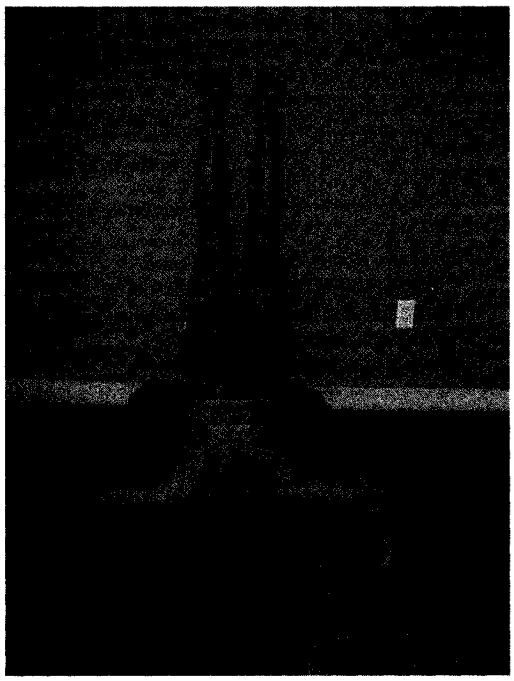
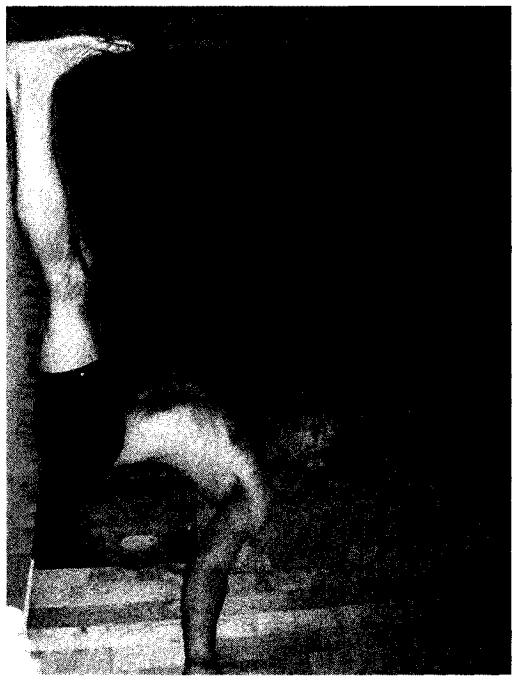
Elevated Legs Up Wall Pose (*Viparita Karani*)

Sit against wall so that the right side of body is touching the wall. Using hands as support, lean back and swivel body around placing both legs up the wall. Keep buttocks against the wall. Extend through legs, and put arms down by sides, elbows bent and palms up. Rest in this pose for 5 minutes (Sparrowe and Walden, 2002).

This pose may relax the body and release tension. It is also believed to relieve fatigue and increase blood flow to the pelvis (Sparrowe & Walden, 2002).





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Head Stand (*Sirsaassana*)

Kneel in front of a folded blanket against the wall with feet and knees together. Interlace fingers firmly with hands cupped. Place hands 3 inches from wall, elbows shoulder-width apart, and wrists perpendicular to the floor. Place the crown of head on the blanket, with back of head making contact with hands. Press forearms into the floor, lifting shoulders away form ears. Straighten legs, raise hips towards the ceiling, walk feet in until spine is almost perpendicular to the floor. Exhaling, bring one leg up at a time until both heels are against the wall. Lengthen legs upward towards the ceiling, keeping feet together. Hold pose for up to 5 minutes. To come out, bend knees and bring feet to the floor, one at a time (Sparrowe & Walden, 2004a).

The head stand is one of the essential poses of yoga. Thomas and Thomas (2004a) report, "Regular practice of *Sirsasana* develops the body, disciplines the mind and widens the horizons of the spirit" (p. 2). Sparrow and Walden (2002) find the head stand beneficial if feeling depressed, anxious, or spacey. Teachers of yoga suggest that the major benefits from this pose come from increasing blood flow to the brain. In yoga theory, the head stand rejuvenates brain cells and improves brain power and clarity of thought (Thomas & Thomas, 2004a).

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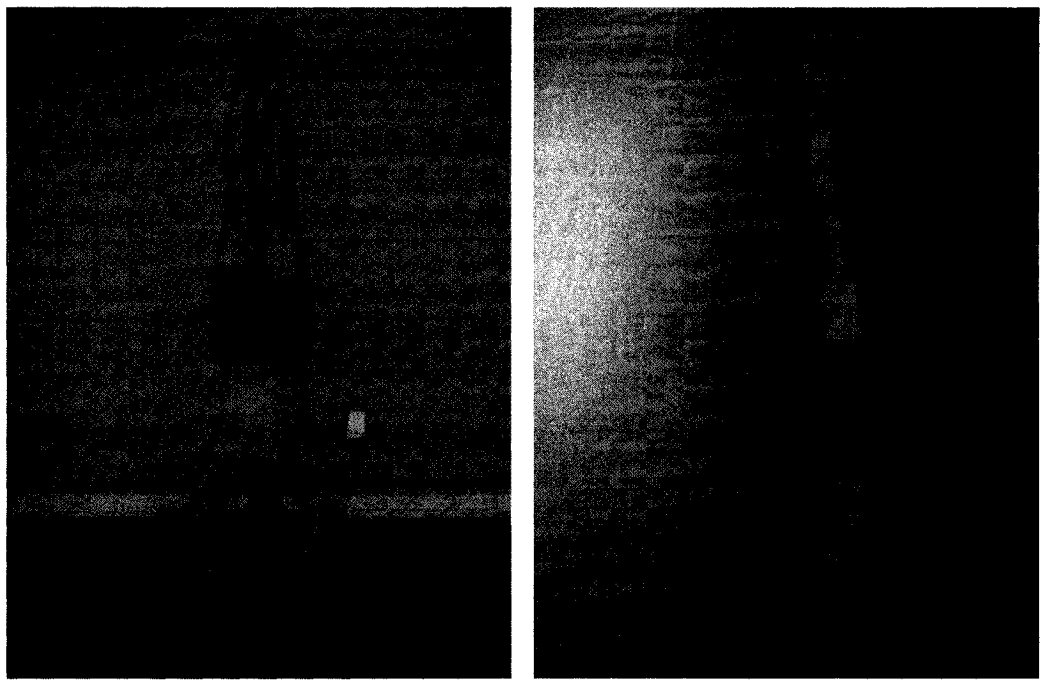

