

THE EFFECTS OF YOGA ON BODY DISSATISFACTION, SELF-  
OBJECTIFICATION, AND MINDFULNESS OF THE BODY IN COLLEGE WOMEN

BY

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To the Faculty of Washington State University:

The members of the Committee appointed to examine the dissertation of  
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Abstract

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Previous research on the Objectification Theory suggests that woman may experience self-objectification and body dissatisfaction. Research has demonstrated that yoga is associated with lower self-objectification and lower body dissatisfaction (Daubenmeir, 2005; Impett, Daubenmeir, & Hirschman, 2006) and thus may be a key intervention toward increasing body satisfaction among woman.

The purpose of this between and within groups repeated measures experimental study is to determine whether or not a yoga program has positive effects on decreasing body dissatisfaction, increasing body satisfaction, decreasing self-objectification, and increasing mindfulness of the body in college women. Volunteers experiencing dissatisfaction with their bodies and who have zero to limited yoga experience based on their self-report were recruited for the study. Participants were comprised of 32 college students. Participants completed a survey packet consisting of the following measures: (a) A demographics questionnaire (Clancy, unpublished dissertation, 2008); (b) The Self-Objectification Questionnaire (SOQ; Noll & Fredrickson, 1998); (c) The Surveillance subscale of the Objectified Body Consciousness (OBC)

Scale (McKinley & Hyde, 1996); (d) The Body Areas Satisfaction subscale of the Multidimensional Body-Self Relations Questionnaire (MBSRQ-BAS; Brown, Cash, & Mikulka, 1990); (e) The CBBSM (Clancy, unpublished dissertation); (f) The Eating Disorder Inventory-Body Dissatisfaction subscale (EDI-BD; Garner et al., 1983); and (g) a modified version of the Frieburg Mindfulness Inventory (Walach, Buchheld, Buttenmuller, Kleinknecht, & Schmidt, 2006). Participants were randomly assigned to either yoga treatment (Group 1a) or the waitlist control group (Group 2a). Following ten weeks of participation in the waitlist control group, participants from Group 2a then self-selected for a yoga intervention (Group 2b). Additionally, a follow-up interview was conducted with 12 participants.

Most measures were found to be strongly correlated. A repeated measures analysis was conducted combining data from Group 1a and 2b, revealing that participants demonstrated significantly lower within group body dissatisfaction scores and significantly higher body satisfaction scores at post test than at pre test. Participants in Group 1a alone demonstrated significantly higher within group body satisfaction scores at post test than at pre test. Six main qualitative themes emerged for participants after 10 weeks of yoga treatment: Acceptance, Awareness and Spirituality, Mind- Body Connection, Body Compassion, Mindfulness of the Self, and Physical and Functional Body. Qualitative and quantitative findings lend support for the utilization of yoga treatment for women with body image issues in a non-clinical setting.

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## **Dedication**

I would like to dedicate this dissertation to my grandfathers, Lynn R. Clancy, Ph.D. and Samuel J. Yosim, Ph.D for paving the way and believing in me. Their diligent work, overcoming of tremendous barriers and passion for their art will never be lost.

## Chapter I

### Statement of Problem

The purpose of the current study is to determine whether or not a yoga program has benefits in decreasing body dissatisfaction, increasing body satisfaction, decreasing self-objectification, and increasing mindfulness of the body.

#### *Body Dissatisfaction/Satisfaction and the Objectification Theory*

Body satisfaction and dissatisfaction are at opposite ends of a continuum. How one perceives aspects of his or her body, or overall appearance, can be defined as body image. Some researchers agree that body image refers to the “internal representation of your own outer experience- your own unique perception of your body” (Thompson, Heinberg, Altabe, & Tantleff-Dunn 2002, p. 4). Body satisfaction then, can refer to the negative feelings, beliefs, evaluations, and judgments one has about aspects of his or her body, overall appearance (Brown, Cash, & Mikulka, 1990), or degree of satisfaction with a personal and unique body image. Though body image and body dissatisfaction are well researched constructs, they are inconsistently defined throughout the literature, and are often equated with other constructs such as body shame, body image disturbance, or negative/positive body regard. Consequently, it is difficult to gain definite and consistent information about body image and body dissatisfaction prevalence rates and draw definite conclusions about relationships between body dissatisfaction and other constructs (Cash, Morrow, Hrabosky, & Perry, 2004).

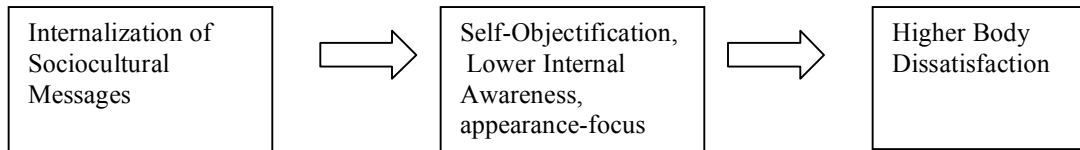
Fredrickson and Roberts' (1997) Objectification Theory is one theory that can help explain how a woman can develop body dissatisfaction. Self-objectification (Frederickson & Roberts, 1997) is defined as the internalization by women of sociocultural perceptions as

sexualized objects to be used by others (Frederickson & Roberts, 1997). According to the Objectification Theory, a woman learns to objectify herself according to ideal sexualized standards, just as they have been objectified by others. Specifically, as a woman grows and develops her unique body image, she is exposed to sociocultural messages that communicate rarely attainable ideals of female attractiveness and perfection (Fredrickson & Roberts, 1997). Consequently, she begins to perceive her body as an “object to be used or consumed by others” (Fredrickson & Roberts 1997, p. 174). She learns to conceptualize her body based on the perceived appraisals of others and thus her ability to focus inward is reduced. She can become highly critical and evaluative of her body and appearance, perceiving her body as a collection of objects to be scrutinized and controlled in order to achieve a sociocultural ideal. She is encouraged to accept what others tell her about herself as the truth. She develops a lower awareness of her internal states and pays limited attention to the way her body functions and feels (Fredrickson & Roberts, 1997; Impett, Daubenmeir, & Hirschman, 2006; Shiffman, 1996). According to Fredrickson and Roberts, self-objectification and the accompanying diminished internal focus can have additional psychological implications for women such as body shame and eating disorders.

The objectifying gaze has been found to occur during social and visual media interactions when a woman is sexually evaluated through the glance of a man at her body (Frederickson & Roberts, 1997). Thus, the “objectifying gaze” can lead to the development of self-objectification when a woman learns to perceive much of her worth as based on society’s appraisal of her appearance (Frederickson & Roberts). Other situations or activities in which the body can be objectified or communicate an ideal body standard such as sport performance and ballet have also been empirically related to self-objectification in women (Parsons & Betz,

2001; Tiggemann & Slater, 2001). As a woman begins to internalize external sociocultural messages and standards and learns to critically evaluate her own body as an object, she may begin to perceive her body as falling short of ideals for appearance based on sociocultural standards. As supported by cross-sectional studies as well as experimental research that attempted to induce self-objectification, self-objectification can increase feelings of shame (Calogero, 2004; Fredrickson et al., 1998; Gapinski, Brownell, & LaFrance, 2003; Roberts & Gettman, 2004). Specifically, if a woman does not perceive that her body matches societal standards of the ideal female body she may manifest body shame (Fredrickson & Roberts, 1997; Noll & Fredrickson, 1998; Tiggeman & Slater, 2001). The strong emphasis on the sociocultural appearance ideals in college women may make them especially susceptible to self-objectification, and researchers have found a positive relationship between self-objectification and body dissatisfaction in this population (Calogero, Davis, & Thompson, 2005; Shaw & Waller, 1995; Tylka & Hill, 2004).

The above mentioned empirical support for Fredrickson and Robert's (1997) Objectification Theory suggests a pathway from internalization of sociocultural ideals to increased risk for body shame and body dissatisfaction (Engelnn-Maddox, 2005; Lokken, Worthy, & Traitmann, 2004; Muehlenkam, Swanson, & Brausch, 2005, Noll & Fredrickson, 1998; Tiggeman & Slater, 2001; see Figure 1, p. 4). It also supports the association between self-objectification, body shame, and body dissatisfaction, especially among female undergraduate students (Calogero et al., 2005; Daubenmier, 2005; Tylka & Hill, 2004; Muehlenkamp et al., Noll & Fredrickson; Fredrickson et al., 1998). Given this empirical evidence, it is likely that self-objectification has the potential to increase a woman's risk for the development of body dissatisfaction.



*Figure 1.* Fredrickson and Roberts (1997) Objectification Theory.

Self-objectification can affect the way in which incoming information about the body, and about the world itself, is processed. For example, according to Williamson, White, York-Crowe, and Stewart (2004) a woman who is overly concerned with body size or shape has a body self-schema (the way she thinks about her body) that is comprised of salient information about appearance including body size, weight, and shape. She is highly sensitive to incoming information about the body. Specifically, any incoming information perceived to be related to the body will be filtered through her body-self schema and interpreted in a negatively biased fashion (Williamson et al.). The practice of yoga may be an effective strategy to broaden a woman's perspective of her body and impact the automatic processes that influence negative body bias.

### *Yoga and Mindfulness*

Yoga is comprised of three sections: postures (asana), breathing (pranayama), and meditation (Riley, 2004). Mindfulness resides at the core of yoga. It refers to the moment by moment observation of thoughts and emotions emerging naturally within us without stopping, encouraging, or judging them (Germer, Seigel, & Fulton, 2005; Kabat-Zinn, 1994; Langer, 2000; Langer & Maldoveanu, 2000; Williamson et al., 2004). Mindfulness of the body is characterized by the act of becoming more aware of, open-minded to, and curious about, the body. It is characterized by (a) heightened awareness of bodily sensations as they arise moment-by-moment, (b) the ability to perceive the body from diverse perspectives in a state of



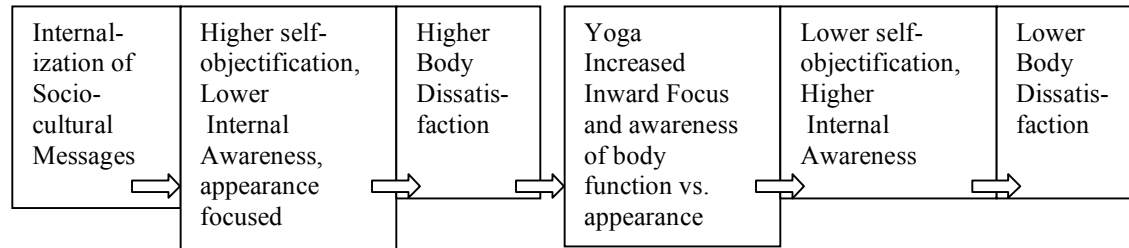
dynamic awareness, and (c) the ability to attend curiously and non-judgmentally to the inner world of the body experience (Daubenmier, 2005, Stewart, 2004; Walach, Buchheld, Buttenmuller, Kleinknecht, & Schmidt, 2006). With each breath and during each pose incorporated into yoga, yoga practitioners are encouraged to experience the body in a new way, and to develop a level of mindfulness of the body.

Rani and Rao (1994) found that yoga may increase body awareness, which is a critical aspect of mindfulness of the body. Daubenmier (2005) also found a relationship between yoga practice and increased body awareness. Body awareness has been associated with body satisfaction and acceptance of the body (Clance & Matthews, 1979; Daubemeir, 2005).

### *Yoga and Objectification*

Yoga could play a critical role in reducing self-objectification. Yoga integrates body movement and breath to facilitate the transfer from an external to an internal orientation which may impact self-objectification (Daubenmier, 2005; Fredrickson & Roberts, 1997; Impett et al., 2006). Yoga uniquely invites the practitioner to experience the sensations and functions of her body and use her internal compass to guide her rather than relying on an external lens. She develops an inward focus characterized by the non-judgmental awareness of emerging sensations within her body. This inward focus can broaden her perspective of her body and disrupt automatic processing of incoming information about the body. The inward focus and broadening of attention allows the practitioner to then refocus awareness and attention on how the body feels and functions versus how it appears (Fredrickson & Roberts; Impett et al.). It encourages the practitioner to build a new relationship with her body that is based on curiosity, acceptance, and function rather than conflict, control and appearance. In this way, diversified awareness of the way the body feels, moves, and functions may lower self-objectification (see

Figure 2, p. 6). As an ultimate outcome to this process, she may begin to develop a sense of kindness and compassion toward her body (Clance & Matthews, 1979; Stewart, 2004).



*Figure 2.* Potential yoga treatment model based on Fredrickson and Roberts (1997)

#### Objectification Theory.

Daubenmeir (2005) found increased body awareness, body satisfaction and lowered self-objectification to be present in experienced yoga practitioners when compared to non practitioners. Impett et al. (2006) were the first to find that participants in a yoga immersion program exhibited lower self-objectification after the yoga program than before, and found that more frequent yoga practice was linked with increased body awareness. Mitchell, Mazzeo, Rausch, and Cooke (2007) were the first to study effects of a yoga intervention on body satisfaction using a sample of college students. Mitchell et al did not, however, find an decrease in body dissatisfaction resulting from the yoga intervention. A limitation of the empirical research to date includes selection of participants with prior extensive yoga experience. Previous extensive experience makes it difficult to isolate the effects of the intervention. An additional limitation includes the lack of a systematic, quantifiable yoga intervention. Furthermore, Mitchel et al. used measurements that may not be sensitive enough to illuminate the progression of body awareness and mindfulness in yoga, and the gradual reduction of body dissatisfaction.

The current investigation seeks to determine whether or not a yoga program has benefits in decreasing body dissatisfaction, increasing body satisfaction, decreasing self-objectification, and increasing mindfulness of the body. Specifically, a direct yoga intervention that focuses systematically on mindfulness of the body will be presented to a sample of female college students who have body dissatisfaction and limited yoga training. It is hypothesized that yoga will reduce self-objectification and body dissatisfaction by increasing internal awareness through mindfulness of the body.

## Definition of Terms

### *Self-Objectification*

Based on the self-objectification literature, self-objectification is defined as: the extent to which participants view their bodies in appearance-based, or objectified, and observable terms such as weight, physical attractiveness, and body measurements versus non appearance, competence based terms such as physical coordination, health, energy level, and strength. It is also the degree to which a woman evaluates her body in comparison to other women and is especially concerned with her appearance throughout the day (Frederickson & Roberts, 1997; McKinley & Hyde, 1996).

### *Body Dissatisfaction/Satisfaction*

Based on the body dissatisfaction literature, body dissatisfaction is defined as: negative feelings, judgments, evaluations, one has about the face, lower torso, mid torso, upper torso, muscle tone, weight, height, and overall appearance (Brown et al., 1990; Garner, Olmstead, & Polivy, 1983). Body satisfaction is defined as a feeling of oneness with one's body and an appreciation for the function rather than appearance of the body.

### *Mindfulness of the Body*

Based on the mindfulness literature, mindfulness toward the body is defined as: the self-regulation of present focused attention on the body within a flexible state of mind that facilitates the awareness, receipt and integration of emerging sensations, emotions, or thoughts about the body in a manner that consistently exudes curiosity, openness, and acceptance, and forgoes judgment and/or evaluation of this information (Abbey, Speca, Velting, & Devins, 2004; Bishop et al., 2004; Hanh, 1987; Kabat-Zinn, 1994; Langer, 2000; Langer & Maldoveanu, 2000, Walach et al., 2006). This construct is distinct from body satisfaction as it

emphasizes open awareness to bodily experiences and forgoes judgment or evaluation of the body (of positive or negative valience).

## Chapter II

### Review of Literature

The following review of literature aims to describe the relevance of body dissatisfaction interventions and preventative measures directed toward college women.

Frederickson and Roberts' (1997) Self-objectification theory and its empirical and theoretical relationship to body satisfaction/dissatisfaction will be discussed. The cultivation of mindfulness of the body through yoga will then be explored as a potential means to reduce self-objectification and increase body satisfaction in college women.

#### *Body Satisfaction and College Women*

Body dissatisfaction impacts a substantial portion of college women (Cash & Pruzinsky, 2002). Recent prevalence studies suggest that nearly one in four college women may suffer from body dissatisfaction (Cash et al., 2004). As a potential consequence of being away from home and managing additional responsibilities and stressors, college students are at risk for experiencing high anxiety, discontent, dieting, and general eating disturbances (Mazzeo, 1999). In addition to these stress responses, appearance is closely related to the development of a woman's identity during the college years (Frederickson & Roberts, 1997). College women frequently experience increased pressure to date and often read fashion magazines which place an emphasis on appearance and communicate idealized and unrealistic standards. An empirical link between college-age women and internalized sociocultural appearance ideals (Shaw & Waller, 1995) supports this idea.

Internalization of sociological appearance ideals and evaluation of one's body against these standards without an internal sense of the self and body can induce self-objectification.

Focused attention on externally related appearance ideals can lead to diminished awareness of internal states as well as limited attention to the way the body feels, moves, and functions (Fredrickson & Roberts, 1997; Noll & Fredrickson, 1998; Impett et al., 2006). It can also lead to body shame (Fredrickson & Roberts, 1997; Noll & Fredrickson, 1998; Tiggeman & Slater, 2001). Greenleaf and McGreer (2006) specifically found a relationship between high levels of self-objectification and high levels of body shame, body surveillance, and appearance anxiety in college women. Internalization of appearance ideals and self-objectification has been associated with and found to predict body dissatisfaction (Calogaro et al., 2005; Engelln-Maddox, 2005; James, Phelps, & Bross, 2001; Kashubeck, Marchand-Martella, Neal, & Larsen, 1997; Lokken, Worthy, & Traitman, 2004; Lowery, 2005; Muehlenkamp et al., 2005; Tylka & Hill, 2004). Daubenmeir (2005) additionally found a positive correlation between self-objectification and body dissatisfaction.

To explore Fredrickson and Roberts' (1997) pathway from internalization of sociocultural messages to self-objectification to psychological effects such as body shame and disordered eating, Noll and Fredrickson (1998) sought to create a mediational model of disordered eating from the Self-Objectification Theory to assess whether body shame mediated the relationship (Fredrickson & Roberts, 1997). Noll and Fredrickson administered the SOQ (Noll & Fredrickson, 1998), the Body Shame Questionnaire (Noll & Fredrickson, 1998), and additional self-report measures of disordered eating and eating behavior to two samples of undergraduate women in psychology courses (n=93 and n=111 respectively). Results suggest that self-objectification significantly predicted body shame, and body shame mediated the relationship between self-objectification and disordered eating.

Fredrickson, Roberts, Noll, Quinn, and Twenge (1998) then manipulated trait self-objectification in two studies to assess whether self-objectification predicted body shame and whether sex differences existed. After being told that the study examined “emotions and consumer behavior,” undergraduate women and men (study 1: 72 women; study 2: 42 women, 40 men) were asked to try on a swimsuit or a sweater, and individually complete an indirect measure of body shame while wearing the item of clothing. Participants were pre-tested with the SOQ (Noll & Fredrickson, 1998) in a group prior to the experimental manipulation.

Fredrickson et al. (1998) found higher body shame for women who tried on a swimsuit versus a sweater. Results also suggest that in both studies the induced state self-objectification increased body shame for women only. However, it is unclear how the body shame baseline and composite score was established and whether body shame was assessed at pretest. Consequently, it is uncertain whether self-objectification was actually induced, increased, or can predict body shame, or whether body shame already existed and is associated with self-objectification.

As suggested by Frederickson and Roberts’ (1997) Objectification Theory as well as Kashubeck et al. (1997) the media is an important source of sociocultural interaction that can promote self-objectification in college women. Providing additional support for Fredrickson and Roberts’ model, Lokken et al. (2004) specifically found that exposure to magazine images that promote sociocultural standards of beauty increased drive for thinness in college women. Morry and Staska (2001) found a positive relationship between magazine exposure and self-objectification in college women. Lokken et al. also found that an increased preference by college women for beauty and fashion magazines was correlated with increased internalization of sociocultural beauty standards and ideals. Lastly, results revealed that internalization of



these standards of beauty predicted body dissatisfaction and drive for thinness in college women.

Engelnn-Maddox (2005) further investigated the effects of idealized media images of women on body image disturbance in college women by showing ads from women's magazines to 202 college women and asking for responses to these ads. In addition, women were administered several body image related measures that encouraged focus on body image and several distracter measures. Engelnn-Maddox found that creating social comparisons in response to the images was related to increased internalization of the "thin ideal" likely exemplified by a majority of the images, and increased body dissatisfaction in the participants. These results support a possibly directional link from internalized social messages to a self-objectified state to body dissatisfaction, supporting Fredrickson and Roberts' (1997) model and the current proposed model based on this theory (see Figure 2, p. 6). Data collected by both Engelnn-Maddox and Lokken et al. (2004) provide strong evidence for the manifestation and negative consequences of self-objectification in college women which emphasizes the need to address self-objectification.

Additional evidence that sociocultural pressures can influence the development of self-objectification in college women can be found in an empirical study by Basow, Foran, and Bookwala (2007) in which a large sample of college woman who belonged to sororities perceived higher levels of social pressure and higher levels of self-objectification and body dissatisfaction than non sorority college women.

In addition to sociocultural messages received by college women about their bodies, a college woman must also confront natural changes to her body that will occur throughout her reproductive years (Frederickson & Roberts, 1997). From early adolescence to late middle age,

females accumulate fat on their hips and thighs, and men will begin to notice and respond to these changes. Thus, it is during these years that women are most vulnerable to body objectification. The vast majority of college women falls directly into the age span most affected by objectification. They are especially vulnerable when college specific stressors that place creating relationships as a high priority are taken into account (Larson, 2007). Women who participate in activities during their college years that communicate an ideal body structure such as ballet or sport performance may find it especially difficult to adjust to a changing body. They may exhibit increased self-objectification given empirical evidence for links between sport performance and ballet, for example, and self-objectification in women (Parsons & Betz, 2001; Tiggemann & Slater, 2001).

Lowery et al. (2005) found evidence of increased risk of body dissatisfaction and self-objectification in college women. Lowery et al. examined body image, self-esteem, and health related behaviors in 433 first year college students including 267 female participants and 156 male students. In this study, Lowery et al. utilize the term “body image” as a construct primarily referring to perceptions about the body relating to thoughts and feelings, mental representation of appearance, and perceived boundaries of the body. They measured body image utilizing the OBC Scale (McKinley & Hyde, 1996), the Weight and Appearance Visual Analogue Scales (Heinberg & Thompson, 1995) and the Contour Drawing Scale (Thompson & Gray, 1995). As reported by Lowery et al., the OBC Scale includes a body surveillance scale measures self-objectification. A sample item is “I often worry about how I look to other people.” Lowery et al. found that women exhibited greater body surveillance and higher body dissatisfaction than men, and that both men and women reported watching their bodies as an onlooker. Similar to Englynn-Maddox (2005), these results provide evidence for self-

objectification and reinforce the relationship between body dissatisfaction and self-objectification in college women.

Muehlenkam et al. (2005) provide additional support for the finding that self-objectification directly influences the development of body dissatisfaction in college women. Muehlenkam et al. conducted a path analysis of self-objectification, risk-taking, and self-harm in college women. In this study, 413 female undergraduates were given the OBC Scale (McKinley & Hyde, 1996), the Body Investment Scale (BIS; Orbach & Mikulins, 1998), the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977), and the National College Health Risk Behaviors Survey (NCHRB; Center for Disease Control and Prevention, 1995) to measure “emotional investment in the body” (p. 27) as it relates to self-harm, levels of depression, risky-behaviors. Muehlenkam et al. suggested that self-objectification directly impacted the development of body dissatisfaction. Muehlenkam et al. reinforce the notion that it is particularly challenging for a college woman to avoid self-objectification and not to allow self-objectification to impact her body image.