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Sequences

The Gentle Series (Thomas & Thomas, 2004a).

The Gentle Series is a sequence of yoga poses developed by Thomas and Thomas. In general, it is considered a good sequence to use when feeling exhausted or overwhelmed. Less demanding on the body than other sequences, the Gentle Series may help to energize and restore balance. While not intended by these authors to treat STS, the gentle, energizing effects cited from this sequence are well-suited for psychotherapists experiencing this disorder.

1. Easy Crossed Legged Seated Pose (*Sukhasana*)
2. Mountain Pose (*Tadasana*)
3. Standing Forward Bend (*Uttanasana*)
4. Hero Pose (*Virasana*)
5. Child's Pose (*Adho Muka Virasana*)
6. Elevated Legs Up the Wall Pose (*Viparita Karani*)
7. Inverted Staff Pose (*Viparita Dandasana*)
8. Spinal Twist (*Ardha Marichyasana*)
9. Son Of Creator Pose (*Marichyasana*)
10. Head to Knee Pose (*Janu Sirasana*)
11. Bound Angle Pose (*Baddha Konasana*)
12. Seated Angle Pose (*Upavistha Konasana*)
13. Lying Down Hero Pose (*Supta Virasana*)
14. Lying Down Bound Angle Pose (*Supta Baddha Konasana*)
15. Seated Forward Bend (*Paschimottanasana*)

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Series for Stress (Mira & Mehta, 1990).

The Series for Stress was developed by Mira and Mehta as a general stress and anxiety-reducing sequence. It is proposed here as a treatment for STS to address anxiety, a major feature of this disorder.

1. Downward Facing Dog Pose (*Adho Muka Svanasana*)
2. Inverted Staff Pose (*Viparita Dandasana*)
3. Shoulder Stand (*Sarvangasana*)
4. Plough Pose (*Halasana*)
5. Head to Knee Pose (*Janu Sirsasana*)
6. Seated Forward Bend (*Pascimottanasana*)
7. Elevated Legs Up the Wall Pose (*Viparita Karani*)
8. Corpse Pose (*Savasana*)

A Series for Chronic Depression (Sparrowe & Walden, 2002).

Depression is another prominent symptom of STS. The Series for Chronic Depression is proposed here as a sequence for STS sufferers to address this symptom. This series, with its inclusion of back bends and easy inversions, helps to open up the chest and is therefore thought to combat depressive feelings (Sparrow & Walden, 2002).

1. Reclining Easy Seated Pose (*Supta Sukhasana*)
2. Downward Facing Dog Pose (*Adho Mukha Svanasana*)
3. Headstand (*Sirsanasa*)

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4. Inverted Staff Pose (*Viparita Dandasana*)
5. Upward Facing Bow Pose (*Urdva Dhanurasana*)
6. Simple Seated Twist Pose (*Bharadvajasana*)
7. Downward Facing Dog Pose (*Adho Mukha Svanasana*)
8. Shoulder Stand (*Sarvangasana*)
9. Plough Pose (*Halasana*)
10. Bridge Pose (*Setu Bandha Sarvangasana*)
11. Reclining Bound Angle Pose (*Supta Baddha Konasana*)
12. Corpse Pose (*Savasana*)

Series for Anxiety Driven Depression (Sparrowe & Walden, 2002).

The Series for Anxiety Driven Depression was created by Sparrowe and Walden to target the often interconnected symptoms of anxiety and depression. This sequence is proposed for STS sufferers as another potentially therapeutic series when feeling simultaneous agitation, anxiety, and depression.

1. Downward Facing Dog Pose (*Adho Mukha Svanasana*)
2. Standing Forward Bend (*Uttanasana*)
3. Wide- Angle Standing Forward Bend (*Prasarita Padottanasana*)
4. Downward Facing Dog Pose (*Adho Mukha Svanasana*)
5. Inverted Staff Pose (*Viparita Dandasana*)
6. Upward Facing Bow Pose (*Urdva Dhanurasana*)
7. Child's Pose (*Adho Muka Virasana*)
8. Shoulder Stand (*Sarvangasana*)
9. Plough Pose (*Halasana*)

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10. Seated Forward Bend (*Pascimottanasana*) to Plough Pose (*Halasana*)

11. Bridge Pose (*Setu Bandha Sarvangasana*)

12. Corpse Pose (*Savasana)*

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