Rubin, Nemeroff, and Russo (2004) conducted a qualitative investigation of feminist college women’s experiences with body objectification and its impact on their body image, sense of self, and relationship with other women. Twenty-five feminist undergraduate and graduate college students participated in a focus group held at the Clinical Psychology Center on campus by the senior author and were prompted to respond to questions such as “what kinds of things make you aware of your body” (Rubin et al, p. 3). Subsequently, throughout the focus group, participants described how objectification influenced the development of their body image. Despite “knowing better,” feminist students were found to experience body dissatisfaction.

According to the women in the Rubin et al. (2004) study who endorsed feminist ideals, several types of experiences appear to influence the development of body objectification. These experiences include: (a) walking across a college campus and (b) receiving looks and glances from others which harbor messages about the social acceptability of one's appearance, specifically one's body (Rubin et al.). This idea is consistent with the "objectifying gaze" which is discussed by Fredrickson and Roberts (1997) in their objectification theory.

The observations proposed by the women in the Rubin et al. study (2004) appear consistent with the Objectification Theory (Fredrickson & Roberts, 1997) in general and the empirical literature (Englynn-Maddox, 2005, Lowery et al., 2005; Muehlenkam et al., 2005). The objectification of these women may influence their internalized concept of themselves as women, and influence their conceptualization of their bodies (Rubin et al.). Due to endorsing feminist ideals, the women in this study may have a heightened awareness of body objectification and the micro aggressions that promote body objectification such as the objectifying gaze. Consequently, they were able to identify several instances of self-objectification.

However, as Rubin et al. (2004) found, the women in their study experienced body dissatisfaction despite their acute awareness of the instances around them that perpetuated self-objectification and promoted body dissatisfaction. This may suggest that while women are aware of negative sociocultural messages, they continue to internalize them (see Fig 1, p. 5).

The Objectification Theory (Frederickson & Roberts, 1997) appears highly comprehensive and relevant when applied to the development of body image dissatisfaction in women. Other theories, such as those that are cognitive or psychodynamic in nature have been developed and explain the evolution of body image and body image appraisal. For example,

psychodynamic theory provides a foundation of how body image develops from soothing and secure sensory-motor interactions of the care-giver with the child's body (Cash & Pruzinsky, 2004). However, it does not sufficiently take into account prevalent sociocultural messages that consistently shape the way a woman thinks about and perceives her body as she grows and matures. It focuses on the importance of early child-mother relationships, but does not integrate the impact of peers, media, society, culture, and stress on the continued development of body image. As previously discussed, cognitive theories focus on the development of body-self schemas as a result of interaction with society, family, and peers, and the automatic filter of incoming information about the body through these schemas (Williamson et al., 2004).

Based on the Self-Objectification Theory combined with the current empirical literature, the current study uses a more directly related intervention to increase inward focus and lower self-objectification. If self-objectification is decreased, the current study hypothesizes that body dissatisfaction will decrease (see Figure 2, p. 6). Furthermore, considering the stigma attached to attending counseling services, many students who struggle with body dissatisfaction may choose not to attend counseling and prefer alternative options that might be beneficial.

#### *Exercise, Self-objectification, and Body Dissatisfaction*

It has been suggested that the use of movement facilitates the emotional, cognitive, social, and physical integration of the individual (Thoboben, 2004). According to the American Dance Therapy Association (ADTA, 2004), movement of the body can be therapeutic. It integrates the emotional, cognitive, and physical self, allowing the "inner truth" to emerge (ADTA). Thus, exercise can be physically and psychologically beneficial. It has also been

suggested that physical activity is expected to decrease self-objectification through direct experience of the body, thereby potentially increasing body satisfaction (Daubenmeir, 2005).

Researchers have found that for women, when motivation to exercise relates to appearance and weight control, it frequently correlates with body dissatisfaction (Cash, Novy, & Grant, 1994). Moreover, frequency of exercise may be negatively related to body satisfaction in young women, ages 16 to 21 (Cash & Pruzinski, 2002). McLean and Barr (2002) specifically examined the association of cognitive dietary restraint (conscious effort to limit food intake as a means to lose or maintain weight) with eating behaviors, lifestyle practices, personality characteristics, and menstrual irregularity in college women ages 18 and up. McLean and Barr found that compared with women with low restraint scores, women with high restraint scores exercised more, had a history of an eating disorder, were currently trying to lose weight, had lower self esteem, and endorsed higher perceived stress. Women who consciously attempted to inhibit food intake to maintain or lose weight also reported lower self esteem, higher stress, and more frequent exercise, which could indicate a relationship among frequent exercise and eating disorders. Body dissatisfaction could be included in this relationship given the link between body dissatisfaction and eating disorders (Cash & Deagle, 1997; Cash & Pruzinski; Costin, 1999; Stice, 2002; Thompson et al., 1999),

Strelan, Mehaffey, and Tiggemann (2003) directly studied the relationship between self-objectification, esteem, and reasons for exercise in European American women between the ages of 16 and 25 years (within college age range) recruited from fitness centers. Participants were administered the SOQ (Noll & Fredrickson, 1998), the Reason for Exercise Inventory (Silberstein et al, 1988); a 16-item adaptation by Slade, Dewey, Newton, and Brodie (1990) of the Body Cathexis Scale (Secord & Jourard, 1953) to examine body satisfaction, and

an adaptation of the Rosenberg's (1965) Self-Esteem Scale. Strelan et al. found that women who rated appearance-related reasons for exercise as important (including weight control, body tone, and attractiveness) reported higher body dissatisfaction. Furthermore, women who scored high on self-objectification also experienced lower body satisfaction.

Parsons and Betz (2001) investigated the relationship between girls' sports participation in high school and body self-objectification using the OBC Scale (McKinley & Hyde, 1996). Parson and Betz found that participation in sports and/or physical activity was related to higher self-objectification, specifically to the body shame subscale of this measure. An increase in body shame was specifically associated with appearance -related sports that were perceived as more "feminine" such as dance team, cheerleading, and gymnastics. These types of sports typically focus on competition as well as body appearance, and frequently endorse lower weight ideals. Though the study by Parson and Betz asked for recall of high school years by first year college students, literature by Cash and Pruzinski (2002), McLean and Barr (2002), and Strelan et al. (2003), focusing specifically on college women during the college years, supports the results found by Parson and Betz. These findings suggest that the purpose of exercise and motivation for physical activity including various types of sports is frequently related to weight, shape, and attainment of an attractive body, and may be concurrent with dieting and working off calories. Each of these studies in addition to Parson and Betz lend support to the relationship among the internalization of sociocultural appearance ideals and body dissatisfaction as proposed by the Objectification Theory (Fredrickson & Roberts, 1997; see Figure 1, p. 4). Specifically, these studies provide evidence that physical activity and sports that focus on the body, appearance, or competition can promote sociocultural ideals of body appearance by facilitating social comparison and by communicating the importance of

achieving a particular body shape or weight. This message may be supported or reflected by traditional outfits that can objectify rather than express the body, as supported by Fredrickson et al. (1998). Consequently women become immersed in an objectified state, and this can be detrimental to body satisfaction.

Greenleaf and McGreer (2006) specifically examined self-objectification among physically active women recruited from an aerobics class and sedentary college women who reported no regular physical activity, using the SOQ (Noll & Fredrickson, 1998), and the Body Surveillance and Body Shame subscales of the OBC Scale (McKinley & Hyde, 1996). Greenleaf and McGreer found a relationship between high levels of self-objectification and high levels of body shame, body surveillance, and appearance anxiety in both active and non active women, further supporting the association between self-objectification leading to body shame (Frederickson & Roberts, 1997; Tylka & Hill, 2004; Parsons & Betz, 2001). Greenleaf and McGreer provide additional empirical evidence attesting to the negative consequences that can occur when such self-objectification is not addressed in young women.

The findings of Greenleaf and McGreer (2006), Parson and Betz (2001) and Strelan et al. (2003) support that exercise that is appearance-focused or performed in pursuit of an external or appearance-oriented goal (e.g. weight loss or changing body shape) reflects the internalization of sociocultural ideals as seen in Fredrickson and Roberts' (1997) Objectification Theory. It continues the progression from internalization of sociocultural ideals to self-objectification. For example, as a result of internalizing sociocultural beauty standards and body ideals communicated through the media and the resulting self-objectified state (Englynn & Maddox, 2005; Kashubeck et al., 1997; Lokken et al., 2004; Morry & Staska, 2001), a woman may engage in exercise with a goal of changing her body, focusing on how her



body can be different or better. This could create conflict between a woman and her body during which she is constantly at odds with her body and relentlessly looking to achieve control and power over her body. She does not experience her body as it is; she experiences her body as it is not, and imagines how she hopes it will be.

### *Yoga*

In the words of Sundar Ramaswami (1996),

Yoga is not only ideally suited for optimum physical and mental health, but it also confers a sense of self-reliance, a sense of harmony with the laws with the universe, and an unfolding of latent potentialities as well as the capacities for healing and regeneration (pg. 34).

The holistic practice of yoga as it exists in its origins dates back to India, 3<sup>rd</sup> century B.C. when Patanjali created the “yoga sutras.” The foundation of Yoga incorporates an entire psychology of the mind, personality, learning, and motivation that is deeply seeded in history, theory, and even research (Ramaswami, 1996). Hatha yoga, which is most known for the incorporation of mindfulness, originated in Indian society approximately 4,000 years ago and originally existed to increase self-awareness (Riley, 2004). According to Riley, the poses and postures in yoga were created with the intention of purifying the body so higher states of consciousness and awareness could be achieved. Hatha yoga is comprised of three sections: postures (asana), breathing (pranayama), and meditation, which are integrated to create the experience of yoga (Riley).

Asana, or yoga body posture, which compliments the breath, is used as a “map” to the self (Shiffman, 1996). This map allows one to become aware of where the body may be sore or tense. The word “asana” can mean “ground,” “seat,” or to “sit with” (Lee, 2004). It involves

moving the body into various poses or positions and then becoming aware and nonjudgmental of what sensations emerge from the way our body is aligned in the particular pose or position (Lee). The level of awareness facilitated by the asana encourages a high degree of presence in the moment. This level of awareness invites the yoga practitioner to listen to the body, feel the body, and respond to the body, focusing on the specific body alignment that feels comfortable to her at that moment (Shiffman).

Yoga can lower self-objectification (see Figure 2, p. 6). It can promote an inward focus, and return attention to one's internal compass rather than relying on external evaluations of the body. It is important to note however that empirical studies suggest that simply adding yoga to an aerobic exercise program may not be sufficient to reveal the unique and positive benefits of yoga. Thomas, Gallagher and Jakicic (2005) investigated the impact on body image of adding resistance or yoga exercise to a basic weight loss and aerobic exercise program (incorporating both diet and exercise) in primarily overweight women. Fifty-nine sedentary women (M= 43 years) were randomly assigned to three different exercise conditions within a 12 month weight loss program. Conditions consisted of (a) aerobic exercise (40 minutes, five days per week); (b) aerobic and resistance exercise (40 minutes, five days per week); and (c) aerobic exercise plus yoga (40 minutes, five days per week plus three days per week of yoga practice). The Multidimensional Body-Self Relations Questionnaire (MBSRQ; Cash, 1986) was used to measure body image. Significant improvements in body image were found across groups with no significant difference between groups, suggesting that the addition of yoga exercise to a basic weight loss program may not provide additional benefit with respect to body image satisfaction.

There are a few limitations and conditions that could have impacted results of Thomas et al. (2005) study. Such results may have emerged due to the very integration of aerobics and yoga. Exposing participants in a within subjects design to yoga and aerobics in the same week could have confounded results due the difficulty involved in distinguishing the specific physiological and psychological effects of yoga from those of aerobic exercise. Additionally, including fewer days of yoga practice than aerobic exercise each week could produce results that are more highly influenced by aerobics than yoga, and could be more related to the perceived positive changes in weight loss or body tone associated with aerobic exercises than unconditional body acceptance. Thus, weight loss, dieting goals, and immediate perceived body changes could have influenced the subjective experience of participants during and after aerobic exercise and yoga practice producing improvement in body image that may or may not prove to be long term. It may be beneficial to examine the impact of yoga on a population that includes average weight categories. The current study accounts for this limitation: all participants fall into a “normal” BMI range and thus reflect weight categories that are closer to average. Lastly, the Multidimensional Body-Self Relations Questionnaire (MBSRQ) may not have been suitable to detect the specific effects of yoga on body image, and the way that these effects may have differed from those of aerobic exercise. For example, yoga differs from aerobic exercise in its specific emphasis on non-judgmental and curious attention to bodily sensations. This emphasis begins to cultivate a closer and more inwardly-focused relationship with the body. It is possible that as this relationship with the body becomes closer and closer through yoga practice, body image satisfaction may eventually exceed what can be achieved through aerobic exercise.

Yoga has the unique benefit of incorporating mindfulness and body movement thereby integrating and unifying the mind and the body. Yoga uniquely allows the practitioner to experience her body, live within it rather than outside of it, and develop a nonjudgmental relationship with her body. The movements created during yoga may further the beneficial effects of yoga, especially when performed mindfully. This integration can facilitate direct experience with the body rather than mere control over the body, through mindful interaction with the body and the environment. Experiencing her body in the present without a need to control or judge may facilitate a closer and more secure relationship with her body. As her inward focus progresses, transition begins from harsh evaluation and conflict with the body to curiosity and understanding of the body that may ultimately produce kindness and compassion (Clance & Matthews, 1979; Stewart, 2004).

### *Mindfulness*

Mindfulness lies at the core of yoga practice. Its emphasis on increased body awareness and inward focus separates yoga from the other forms of exercise previously discussed. Consequently, mindfulness increases yoga's potential to lower self-objectification (see Figure 2, p. 6).

The general construct of mindfulness has been conceptualized as a "flexible state of mind" that facilitates "the process of drawing novel distinctions" (Langer, 2000). The subjective and dynamic process of drawing these novel distinctions facilitates a non-judgmental focus on the present (Langer, 2000; Langer & Maldoveanu, 2000). More recently, Bishop et al. (2004) have proposed a two-component model of mindfulness:

The first component involves the self-regulation of attention so that it is maintained on immediate experience, thereby allowing for increased recognition of mental events in

the present moment. The second component involves adopting a particular orientation toward one's experience in the present moment, an orientation that is characterized by curiosity, openness, and acceptance (p. 235).

According to Bishop et al., 2004, mindfulness is a skill that one can develop, maintain through the self-regulation of attention, and utilize throughout many areas of one's life.

Mindfulness can be more clearly understood when juxtaposed against mindlessness. Mindlessness can be conceptualized as holding an object still in present focus without developing a new awareness about the object. Mindlessness can also relate to the process of continuing to repeat the same behavior or thought without awareness (Langer, 2000). For example, in both cases, familiar information is received mindlessly because it is being processed and filtered with pre-existing cognitions upon which the receiver relies. These constructs are created through interaction with the environment. When automatic processing of information through these constructs occurs, there is no conscious focus or attention on thoughts, emotions, and sensations as they emerge in the present. The information received will therefore be understood in only one specifically narrow and biased way (Langer, 2000; Stewart, 2004). For example, individuals are encouraged to believe that certain tasks are inherently good or bad, and that they must, for example, delay the good tasks until we complete the bad ones. Similarly, when a thought entering awareness is judged as "bad" or "harmful" it is a typical automatic reaction to immediately rid themselves of bad thoughts through avoidance and attempt to replace them with good ones (Hanh, 1987).

In contrast, mindfulness is a non judgmental, dynamic state of "being." Dynamic awareness implies continuing to attend to and notice the senses, the body, and information received in the present without evaluating or judging this new information (Hayes, Follette, &

Linehan, 2004). Stewart (2004) described the process of mindfulness in a succinct and effective way:

Mindfulness is a moment-to-moment perception of phenomena and the allowance of it to register with full awareness without the influence of cognitive shortcuts or distortions, desire, or expectations. This way of “being” sustains individuals allowing them to experience an awareness of their present situation, environment, perspectives of that environment, and perspectives of self, including cognitive, emotional, and behavioral aspects. Most importantly, mindful awareness is based on the concepts of neutrality and acceptance; one’s experiences are not judged or labeled negative, positive, worthy or unworthy, but are simply observed through a stance of emotional neutrality and cognitive acceptance (p. 784).

If attention is pulled away from this present, dynamic awareness by fleeting thoughts or worries, one can notice this pull and return awareness back to present (Kabat-Zinn, 1994). Thus, dynamic, present focused awareness involves understanding that certain senses, thoughts, or emotions are occurring in this moment as they enter awareness, and accepting them just as they are without attempting to avoid or change them (Hayes et al., 2004).

By encouraging a focus on the present and constant moment-to-moment attention to new and emerging stimuli, mindfulness enhances awareness of multiple perspectives. Becoming aware of multiple perspectives ultimately leads to the creation of new pathways of thinking about a concept. The whole individual is fully engaged in this process: body, mind, and spirit (Langer, 2000; Langer & Maldoveanu, 2000; Williamson et al., 2004). Hanh (1987) presents the concept of washing dishes. There are different ways to wash dishes, or two different motivations: one is for the goal of having clean dishes, and the other is simply to

wash the dishes. The first method involves a goal that is future oriented, and has a specific outcome in mind. The second invites one to remain grounded in the present, and to remain in the neutral state of “being” while washing the dishes without judgment (Hanh). This engagement cultivates moment-to-moment mindfulness of feelings, sensations, thoughts and emotions as they emerge into awareness in various situations of life. The gradual process of change to an inward focus facilitated by this cultivation of mindfulness results in increased awareness of the ability to use information provided by the body to help one meet important needs, inspiring a natural progression towards acceptance and compassion for the body and the self (Kabat-Zinn, 1994; Williamson et al.).

Relaxation is an element that can be cultivated as a side effect of mindfulness. Mindfulness involves listening to the body and the breath, and focusing the mind. It involves the observation of thoughts and emotions that naturally emerge and enter awareness, without stopping, encouraging, or judging these thoughts and emotions; and return awareness back to observation if the mind begins to judge or wander (Germer et al., 2005). It is important to note that mindfulness itself is not a state of relaxation nor is relaxation the goal of mindfulness (it is actually a dynamic state of mind in which one is actively attentive to moment-by-moment experience). However, continued practice of mindfulness can produce relaxation of the body and the mind that results from acceptance of experiences. Relaxation may also arise from a flexible cognitive environment that precludes biased and destructive automatic processing of information.

### *Mindfulness of the Body*

Over time, planting the seeds of mindfulness can flower into a way of life rather than a mere rehearsal of techniques that are situation specific (Kabat-Zinn, 1994). Just as one can

become mindful of the general environment, one can also develop an inward focus and become mindful of the sensations that ebb and flow within the body itself (Stewart, 2004). One can begin to attend to the unique nuances of the self, and various sensations experienced by one's body moment-to-moment, learning to perceive one's body through one's own eyes rather than the eyes of an onlooker.

Mindfulness of the body can be conceptualized as the awareness of bodily sensations as they arise moment-by-moment, and the ability to perceive the body from diverse perspectives in a state of dynamic awareness. It refers to curious and non-judgmental attention to the inner world of the body experience (Daubenmier, 2005, Stewart, 2004; Walach et al., 2006). Thus, mindfulness of the body incorporates a heightened sense of body awareness, which can be defined as an attentiveness to one's somatic and autonomic bodily processes. This attention involves the awareness of normal body processes, and is congruent with the idea of becoming an impartial observer of the body while remaining objectively attentive to the body in the present (Rani & Rao, 1994). The sutra of mindfulness as referenced by Hanh (1987) makes reference to the concept of mindfulness when applied to the body:

When walking, the practitioner must be conscious that he is walking. When sitting, the practitioner must be conscious that he is sitting. When lying down, the practitioner must be conscious that he is lying down...No matter what position one's body is in, the practitioner must be conscious of that position. Practicing thus, the practitioner lives in direct and constant mindfulness of the body..." (p. 7)

Messages communicated about a woman's body from the environment often communicate rigid standards and critical ideals with respect to body appearance and beauty.



Exposure to such impossible standards makes it difficult for a woman to cultivate satisfaction, acceptance and ultimate compassion towards the body and treat it accordingly (Engeln-Maddox, 2005; Lokken et al., 2004; see Figure 1, p. 4). When a woman becomes attuned to listening to only those messages about her body received from an external source she then begins to perceive her body with that same external lens without questioning that information. Consequently, her experience of her body becomes static in spite of a dynamic environment (Williamson, White, York-Crowe, & Stewart, 2004). The ability to focus inward, attend to the senses that ebb and flow throughout the body, and refocus attention on the way the body functions versus how it looks can lower self-objectification (Fredrickson & Roberts, 1997; Impett et al., 2006; Stewart, 2004; see Figure 2, p. 6).

#### *Cultivation of Mindfulness of the Body through Yoga*

Yoga can specifically facilitate the development of mindfulness of the body. A woman who practices yoga is exposed to the concept and practice of body awareness (Nespor, 1990). She begins to experience her body subjectively by becoming aware of the sensations she feels within her body, and listening to the messages that her body is communicating to her, rather than automatically relying on messages about her body that she receives from those around her.

Yoga specifically teaches breathing techniques that can increase awareness of the body and encourage mindful interaction with the body. Increasing awareness of the breath is often the first place to begin the development of mindfulness of the body. Mindfulness of the breath begins with a deep inhalation held for a moment and then released in a long exhalation. During this breathing, awareness is focused in the body; one is encouraged to “feel [him/herself] breathing” (Shiffman, 1996, p. 10). Ujjayi breathing, known as the “victory breath” is the

typical breathing used in yoga. It involves a “hollow, deep, soft sound coming from [the] throat” (Shiffman, p. 47). At the heart of yoga is the integration of breath with body movement. The breath is intended to replace the thinking mind so one is solely aware of the breath. This facilitates more clear and sensitive listening to the body, learning to move the body when the body says it is ready to be moved, and yield when the body deems it appropriate to do so. Thus, coordinating the breath and movement helps increase one’s awareness of the body and the ability to non judgmentally sense his or her body and self (Shiffman). Specific breathing techniques also include extending length of exhalation and noticing when a breath is held in the body. Directing breath to a certain area of the body and becoming aware of the breath in general also increase mindfulness of the body. In order to focus on her breath, the yoga practitioner must stop and be silent, becoming a participant observer of her breath moment by moment (Germer et al, 2005; Nespor, 1991). Such dynamic stillness orients the practitioner toward her body in a nonjudgmental way, increasing awareness of the body and mindfulness toward the body.

Another essential component critical to the cultivation of mindfulness of the body is the idea of stillness which is a component of dynamic stillness. Within yoga, there are two levels of stillness. The first level entails learning to relax, become centered, and “just [be]...still in the moment” (Shiffman 1996, p. 7). In this level, the yoga practitioner turns her attention inward and focuses on herself, on what it is like to be her, not focusing on what she has previously been taught or told about herself (Shiffman). The second level of stillness is what is hoped to evolve from the practice of yoga; it involves the practitioner living daily life with the new understanding of who she is. This level entails dismissing judgments and evaluations about the self that may arise during the day, and inviting self acceptance (Shiffman). This new

understanding and acceptance of the self can influence body image, as the self system has been suggested to be related to the body (Rani & Rao, 1994). Adopting a nonjudgmental stance can broaden perspectives of the body and encourage attention to emerging bodily experiences and internal states (see Figure 1, p. 4). Awareness of these internal states and the emergence of understanding and acceptance of the body can lower self-objectification and body satisfaction, eventually cultivating compassion toward the body (Stewart, 2004; Verma, 1987). Congruent with the mindful properties of yoga, yoga is a process of self exploration. It involves moving gently through poses, while being thoroughly aware of this process. The poses are not destinations, and the body is not forced or contorted into any particular pose. This process increases awareness of the function of the body rather than appearance. Yoga emphasizes relaxation which is a core element of mindfulness as previously discussed. This relaxation can be specifically cultivated from the integration of mindfulness, movement and breathing, and can also follow various poses (Boudette, 2006; Shiffman, 1996). Relaxation can provide an optimal environment for automatic thought processing to slow down so that alternative perspectives can emerge into awareness. For some, the experience of relaxation is a new one, and the combination of yoga postures (*asanas*) followed by relaxation (*savasana*) can cultivate a new sense of peace and freedom (Boudette).

A study by Kabat-Zinn, Lipworth, and Burney (1985) provides potential evidence for the benefits on the body and mind that can occur through the mindful practice of yoga. Kabat-Zinn et al. trained ninety chronic pain patients in a 10 week Stress Reduction and Relaxation Program focusing on mindfulness, or awareness meditation. Mindfulness in this study referred to a “moment-to-moment effort to perceive a phenomenon and allow it to register with full awareness, as it is, without gross distortion of the bare percept” (Kabat-Zinn et al., p.165). In

this program, various mindfulness meditations were taught to participants. Meditative activities included the practice and instruction of Hatha Yoga in a manner which emphasized mindfulness. Participants were asked to meditate for a minimum of 45 minutes each day, six days each week, and were provided with an audiotape to provide assistance (Kabat-Zinn et al.).

Upon assessing the patients after the intervention for pain, negative body image, mood disturbances, depression, and anxiety, significant decreases in these patients were immediately observed in all of these areas. Such reductions were not observed in patients who had not undergone the stress reduction programs. Decreases in all of these areas continued to be observed at the 15 month follow-up (Kabat-Zinn et al., 1985). Consistent with these results, additional empirical research on mindfulness and chronic pain suggests that the self-awareness that is developed through the mindful practice of yoga is particularly important in producing beneficial effects such as those found by Kabat-Zinn et al. Self awareness involves awareness of the experience of muscles, breathing, motion, and specific sensations of pain, and specifically encourages impartial, nonjudgmental observation of the subjective experience of pain. The sensation of pain is perceived as a “separate event” existing moment-by-moment in the present (Kabat-Zinn et al.; Rani & Rao, 1994). The awareness of the body cultivated through self-awareness further facilitates self understanding and inner experience which may become more important than pain (Nespor, 1990). Thus, by teaching awareness and dynamic observation of the experience of pain, and perceiving each sensation of pain as an ego dystonic entity separate from the “self”, yoga can help regulate and reduce chronic pain (Nespor; Kabat-Zinn et al). Based on these results, it appears that that this could be the case whether this is physical pain or an emotional pain related to a negative experience of the body.

Attention to flow from one posture to the next in addition to mindful breathing encourages yoga practitioners to become aware of their bodies in the present. Practitioners experience truly listening to the inner world of their bodies, and begin to develop new perspectives of themselves and their bodies that are based on these internal messages, rather than external messages that arise from others who do not truly know who they are. Thus, the internalized sociocultural messages that previously influenced the way the practitioner evaluated her body as described by the Self-objectification Theory (Frederickson & Roberts, 1997) are no longer the only pathway to one's body image.

Listening and responding mindfully to the breath and the body while moving through the yoga postures, and adjusting the body when a posture does not feel right forms a closer relationship with the body. Forming a closer relationship with the body then facilitates the ability to use one's own internal sensations as a "measuring stick" to determine the "truth" about the self and body in the moment, rather than accepting what others tell one about the self and the body. This internal focus may lead to increased body image satisfaction and decreased self-objectification (Daubenmeir, 2005; Frederickson & Roberts, 1997; Shiffman, 1996). The awareness of the body achieved while listening to the breath and moving through yoga poses specifically stops rigid and destructive automatic processing of external information about the body that is not based on personal awareness of the body. Rather, it increases flexible thought processing by increasing dynamic moment-by-moment awareness of the present, and facilitating an awareness of sensations that communicate pain or potential injury and that a particular pose is not the right pose at a given moment. It also includes responding to the sensations and messages being communicated by the body at a given moment rather than relying on messages about the body communicated by others. Attention to internal messages

communicated by the body through yoga practice precludes a “no pain, no gain” way of building muscle. It increases awareness of multiple perspectives of the body. Broadening perspectives of the body by listening to internal messages can interrupt the automatic processing of external sociocultural messages about the body. Diversified perspectives can provide the opportunity for attention to the value of body function versus appearance. Consequently, self-objectification can be lowered (see Figure 2, p. 6). As an ultimate outcome to this gradual process, a sense of kindness and compassion for the body and the self may develop (Riley, 2004; Shiffman; Stewart, 2004).

*Yoga, Self-objectification, and Body Dissatisfaction.*

Clance and Matthews (1979) were one of the first investigators to examine the impact of body awareness training on body awareness and feelings about the body, such as body acceptance. Clance and Matthews specifically investigated changes in body acceptance in undergraduates following their participation in a psychology of adjustment course that highlighted body awareness training. Body awareness training included structured group activities held in a psychology of adjustment class. Activities included guided fantasies and self-expression. Pre and post scores on the Body-cathexis and Self-cathexis scales (Johnson, 1956) were used. Results suggest that the adjustment group revealed a higher gain in body acceptance scores from pre test to post test. Thus, results suggest that awareness training taught in this format increased body-acceptance. These findings add support that increasing body awareness may result in lowered self-objectification, and lowered body dissatisfaction (see Figure 2, p. 6).

Rani and Rao (1994) specifically investigated the impact of hatha yoga on body awareness. The study utilized a control group comprised of 19 men and women who had

sought admission into a three- month hatha training program. The treatment group, comprised of 17 men and women, participated in the three month training program. This group was administered the Body Awareness Questionnaire after the program in order to observe the effects of yoga on this group. The control group filled out the Body Awareness Questionnaire (BAQ; Shields & Mallory, 1989) before they participated in the yoga training program. Rani and Rao (1994) found that the second group (who completed the survey after the program) exhibited significantly higher body awareness than the control group (who has not yet completed the yoga program). Findings could suggest that yoga can effectively increase body awareness and lower self-objectification and body dissatisfaction (see Figure 2, p. 6). One limitation of this study is that all participants sought admission into the three month training program. Thus, it is probable that this population differed from the general population on characteristics that may be salient to this study. Such characteristics could include a higher degree of body awareness at the onset of the study due to general interest in developing body awareness and learning how to respond to the body that may fuel attraction to this hatha training program.

As research by Boudette (2006) suggests, yoga can impact body awareness as well as body satisfaction in women. Yoga teaches women to become aware of their bodies as impartial observers, rather than holding the same judgmental attitude towards their bodies that others may have expressed. Due to the influence of societal norms on women's body image, women lose the ability to look within themselves to conceptualize their bodies and to sensitively attend to their inner experience. During a yoga class, participants are encouraged to look within themselves to experience their bodies. Participants are encouraged to increase body awareness

by becoming aware of the sensations they feel within their bodies rather than what they might objectively see or imagine.

Boudette (2006) specifically described her experience introducing yoga practice to a woman who struggled with compulsive eating and low body satisfaction. Boudette discusses how she and the woman increased body awareness and body satisfaction by developing “a series of poses that helped her experience positive association with [the woman’s] body as well as poses that presented emotional and physical challenges” (Boudette, p. 168). Boudette reported that an increase in body satisfaction potentially resulting from yoga practice became evident when the woman began wearing clothes that expressed rather than hid her natural body form. Additional evidence of increased body satisfaction cited by Boudette was the woman’s observation that previous to yoga, she would “magnify the most minor issues” on her body, and now she can see things from a more “wide-angle” lens, broadening her perspective (Boudette, p. 168).

Daubenmier (2005) specifically examined the potential relationship among yoga, awareness and responsiveness, self-objectification, body satisfaction, and disordered eating on women. Study 1 compared the potential relationship among yoga, awareness and responsiveness to bodily sensations, self-objectification, body satisfaction, and disordered eating within a non-random population of female yoga practitioners who were not currently taking aerobics classes (n=43), aerobics exercisers not currently taking yoga classes (n=45), and a group of women who has not practiced yoga or aerobics in the past two years (n=51). The study did not include a direct yoga intervention or a pre-post test. Measures included a measurement of BMI, the Body Awareness Questionnaire (BAQ; Shields et al., 1989), the SOQ (Noll & Fredrickson, 1996), the MBSRQ-BAS (Brown et al., 1990), and a unique seven



item Body Responsiveness scale. Study 2 investigated the relationships among body awareness, body responsiveness, self-objectification, and disordered eating attitudes in relation to undergraduate women (n= 133) recruited from a psychology course who completed the same measures as in Study 1. According to Daubenmeir, the BAQ was specifically used to measure “attentiveness to normal, internal bodily processes and sensations, and includes items such as “there seems to be a ‘best’ time for me to go to sleep at night.” The MBSRQ-BAS (Brown et al.) was used to measure body satisfaction, and measures levels of satisfaction/dissatisfaction with face, hair, lower torso, mid torso, upper torso, muscle tone, weight, height, and overall appearance (Daubenmeir).

Daubenmeir (2005) found that yoga practitioners practiced yoga for an average of 4.96 hours per week for an average of 6 years and 2 months. Across groups, body awareness was related to less self-objectification and greater body satisfaction, though body responsiveness mediated the relationship between self-objectification and disordered eating to a greater extent than body awareness. In Study 1, yoga practitioners reported less self-objectification and greater satisfaction with physical appearance compared to non- yoga practitioners. Furthermore, results suggest that greater yoga experience in terms of number of hours practiced per week impacted self-objectification and body satisfaction in a positive way. In summary, according to Daubenmeir, responsiveness to bodily sensations (body responsiveness) and not just awareness of them (body awareness) may be critical in the prevention of feelings of self-objectification and its potential consequences. Results of research by Daubenmier is consistent with the results of Clance and Matthews (1979), and takes them one step further; becoming aware of and particularly responsive to the movements and sensations of the body

can lead to reduced self-objectification, and greater satisfaction of the body and potentially an improved body image supporting the yoga treatment model (see Figure 2, p. 6).

Daubenmeir (2005) suggests important implications for positive effects of frequent yoga practice. As a cross-sectional design was utilized, the participants in this study were experienced yoga practitioners, and there was no systematic, quantifiable yoga training program, it is difficult to assess the degree to which yoga was associated with the findings. Consequently, causal inference cannot be established in this study.

A potential limitation of Daubenmeir's (2005) study relates to Daubenmeir's 7-item body responsiveness questionnaire. Upon examination of the questions included in the questionnaire, it appears that some of the questions could be more reflective of body awareness than responsiveness. Additionally, the Body Awareness Questionnaire (BAQ; Shields et al., 1989) includes questions that generalize levels of awareness of bodily sensations to various aspects of functioning in one's daily life, such as the best time to go to sleep at night. If yoga were to be included as an intervention for novice practitioners in a future study, a measure more directly examining awareness related to bodily sensations and experiences may be a reasonable first step for assessing the gradual development of body awareness.

Impett et al. (2006) specifically examined the relationship between yoga practice, well-being, embodiment (body awareness and responsiveness), and self-objectification following participation in a 2-month yoga immersion program. Body satisfaction was not evaluated in this study. Twenty women and men who were enrolled in a 2-month Anusara (a type of Hatha) yoga immersion program in San Francisco, CA, were recruited to participate in this study. Participants ranged in age from 23 to 57 years, and had been practicing yoga approximately four hours per week for an average duration of five years prior to participation in this

immersion program. Participants attended three classes per week in the yoga immersion program. Each class ranged from two to four hours in duration. For each of the six classes, participants completed a pre and post survey relating to embodiment, self-objectification, well-being and number of hours practicing yoga per week. Well-being was measured using the Positive and Negative Affect Schedule (Watson, Tellegen, & Clark, 1988), embodiment was measured using the Body Awareness Questionnaire (BAQ; Shields et al., 1989) and a seven-item questionnaire measuring responsiveness to body sensations (Daubenmier, 2005). Self-objectification was measured using the eight-item Body Surveillance subscale of the OBC Scale (McKinley & Hyde, 1996).

Impett et al. (2006) found that female yoga participants exhibited lower self-objectification after the yoga immersion program than before, but there was no change in embodiment. Moreover, more frequent yoga practice than was typical for each practitioner in their daily lives was linked with increased positive affect, decreased negative affect, increased satisfaction with life, and increased body awareness. Furthermore, body responsiveness was positively associated with positive affect, satisfaction with life, and self-acceptance.

An important benefit to this study is that it was the first to find a decrease in self-objectification in women following participation in a yoga intervention (Impett et al. 2006), which supports the use of yoga as a means to reduce self-objectification and body dissatisfaction (see Figure 2, p. 6). As a pre-existing Hatha yoga program was used rather than a systematic, quantifiable yoga intervention and the majority of participants were experienced practitioners at the intermediate level who self-selected into the program, it is difficult to assess the degree to which the yoga intervention factored into the findings. Generalizability of results

may be limited as yoga participants were 90% Caucasian women and men from San Francisco, CA, which may hold residence to more holistic and yoga-friendly communities.

Most recently, Mitchell et al. (2007) examined the impact of six week yoga versus dissonance-based therapy on eating disorder symptomology and body dissatisfaction in 113 female undergraduate psychology college students. Mitchell et al. advertised for students who were dissatisfied with their bodies through flyers and from a subject pool, and randomly assigned students to a yoga condition (n=33), a cognitive-dissonance-based therapy (n=30) condition, and a control group (n=30). The yoga condition included meditation within yoga classes. The cognitive-dissonance intervention was based on the idea that “if people hold competing beliefs, they will adjust their cognitions to make them more congruent” (Mitchell et al, p. 121). The intervention was comprised of six 45 minute sessions in which participants explored the origins and implications of the “thin ideal” (Mitchell et al).

Participants were given baseline measures, including the EDI-BD (Garner et al., 1983) and related measures, before the programs and as post test measures at the end of the programs. An e-mail about the groups was sent to participants who completed baseline data, and these participants subsequently attended at least one session of the groups. Relevant results suggest that participants in the cognitive-dissonance group exhibited significant decrease in body dissatisfaction. Contrary to Daubenmeir (2005) who found that yoga increased body satisfaction, Mitchell et al. (2006) did not find a decrease in body dissatisfaction, as measured by the EDI, or changes in any of the variables for the yoga group. This discrepancy can be explained by that fact that Mitchell utilized yoga as an intervention, incorporating a baseline and post test format to more directly isolate effects of yoga. Moreover, Mitchell utilized a sample of college psychology students who were not experienced yoga practitioners as in

Daubenmeir's study and did not self-select into any of the groups. Furthermore, Daubenmeir's participants practiced several hours per week whereas Mitchell's participants practiced only 45 minutes per week (45 minutes each week may not be of sufficient duration to yield changes in these the dependent variables).

When comparing results to the cognitive dissonance group, it is possible that the yoga group did not exhibit improvements in body dissatisfaction over a period of six weeks because the process of treatment is very different for yoga versus cognitive dissonance treatment. It is likely that treatment is a longer process for yoga versus cognitive-dissonance based therapy. Measurements used by Mitchell et al. such as the EDI (Garner et al., 1983) may not be sensitive enough to detect subtle changes in body awareness, mindfulness of the body, and body satisfaction that may be in the process of development. Reductions in body dissatisfaction as measured by the EDI may not be expected to occur at this point. For example, when novice yoga participants begin practice, there may be a period of time (potentially longer than 6 weeks) in which the concepts of mindfulness and body movement comprising yoga are new and potentially uncomfortable. According to Shiffman (1996) and Hanh (1987), the development of mindfulness is an extensive process, and the ultimate results occur following a gradual progression; they are not immediate. Lastly, participants who already claimed to have body dissatisfaction were recruited, but it is unclear what the level of body dissatisfaction was for participants. The level of dissatisfaction may have been too high to expect an effect from the intervention.

One limitation to Mitchell et al.'s (2007) results that also exists in each of the previous studies mentioned includes a systematic, quantifiable yoga intervention that clearly describes how mindfulness was included within the yoga course or program, or the method by which

yoga was taught to participants. The present study is consistent with Chambless and Hollon's (1998) criteria for treatment efficacy and replicability. Specifically, explicit scripts and outlines of each session of the yoga treatment will be used to ensure replicability by future researchers. Scripts will clearly describe themes in addition to skill and pose progressions.

Though research suggests that specifically emphasizing mindfulness of the body in a yoga program yields beneficial results including a decrease in negative body image (Kabat-Zinn, Lipworth, & Burney's, 1985), the yoga meditation utilized by Mitchell et al. (2007) was not specific to mindfulness of the body or body awareness, which would be more likely to improve participant's satisfaction with her body.

#### *Additional Physiological Advantages of Yoga*

As previously discussed, mindfulness is the foundation of yoga, and it is potentially the combination of mindfulness with the therapeutic use of movement that unleashes yoga's healing potential. Based on the efficacy of mindfulness in the reduction of pain and anxiety and depression, as well as the integral role of mindfulness in the practice of yoga, studies were conducted to examine the potential efficacy of yoga on physiological and psychological symptomology. Beneficial effects of the practice of yoga have been found when used in combination with other treatments for depression, anxiety, and stress-related disorders (Thoboben, 2004). According to Riley (2004), the practice of yoga, specifically hatha yoga, has some clear physiological benefits on the functioning of the body that can impact depression and stress related disorders. For example, the breathing, or pranayama, central to yoga practice not only increases the mind's ability to focus, but also helps induce relaxation, which is important to the functioning of the autonomic nervous system (Riley, 2004). In light of these

physiological benefits, yoga may be a highly beneficial component to the treatment of physical illness.

Specifically, the meditative exercises found in yoga can stimulate the limbic system (Riley, 2004). Additionally, the modulating effect of relaxation on the autonomic nervous system will also impact the sympathetic nervous system. Moreover, yoga encourages the simultaneous activation of antagonistic neuromuscular systems such as flexion and extension and infers fusar and golgi tendon-organ feedback. The activation of these systems will maintain range of motion as well as increase the relaxation response in the neuromuscular system (Riley). In support of these benefits, Riley cites two clinical trials, one on depression and one on chronic lower back pain, in which patients attended two one-hour Hatha yoga classes for 5 consecutive weeks. Results of these trials revealed that patients exhibited higher levels of cortisol in the morning, which corresponded to the reported significant decreases in levels of anxiety and depression by the patients (Riley).

Further support for Riley's (2004) proposal is formed from the results of Brown and Gerbarg (2005)'s clinical trials on severe depression, insomnia, anxiety, phobias, and post-traumatic stress disorder. In the depression trials, patients were randomly assigned to treatment groups in which they participated in ECT (electroconvulsive therapy), took imipramine, or participated in Sudarshan Kriya Yoga (SKY) which focuses on specific yoga breathing methods, once per day for 30 minutes followed by 15 minutes of rest, 6 days per week. Results indicate that although SKY did not work as well as ECT, it was still considered to be an "effective alternative" to ECT or medication. Brown and Gerbarg (2005) also note that in private practice, patients with mild to moderate depression reported feeling better after five days of SKY practice. Patients in the insomnia trials exhibited a decrease in insomnia

symptoms, and patients with mild anxiety notice an overall decrease in their symptoms. However, yoga breathing should initially be approached with care in these patients who may misinterpret breathing as hyperventilation and become more anxious. Yoga can be effective in reducing PTSD symptoms such as fear, neglect, abuse, depression, isolation, and worthlessness, but as with anxiety, must be approached with care and patients should be monitored closely by therapists engaging in these practices (Brown and Gerbarg).

### *Summary*

Some suggest that the optimal treatment of a body image disorder (and conceivably non-clinical body image distress that may arise in young women) is multifaceted and holistic in nature. It is focused on the treatment of the entire, whole human being inclusive of body, mind, and spirit, and results in compassion towards the self and ultimate acceptance of the self in all its facets (Stewart, 2004). Mindful awareness supersedes any negative and judgmental experience of the body, and allows thoughts and emotions that could potentially lead to destructive behavior to be nonjudgmentally observed rather than automatically received and accepted as truth (Stewart).

To summarize the benefits of yoga, the yoga experience specifically integrates movement, and the essential components of mindfulness toward the body such as body awareness, nonjudgmental perspective, curiosity, openness to new experience, and moment-to-moment acceptance of emerging sensations. Thus, one is introduced to movement that nonjudgmentally orients the mind to the present, and facilitates the creation of new and healthy connections with the body (Stewart, 2004; Walach et al., 2006). It is believed that as one moves deeper into stillness through yoga one begins to experience the body in a new way and expand the narrow cognitive perceptions that have developed through the years. One begins to



evaluate the body in a different way, connect with one's inner, true self, and progressively experience compassion towards the body (Shiffman 1996; Stewart).

Hanh (1987) expresses that when being mindful toward the body and every position that it assumes throughout the day, "the positions of one's body is not enough...we must be conscious of each breath, each movement, every thought and feeling, everything which has any relation to ourselves" (P. 8). This is perhaps one of the most essential elements to yoga, and helps support how yoga differs as a discipline from other types of physical activity. It supports how yoga creates an interactional experience with the body that cultivates the utmost awareness of one's body. This awareness helps one develop an inner concept of the "self" as opposed to an internalized concept from outside of the body that has been created as a result of self-objectification. There are also various physiological benefits to yoga practice that may prove helpful in decreasing body image dissatisfaction.

The empirical research that exists up to this point relating to body image, mindfulness, and yoga has established links that strongly support the pathway from internalization of sociocultural messages to self-objectification to body dissatisfaction (See Figure 1, p. 4). Research has also provided support for potential points of intervention throughout that pathway. Gallagher and Jakicic (2005) utilized an intervention involving yoga and aerobic training to increase body satisfaction in overweight women. Daubenmeir (2005) found that yoga practitioners exhibit higher body satisfaction, lower self-objectification, and higher body awareness and body responsiveness than in individuals who do not practice yoga. Impett, et al. (2006) were the first to find a decrease in self-objectification following a yoga intervention. Mitchell et al. (2007) were the first to study the effects of yoga on body satisfaction and yoga using a randomized college population sample with a yoga intervention. Each of these studies

suggest that yoga is involved in lower self-objectification and higher inward focus through body awareness or/and responsiveness. Yoga has also been related to an increase in body satisfaction. Yoga also may reduce body dissatisfaction by reducing self-objectification and helping to create a relationship with the body that emerges from internal awareness (See Figure 2, p. 6)

However, general limitations include the lack of a systematic, quantifiable yoga intervention that would be more likely to isolate the effects of yoga on all three variables included throughout the studies (i.e., body satisfaction, body awareness, and self-objectification) in addition to the incorporation of nonrandomized participants who are experienced in yoga practice. Additionally, there has been no examination of a general population of college women who are currently experiencing body dissatisfaction, as they are an already at-risk population for the development of disorders related to body image. Therefore, in light of the promising results of previous studies, and the high prevalence of body image dissatisfaction in college women, there is strong need to more closely and precisely examine yoga as a potential treatment or direct intervention for body image dissatisfaction in college women. The proposed study will introduce a yoga program that specifically emphasizes mindfulness of the body as a direct intervention to decrease self-objectification and increase body satisfaction in a sample of college women.

## Hypotheses

### *Correlations.*

Each hypothesis combines together Groups 1a (fall yoga), 2a (waitlist control), and 2b (spring yoga group) (see Figure 3, p. 66).

1. There will be a significant positive correlation between self-objectification as measured by the SOQ (Noll & Fredrickson, 1998) and the Body Surveillance subscale of the OBC Scale (McKinley & Hyde, 1996). There will be significant positive correlations between self-objectification as measured by the SOQ and the Body Surveillance subscale of the OBC Scale (McKinley & Hyde, 1996), and body dissatisfaction as measured by the Eating Disorder Inventory-Body Dissatisfaction Subscale (EDI-BD; Garner et al., 1983).
2. There will be a significant negative correlation between self-objectification- as measured by the SOQ and the Body Surveillance subscale of the OBC Scale- and Body Satisfaction as measured by the Body Areas Satisfaction subscale of the Multidimensional Body-Self Relations Questionnaire (MBSRQ-BAS; Brown et al., 1990) and the Clancy–Barabasz Body Satisfaction Measure (CBBSM; Clancy unpublished dissertation; see appendix C).
3. There will be significant negative correlations between self-objectification- as measured by the SOQ and the Body Surveillance subscale of the OBC Scale (McKinley & Hyde, 1996)- and mindfulness of the body as measured by a modified version of the Frieberg Mindfulness Inventory (Walach et al., 2006), and body satisfaction as measured by the Clancy–Barabasz Body Satisfaction Measure and the Body Areas Satisfaction subscale of the Multidimensional Body-Self Relations Questionnaire.
4. There will be significant negative correlations between body dissatisfaction as measured by the EDI-BD, and mindfulness of the body as measured by a modified version of the FMI.

5. There will be significant positive correlations between body satisfaction- as measured by the CBBSM and the MBSRQ-BAS (Brown et al., 1990)- and mindfulness of the body as measured by a modified version of the Frieberg Mindfulness Inventory.

In terms of comparing the treatment and control group (between groups), the following hypotheses are proposed:

6. Participants in Group 1a (fall yoga group) will demonstrate significantly lower (alpha = .05) self- objectification scores than participants in Group 2a (wait list control group) at post test as measured by the SOQ and OBCS.

7. Participants in Group 1a will demonstrate significantly lower (alpha = .05) body dissatisfaction scores than participants in Group 2a at post test as measured

8. Participants in Group 1a (fall yoga group) will demonstrate significantly higher (alpha = .05) body satisfaction scores than participants in Group 2a (waitlist control group) as measured by the MBSRQ-BAS, and the CBBSM.

9. Participants in Group 1a will demonstrate significantly higher (alpha = .05) mindfulness of the body scores than participants in Group 2a at post test as measured by a modified version of the FMI.

In terms of within-group analyses, e.g. pre and post test, the following hypotheses are proposed:

10. Participants in Group 1a (fall yoga group), and Group 1a and 2b (spring yoga group) combined, will demonstrate significantly lower (alpha = .05) within group self- objectification scores at post test than at pre test as measured by the SOQ and the Body Surveillance subscale of the OBC Scale. Participants in Group 2a (waitlist control group) will demonstrate no significant differences at post test than at pre test.

11. Participants in Group 1a, and Group 1a and 2b combined, will demonstrate significantly lower ( $\alpha = .05$ ) within group body dissatisfaction scores at post test than at pre test as measured by the EDI-BD. Participants in Group 2a will demonstrate no significant differences at post test than at pre test.

12. Participants in Group 1a, and Group 1a and 2b combined, will demonstrate significantly higher ( $\alpha = .05$ ) body satisfaction scores at post test than at pre rest as measured by the CBSM. Participants in Group 2a will demonstrate no significant differences at post test than at pre test on the MBSRQ-BAS.

13. Participants in Group 1a, and Group 1a and 2b combined, will demonstrate significantly higher ( $\alpha = .05$ ) mindfulness of the body scores at post test than at pre test as measured by a modified version of the FMI. Participants in Group 2a will demonstrate no significant differences at post test than at pre test.

## Chapter III

### Methodology

Participants in the current study were organized into three groups. Group 1a represented participants who engaged in the 10 week yoga intervention during the fall semester. Group 2a represented participants in the waitlist control group, who did not participate in a yoga intervention during fall semester. Group 2b represented participants from the waitlist control group who then completed a 10 week yoga intervention during spring semester. Preceding and following a ten week yoga intervention, participants were administered various measures to assess for changes within the following constructs: self-objectification, body satisfaction, body dissatisfaction, and mindfulness of the body. Phase 1 of this exploratory study reflected a between subjects comparison of changes in scores on measures between Group 1a and Group 2a. Phase 2 involved a within-subjects, repeated measures comparison of changes in scores on measures from pre test to post test.

#### *Participant Characteristics*

Female volunteers experiencing dissatisfaction with their bodies and who have zero to limited yoga experience based on their self-report were recruited for the study. Participants were composed of 36 currently part-time or full-time students attending college. Four participants dropped out of the study during their yoga experience due to injury (unrelated to yoga practice as per participant report) or time constraints. Consequently, data for them were not included in the analyses. Thirty-two female participants completed the study.

*Summary of Total Sample.* Participants were composed of 32 female students at a large public university in the northwest. Year in school ranged from 1<sup>st</sup> year undergraduate to post doctorate, with the average being 3<sup>rd</sup> year in undergraduate education. The majority of

participants were undergraduate 2<sup>nd</sup> year (n=10 ) and 4<sup>th</sup> year (n=10 ) students. Though this study primarily examined undergraduate students, 1 participant was a post doc, while 2 were graduate students. Age of participants ranged from 18 years of age to 30 years of age ( $M = 21.58$ ,  $SD = 3.30$ ) with 75% of participants reporting between 18 and 22 years of age (n=24). Approximately 81% of the participants (n=26) identified as “White/Caucasian”, 9% (n= 3) identified as “Asian/Pacific Islander”, 3% (n=1) as “Latino/a/Hispanic,” and 3% (n=1) as Biracial/multiracial.” One participant did not disclose her ethnic identity.

With regard to current and previous yoga experiences, only one participant had been engaged in yoga practice at the time of this study (from six months to a year, one or twice per month, hatha yoga or yoga flow). Approximately 50% of participants reported that they had engaged in some type of yoga experience in the past. Of these participants, 25% reported that prior to this study they had practiced yoga for less than a week, 9.4% reported practicing from one week to one month, 12.1% reported six months to a year of practice, and 3.1% reported one to three years. A one–way Analysis of Variance (ANOVA) suggested that no difference existed across groups 1a (fall yoga group), 2a (waitlist control), and 2b (spring yoga group), with regard to duration of past yoga practice. Ninety percent of total participants rated themselves as “novice” or “beginner” yoga students. Ten percent of participants rated themselves as beginner-intermediate level. At the time of the pre-test, prior to the beginning of yoga classes, all participants noted that they were currently participating in some type of extra curricular physical activity related to cardio or body sculpting.

The following sections present participants characteristics within each group.

*Group 1a (Fall Yoga Group).* Participants in group 1a, the fall yoga treatment group, were composed of 13 female students at a large public university in the northwest. Year in

school ranged from 1<sup>st</sup> year undergraduate to post doctorate, with the average being 3rd year in undergraduate education. The majority of participants were undergraduate second year (N = 10) and fourth year (n = 10) students. Though this study primarily examined undergraduate students, one participant was a post doc, while two were graduate students. Age of participants ranged from 18 years of age to 30 years of age ( $M = 21.53$ ,  $SD = 3.31$ ) with 78% of participants reporting between 18 and 21 years of age (n = 10). Approximately 77% of the participants (n = 10) identified as “White/Caucasian”, 15% of the participants (n=2) identified as “Asian/Pacific Islander”, and 7% (n=1) participant identified as “Latino/a/Hispanic.” The average Body Mass Index (BMI) for this group, calculated by dividing weight multiplied by 703-by height, was 20.49, which falls into the “normal” range of BMI.

With regard to current and previous yoga experiences, no participants had been engaged in yoga practice at the time of this study. Approximately 30% of participants (n=4) reported that they had engaged in some type of yoga experience in the past. Of these participants, 25% (n=1) reported that prior to this study she had practiced yoga for less than a week, 50% (n=2) reported practicing from one week to one month, 25% (n=1) reported six months to a year of practice, and 25% (n= 1) reported one to three years. Seventy-seven percent (n=10) of total participants rated themselves as “novice” or “beginner” yoga students, 1 (7%) participant rated herself as beginner-intermediate level, and 2 (15%) failed to respond to the question. At the time of the pre-test, prior to the beginning of yoga classes, all participants noted that they were currently participating in some type of extra curricular physical activity related to cardio or body sculpting.

Of note, participants attended class approximately 60% of the time (18 out of 30 classes).



*Group 2a (Waitlist Control Group)*. Participants were composed of 19 female students at a large public university in the northwest. Year in school ranged from first year undergraduate to post doctorate, with the average being third year in undergraduate education. Sixty-eight percent of participants were comprised of undergraduate second year (n= 6) and 4<sup>th</sup> year (n=7) students. Though this study primarily examined undergraduate students, one participant was a graduate student. Age of participants ranged from 18 years of age to 28 years of age ( $M = 21.10$ ,  $SD = 2.76$ ) with 74% of participants ( $N = 14$ ) reporting between 18 and 21 years of age. Of the participants who reported their identified ethnicity, approximately 84% of the participants ( $N = 16$ ) identified as “White/Caucasian”, 5% (n=1) of participants identified as “Asian/Pacific Islander” and 5% (n=1) as “Biracial/multiracial.” The mean BMI for this group was 21.67, which falls into the “normal” range of BMI.

With regard to current and previous yoga experiences, only one participant had been engaged in yoga practice at the time of this study (from 6 months to a year, one or twice per month, hatha yoga or yoga flow). Approximately 63% (n=12) of participants reported that they had engaged in some type of yoga experience in the past. Of these participants, 33% (n=4) reported that prior to this study they had practiced yoga for less than a week, 17% (n=2) had practiced one month to six months, and 8% (n=1) of participants reported practicing from one week to one month. Eighty-nine percent (n=17) of total participants rated themselves as “novice” or “beginner” yoga students. Remaining participants did not respond to the question. At the time of the pre-test, prior to the beginning of yoga classes, all participants noted that they were currently participating in some type of extra curricular physical activity related to cardio or body sculpting.

*Group 2b (Spring Yoga Group).* Participants were composed of seven female students at a large public university in the northwest. Year in school ranged from second year undergraduate to graduate student. Sixty percent (n=4) of participants were comprised of undergraduate second year (n=2) and third year (n=2) students. Though this study primarily examined undergraduate students, one participant was a graduate student. Age of participants ranged from 18 years of age to 26 years of age ( $M = 21.42$ ,  $SD = 3.34$ ) with 57% of participants reporting between 20 and 26 years of age (n=4). Eighty-six percent (n=6) of the identified as “White/Caucasian” while 14 % (n=1) of participants identified as Biracial/multiracial.” The mean BMI for this group was 20.45 which falls into the “normal” range of BMI.

With regard to current and previous yoga experiences, no participants had been engaged in yoga practice at the time of this study. Approximately 43% (n=3) of participants reported that they had engaged in some type of yoga experience in the past while 57% (n=4) said they had not. Of these participants, 67% (n=3) participants had practiced for less than one week, 33% (n=1) of participants reported that prior to this study she had practiced from one to six months. Eighty- six percent (n=6) of participants rated themselves as “novice” yoga students. Fourteen percent (n=1) of participants rated herself as “beginner” level. At the time of the pre-test, prior to the beginning of yoga classes, all participants noted that they were currently participating in some type of extra curricular physical activity related to cardio or body sculpting.

### *Instruments*

*Demographics.* Pre and post intervention, demographics and extraneous exercise and activity participation were recorded using a questionnaire designed specifically for this study (see appendices A & B). On the questionnaire, participants were asked to record demographic information as well as information about previous and current yoga experience. They were also asked for information about type of exercise(s) in which they currently engage and the amount of time spent involved in these activities. On the post-test questionnaire, participants were asked to report specific exercise or physical activity in which they were involved over the past ten weeks and the amount of time spent involved in each activity. At post test, participants were asked to record their height and weight in order to calculate Body Mass Index (BMI). BMI was calculated in order to determine if significant differences existed for BMI at baseline as a BMI outside of the normal range could have potentially confounded results of analyses that were conducted.

*Self-Objectification.* The Self-Objectification Questionnaire (SOQ; Noll & Fredrickson, 1998) in addition to the Body Surveillance subscale of the OBC Scale (McKinley & Hyde, 1996) are used to measure self-objectification. The SOQ is a well validated and widely used questionnaire that measures the extent to which participants view their bodies in appearance-based, or objectified, and observable terms (i.e. form/sculpted muscles) versus non appearance, competence, based terms (i.e. health). Ten physical attributes are listed on the measure which can be separated into two categories: appearance-based attributes comprised of weight, sex appeal, physical attractiveness, firm/sculpted muscles, and measurements of body areas; and competence-based attributes comprised of physical coordination, health, strength, energy level, and physical fitness levels. Participants were asked to rank the importance of

attributes of each of these categories on a scale of 1 (least importance) to 9 (highest importance). The scores for each category are summed, and then the competence based scores are subtracted from the appearance based to isolate appearance based, self-objectified scores. Scores can range from -25 to +25 with higher scores reflecting a greater tendency for one to perceive her body in appearance-based terms and self-objectify. This measure has achieved sufficient to strong convergent validity, exhibiting a high correlation with the Body Surveillance subscale of the OBC Scale ( $r=.63$ ,  $p<.001$ ; McKinley & Hyde, 1996), and a sufficient correlation with the Appearance Anxiety Questionnaire ( $r=.52$ ,  $p<.01$ ; Dion, Dion & Keelan, 1990; Noll & Fredrickson, 1998).

Instructions state “When considering your physical self-concept....what rank do you assign [each physical attribute based on the impact of these attributes on your self-concept].” However, participants may not understand the meaning of the word “physical self concept” or may have differing meanings of the word, which will impact how they rate each attribute. With permission, for this study the instructions were changed to “We would like you to rank order these body attributes from that which has the greatest importance on how you think about your body (rank this as a “9”) to that which has the least importance on how you think about your body (rank this as a “0”).”

The Body Surveillance subscale of the OBC Scale (McKinley & Hyde, 1996) is an 8-item measure of self-objectification. The scale represents questions 1, 3, 7, 9, 14, 16, 18, 20 of the OBC Scale, so only these questions were presented and scored. Presented with a scale ranging from (1) strongly disagree to (7) strongly agree, participants are asked to circle the number that corresponds with their degree of agreement with various statements. Items 1, 2, 3, 4, 7, and 8 of the subscale are reversed coded. Scores for each subscale of the Objectified Body

Consciousness Scale are then summed and divided by the number of total responses. Higher scores indicate that one is frequently concerned and vigilant about one's appearance and perceives the body in terms of how it looks. Lower scores indicate that one rarely worries about how one looks and perceives the body in terms of how it feels. There is currently no cut off score for higher or lower scores. The Objectified Body Consciousness Scale has achieved internal consistency, or alpha, of .89 when normed with a population of undergraduate women (McKinley & Hyde, 1996)

*Body Dissatisfaction/Satisfaction.* The Body Areas Subscale of the Multidimensional Body-Self Relations Questionnaire (BAS-MBSRQ; Brown, Cash, & Mikulka, 1990) and the Clancy-Barabasz Body Satisfaction Measure (CBBSM; Clancy, unpublished dissertation, 2008; see appendix C) were used to measure body satisfaction. The Body Dissatisfaction Subscale of the Eating Disorders Inventory (EDI-BD; Garner et al., 1983) was used to measure body dissatisfaction. The EDI-BD was also used to screen participants on body dissatisfaction. The BAS-MBSRQ scale is comprised of nine items (questions 26 through 34 of the MBSRQ) which examine satisfaction related to specific aspects of one's appearance: the face, hair, lower torso, mid-torso, upper torso, muscle tone, weight, height, and overall appearance. Participants were asked to rank their level of dissatisfaction or satisfaction with each of these areas of her body on a scale of 1 (very dissatisfied) to 5 (very satisfied). Thus, this measure provides useful information about whether yoga effects the participant's satisfaction with each part of her body, in addition to her weight, height, and body as a whole. Scores for each item were summed and divided by the number of items in that scale determining the mean. High scores indicated satisfaction with most areas of the body, whereas low scores denoted general unhappiness and dissatisfaction with the size or the appearance of various areas. There are no

norms for low or high body satisfaction. According to the MBSRQ User's Manual (Cash, 2000), the Body Areas Satisfaction subscale exhibits a Cronbach's alpha of .73 for females, and .74 at the 1-month re-test.

The EDI-BD is one of eight subscales from the Eating Disorders Inventory, 3<sup>rd</sup> version (EDI-III; Garner et al., 1983). The EDI-III is a self report measure of psychological traits or constructs that are frequently present in individuals who have clinically diagnosed eating disorders. The EDI-BD is comprised of ten items. Specifically, items 3, 4, 5, 8, and 10 of this subscale are reversed coded. This scale measures satisfaction with specific body sites such as the waist, thighs, and buttocks. Items examples include "I think my hips are too big" (Garner, 2004). Participants were asked to respond by circling the letter that corresponds with their rating in the column next to the item questions. Specifically, participants were asked to decide if the item is true about them always (A), usually (U), often (O), sometimes (S), rarely (R), or never (N). On a scale of 0 to 4, choice (A) is assigned 4 points, (U) is assigned 3 points, (O) is assigned 2 points, (S) is assigned 1 point, and (R) and (N) assigned 0 points. Items are then summed to produce a score. Scores on the EDI-BD can range from a minimum of 0 indicating low to no body dissatisfaction, to 40 indicating severe body dissatisfaction. Responses indicating A, U, O, or S are assigned points ranging from 1 to 4 during scoring. Responses indicating R or N are assigned zero points. The EDI-BD exhibits a Cronbach's alpha of approximately .91 and has also exhibited strong validity throughout previous research (Garner).

Scores on the EDI-BD (Garner et al., 1983) were used to screen for volunteers who exhibited a clinically severe level of body dissatisfaction. A score of 36 to 40 is considered to fall within the elevated clinical range. A score of 22 to 35 falls within the clinical range. Fifty-

five percent of adults in a nonclinical sample achieved a score of 22 and above (Garner, 2004). A score less than or equal to 21 falls within the low clinical range; nonclinical populations scoring in this range may experience some body dissatisfaction but may not need to be assessed by an eating disorder specialist (Garner, 2004). According to Garner, scores falling 21 or below do not show marked dissatisfaction with their bodies. Scores ranging from 36 to 40 are within the elevated range for clinical populations, and are considered by Garner (2004) to be indicative of severe clinical pathology. Thus, individuals who scored over 36 were allowed to remain in the study, but were referred to university counseling services that are available for students.

The CBBSM (Clancy, unpublished dissertation; see appendix C) is a self-report measure that examines satisfaction of the body with respect to the following areas: (a) conflict versus oneness with the body; (b) comfort and appreciation for the body; and (c) appreciation of function versus appearance of the body. An example of appreciation for function versus appearance is “I appreciate my body for all it helps me do.” The CBBSM is comprised of 14 questions. Items 3, 6, 9, and 12 are reverse coded. Participants are asked to rank their degree of agreement with a statement about the body on a likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Items were scored on a scale of 1 to 7 coinciding with answer choices on the measure. The total score ranges from 15 to 98 with higher scores indicating greater appreciation for the body, greater oneness with the body, and greater appreciation for function versus appearance of the body. Cronbach’s Alpha ranges from .785 (at pre-test) to .856 (at post test).

*Mindfulness of the Body.* A modified version of the full Frieburg Mindfulness Inventory (Walach, Buchheld et al., 2006) was used to measure mindfulness of the body. The

Frieburg Mindfulness Inventory is a measure of mindfulness as it relates to “an alert mode of perceiving all mental contents- perceptions, sensations, cognitions, affect.. [and].. a warm, friendly, accepting and non-judgmental attitude toward the elements of our mind...suspending categorical judgments” (Walach et al., p. 1594). This measure also examines the regulation of attention required to bring this awareness into current experience. The experiencing thoughts and feelings in terms of their subjectivity is an additional area of focus (Bishop et al., 2004). As Walach et al.’s definition is consistent with the concept of mindfulness as operationalized in this study, this measure was deemed most appropriate. However, this study focuses on mindfulness as specifically oriented toward the body. Thus, following personal consultation with Walach (H. Walach, personal communication, August, 2007) questions were modified to orient the participant more toward the body and allow the researcher to determine the degree to which yoga has impacted mindfulness of the body in particular. For example, “I am open to the experience of the present moment” was modified to read “I am open to the experience of my body in the present moment,” and “I am able to appreciate myself” was changed to “I am able to appreciate my body.” The Frieburg Mindfulness Inventory full version is comprised of 30 questions. Instructions state “the purpose of this inventory is to characterize your experience of mindfulness” and asks participants to consider each item within the time-frame of a variable number of days. Participants were given choices of “rarely, occasionally, fairly often, and almost always” as choices to select, characterizing their experiences. Due to the potential difficulty participants may have decoding the meaning of the word “mindfulness,” and this research’s focus on mindfulness of the body, the Frieburg Mindfulness Inventory was modified to read “the purpose of this inventory is to characterize your current experience of your body.” Furthermore, the statement “Please use the last \_\_\_ days as a time –frame to consider each



item” were deleted. Items were scored on a scale of 1 (“rarely”) to 4 (“almost always”) coinciding with answer choices on the inventory. Question 8 and 30 from the full version were deleted from the full inventory due to lack of fit with mindfulness of the body. Items 8, 12, 26, and 28 of the modified version were reversed coded. Items were summed to get a total score. Low scores indicated a low tendency toward mindfulness of the body, while high scores indicated a tendency toward high mindfulness. There are no norms to delineate high versus low scorers. The full version Frieberg Mindfulness Inventory is psychometrically sound, with an internal consistency Cronbach’s alpha of .93. The measure was able to demonstrate an increase in mindfulness when tested on 115 participants attending mindfulness retreats and when tested on subjects attending mindfulness meditation retreats (n= 85), from the general population (n=85), and from a clinical sample (n=117) (Walach et al., 2006). Cronbach’s alpha for the modified FMI ranges from .87 (pre-test) to .88 (post-test).

### *Procedure*

Female college-enrolled participants were recruited via flyers during the two weeks prior to classes beginning and during the first week of classes. Advertisements were posted at the recreation center, on campus residence halls, some classrooms, a local café, and supermarkets. The original advertisement specifically invited participants with body dissatisfaction and zero or limited yoga experience. However, in an effort to be mindful of participant persuasion, the advertisement was then changed to exclude an invitation to participants with body dissatisfaction. The Yoga treatment began during the second week of classes and ran three days per week, 50 minutes each time, for ten weeks. Since additional participants were needed, participants were recruited during the second week of classes and allowed to begin yoga treatment until the sixth yoga treatment. Given that the maximum

number of yoga treatments was 30, these participants completed a maximum of 24 yoga treatments.

The advertisements invited those interested in participating in the study to contact the principal investigator by telephone or email. Upon e-mail or telephone contact with volunteers, the principal investigator explained the nature of the study and asked participants to attend one of several pre-screening meetings that lasted approximately 45 minutes. They were told that at these meetings additional information will be provided, their questions will be answered and if they decide to participate in the study, they will be asked to give written informed consent and to fill out questionnaires which will take about 30 minutes. Several time options were provided for meetings.

At the meetings those who decided to participate were asked to give informed written consent. The following packet of questionnaires was administered: The SOQ (Noll & Fredrickson, 1998), the Body Surveillance subscale of the OBC Scale (McKinley & Hyde, 1996), the EDI-BD (Garner et al., 1983), the MBSRQ-BAS (Brown, Cash, & Mikulka, 1990), The Clancy Body Satisfaction Measure (Clancy, unpublished dissertation, 2008), a modified version of the Frieberg Mindfulness Inventory (Walach et al., 2006), a pre and post demographics questionnaire (Clancy, unpublished dissertation, 2008) and the University Recreation Risk and Release Form (see appendix G).

Following each meeting the EDI- BD was scored. It was intended that participants who scored over 36 on the EDI, which indicates severe body dissatisfaction, would be included in the study but would also be referred to university counseling services that are available for students. No students fell into this criterion and no references were required. The principal investigator evaluated responses to the demographic questionnaire to determine participants'

level of yoga experience. The demographic questionnaire contained information containing type of yoga (hatha, or power), type of yoga experience (video, class, etc.), frequency and duration of experiences, and length of experience with yoga (weeks, months, years). It was intended that participants deemed to have extensive yoga experience (more than five years of consistent formal yoga class attendance at a minimum of three times a week) would be excluded from the study. No participants met this criteria, thus no participants were excluded for this reason.

Participants who met yoga experience criteria were randomly assigned to either the treatment group or the waiting-list control group. The principal investigator emailed/called participants to let them know their status. The yoga treatment program officially began during the second week of classes (see Figure 3, p. 66).

*Yoga Group Participants (Group 1a).* Yoga group participants (n= 13) began a Hatha yoga program taught by a highly trained and experienced yoga instructor at a large northwest public university's student recreation center (see appendix E). This style of Hatha yoga is based on the Yogafit discipline. The class was taught as a vinyasa or flow style, where participants were asked not to move too quickly from pose to pose. They were also invited not to spend an excessive amount of time in one pose. A great deal of emphasis was placed on the breath, becoming aware of the breath, and listening to the body which encouraged participants to develop strength, flexibility, body awareness and improve cardiovascular conditioning. Classes were always presented as a mixed-level program in order to provide the opportunity for students to feel challenged yet successful. With skill progression in mind, poses were presented with options for more or less intensity. It is standard practice to remind participants to honor their bodies and choose the poses that work best for them, as nothing in class should

cause pain or discomfort. Those participants who indicated that they had injuries were provided with options for poses during class and the opportunity to discuss them further afterwards (participants were also referred to their physician).

The yoga class met three days per week for 60 minutes, for a duration of ten weeks. Each yoga class followed a pre-determined format that emphasized skill progression, advancement of poses, and the introduction of new poses over the course of the treatment. Specific suggestions to guide participants to a greater awareness of their body and their senses were included, such as listening to the body and honoring the body. After each yoga session the instructor evaluated the session to assess whether it was consistent with protocol (for a detailed script, see appendix D). Students faced away from the mirror when possible so as to reduce potential for objectification. The instructor demonstrated poses from an elevated platform when possible at the front of the room to ensure that she was visible to all students and provide the opportunity for students to safely follow the poses.

*Waitlist Control Group (Group 2b).* This group (n=19) did not participate in the initial yoga class, but acted as a comparison group. This group was given the pre and post-test measures concurrently with the yoga group participants. The waitlist group was offered a free yoga program in the semester following the yoga program utilized in the study. This yoga program was offered to all participants in the waitlist group, and was consistent with the program given to the yoga group in length, number of sessions per week, format, and instructor. Due to small sample size, participants that chose to continue with the additional free yoga program (Group 2b; 7 participants) were provided with an additional consent form inviting them to complete a post-test (identical to the previous group) following their yoga experience so that their data could be utilized for the study. The post –test they completed

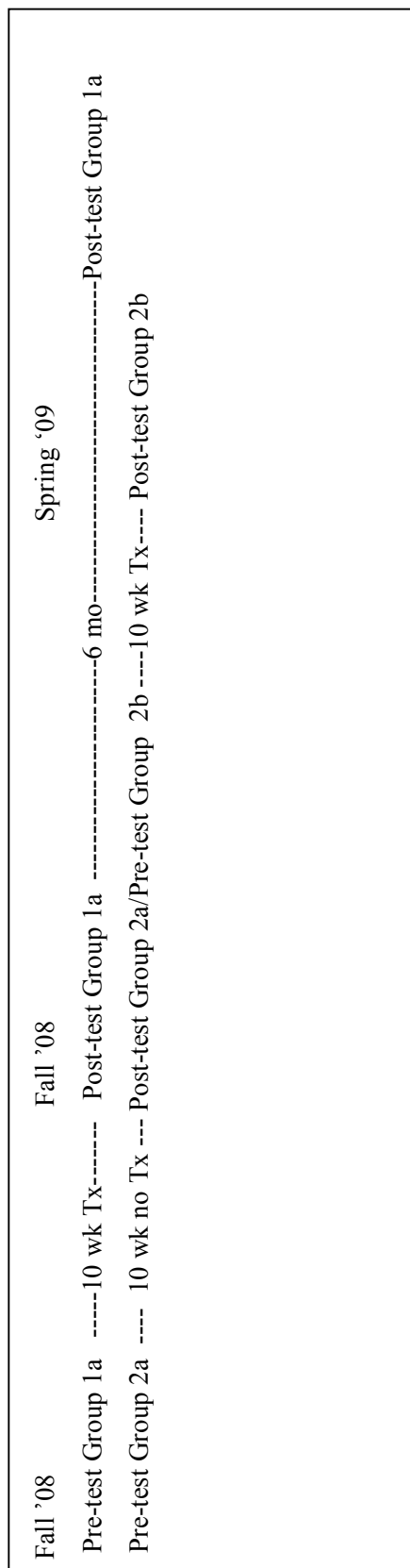
following the ten weeks prior to their experience was incorporated into the study as a pre-test to use as a comparison to the post-test they completed following their yoga experience.

Following completion of the 30<sup>th</sup> yoga class, participants in each yoga group were asked to complete the post-test questionnaires (SOQ; Noll & Fredrickson, 1998), the Body Surveillance subscale of the OBC Scale (McKinley & Hyde), the Eating Disorder Inventory-Body Dissatisfaction Subscale (EDI-BD; Garner et al., 1983), MBSRQ-BAS (Brown, Cash, & Mikulka, 1990), the Clancy Body Satisfaction Measure (Clancy, unpublished dissertation, 2008), a modified version of the Frieburg Mindfulness Inventory (Walach et al., 2006). An additional question was added asking if they have lost a significant amount of weight during the ten week period and if so, how much.

Twelve participants were randomly selected to participate in a brief open-ended interview during which they were asked questions about the impact of yoga on their feelings toward their body, body awareness, and their unique experience with yoga during the course of the program.

Participants from Group 1a were contacted for a six- month follow-up at which time the same survey packet and interview questions were administered to assess the long term affects of yoga (see Figure 3, p. 66).

Figure 3. Procedural Timeline.



## Chapter IV

### Results

#### *Summary of Participant Characteristics*

Participants were composed of 32 female students at a large public university in the northwest. The majority of participants were undergraduate 2<sup>nd</sup> year ( N = 10) and 4<sup>th</sup> year ( N = 10 ) students. Age of participants ranged from 18 years of age to 30 years of age ( $M = 21.58$ ,  $SD = 3.30$ ) with 75% of participants reporting between 18 and 22 years of age (N = 24). The majority of participants (81%) identified as “White/Caucasian.” Approximately 50% of participants reported that they had engaged in some type of yoga experience in the past. A one-way Analysis of Variance (ANOVA) suggested that no difference existed across groups 1a (fall yoga group), 2a (waitlist control), and 2b (spring yoga group), with regard to duration of past yoga practice. Most participants (90%) identified as “novice” or “beginner” yoga students. At the time of the pre-test, prior to the beginning of yoga classes, all participants noted that they were currently participating in some type of extra curricular physical activity related to cardio or body sculpting. Please see Chapter III for specific participant demographics.

#### *Quantitative Analyses*

Quantitative results were analyzed utilizing the Statistical Package for Social Sciences (SPSS 13.0).

*Correlations.* In an examination of hypotheses one through five, a correlation matrix was computed in order to examine relationships among measures both within and across constructs (see Table 4.1, p. 70). All participants were combined to produce correlations.

Table 4.1

*Correlations Among Measures for Waitlist and Yoga Groups Collapsed.*

|                                  | 1 | 2        | 3         | 4        | 5         | 6         |
|----------------------------------|---|----------|-----------|----------|-----------|-----------|
| 1. Self Objectification (SOQ)    | 1 | .826(**) | -.389(*)  | -.358(*) | .283      | -.456(**) |
| 2. Self Objectification (OBC)    |   |          | -.487(**) | -.262    | .196      | -.480(**) |
| 3. Body Satisfaction (CBBSM)     |   |          |           | .798(**) | -.586(**) | .529(**)  |
| 4. Body Satisfaction (MBSRQ)     |   |          |           |          | -.743(**) | .305      |
| 5. Body Dissatisfaction (EDIBD)  |   |          |           |          |           | -.277     |
| 6. Mindfulness of the Body (FMI) |   |          |           |          |           |           |

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Hypothesis one was not supported. Results indicate that significant positive correlations were not found between self-objectification-as measured by the SOQ and the Body Surveillance subscale of the OBC Scale-and body dissatisfaction as measured by the EDI-BD. However, results supporting hypotheses two and three suggest that a significant negative correlation exists between self-objectification- as measured by the SOQ and the Body Surveillance subscale of the OBC Scale-mindfulness of the body- as measured by a modified version of the Frieburg Mindfulness Inventory-and body satisfaction- measured by the Clancy-Barabasz Body Satisfaction Measure and the MBSRQ-BAS.

In support of hypothesis four, significant negative correlations exist between body dissatisfaction- as measured by the EDI-BD, body satisfaction-as measured by the MBSRQ-BAS and the Clancy-Barabasz Body Satisfaction Measure, but not mindfulness of the body as measured by a modified version of the Frieburg Mindfulness Inventory.

In support of hypothesis five, significant positive correlations exist between body satisfaction as measured by the CBBSM and mindfulness of the body as measured by a



modified version of the Frieberg Mindfulness Inventory, but not body satisfaction as measured by the MBSRQ-BAS.

An analysis of homoscedacity utilizing Levene's statistic determined that no significant differences at baseline were found between group 1a and 2a on any measure or construct.

### *Constructs*

Based on the strong correlation among measures as demonstrated through previous research and in the current data analysis (see Table 4.1, p. 70), four constructs were created for the purpose of this analysis. Construct 1, Self Objectification, combines the OBC and SOQ. Construct 2, Body Satisfaction, combines the CBBSM and MBSRQ. Construct 3, Body Dissatisfaction reflects scores on the EDI. Construct 4, Mindfulness of the Body, reflects scores on the FMI. Constructs were combined by summing scores across both instruments.

*Between Groups.* A one-way ANOVA was conducted on Body Mass Index (BMI) by group. No significant differences were found at post test. BMI was calculated by dividing weight multiplied by 703-by height for Group 1a (fall yoga group;  $M = 20.49$ ,  $SD = 3.80$ ) and 2a (waitlist control group;  $M = 21.67$ ,  $SD = 5.84$ ).

In an examination of hypotheses six through nine, four one-way Analyses of Variance (ANOVAs) were then conducted in order to determine whether significant differences exist at post-test between group 1a (fall yoga group) and 2a (waitlist control group) on Self-Objectification, Body Satisfaction, Body Dissatisfaction, and Mindfulness of the Body. None of these hypotheses were supported as significant differences were not found between group 1a and 2a on any of the aforementioned constructs, or independent measures. A one-way ANOVA was then conducted in order to determine whether significant differences exist at

post-test between group 1a and 2a on each individual measure (OBC, SOQ, CBBSM, MBSRQ, EDI, and FMI). Significant differences were not found between group 1a and 2a on any of the aforementioned measures (see Table 4.2, p. 72).

Table 4.2

*ANOVAs Comparing differences in Means Between Yoga Group (Group 1a and 2b Combined) and Waitlist Control Group (Group 2a) for Each Construct.*

| Variable                | Yoga Group |       | Waitlist Group |       | F    | p   | Partial<br>Eta<br>Squared |
|-------------------------|------------|-------|----------------|-------|------|-----|---------------------------|
|                         | M          | SD    | M              | SD    |      |     |                           |
| Self Objectification    | -.57       | 12.10 | -5.24          | 13.08 | 1.04 | .32 | .02                       |
| Body Satisfaction       | 76.17      | 10.69 | 71.25          | 13.78 | 1.17 | .29 | .02                       |
| Body Dissatisfaction    | 14.23      | 8.09  | 14.47          | 9.95  | .01  | .94 | .00                       |
| Mindfulness of the Body | 75.23      | 8.44  | 76.14          | 12.62 | .05  | .82 | .00                       |

*Within Groups.* Three repeated- measures Analyses of Variance (ANOVAs) were conducted in order to determine if significant differences exist within groups from pre-test to post-test. Means for pre test and post test were then compared to determine directionality of significant results. The aforementioned constructs were utilized, and data did not reveal differences on the dependent measures. Given the small sample size for Group 2b (spring yoga group; n = 7) and Group 1b (6 month follow-up; n=3), quantitative analyses were not conducted for these groups. For each of the following analyses, a repeated measure ANOVA was conducted and means were examined. Given that Mauchley's Test of Sphericity suggested that sphericity may not be assumed, a Greenhouse-Geisser correction was applied.

*Analysis I.* Given the similarity in yoga treatment groups in the fall (1a) and spring (2b), pre test scores from groups 1a and 2b were collapsed in addition to post test scores. In an

examination of hypotheses 10 through 13, a repeated measures analysis was then conducted to determine whether differences exist for Self-Objectification, Body Satisfaction, Body Dissatisfaction, and Mindfulness of the Body from pre-test to post-test within this combined group (see Table 4.3, p. 73)

Table 4.3

*Repeated Measures ANOVA Comparing Differences in Means From Pre-test to Post-test within Yoga Group (Group 1a and 2b Combined).*

| Variable                     | Yoga Group |       | F     | p   | Partial Eta Squared |
|------------------------------|------------|-------|-------|-----|---------------------|
|                              | M          | SD    |       |     |                     |
| Self Objectification Pre     | -1.61      | 13.96 |       |     |                     |
| Self Objectification Post    | -3.52      | 12.63 | .85   | .37 | .04                 |
| Body Satisfaction Pre        | 67.98      | 12.32 |       |     |                     |
| Body Satisfaction Post       | 75.27      | 12.71 | 16.46 | .00 | .46                 |
| Body Dissatisfaction Pre     | 16.56      | 9.30  |       |     |                     |
| Body Dissatisfaction Post    | 13.43      | 8.82  | 8.95  | .00 | .32                 |
| Mindfulness of the Body Pre  | 71.29      | 11.37 |       |     |                     |
| Mindfulness of the Body Post | 77.04      | 11.27 | 4.15  | .06 | .18                 |

*Self-Objectification.* Contrary to hypothesis 10, participants did not demonstrate significantly lower within group self- objectification scores at post test than at pre test as measured by the SOQ and the Body Surveillance subscale of the OBC Scale.

*Body Dissatisfaction.* In support of hypothesis 11, participants demonstrated significantly lower within-group body dissatisfaction scores at post test than at pre test,  $F(1,19) = 8.950$ ,  $P < .01$ , as measured by the EDI-BD.

*Body Satisfaction.* In support of hypothesis 12, participants demonstrated significantly higher within-group body satisfaction scores at post test than at pre test,  $F(1,19) = 16.462$ ,  $P < .01$ , as measured by the CBBSM, and the MBSRQ-BAS.

*Mindfulness of the Body.* Contrary to hypothesis 13, participants did not demonstrate significantly higher mindfulness of the body scores at post test than at pre test as measured by a modified version of the Frieburg Mindfulness Inventory.

*Analysis II.* To test hypotheses 10 through 13, analysis II examined whether significant differences exist within Group 1a (fall yoga group); (see Table 4.5, p. 80).

*Self-Objectification.* Contrary to hypothesis 10, participants did not demonstrate significantly lower within group self- objectification scores at post test than at pre test as measured by the SOQ and the Body Surveillance subscale of the OBC Scale.

*Body Dissatisfaction.* Contrary to hypothesis 11, participants did not demonstrate significantly lower within group body dissatisfaction scores at post test than at pre test as measured by the EDI-BD.

*Body Satisfaction.* In support of hypothesis 12, participants demonstrated significantly higher within group body satisfaction scores at post test than at pre test,  $F(1,12) = 7.711$ ,  $P < .05$ , as measured by the CBBSM, and the MBSRQ-BAS.

*Mindfulness of the Body.* Contrary to hypothesis 13, participants did not demonstrate significantly higher mindfulness of the body scores at post test than at pre test as measured by a modified version of the Frieburg Mindfulness Inventory.

*Analysis III.* Analysis III examined a section of hypotheses 10-13: whether significant differences exist within Group 2a (waitlist control group); (see Table 4.4, p. 75).

Table 4.4

*Repeated Measures ANOVA Comparing Differences in Means From Pre-test to Post-test within Waitlist Control (Group 2a).*

| Variable                     | Waitlist Group |       | F     | P    | Partial Eta Squared |
|------------------------------|----------------|-------|-------|------|---------------------|
|                              | M              | SD    |       |      |                     |
| Self Objectification Pre     | -.861          | 13.51 |       |      |                     |
| Self Objectification Post    | -5.24          | 13.07 | 7.851 | .012 | .24                 |
| Body Satisfaction Pre        | 67.07          | 13.70 |       |      |                     |
| Body Satisfaction Post       | 71.25          | 13.77 | 5.403 | .032 | .90                 |
| Body Dissatisfaction Pre     | 16.89          | 9.47  |       |      |                     |
| Body Dissatisfaction Post    | 14.47          | 9.95  | 8.057 | .011 | .31                 |
| Mindfulness of the Body Pre  | 71.52          | 12.89 |       |      |                     |
| Mindfulness of the Body Post | 76.14          | 12.63 | 2.996 | .101 | .14                 |

*Self-Objectification.* Contrary to hypothesis 10, participants demonstrated significantly lower within-group self- objectification scores at post test than at pre test,  $F(1,18) = 7.851$ ,  $P < .05$  as measured by the SOQ and the Body Surveillance subscale of the OBC Scale.

*Body Dissatisfaction.* Contrary to hypothesis 11, participants demonstrated significantly lower within-group body dissatisfaction scores at post test than at pre test,  $F(1,18) = 8.057$ ,  $P < .05$ , as measured by the EDI-BD.

*Body Satisfaction.* Contrary to hypothesis 12, participants demonstrated significantly higher within group body satisfaction scores at post test than at pre test,  $F(1,18) = 8.057$ ,  $P < .05$ , as measured by the CBBSM, and the MBSRQ-BAS.

*Mindfulness of the Body.* In support of hypothesis 13, participants did not demonstrate significantly higher mindfulness of the body scores at post test than at pre test, as measured by a modified version of the Frieburg Mindfulness Inventory.

### *Qualitative Analysis*

Qualitative analyses were exploratory. Written data from groups 1a, 1b, and 2b was coded using NVivo8. Following coding of the data, 25 sub-themes were determined. The 25 sub-themes were then categorized by two investigators into six more general themes: Acceptance, Mind- Body Connection, Awareness and Spirituality, Body Compassion, Mindfulness of the Self, and Physical and Functional Body (see Table 4.5, p. 80).

*Acceptance.* Within the Category of Acceptance, one participant noted "...I used to ignore so many sensations that my body experiences, and I have now learned to notice them and enjoy them." One participant reflected both Acceptance and Body Compassion through her statement "[I] accept and love my body while respecting it." Participants further described their experiences with yoga as "[feeling] comfortable there (within body)" and experiencing the body "without judgment." Another participant expressed "I will accept more the status of my body without judge [sic]..."

*Mind-Body Connection.* Reflecting the development of a profound Mind-Body Connection, one participant commented:

What I like most about this class is the gift it has given me. The gift of being able to have a conversation with my body. A voice that has been mute for years is finally able to speak and tell me and tell me what it needs.....The experience has been extremely helpful in bringing awareness to what my body needs and communicates to me by doing yoga. The conversations between my body and my mind is something I will be able to use my entire life.

One participant noticed that she feels that she is "more honest to (sic) [her] body and feelings." Another participant said yoga "helped me tune into how I feel." Others conveyed "I

am definitely more in tune with my body and what activities or positions my body feels good in doing”, “I liked....the getting in touch with your body.” and “I use the breathing techniques when I need to tune into myself rather than outside influences.” Others developed increased sensitivity toward themselves and their body as suggested by statements such as “I am more sensitive to my feeling [sic] and my body.”

*Awareness and Spirituality.* Speaking of the development of Awareness and Spirituality, several participants utilized words such as “peaceful” and “calming” to describe their yoga experiences. Reflecting both Awareness and Spirituality and Functional Body, a participant noted:

After these ten weeks I now have more strength and positive energy to move in ways I was not able to before this class. I am amazed at my body’s ability to hold poses and create real aspects of inner peace.

Moreover, participants reported a more acute yet generalizable “present” focus. Some participants disclosed that yoga helped them “focus on the here and the now and stop worrying about the past and the future.” Another person recalled of her yoga experience “I was able to relax and just be in the moment.” Other participants suggested increased “focus on the present” and “thinking in the present.”

*Body Compassion.* Describing Body Compassion, one participant remarked “...I learned to appreciate my body for all it can do, and I learned [to be] patient with my body.” Another participant said “...Today I did not spend much extra time worrying about how I looked...right now I feel very comfortable in my body.” Yet another said “I appreciate taking things slow, and giving myself plenty of time for me whenever I can sense my body needs it.” Other participants demonstrated an increase in positive thinking related to their body and self.

One participant stated “I see more positive things than negative things relating to self image’ while another participant mentioned “..... [yoga] brings positive feelings both physically and emotionally.”

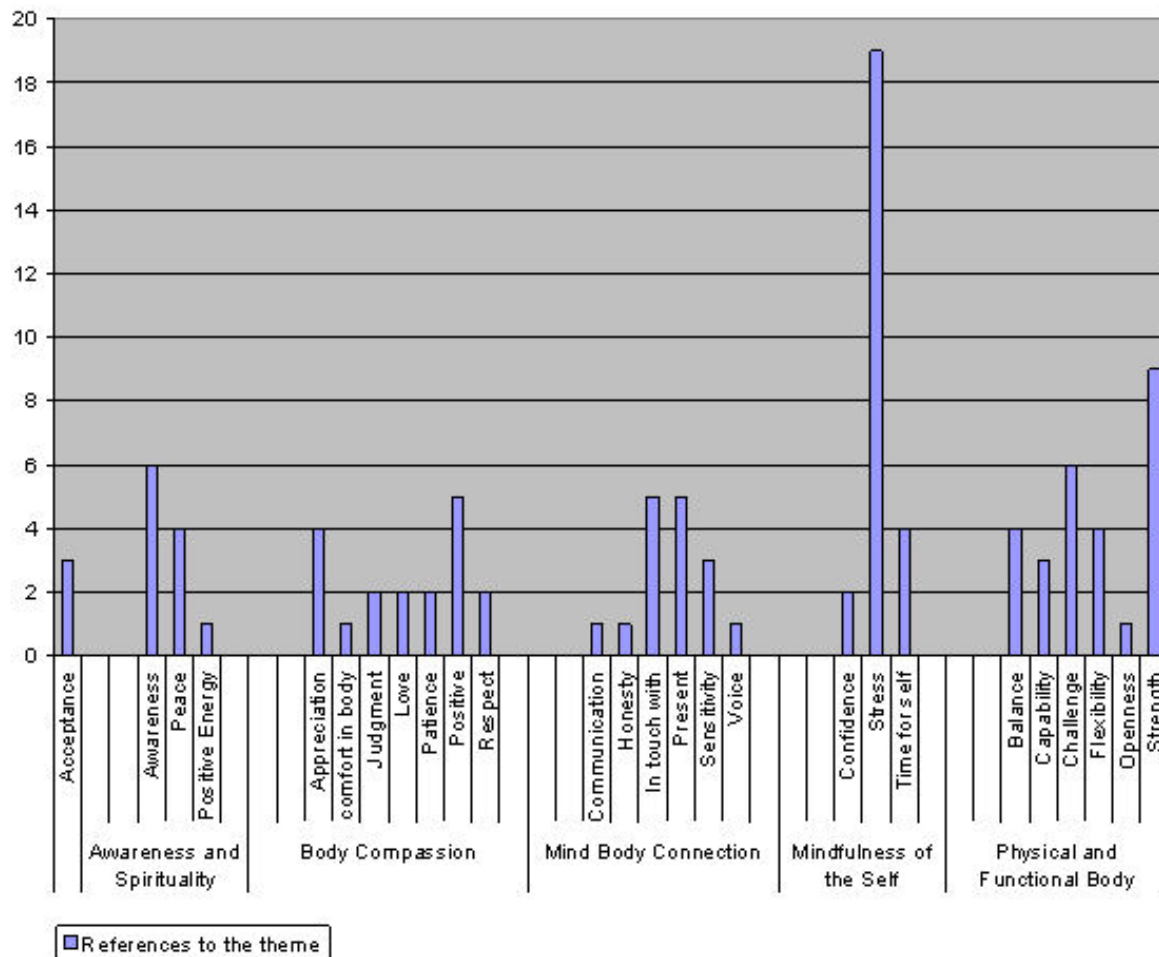
*Mindfulness of the Self.* Many participants noted improvements in general levels of emotional stress and well-being as result of their yoga experience. One participant found herself feeling “more relaxed, less stressed, and less worried.” With regard to her experience, another participant stated “my experience with yoga has helped me recognize when I am mentally overwhelmed or stressed, and taught me ways to relieve the stress.” Other participants commented “I learned when I need to take a few minutes to relax and distress [sic],” “[yoga] helped so much with stress” and “[I] needed the time to focus on myself.”

Many participants suggested that yoga has helped them recognize that they can utilize and enjoy their Physical and Functional Body. One participant powerfully expressed this concept in her statement “...I feel better about my body. I realize it is capable of more than I thought.” Sharing a similar sentiment, another participant wrote “I feel more comfortable in my body and am grateful of the things my body can accomplish.” Another conveyed “it [yoga] was helpful because it showed me how strong I am and how I can become even stronger and more flexible [sic], while stretching and working out at the same time.” One participant expressed “I feel like my body has more space and openness.” A participant commented that yoga specifically improved her “strength, balance, and flexibility.” Another stated that as a result of yoga practice her “balance and posture has improved.” Some participants spoke to the challenge that yoga can offer, and how this challenge encourages them to recognize all that their physical body can accomplish. One said “yoga..... [taught] me how to...challenge my body.” Another said that she found yoga “challenging and soothing all at once.”



*Physical and Functional Strength.* Several participants particularly seemed to focus on the strength that they developed in their bodies. Some said “what I liked most about the experience was the strength I built, as well as its calming effect...” Another said “yoga has made me a little stronger...” The statement “ It [yoga] showed me that I am stronger than I thought” and “was beneficial because....it pushed me out of my comfort zone” suggests that the strengths some of these participants speak of may extend beyond simply the physical body.

At the 6 month follow up, participants provided very similar responses to those that were aforementioned. Many participants expressed that they had maintained a feeling of physical strength and balance, remained non-judgmental, patient, accepting, and compassionate toward their body, and enjoyed a continued general sense of stress reduction in their lives.

Table 4.5 *Graph of Qualitative Responses.*

## Chapter V

### Discussion

The current investigation sought to determine whether or not a yoga program has benefits in body dissatisfaction, self-objectification, and mindfulness of the body.

#### *Correlation of Measures*

Upon combining all participants, as predicted a significant positive correlations existed between self-objectification as measured by the SOQ and the Body Surveillance subscale of the OBC Scale. Additionally as predicted, significant negative correlations existed relating body satisfaction- as measured by the Body Areas Satisfaction subscale of the MBSRQ-BAS, and the CBBSM- and body dissatisfaction as measured by the EDI-BD.

As predicted in hypotheses 1, 2, 3, and 4, significant negative correlations were found between self-objectification as measured by the SOQ and the OBC Scale, Body Satisfaction as measured by the MBSRQ-BAS and CBBSM, and mindfulness of the body as measured by a modified version of the FMI. However, in partial contrast to hypothesis 1, significant positive correlations were not found between self-objectification- as measured by the SOQ and the Body Surveillance subscale of the OBC Scale- and body dissatisfaction as measured by the EDI-BD.

In contrast to hypothesis 4, significant negative correlations were found between body dissatisfaction as measured by the EDI-BD, and body satisfaction as measured by the MBSRQ-BAS and the CBBSM, but not mindfulness of the body as measured by a modified version of the FMI. It is possible that the EDI-BD did not correlate as predicted with the FMI due to the differences in the way that questions are approached in the EDI versus the FMI. The EDI often

asked more objective and specific questions about the way one feels about her body, whereas the FMI may be more subjective and open to interpretation by participants. Additionally, the fact that participants entered the study with lower body dissatisfaction than expected could have impacted the correlation between the FMI and the EDI. Lastly, the small sample size utilized to correlate these measures may also have contributed to the lack of statistical significance.

In partial accord with hypothesis 5, significant positive correlations were found between body satisfaction as measured by the CBBSM and mindfulness of the body as measured by a modified version of the FMI (Walach et al., 2006), but not body satisfaction as measured by the MBSRQ-BAS. This lack of correlation could be at least partially explained by the CBBSM and FMI's similar, more subjective, format and approach to questions when compared to the MBSRQ-BAS. Specifically, the MBSRQ-BAS is comprised of nine items which examine satisfaction related to specific aspects of one's appearance, and participants were asked to rank their level of dissatisfaction or satisfaction with each of these areas of his or her body on a scale. The CBBSM, however, examines satisfaction of the body with respect to several, more theoretical areas that reflect how one *feels* about her body, such as conflict versus oneness with the body and comfort and appreciation for the body. The FMI is a similar assessment, and asked participants to characterize various types of internal, mindful experiences to which they may relate. There are debatable benefits of using both types of measures. Information about satisfaction related to specific aspects of the body, as presented by the MBSRQ-BAS, can allow researchers and clinical practitioners to emphasize or target specific trouble areas of the body within their intervention. The qualitative, theoretical aspects of the CBBSM combined with the similarly abstract nature of the FMI may represent a more

appropriate and effective way to tune in to how the phenomenological nature of a woman's relationship with and experience of her body might be impacted by an intervention that is similarly subjective, abstract, and qualitative in nature, such as yoga.

#### *Between Group Analyses*

In hypotheses 6, 7, 8, and 9, this investigator predicted that participants in the yoga group (group 1a) would demonstrate significantly lower self-objectification and body dissatisfaction scores, and significantly higher body satisfaction and mindfulness of the body scores than participants in the wait list control group (group 2a). None of these hypotheses were supported by the data. Participants in the yoga group demonstrated higher body satisfaction (non-significant) at the conclusion of their yoga intervention than the wait list control group. Participants in the yoga group also demonstrated slightly lower body dissatisfaction (non-significant) following the yoga intervention than the wait list control group. Therefore, small sample size, and therefore low statistical power, could at least partially explain the lack of significant results for these constructs (see table). Non-significant results for this between group analysis could also relate to the fact that significant within-group increases were found for many of the constructs in the wait list control group. These results may be partially due to demand characteristics and participation in additional athletic programs beyond the confines of this study (this idea will be further explained in more detail in the follow sections). Though significant increases were found for some constructs within the Yoga group as well, a statistical comparison with the significant changes also presented by the control group may have reduced any potential difference that was due to treatment alone.

### *Within Group Analysis*

In hypotheses 10, 11, 12, and 13, this investigator predicted that participants in the yoga group (group 1a, and collapsed 1a and 2b) would demonstrate significantly lower within group self-objectification and body dissatisfaction scores, and significantly higher body satisfaction and mindfulness of the body scores at post test than at pre test. Results partially supported these hypotheses. Participants in group 1a and 2b (collapsed) did not demonstrate significantly lower within group self-objectification scores at post test than at pre test. However, hypotheses 11 and 12 were supported in that the aforementioned group demonstrated significantly higher within group body satisfaction and significantly lower body dissatisfaction scores. Although hypothesis 13 was not supported in that participants did not demonstrate significantly higher mindfulness of the body scores at post test than at pre test, data was approaching significance at the .05 level ( $p = .056$ ) with means increasing from 73.62 at pre test to 78.47 at post-test. This increase suggests the possibility of a trend toward increasing mindfulness if perhaps the sample size was larger. These results and trends were supported by qualitative data in which participants eloquently described increased awareness, non-judgementality, patience, acceptance and compassion toward their bodies.

In contrast to the aforementioned group, when analyses were conducted within Group 1a alone, hypotheses 10, 11, and 13 were not supported. Specifically, participants did not demonstrate significantly lower within-group differences with regard to self-objectification or body dissatisfaction, nor higher within-group differences with regard to mindfulness of the body at post test than at pre test. However, consistent with group 1a and 2b combined, hypothesis 12 was supported for group 1a alone. Participants in group 1a demonstrated significantly higher within-group body satisfaction scores at post test than at pre test. Small

sample size could have impacted the achievement of statistically significant results for all constructs but self-objectification. It is possible that insignificantly increased self-objectification scores reflect temporarily increased body awareness of some participants who may have objectified more highly than other participants. Increased awareness could have plausibly led to increased focus in the initial stages, which could arguably increase prior to decreasing objectification in a person who already objectified themselves.

Of note, although baseline statistical analyses and examinations of homoscedacity revealed that groups were statistically homogeneous in all of the areas examined, when the same analysis were conducted within group 2a (the wait list control group) with the aforementioned groups as a source of comparison, participants in group 2a demonstrated significantly lower within group differences from pre test to post test with regard to self-objectification and body dissatisfaction. They also demonstrated significantly higher within group differences from pre test to post test with regard to body satisfaction.

As group 2a did not participate in any type of yoga or prescribed intervention between the times that the pre and post test were administered, it is possible that the significant differences observed in body satisfaction, body dissatisfaction, and self-objectification, could be at least partially related to demand characteristics. Specifically, without any increased awareness of the areas examined, participants in the control group may have simply believed that they were expected to demonstrate improvement in these areas from one test to the next.

The increase in body satisfaction within Group 2a (waitlist control) in addition to significant improvements within Group 1a (fall yoga) and Group 1a and 2b combined, with no significant difference between the yoga groups and waitlist control group is additionally congruent with findings of Thomas, Gallagher, and Jakicic (2005). When supplementing a

weight loss program with a yoga program, Thomas et al. found significant improvements in body image within the yoga and weight loss program groups, but not between groups. Unlike the study by Thomas et al., the current study offered a yoga class independent of a weight loss program.

However, results suggest that all participants in the control group were involved in some type of cardio or anaerobic sports from the time they completed the pre test to the time that the post test was administered. Many were enrolled in these activities through the recreation center which means that around the time the post test was administered, they would be finishing up their classes for the quarter. When they were beginning their pre-test, they would just be beginning these classes. Therefore, the data could at least partially reflect that participants were feeling especially accomplished with a resulting improved sense of well-being at that point in time.

The present study sought to further support aspects of Fredrickson and Roberts (1996) Self-Objectification theory and build upon previous studies by researchers such as Impett, Daubenmeir, and Hirschman (2006), and Mitchell, Mazzeo, Rausch, and Cooke (2007) by examining the effect of a ten week scripted yoga intervention on a randomized sample of college women, the majority of whom were novice to beginning yoga practitioners. The yoga intervention systematically focused on the development of mindfulness of the body by specifically encouraging body awareness and mindfulness in each yoga pose and posture.

Literature related to the Self-Objectification Theory (Frederickson & Roberts, 1996) has found that self objectification may predict body satisfaction in college women (Calogaro et al, 2005; Engelnn-Maddox, 2005; Lokken et al., 2004, Tylka & Hill, 2004; Muehlenkamp et al., 2005). Though the present study did not seek to determine predictive links, the strong



negative correlation between body satisfaction and self-objectification found by the present study supports a possible association between self-objectification and body satisfaction. These results also offer support for Strelan et al.'s findings (2003) that suggest that high self-objectification is often associated with lower body satisfaction. Though the present study did not directly examine Strelan et al.'s findings that appearance-related exercise may be related to higher body dissatisfaction, results of the present study are in line with Strelan's findings as they suggest that yoga, which strongly focuses on functionality and inner awareness rather than appearance, is related to lower body dissatisfaction and higher body satisfaction.

Though significant differences were not found between the control group and yoga treatment group, results from the present study suggest that upon collapse of treatment groups to increase sample size, significant improvements in within group body satisfaction and decreases in body dissatisfaction existed following a ten week yoga intervention in contrast to recent findings by Mitchel et al. (2007), which did not demonstrate a significant decrease in body dissatisfaction following a yoga intervention. This discrepancy in results could at least partially relate to the fact that participants in Mitchel et al.'s study practiced yoga only 45 minutes per week for six weeks as part of their yoga program whereas participants in the present study formally practiced yoga approximately 2 hours a week for ten weeks. Participants in the current study were thus provided with a longer time period to potentially benefit from their yoga experience.

Additionally, the discrepancy may be explained by the use of the Body Dissatisfaction Subscale of the Eating Disorder Inventory (EDI-BD; Garner et al., 1983) by Mitchel et al. as the primary body dissatisfaction measurement. This measure may not be sensitive enough to capture subtle decreases in body dissatisfaction. It also limits detection of subtle improvements

in body satisfaction that can result from changing one's relationship with one's body. The present study utilized the EDI-BD as a body dissatisfaction measure. However, the present study also incorporated two measures to examine potential fluctuations in body satisfaction with more precision: the Multidimensional Body-Self Relations Questionnaire (BAS-MBSRQ; Brown et al., 1990), and the Clancy-Barabasz Body Satisfaction Measure (CBBSM ; Clancy, unpublished dissertation, 2008). Of note, within-group analysis of group 1a alone coincided with results by Mitchel et al., as body dissatisfaction primarily measured by EDI-BD was not significantly reduced.

However, contrary to what previous researchers have found, such as Daubenmeir, (2005), and Impett, Daubenmeir, and Hirschman (2006), self-objectification did not appear to decrease despite improvements in body satisfaction. One possible explanation for the lack of significant decrease in self-objectification in this study despite significant increases in body satisfaction across treatment groups could be that in line with researchers such as Fredrickson and Roberts (1997) and Williamson et al. (2004), self-objectification is a complex phenomenon involving the activation of automatic cognitive processes which develop over time as result of constant sociocultural messages and influences. It impacts many arenas of the self. As noted by Shiffman (1996) and Hanh (1987), the process of learning to listen to one's inner voice, attending more closely and mindfully to messages received from one's own mind and body than those communicated from external sources, and valuing the body for all that it can accomplish rather than the way its appearance is perceived by an outside eye, is likely not a process that will be completed in ten weeks of yoga class. More likely, the yoga courses attending by these participants began to plant seeds for participants that will hopefully continue to grow and flourish with continued nourishment. Responses by participants in the study which

powerfully describe amazement at what the physical body can accomplish when challenged, and the consequently decreased desire to focus on appearance, support this hypothesis. It is probable that only the beginning of this process is reflected through the data.

The same phenomenon may also relate to the evolution of mindfulness of the body. The data demonstrate a trend toward increased mindfulness of the body. Thus, what may be noticed in the mindfulness data is a snap shot in time of a process that is just beginning. Qualitative data highly supports this possibility as yoga participants included statements that reflected a stronger inner awareness, appreciation, and acceptance, and a promising newfound tendency to seek peace and discover wishes and desires by anchoring in their breaths, and listening to the “voice” of their bodies rather than seeking answers and validation from external sources.

Degrees of body satisfaction on the other hand, may be impacted more quickly, even if temporarily. Ten weeks of yoga could plausibly influence how one feels about various body parts, especially as one develops physical strength, balance, and becomes aware of all that the body can accomplish. These experiences could then help one experience a more positive relationship with the body that may be more readily accessible and partially more developed at that moment in time. Though body satisfaction may increase, body dissatisfaction may not necessarily decrease as it is likely a longer process to reduce highly reinforced negative feelings about the body than to introduce positive ones.

Overall, results of this study may at least partially support for the aforementioned findings that body awareness and yoga can positively impact body satisfaction. Qualitative data suggests that yoga may somewhat impact a sense of mindfulness of the body.

### *Strengths and Limitations*

Strengths of the present study that enhance previous research include the use of a control group to compare with a yoga treatment group. Expanding upon prior studies such as the research of Mitchel et al. (2007), the use of a scripted and repeatable yoga treatment protocol that clearly described how mindfulness was utilized invites the replication or enhancement of this study by future researchers. Further adding to the research of Mitchel et al. (2007), the current study clarified baseline body dissatisfaction levels for participants to ensure that the level of dissatisfaction was not too high to expect results from the yoga program. The involvement of an instructor well-versed and experienced in the practice of mindfulness as well as Hatha yoga improved the validity and authenticity of the yoga practice incorporated in this study. Additionally, offering yoga courses 3 days per week for ten weeks offered a fair amount of time for practitioners to begin to observe benefits from their yoga practice.

Lastly, the validity of the study's results was enhanced by the use of multiple well-correlated, well validated, and reliable measures as well as the incorporation of relatively new measures designed to increase sensitivity to the constructs at hand. The integration of qualitative as well as quantitative data also added depth, meaning, and richness to the phenomenological examination of each participant's yoga experience, especially given that the practice of yoga can be a highly subjective and personal journey.

Though this study accomplished several goals, it is not without fairly significant limitations. A strong limitation was the small sample size utilized in this study, due to low recruitment rate and high dropout rate before the study began. Furthermore, many participants chose not to attend all 30 sessions, attending sometimes as few as 3 sessions, due to the times the classes were offered, and additional reasons beyond the control of the study such as

academic tasks. Inconsistent demographic data was obtained as well which limits the ability to control for extraneous and potentially confounding factors.

One restriction that limited the ability of this study to examine yoga as a true treatment for body dissatisfaction was the fact that the researcher was unable to recruit students experiencing high body dissatisfaction. Consequently, many participants had average to high body satisfaction at the onset of the study. Additional limitations include the variability that may exist between yoga Group 1a and 2b given that classes occurred at different times in the year, with different students, and at a different time of day. However, scripted classes, comparable location, and the same instructor for the classes provided for a fair amount of consistency between the two groups. Test re-test learning bias is also a possibility for Group 2a, given that they completed the questionnaire packet once before their spring pre-test, whereas this was not the case for Group 1a with whom their data was combined. Lastly, a control group was not utilized for Group 2b. Consequently, between group analyses were not possible for this group.

#### *Clinical Implications and Future Directions*

Yoga may represent a broad and powerful intervention for women experiencing body dissatisfaction and self-objectification. The qualitative data particularly demonstrates that a population of women, who are not experiencing severe body dissatisfaction or self-objectification, likely representing many of the women who might appear in a college or university counseling center, can benefit from yoga, and even increase already solid body satisfaction. Qualitative and quantitative findings lend support for the utilization of mindfulness of the body in various forms, such as mindful standing yoga. As suggested by the results of this study, Yoga can be utilized in a clinical or counseling environment to turn

clients' attention and awareness inward, inviting them to tune into the "voice" of their body. It may guide participants toward an increased awareness of their cognitive-affective and somatic inner environment. This type of intervention will likely prove particularly meaningful for clients who experience a mind-body disconnection, and whose inner voices have been silenced by external and internalized sociocultural and familial messages.

Of additional clinical interest, many participants noted that yoga increased their ability to manage stress in their lives by increasing their awareness of underlying or neglected emotions and sensations while teaching them acceptance and patience, and encouraging a non-judgmental perspective of the self. Some participants seemed to have generalized the focus on the development of these attributes toward the self, to the relationship they share with their surrounding environment, further increasing their sense of well-being and peace in their world.

As participants in this study were self-selected, utilizing yoga or yoga-related interventions may be especially beneficial for those who share an interest in yoga. Such individuals may be more aware of their inner and outer environment in general which could enhance their ability to effectively practice yoga.

Current research may be further enhanced by incorporating additional qualitative data perhaps in the form of in-person interviews, additional written feedback, or the utilization of personal journal writing to track an individual's development as they progress through a yoga course. This area of research may also benefit from examining the Self-Objectification Theory (Fredricks and Roberts, 1997), body satisfaction, and yoga as it relates to men. Conducting a study particularly examining the masculine identity, men's socialization and gender role, and men's experience in yoga, especially as it relates to body awareness, acceptance, and compassion, may be a meaningful direction to move given that men's body image concerns are

often neglected and underrepresented in research and in clinical settings. It is possible that incorporating mindfulness and yoga may encourage men to connect with their internal experiences. Becoming aware of cognitive-affective experiences through mindfulness and yoga may increase a sense of patience and compassion for the functional body. It also may invite men to explore their affective experiences in a more socioculturally acceptable manner that may be less threatening to the masculine identity.

Moreover, a longitudinal examination of a woman's experience with the practice of mindfulness and yoga at various ages and developmental stages in her life, especially in relation to Prochaska and DiClemente (1982) and DiClemente et al. (1991)'s stages of change could clarify how women integrate mindfulness concepts and body satisfaction and acceptance at various points in their lives. According to Prochaska and DiClemente, and DiClemente et al., individuals may move through several stages of change: precontemplative, contemplative, determination, action, maintenance, and relapse. Due to the strong sociocultural emphasis on standards, rigid expectations, and quantification both academically and interpersonally, it is possible that women in their late adolescent and young adulthood years have greater difficulty and may require a longer process to achieve the deeper compassion, patience, and acceptance that changing one's relationship with one's body may encompass. As results of the current study support, improvements may be found in body satisfaction and dissatisfaction related to specific and objective body foci, but improvements in mindfulness and self-objectification may create the type of cognitive and sociocultural dissonance that is unlikely to quickly change. They may remain in the pre-contemplative stage for a longer time before transitioning to contemplative and beyond.

Women into middle adulthood and the later years of their life may tend to focus less on appearance and may embrace different values and expectation related to their body. These women could plausibly be more likely to develop a deeper and more meaningful relationship with their body, and display improvements in body appreciation and patience more readily than a younger population. As each phase in life and each stage of change likely illuminates various goals and expectations for mindfulness and yoga practice, including a measure to examine the stage of change that most closely reflects each participant's state of mind may prove beneficial. Such an assessment may help future researchers and clinical practitioners better understand how and in what way each woman is likely to process and integrate mindfulness and yoga concepts and activities into their lives.

Lastly, research, including the current study, is very limited with regard to incorporating an ethnically and culturally diverse sample which restricts the generalizability of results to individuals hailing from various backgrounds and may limit the ability to competently and effectively utilize related interventions with many individuals. The idea of focusing inward, a cornerstone of yoga, may not be particularly consistent with cultures that do not value this type of introspection or which view mindfulness meditation as incongruent with their religious or spiritual beliefs. However, the practice of mindfulness may also be perceived as a connection with nature and the greater universe, an idea that may be amenable with various cultures. Cultures that value present time focus may be more likely to embrace the present –focused nature of mindfulness and yoga. Future research would therefore benefit from examining the experience of yoga within individuals from various cultures and ethnic identities.



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## Appendix A

## Demographics pre-test (Clancy, unpublished dissertation, 2008)

Please respond to the following open-ended questions to the best of your ability. Please note that all responses will be confidential and will not be linked to your name at any time.

1. Age \_\_\_\_\_
2. Ethnicity \_\_\_\_\_
3. Year in school \_\_\_\_\_

4. Do you currently practice any type of yoga (class, video, etc)? please circle. Yes No  
If yes:

I have been practicing yoga for:

- a) less than 1 week
- b) 1 week -1 month
- c) 1- 6 months
- d) 6 months- 1 year
- f) 1-3 years
- g) more than 3 years

If No: Please move on to question 8.

If you do practice any type of yoga, please circle the answer that best describes your TYPICAL yoga experiences.

5. I typically practice yoga:

- a) 1-2 days per week
- b) 3-5 days per week
- c) 5-7 days per week
- d) once or twice a month
- e) randomly, whenever I can fit it in

6. The following best describes how I practice yoga most of the time (as circled above)

- a) I use a video and do not participate in classes
  - b) I regularly attend yoga classes
  - c) I balance attending class with using a video (equal time spent at each)
  - d) Other. Please explain: \_\_\_\_\_
- 

7. The following best describes the type of yoga I practice most of the time:

- a) I practice slow moving yoga, hatha yoga, or yoga flow
- b) I practice power yoga or cardio yoga
- c) I practice a different kind of yoga: (please describe) \_\_\_\_\_

8. Have you practiced any type of yoga in the past (more than 3 months ago; class, video, etc)?  
Please circle. Yes No

If you have not practiced any type of yoga in the past, please move on to question 16.

If you have practiced any type of yoga in the past, please circle the answer that best describes your PAST yoga experiences.

9. In the past I practiced yoga for

- a) less than 1 week
- b) 1 week -1 month
- c) 1- 6 months
- d) 6 months- 1 year
- f) 1-3 years
- g) more than 3 years

If you selected b, please answer the following questions. Otherwise, please move to question 13.

10. It has been \_\_\_\_\_ since I last practiced yoga

- a) less than 6 months
- b) 6 months – 1 year
- c) 1-3 years
- d) 3-5 years
- e) more than 5 years

11. Before I stopped yoga, I used to practice:

- a) 1-2 days per week
- b) 3-5 days per week
- c) 5-7 days per week
- d) once or twice a month
- e) randomly, whenever I can fit it in

12. The following best describes how I used practice yoga most of the time (as circled above)

- a) I use a video and do not participate in classes
- b) I regularly attend yoga classes
- c) I balance attending class with using a video (equal time spent at each)
- d) Other. Please explain:

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13. The following best describes the type of yoga I used to practice most of the time:

- a) I practice slow moving yoga, hatha yoga, or yoga flow
- b) I practice power yoga or cardio yoga
- c) I practice a different kind of yoga: (please describe)\_\_\_\_\_

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14. Have you ever instructed a yoga class?      Yes   No

15. How would you classify your current level of yoga?

- a) Novice
- b) Beginner
- c) beginning – intermediate
- d) intermediate
- e) intermediate-advanced
- f) advanced

16. Exercise(s) or physical activity (ies) in which you are currently participating:

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17. Time currently spent on above activity(ies):

- a) 1-2 days per week
- b) 3-5 days per week
- c) 5-7 days per week
- d) once or twice a month
- e) randomly, whenever I can fit it in

## Appendix B

## Demographics post-test (Clancy, unpublished dissertation, 2008)

Please respond to the following open-ended questions to the best of your ability. Please note that all responses will be confidential and will not be linked to your name at any time.

1. Please describe exercise or physical activity other than yoga in which you have participated over the past 10 weeks:

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Since the yoga classes began, has your level of exercise or physical activity excluding yoga

- a) increased?
- b) decreased?
- c) stayed the same?

If your level of exercise or physical activity has changed, please explain why:

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2. Time spent on above activity over the past ten weeks:

- a) 1-2 days per week
- b) 3-5 days per week
- c) 5-7 days per week
- d) once or twice a month
- e) randomly, whenever I can fit it in

3. Have you lost a significant amount of weight in the past 10 weeks? \_\_\_\_\_

4. Please list your current

Height: \_\_\_\_\_

Weight: \_\_\_\_\_

## Appendix C

The Clancy-Barabasz Body Satisfaction Measure (Clancy, unpublished dissertation, 2008)

INSTRUCTIONS:

Please respond to the following statements. Circle the number that corresponds to how much you agree with each of the statements.

|  | Strongly<br>Disagree |   |   | Neither agree<br>nor disagree |   |   | Strongly<br>Agree |
|--|----------------------|---|---|-------------------------------|---|---|-------------------|
|  | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 1. I feel alive in my body.....                                      | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 2. I can express myself through my body ..                           | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 3. I work against my body.....                                       | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 4. I am in tune with my body .. ... ..                               | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 5. I value my body.....  | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 6. I feel in conflict with my body.....                              | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 7. I am comfortable with most areas of my body                       | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 8. My body lets me experience life fully                             | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 9. There are few things that really bother me<br>about my body ..... | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 10. I enjoy sensing the world through my body.                       | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 12. I feel at peace with my body the way that it is.....             | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 12. I find that my body hinders me.....                              | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 13. I appreciate my body for all it helps me do.....                 | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |
| 14. I feel comfortable in my body.....                               | 1                    | 2 | 3 | 4                             | 5 | 6 | 7                 |



## Appendix D

## Yoga Script Sample

### Yoga Practice #1

Welcome to yoga. My name is Joanne; I am a Registered Yoga Teacher through Yoga Alliance. I am honored to be sharing a new or ongoing practice of yoga with you today. Today we will experience a mixed level vinyasa or flow style class with options for those who are new to yoga or have practiced before.

#### Begin lying on mat

Today we will begin lying comfortably on our mats. Let's close our eyes and begin breathing slowly and deeply through our noses. If any of us have practiced yoga before, let's raise one hand. Thank you. Welcome everyone to class today. In the next hour we'll have the opportunity to learn new poses and/or something new in familiar poses, as well as something new about ourselves.

Our options to begin practice in this reclining position include bent knee and straight legged corpse pose. In straight legged corpse pose, we relax our legs and feet, allowing our feet to open to the sides. In bent knee corpse pose, we bend our knees, allowing them to touch and plant our feet at the sides of the mat. By placing our feet in a wide position, we allow our legs to relax and release tension that may be felt in the lower back if we were to choose straight legged corpse pose.

Let's bring one hand onto our bellies. Inhaling deeply through our noses, let's fill our bellies with air, pressing our belly buttons into our hands. Imagining that our bellies are balloons, we'll use our inhales to inflate and our exhales will deflate the balloon. As we breathe deeply out through our noses, let's allow our belly buttons to fall back towards our mats. We'll notice that with each exhale, we can let go of more and more tension in our muscles so that soon we will be very relaxed and focused.

Releasing our hand from our bellies and back to the mat, let's turn our focus inward. We'll let go of thoughts from the past or the future, allowing ourselves this next hour just for our practice. As we inhale, let's bring awareness into our muscles and joints, checking in with our bodies to notice any areas of soreness, injury or restriction. Let's all point to any areas of injury or soreness that we are experiencing today so that I can be mindful to provide options that will accommodate. If we are working with a cold or sinus infection, let's place a hand on our foreheads. If any of us are pregnant, let's place a hand on our belly. Honoring our bodies, let's commit to choosing poses that challenge us but allow us to remain safe and pain free. Exhaling deeply, we'll let go of expectations for practice today...let's allow ourselves to experience this class fully. Let's also free ourselves of competition or judgment of ourselves or others...we'll all look different in our poses and that's ok.

*Depending on what injuries present and in what frequency, I may give some cues for addressing injuries at this time or once we start practice and move into an applicable pose. I*

*may also go over and get more info if needed at this time or the first appropriate time before an affected pose where I won't draw too much attention to that person.*

*Cues for addressing injuries – lower back issues for chair pose:*

*If we are taking care of our lower backs today, let's bring our hands onto our legs just above our knees in chair pose to provide more support to the spine.*

*Let's notice how lifting our arms towards the ceiling in chair pose feels for our lower backs. If we feel discomfort or tension, let's lower our arms towards or onto our quads to decrease the work for the back.*

Transitioning to our engaging breath that we'll use during the asana part of our practice today, let's pull our belly buttons towards our spines and up towards our ribs as we inhale. Exhaling, let's draw our belly buttons in and up even more. As we do this, we engage our belly lock that will help to support us and protect our spines during practice. Our belly lock is a gentle movement that engages the abdominal muscles but never restricts us from taking a full breath.

Inhaling, let's begin our warmup by reaching our arms straight overhead, continuing to reach towards the wall behind us. Exhaling and bending one knee, we'll sweep our arms onto the hamstring of our bent leg. Continuing on our breath practicing ALTERNATE KNEE TO CHEST (X8), we'll use our inhales to reach and extend and our exhales to bend and gently stretch.

Bringing both knees into our chest and one hand on each hamstring into KNEES TO CHEST pose let's spend a few moments here, refocusing on our full engaging breath and checking back in to see if we need to pay special attention to any muscles or joints for the rest of our practice. We can rock side to side in knees to chest to massage our lower backs (5 breaths).

Releasing our feet to the floor at hip width apart, let's notice that our knees point up at the ceiling. Ensuring that our knees are also hip width, we'll begin BRIDGE FLOW (X6), inhaling and lifting our tailbones off the floor first, followed by our glutes, lower and mid backs into bridge pose. Exhaling, we enhance our belly locks, placing our spines back onto the mat starting with the mid back, one vertebra at a time. As we lift our hips towards the ceiling into bridge, we imagine that our spines are like a string of pearls and we are lifting each vertebrae off the floor as we might lift the pearls off a tabletop. Let's focus on keeping our shoulder blades on the floor with no weight on our necks, and lifting only as high as we can maintain contact with our shoulders on the mat. Let's use our entire inhale to lift slowly into bridge and entire exhale to release back to the mat.

After releasing our hips to the mat this time, we'll meet in KNEES TO CHEST POSE. Dropping our knees to one side, turning over onto hands and knees or QUADRUPED POSE, we'll prepare for cat/cow. Spreading our fingers out wide, let's distribute the weight throughout our entire hand by pressing gently into our thumbs and fingers, noticing that some weight will be redistributed from the heels of our hands. This hand position is known as hand lock and will add stability and help protect our wrists in this pose and others. Leaving a slight bend in the elbows, let's extend our arms and press away from the mat, noticing greater strength and stability in our shoulders. Focusing on maintaining our strong shoulders as we

exhale, we'll arch our backs up towards the ceiling into CAT POSE, tucking our tailbones under and our chins in towards our chests. Inhaling, we'll lower our belly buttons towards the floor, lifting our chests and rolling our tailbones towards the sky into COW'S POSE. Continuing cat/cow flow on our own breath, we'll stretch the backs of our bodies in cat and the fronts of our bodies in cow. If it's comfortable, let's close one or both eyes as we move so that we can focus more on how this flow feels and not on how it looks on us or others. We're welcome to practice with eyes closed at any time today, allowing us greater opportunity to focus in on our bodies and our breath.

Releasing back into quadruped pose and pressing away from the mat, let's begin SPINAL BALANCE (X8). Inhaling we'll reach our right hand up to shoulder height towards the wall in front of us. Exhaling, we'll release back into quadruped, moving slowly and with control. Inhaling, let's extend our left arm and maybe our right leg back into spinal balance. If we are lifting our leg as well, we are reaching through our heel for the wall behind us, keeping our leg at or lower than hip height. Continuing on our own breath, let's focus on our hand and belly locks and stable shoulders.

After releasing our hand and knee to the mat, let's meet in CHILD'S POSE, sitting back onto our heels and extending our arms out in front of us. If it feels better for our knees, we can move them out towards the sides of our mat each time we release to child's pose. This is a resting pose that we are welcome to take whenever we need a moment to rest or refocus on our breath. Feel free to choose child's pose at any time during class and not only when I suggest it.

Extending our arms and adding our hand locks, let's bring our upper bodies forward until our shoulders stack over top of our wrists into BENT KNEE PLANK. Extending our arms and widening our backs by moving our shoulder blades away from each other, we stabilize this core strengthening pose. Tucking our tailbones under and lifting our belly buttons, let's shift our shoulders forward about one inch. Exhaling, we'll lower our chests and hips halfway down until our ribs and elbows touch into CROCODILE POSE. Releasing our hips to the mat, let's lift and press our chests out, squeezing our shoulder blades towards each other into COBRA POSE. Breathing deeply in cobra, let's allow our lower backs to strengthen by keeping our elbows bent, our touch feather light with our hands and our legs cemented into our mats. Opening the chest in this pose we also gently back bend, helping to keep our spines flexible for every day movement. Inhaling, we'll lift our belly buttons to enhance our core strength and exhaling, we'll release back into child's pose. Let's inhale our shoulders forward over our wrists, shift forward and exhale into crocodile. Inhaling we'll release our hips to the mat and lift our hearts into cobra pose. Exhaling, we'll sit back to child's pose. Let's repeat this sequence, known as the STRENGTH SERIES, 3 more times on our own breath before meeting in child's pose.

Extending our arms and engaging our hand lock, let's tuck our toes under as we inhale. Exhaling, let's lift our hips towards the ceiling and back towards the wall behind us into DOWNWARD DOG. Taking a moment to ensure that we have a slight bend in our elbows and then pressing away from the mat to stabilize our shoulders we'll continue to breathe deeply. Inhaling, let's lift up to the balls of our feet. Exhaling, let's all bend our knees and bring our chests towards our thighs, lengthening our spines as we release our heels towards the

floor. Inhaling to the balls of our feet, we begin WALKING THE DOG (X8) by lowering one heel and opposite knee slowly towards the floor as we exhale. Let's continue walking the dog on our own pace, gently stretching and warming up the backs of the legs while we add strength to the shoulders and upper back. As we walk the dog, let's be mindful of our engaging breath and long spines.

Releasing to downward dog as we exhale and then rolling our tailbones up towards the ceiling as we inhale, we'll use our next exhale to bring our knees to the mat and glutes towards our heels for child's pose. Inhaling, we'll step our right foot towards our hands into LUNGE, just stepping in as far as comfortable and then moving our foot in between our hands so that our knee stacks over our ankle. Let's notice that with our front knee over our ankle we'll have greater stability and safety in our lunging poses as our knee joint will be aligned. On our next exhale, let's step back into child's pose. Inhaling, we'll step our left foot forward into lunge, noticing if one side provides more resistance than the other. If we do notice a difference from one side to the other, let's not judge, just be aware. When we have the chance, we can practice some extra lunges on the more resistant side. Exhaling, we'll step back into child's pose. Tucking our toes under, we'll meet in downward dog on our next exhale. Inhaling, we'll step our right foot forward into lunge, just stepping forward as far as we're comfortable and then sliding or helping our foot in between our hands. Exhaling we'll release back into downward dog, noticing if we prefer to transition from child's pose or downward dog and allowing ourselves to choose the best pose for us next time. Inhaling we'll step our left leg forward into lunge, activating our right leg by straightening it and engaging our leg muscles. Exhaling, we'll step our right foot in between our hands as well into FORWARD FOLD, bending our knees enough to keep our hands on the mat to support our backs while gently stretching our hamstrings, those muscles on the backs of our legs between our knees and our glutes.

Let's all bend our knees a lot and as we inhale we'll REVERSE SWANDIVE, sweeping our hands palms up out to the side and then reaching towards the ceiling as we stand upright into EXTENDED MOUNTAIN. Exhaling, we'll sweep our hands around to the front as we sit down and back into CHAIR POSE. As we breathe deeply in chair pose, let's sit our hips back so that we can lift or wiggle our toes. Keeping our abdominal muscles engaged; let's notice that if we lift our arms towards the ceiling, we'll find more work for our backs. Bringing our hands down towards or onto our quads will provide less work and support for the lower back. Inhaling, we'll sweep our arms around as we stand up tall into extended mountain. Exhaling, we'll release our hands to beside our hips with our palms facing forward into MOUNTAIN POSE. Inhaling, let's grow taller and strengthen our cores by reaching up through the tops of our heads. Adding our foot lock, we'll ground down through our toes, balls of our feet and heels while we lift up through the arches just as if someone has place a ping pong ball under each. As we exhale, we hold the height we've created while adding dynamic tension by reaching our fingertips towards the floor, squeezing our shoulder blades slightly and lowering our shoulder blades down our backs. Dynamic tension comes from working against opposite forces, in mountain pose we are lifting up toward the ceiling and down towards the floor at the same time. This helps us to stabilize in poses and also get a more effective workout. We'll notice that when we add dynamic tension, poses will be more challenging and we'll feel our muscles working more.

Inhaling and sweeping our arms up towards the ceiling, let's add our belly lock. Exhaling we'll SWAN DIVE FORWARD, flexing at the hip creases and bending our knees a lot as we sweep our hands down to the mat into forward fold.

Inhaling, we'll bring our hands to our shins or quads and lift our upper bodies about 1/3 of the way into MONKEY (X3). Exhaling, we'll relax back into forward fold. Inhaling, lifting into monkey and lengthening our spines. Exhaling, gently stretching our hamstrings on the backs of our legs.

SUN SALUTATIONS (X8): Inhaling, let's step our right foot back into lunge. Exhaling, we release our right knee to the floor, stepping the left foot back and sitting onto our heels into child's pose. Making our hand lock with long arms, we'll next bring our shoulders forward over our wrists into bent knee or straight leg plank. Exhaling, lowering halfway down to crocodile, focusing on maintaining belly lock and hips lifted. Inhaling, let's release our hips to the mat, press out through the sternum and lift our hearts into cobra. Exhaling, let's lift our belly buttons first and sit back into child's pose. Inhaling and stepping our right foot forward into lunge and exhaling and bringing our left foot in beside our right in forward fold. To protect our spines let's all bend our knees a lot as we engage our cores and reverse swan dive into extended mountain. Exhaling, we'll sit down and back into chair pose, strengthening the muscles of our legs and core.

*Add option for down dog and straight leg plank third time through:* (from lunge) exhaling, we'll step our left leg back into downward dog or child's pose, whichever works best for us. Inhaling and shifting forward into plank, we can keep our legs straight or bend our knees and place them on the mat before exhaling into crocodile. Inhaling, we can place our hips on the mat and lift our chests with our arms bent for cobra or straighten our arms and keep our hips off the mat for UPWARD DOG. We are welcome to choose either cobra or up dog anytime we practice this series, depending on our focus for today. Cobra allows us to develop greater strength in our lower backs while up dog provides more focus on shoulder strength and back flexibility. Lifting our belly buttons and initiating our movement from our hips, let's exhale back into child's pose or downward dog.

From forward fold, let's step the foot closest to me back into lunge. Exhaling, we'll turn our back foot in towards the center of our mats until our back foot is at about a 45 degree angle. Inhaling, we'll walk our hands onto our quads as we lift our upper bodies to upright into **WARRIOR I (3-5 breaths)**. Exhaling, we ground through our back foot and squeeze the muscles of our back glute (*while pointing at it*) to stabilize our pose and turn our hips towards the end of our mat. Inhaling we can continue to support our pose with our hands on our front quad or we can bring our hands to heart center or extend our arms towards the ceiling. Exhaling, we find a gentle stretch for our back hip flexor (*point to it*) and front hamstring as we deepen our lunge. Using our inhalation to lengthen our spines, we reach the tops of our heads towards the ceiling. Exhaling, we lower our shoulders away from our ears, feeling dynamic tension lifting us up towards the ceiling and pressing us down towards the floor at the same time.

Exhaling, let's bring our arms to shoulder height, reaching towards the side walls. Tucking our tailbones under and turning towards the front of the room we meet in **WARRIOR ii (3-5 breaths)**. Inhaling, using strong core muscles to lift our ribs away from our hips. Exhaling, we look down at our front knee and use our outer leg muscles to draw the knee towards our pinky toe, noticing a deeper stretch in our inner thighs. Continuing to breathe deeply, we can use our exhales to deepen our stretch if we want more sensation by lowering further into lunge without losing our upper body length.

Inhaling and straightening our front leg but leaving a tiny microbend in our front knee, we prepare for **TRIANGLE (3-5 breaths)**. Lifting our back hip, reaching our front hand in the direction our front foot is pointing, we hinge to the side placing our front hand on our quad into triangle pose. Inhaling, let's draw our top glute and shoulder blade to an imaginary wall behind us. Exhaling, we can add to our side hinge as long as we don't lose contact with the wall. Our focus in triangle is creating length in the spine and the front leg and we don't worry how close to the floor we can reach with our bottom hand.

Let's all bring our bottom hands just above our front knees. Moving slowly with control, let's bend our front knee and use our strong cores to lift our upper bodies to warrior II. Inhaling, turning our front palm up and reaching over our front knee, we extend our front arm up towards the ceiling into **REVERSE WARRIOR (3-5 breaths)**. Exhaling, we find the imaginary wall behind us with our rear shoulder blade and front knee, opening into a gentle side bend. Inhaling, we reach our front hand for the ceiling, noticing a stretch from our front fingertips to hip. Exhaling, enhancing our pose by pressing through our rear foot and engaging both glutes.

Exhaling through warrior II bringing our hands to the mat, turning towards our front foot, lifting our back heel into **LUNGE**. On our next exhale, let's step back to **CHILD'S POSE or DOWNWARD DOG**, taking a few moments to check in with our bodies and find our long slow breath.

Let's all meet in DOWN DOG, taking a moment to notice how this pose feels different now compared to the beginning of class. We might notice that when we lift our belly buttons we can roll our tail bones a bit further towards the ceiling as we bring our chests in towards our quads. Let's try both bent knee and straight leg down dog, finding the option that works best for us today.

Inhaling, let's step the foot farthest away from me into lunge. Exhaling, we stabilize through our rear foot, keeping our heel off the mat and activating our back leg. Inhaling, we'll walk our hands up to our front quad and lift our torsos to upright into **CRESCENT LUNGE**. Noticing a stretch for our back hip flexor, let's find a lunge that provides just what we need. Inhaling, we can hold our hands on our front leg, lift them to heart center or reach for the ceiling to stretch our lat muscles on the sides of our backs. Exhaling, we'll increase dynamic tension by bringing our shoulder blades towards the floor, noticing greater stretch and work in the shoulder and upper back muscles.

Meeting with our hands on our front quad, let's shift forward and step in about half way for **PYRAMID**. With both feet grounded and pointing towards the end of our mat, let's lift our

upper bodies 2/3 of the way up and shift our hips so that they face the end of our mat. Inhaling, let's find our belly lock and long spine. Exhaling, almost straightening our front leg, we'll hinge forward at the hips bringing our chests towards our front shins just enough to feel a mild hamstring stretch in our front leg.

Bending our front knee, let's bring our fingers to mat about 8 inches in front of our front foot. Shifting our weight forward we can lift our back heel or the whole foot to no higher than hip height into **WARRIOR III (3-5 breaths)**. Let's point our back toes at the floor and reach through our heel to stabilize our pose.

Bending our front knee, let's step our back foot in to **FORWARD FOLD**. Spending a few deep breaths in forward fold, let's notice how this pose feels different than it did when we started our practice.

Stepping the foot closest to me back to LUNGE, we'll walk our hands around to the front of our mats between into SIDE STRADDLE (5-8 breaths). If we walk our feet out wider, we'll notice that it'll be more comfortable to support our backs with our hands on the mat and we'll feel more inner thigh stretch. Let's place our heels wider than our toes, inhale as we reach through the tops of our heads towards me and then hinge forward to enhance our stretch if we need to. We can stay right where we are or walk our hands underneath us for more intensity. Walking our hands out in front of us, we'll turn towards XX wall/door, lifting our back heel into lunge.

### **COMPLETE HIGHLIGHTED SERIES ON OTHER SIDE**

From FORWARD FOLD, let's bend our knees a lot, lift our belly buttons and REVERSE SWAN DIVE, sweeping our hands up towards the ceiling. Letting our palms meet, we'll bring our hands to heart center as we exhale into MOUNTAIN POSE.

Turning towards the front of the room for our balancing pose, let's find something on the floor to focus on to help us with our balance. Shifting our weight towards the left foot, we'll lift our right heel and turn our knee to the side. We can stay here in TREE POSE (5-8 breaths) or take our whole foot off the mat, resting it over our calf. We can lift our foot higher, barely touching our toe near our knee for a focus on strength or we can place our foot against our leg near the groin to focus more on flexibility. Once we feel stable, we can lift our hands to heart center or raise them overhead.

Releasing our hands to heart center if we need to and our foot to the floor, let's shake out our legs and switch sides to practice TREE on your pace or mine.

Let's reach our arms overhead to extended mountain and SWAN DIVE forward, into FORWARD FOLD.

Inhaling, let's step our right leg back to lunge and exhaling we'll step our left leg back to DOWNWARD DOG (5-8 breaths). Breathing deeply let's lift our belly buttons and roll our tailbones up towards the ceiling, feeling a long line from our fingertips to our tailbones.



On our next inhale, let's bring our shoulders over our wrists into PLANK, shift forward slightly and exhale halfway down into CROCODILE. Releasing ourselves all the way to the mat, let's relax for a few breaths letting one cheek rest on the floor.

Lifting our bellybuttons away from the mat, let's inhale and use our lower back muscles to lift our chests up into LOCUST (5-8 breaths). Pressing the tops of our feet into the mat, we focus on upper body only, strengthening our lower backs that lift our chest and our upper backs as we squeeze our shoulder blades towards each other. Let's relax our shoulders away from our ears. We can provide some support with our hands lightly touching the mat or we can add more intensity by reaching our hands, palms up, for the back wall. As we release locust, let's turn our heads to one side and allow one cheek to rest on the mat for a few breaths.

As we are ready, let's lift our faces away from the mat and look out at the floor. Extending our right arm in front of us, we'll bend our left knee and grasp the top of our foot for ½ BOW (5-8 breaths). Breathing deeply, we'll feel a gentle stretch in the hip flexor and quad of our left leg as we press our foot into our hand. We might notice that the left side of our chest will lift off the mat and that will provide a lengthening of the muscles of that side of the chest and shoulder. Exhaling, we'll release and switch sides. Let's remember to keep our knees close together to protect the knee joint on the bent leg. Notice which side gives us the most resistance without any judgment. Most of us will feel a difference from one side to the other. Release and we'll practice one more bow, either as one more ½ bow on the side that gave us the most resistance or as full bow, holding onto both feet or ankles. Keeping our knees in close, we can allow our chest and maybe our legs in full bow to raise off the floor. Let's imagine the front of our bodies lengthening as we inhale.

Releasing bow pose, let's move our hands underneath our shoulders and sit back to CHILD'S POSE. Bringing our hands onto our quads, we'll roll up one vertebrae at a time to an upright position. Leaning onto the left hip, we'll swing our legs around to the right until we are seated facing the front of the room.

Bending our left knee and bringing our foot in close to us, we'll prepare for SEATED TWIST (5-8 breaths). Placing our right hand gently beneath our left knee and left hand behind us for support, let's lengthen our spines by sitting tall and then beginning to twist to the left. We'll twist from the waist, moving our belly buttons towards our left knee, then our ribs, then our left shoulder back towards the wall and then looking over our shoulders. Our hands should be very light on the floor and our leg so that we are using our strong cores to twist us rather than torque. This will let us improve our strength and flexibility in this pose as well as keep us safer. Untwisting, let's switch legs and practice seated twist towards the right knee. We'll use our inhales to sit tall and our exhales to gently add to our twist if we need to.

Leaning back slightly, let's flex our left foot and cross our left leg over our right into SEATED PIGEON (5-8 breaths). Maintaining a flexed left foot to protect our knee joint, we can add to our stretch by bringing our chests in closer to our left shin and pressing our right knee towards the front of the room. Breathing deeply, we'll find a mild stretch to open the hips. Exhaling as we release our stretch, let's switch sides, being mindful to keep our right foot flexed as we

practice seated pigeon. Let's notice any difference in sensation from right to left leg in pigeon pose just so that we are aware but not making any judgments. In future classes we will learn a different version of this pose, prone pigeon. Seated pigeon is a gentler pose for our knees, so we are always welcome to choose this option when we practice pigeon.

Releasing pigeon, let's turn towards the door we came in with our knees bent. Holding one hamstring for support, we'll roll down onto the mat into CORPSE POSE. Our corpse pose can be practiced with legs straight or knees bent. Knees bent corpse pose is often a more comfortable position for the lower back. If we would like to practice this option, let's bend our knees and bring them together and walk our feet out wide. Let's all relax our arms by our sides and close our eyes if we haven't already, slowing down our breathing so that we can take full inhales and exhales.

SAVASANA (FINAL RELAXATION) – For today's savasana, we have the option of following along with a guided relaxation or we can choose our own practice. In just a moment, I'll guide you through tensing up all of the muscles in your body. Once tense, we'll take a deep breath and relax all of our muscles at once. Let's turn our attention onto our feet. As we continue to breathe deeply, let's tighten up the muscles in our feet, curling our toes, flexing our feet and feeling the muscles contract. We'll notice that as the muscles in our feet tighten, so do the muscles in our lower legs...our calves and shins tense and we'll start to feel our knee caps rising towards our hips. As the tension moves up our legs, our quads and hamstrings engage. We'll feel the tension in our glutes, hips and our bellies will become small and hard. Breathing deeply, we'll hunch our shoulders up towards our ears and we'll feel our chests and upper backs tighten. The tension is moving down our arms, causing the biceps and triceps to squeeze their bones, our forearms to tighten and our hands to curl into fists. We'll notice our necks feel tight and the tension moving up into the muscles of our faces causing us to press our lips together, shut our eyes tightly and wrinkle our foreheads. We now feel tension from head to foot. *Pause.* Let's take a deep inhale, feeling the tension throughout our bodies and as we exhale let's let it all go. Let's continue to breathe deeply and with each exhale we'll feel our muscles becoming more relaxed. *Pause.* With each exhale, our bodies may seem warmer or heavier and it might feel like we are sinking into the mat. *Pause.*

As we finish our final relaxation for today let's notice how we are feeling both physically and mentally. Remember that we got to this relaxed state using attention to our bodies and our breath – our breath is a powerful tool that we can use to distress when we need to. Let's take this tool with us off of our mats today.

Let's also take a moment to complement ourselves for trying something new today and for doing something good for us.

Wiggling our fingers and our toes, stretching as we need to, let's take a few breaths and then meet in knees to chest post, rocking side to side to massage our lower backs. Turning to one side, we'll push up into EASY SEATED POSE.

At the end of our yoga practice, we'll bring our hands to heart center, saying "Namaste". Loosely translated, "Namaste" means "the divine in me recognizes and honors the divine in you". Let's bring our hands to heart center. *Bow*. Namaste.

Excellent job everyone. Thank you for coming today, it has been an honor to share yoga practice with you. Please let me know if you have any questions or suggestions or if you felt uncomfortable in any poses. Please remember that this is your class and I want to make this the best for everyone so let me know if there are some poses you want to work in or I am not providing an option that suits you best. Have a great day.

## Yoga Practice #2

Begin in reclining/corpse pose (bent knee or straight leg)

Belly breathing (hand on belly)

Check for injuries – reminder that nothing should hurt in class

Let go of distractions – thoughts of past or future

Let go of expectations for practice – this is today's yoga practice and it doesn't matter if it's different than the last time's - we need to choose what's best for us today

Give ourselves the hour for our practice

Let go of competition – advanced yoga is practiced by complete focus on our breath and bodies, not by the poses we choose

Alternate knees to chest

Knees to chest

Bridge flow

Cat/cow

Spinal balance (x8)

Spinal balance with hold (3 breaths)

Child's pose

Plank – crocodile – cobra – child's pose flow (x4)

Downward dog – walk the dog (5 breaths)

Lunge

Forward fold

Reverse swan dive

Hands at heart in mountain

Mountain

Sun salutations (x8)

Mountain

Swan dive

Forward fold

Step back to crescent lunge

Down dog/child's pose

Bent knee/straight leg plank

Crocodile

Cobra/up dog

Down dog/child's pose

Step forward to dragon/crescent lunge

Forward fold

Reverse swan dive

Extended mountain

Chair

Forward fold

Step right foot back to lunge

Warrior sequence

Warrior I (5 breaths)

Warrior II (5 breaths)

Triangle (5 breaths)  
 Extended angle (5 breaths)  
 Hands to mat, lift back heel to lunge  
 Step back to plank  
 Press back to down dog/child's pose (option to walk dog in down dog) (5 breaths)  
 Dragon pose (crescent moon)  
 Option to keep hands on mat, to bring hands to quad or lift one/both hands towards ceiling  
 Notice stretch in front hamstring and back hip flexor  
 Press into back foot to take pressure off knee  
 Find equal weight across top of back foot  
 Child's Pose  
 Quadriped  
 Side plank (bent knee)  
 Focus on knee and hand placement  
 Add side bend by lifting top of ribs  
 Options to lift top hand and foot (half moon)  
 Flex top foot and reach through heel if lifted  
 Core strengthening pose  
 Quadriped  
 Child's pose  
 Step right foot forward to lunge  
 Side straddle (5-8 breaths)  
 Finding wide enough stance so hands on mat to support self is comfortable (more inner thigh stretch with wider legs, more hamstring with narrower stance)  
 Long spine before folding forward  
 Option to walk hands towards feet or keep hands under shoulders for more support  
 Walk hands around to left leg (left leg forward lunge)  
 Warrior sequence (step left leg back to lunge) on other side  
 Down dog – notice how pose feels different  
 External rotation of shoulders to open upper back  
 Child's pose  
 Side plank  
 Review of hand/shoulder placement  
 Emphasize importance of coming out of pose to adjust hand placement to protect shoulder joint  
 Breathing in pose  
 Child's pose  
 Reverse swan dive  
 Mountain with hands at heart  
 Tree, both sides (5-8 breaths)  
 Safety – no pressure on knee joint  
 2 focuses in pose: flexibility option with foot close to groin or strength option with foot barely touching base leg  
 One option isn't better than the other, they just have a different focus  
 Great thing about yoga is that many poses have options for multiple focuses  
 Swan dive  
 Camel (5 breaths)

Child's pose (3 breaths)  
 Rabbit pose (5 breaths)  
 Holding heels while lifting hips towards ceiling  
 Tucking chin in towards chest so that top of head (or almost top) very lightly touches the mat  
 Notice back of body stretch as we tuck head in  
 Child's pose  
 Staff pose (5 breaths)  
 Find sit bones  
 Focus on lift through torso to strengthen core  
 Option to bend knees to reduce hamstring stretch  
 Bend forward with neutral spine to increase hamstring stretch  
 Forward fold (5 breaths)  
 Close eyes and reach forehead towards shins  
 Do not grab feet (compresses discs in spine)  
 Turn towards end of mat, roll down onto back  
 Seated pigeon, both sides (5-8 breaths)  
 Lying spinal twist, both sides (5-8 breaths)  
 Final relaxation

Final relaxation

Breathe mindfully (2 minutes) – long inhales & exhales, follow breath into and out of body  
 Notice where we feel breath most – in nostrils as breath enters & exits the nose...in belly as our belly buttons rise on the inhale and fall towards our mats on the exhale?

Turn attention to belly (2 minutes) – with each exhale, allow our bellies to soften

Each time we let out a breath, feel tension being released from our abdomens

Every exhale makes our bellies softer

Notice how we feel in the rest of our bodies as our bellies soften

Notice how we feel mentally as our bellies soften

2 minutes of reflection

We can take this belly softening exercise with us off our mats, as we tend to hold our tension in our bellies. We might notice that when we get stressed or tense, we feel our stomachs tighten up, just like the saying goes “my stomach was tied in knots”. The next time we start to feel stressed or anxious, let's take about a minute for some mindful and belly softening breathing to help us feel better.

## Yoga Practice #3

Begin in reclining/corpse pose (bent knee or straight leg)

Belly breathing (hand on belly)

Check for injuries – reminder that nothing should hurt in class

Let go of distractions – thoughts of past or future

Let go of expectations for practice – this is today's yoga practice and it doesn't matter if it's different than the last time's - we need to choose what's best for us today

Give ourselves the hour for our practice

Let go of competition – advanced yoga is practiced by complete focus on our breath and bodies, not by the poses we choose

Alternate knees to chest

Knees to chest

Bridge flow

Cat/cow

Spinal balance (x8)

Spinal balance with hold (3 breaths)

Child's pose

Plank – half crocodile – plank – crocodile – cobra – child's pose flow (x4)

Downward dog – walk the dog (5 breaths)

Down dog – plank – ½ crocodile – plank – crocodile – up dog intro (option as alternative to cobra) – down dog/child's pose

Lunge

Forward fold

Reverse swan dive

Hands at heart in mountain

Moonflowers (x8)

Moon pose with back opening/chest opening/neutral back (5 breaths)

Sunflowers (x8)

Wide leg chair (5 breaths)

Mountain

Sun salutations (x8)

Mountain

Swan dive

Forward fold

Step back to crescent lunge

Down dog/child's pose

Bent knee/straight leg plank

Crocodile

Cobra/up dog

Down dog/child's pose

Step forward to dragon/crescent lunge

Forward fold

Reverse swan dive

Extended mountain

Chair

Forward fold

Step right foot back to lunge

Warrior sequence

Warrior I (5 breaths)

Warrior II (5 breaths)

Triangle (5 breaths)

Extended angle (5 breaths)

Hands to mat, lift back heel to lunge

Step back to plank

Press back to down dog/child's pose (option to walk dog in down dog) (5 breaths)

Step left foot forward to lunge & step back foot in half way

Pyramid (5 breaths)

Focus on hip placement

Both feet facing forward

Hands on front quad or floor for support

Gentle hamstring stretch

Bend front knee, bring hands to mat

Warrior III (supported with hands on mat) (5 breaths)

Focus on back foot pointing down

Focus on hips pointing down

Reach through heel

Forward fold

Step right foot forward to lunge

Side straddle (5-8 breaths)

Finding wide enough stance so hands on mat to support self is comfortable (more inner thigh stretch with wider legs, more hamstring with narrower stance)

Long spine before folding forward

Option to walk hands towards feet or keep hands under shoulders for more support

Walk hands around to left leg (left leg forward lunge)

Warrior sequence (step left leg back to lunge) on other side

Reverse swan dive

Mountain with hands at heart

Dancer, both sides (5-8 breaths)

Swan dive

Gate pose, each side (5 breaths)

Camel (5 breaths)

Child's pose (3 breaths)

Staff pose (5 breaths)

Find sit bones

Focus on lift through torso to strengthen core

Option to bend knees to reduce hamstring stretch

Bend forward with neutral spine to increase hamstring stretch

Forward fold (5 breaths)

Close eyes and reach forehead towards shins

Do not grab feet (compresses discs in spine)



Turn towards end of mat, roll down onto back

Reverse pigeon, both sides (5-8 breaths)

Lying spinal twist, both sides (5-8 breaths)

Final relaxation

Final relaxation

Breathe mindfully (2 minutes) – long inhales & exhales, follow breath into and out of body

Notice where we feel breath most – in nostrils as breath enters & exits the nose...in belly as our belly buttons rise on the inhale and fall towards our mats on the exhale?

Turn attention to belly (2 minutes) – with each exhale, allow our bellies to soften

Each time we let out a breath, feel tension being released from our abdomens

Every exhale makes our bellies softer

Notice how we feel in the rest of our bodies as our bellies soften

Notice how we feel mentally as our bellies soften

2 minutes of reflection

We can take this belly softening exercise with us off our mats, as we tend to hold our tension in our bellies. We might notice that when we get stressed or tense, we feel our stomachs tighten up, just like the saying goes “my stomach was tied in knots”. The next time we start to feel stressed or anxious, let’s take about a minute for some mindful and belly softening breathing to help us feel better.

## Yoga Practice #4

Begin in reclining/corpse pose (bent knee or straight leg)

Belly breathing

Inhale for 4-6 counts & exhale for 4-6 counts

Check for injuries – reminder that nothing should hurt in class

Let go of distractions – thoughts of past or future

Let go of expectations for practice – this is today's yoga practice and it doesn't matter if it's different than the last time's - we need to choose what's best for us today

Give ourselves the hour for our practice

Let go of competition – advanced yoga is practiced by complete focus on our breath and bodies, not by the poses we choose

Alternate knees to chest

Knees to chest

Bridge flow

Cat/cow (X8)

Sunbird (x8)

Child's pose

Plank – half crocodile – plank – crocodile – cobra – child's pose flow (x4)

Downward dog – walk the dog (5 breaths)

Down dog – plank – ½ crocodile – plank – crocodile – up dog intro (option as alternative to cobra) – down dog/child's pose

Lunge

Forward fold

Reverse swan dive

Hands at heart in mountain

Moonflowers (x8)

Sun pose with back opening/chest opening/neutral back (5 breaths)

Sunflowers (x8)

Wide leg chair (5 breaths)

Mountain

Sun salutations (x8)

Mountain

Swan dive

Forward fold

Step back to crescent lunge

Down dog/child's pose

Bent knee/straight leg plank

Crocodile

Cobra/up dog

Down dog/child's pose

Step forward to dragon/crescent lunge

Forward fold

Reverse swan dive

Extended mountain

Chair

Forward fold

Step right foot back to lunge

Warrior flow (x8)

Warrior I (1 breath)

Warrior II (1 breath)

Reverse warrior (1 breath)

Triangle (1 breath)

Extended angle (1 breath)

Hands to mat, lift back heel to lunge

Step back to plank

Press back to down dog/child's pose (option for split dog down dog with hip opening on last time)

Forward fold

Notice how pose has changed from start of class

Relax shoulders so we can shake them out a bit

Relax our heads so we can shake them "no"

Reverse swan dive

Twisting chair (5 breaths)

Standing camel

Twisting chair (5 breaths)

Mountain with hands at heart

Dancer, both sides (5-8 breaths)

Swan dive

Gate pose, each side (5-8 breaths)

Seated spinal twist (5 breaths)

sit bones remain on mat

hands on floor/below knee are feather weight

use core muscles to twist – remove hand from knee to check (shouldn't untwist if hand is removed)

Focus on lift through torso to strengthen core

Option to bend knee on extended leg to reduce hamstring stretch

Cradle the baby (5-8 breaths)

Keeping foot flexed to maintain knee alignment

Lifting our chests and bringing shin closer to us for more intense stretch

Easy seated pose

Final relaxation

Final relaxation

Breathe mindfully (2 minutes) – long inhales & exhales, follow breath into and out of body

Find pattern for breath

Inhale 4-6 counts

Pause 2-4 counts

Exhale 4-6 counts

Pause 2-4 counts

Notice how we are feeling physically and mentally after breathwork

Take a moment to complement ourselves for taking time for our practice and doing something good for ourselves

## Yoga Practice #5

Begin in easy seated pose

Belly breathing

Notice where we touch the mat- feel our sit bones pressing into the floor, notice how the texture of the mat feels on our feet

Check for injuries – honor our bodies by choosing poses that challenge us but allow us be pain free

Let go of distractions – thoughts of past or future

If we notice any distractions in our practice today let's acknowledge them without judgment and then let them go.

Let go of competition – advanced yoga is practiced by complete focus on our breath and bodies, not by the poses we choose

Arms to ceiling (inhale), release shoulders away from ears (exhale) – reach (inhale) – release arms down (exhale) (x2)

Eyes closed to tune into breath

Reach towards side walls as we lift/lower, feel arm muscles squeeze to bones

Lift fingertips towards ceiling

Reach tips of shoulder blades towards mat

Lift through top of head

Reach & release arms on breath (x3)

Lateral flexion (x3)

Feel stretch from fingers to hip of lifted arm

More of a reach for ceiling than side wall

Hands to heart center

Reach forward (lats stretch) – reach back (chest expansion)

Flow with breath

Close eyes

Cat/cow (X8)

Eyes closed

Slow down transition – begin each at tailbone

Imagine fingers walking up your back starting at tailbone

As fingers touch each part of our back, we'll move that spot

Sunbird (x8)

Child's pose

Plank — crocodile – cobra – child's pose/down dog flow (x4)

Plank – crocodile - up dog

Option for up dog is just that – an option

One isn't better than the other, they just can be used for a different focus in our practice

Up dog allow for strengthening shoulders and lengthens front of body

Cobra strengthens lower back

Downward dog – walk the dog (5 breaths)

Lunge  
 Forward fold  
 Reverse swan dive  
 Hands at heart in mountain  
 Sun salutations (x8)  
 Mountain  
 Swan dive  
 Forward fold  
 Step back to crescent lunge  
 Down dog/child's pose  
 Bent knee/straight leg plank  
 Crocodile  
 Cobra/up dog  
 Down dog/child's pose  
 Step forward to dragon/crescent lunge  
 Forward fold  
 Reverse swan dive  
 Extended mountain  
 Chair  
 Forward fold  
 Step right foot back to lunge  
 Warrior flow (x8)  
 Warrior I (1 breath)  
 Warrior II (1 breath)  
 Reverse warrior (1 breath)  
 Triangle (1 breath)  
 Extended angle (1 breath)  
 Hands to mat, lift back heel to lunge  
 Step back to plank  
 Press back to down dog/child's pose (option for split dog down dog with hip opening)  
 Forward fold  
 Notice how pose has changed from start of class  
 Relax shoulders so we can shake them out a bit  
 Relax our heads so we can shake them "no"  
 Reverse swan dive  
 Crescent moon  
 Look at back heel to make sure it points up at ceiling to help protect knee  
 Feel weight across top of back foot  
 Press into top of back foot to relieve pressure on knee  
 Option to keep hands on front quad or lift one or both hands  
 Pyramid  
 Use hand on hip to square hips, notice we don't have to lean forward as far to feel hamstring stretch  
 Option to reach hands behind us for work for lower back  
 We can also bend front knee and bring hands to mat to reduce stretch and provide support  
 Warrior III

Reach through back heel to stabilize pose  
 Forward fold  
 Crescent lunge  
 Feel weight evenly across ball of back foot  
 5 point star  
 Sun pose  
 For more shoulder work we can extend arms  
 Crescent lunge  
 Crescent moon  
 Pyramid  
 Warrior III  
 Forward fold  
 Mountain with hands at heart  
 Eagle pose, both sides (5-8 breaths)  
 Swan dive  
 Seated pigeon, each side (5-8 breaths)  
 Table top option  
 Strengthens core & opens shoulders, seated pigeon focuses more on hip flexibility  
 Seated spinal twist (5 breaths)  
 sit bones remain on mat  
 hands on floor/below knee are feather weight  
 use core muscles to twist – remove hand from knee to check (shouldn't untwist if hand is removed)  
 Use breath to deepen stretch (inhale to lift through top of head, exhale to add to twist)  
 Final relaxation in reclining (corpse) pose

#### Final relaxation

Breathe mindfully (1 minute) – long inhales & exhales, follow breath into and out of body  
 Notice where our bodies touch the mat (2 minutes). Feel the texture of the floor against our feet or heels. Be aware of the feeling of our feet sinking into the mat. Breathing deeply, let's notice how each part of our bodies are in contact with the mat from our feet to our heads.  
 Our final relaxation today focused on mindfulness. When we are mindful, we spend our time only in the present and make the most of each moment. Let's try a mindfulness practice this weekend in an everyday activity. For example, when we wash the dishes or clean the house, let's spend our time doing just that. Instead of thinking about what's happened already today or what we'll do when we're done, let's experience washing the dishes. We'll notice what we are doing, feel the water and soap on our hands and all the sensations associated with this task. If we are distracted during this practice, let's acknowledge those distractions without judgment, let them go and return to washing the dishes.  
 Take a moment to complement ourselves for taking time for our practice and doing something good for ourselves

## Yoga Practice #6

Begin in easy seated pose

Belly breathing

Notice where we touch the mat- feel our sit bones pressing into the floor, notice how the texture of the mat feels on our feet

Check for injuries – honor our bodies by choosing poses that challenge us but allow us to be pain free

Let go of distractions – thoughts of past or future

If we notice any distractions in our practice today let's acknowledge them without judgment and then let them go.

Let go of competition – advanced yoga is practiced by complete focus on our breath and bodies, not by the poses we choose

Arms to ceiling (inhale), release shoulders away from ears (exhale) – reach (inhale) – release arms down (exhale) (x2)

Eyes closed to tune into breath

Reach towards side walls as we lift/lower, feel arm muscles squeeze to bones

Lift fingertips towards ceiling

Reach tips of shoulder blades towards mat

Lift through top of head

Reach & release arms on breath (x3)

Lateral flexion (x3)

Feel stretch from fingers to hip of lifted arm

More of a reach for ceiling than side wall

Hands to heart center

Reach forward (lats stretch) – reach back (chest expansion)

Flow with breath

Close eyes

Cat/cow (X8)

Eyes closed to tune into how poses feel and not on how they look on us or others

Move slowly so that our transitions last through our breath

Sunbird (x8)

Child's pose

Plank – half crocodile – plank – crocodile – cobra – child's pose/down dog flow (x4)

Half crocodile to plank strengthens our triceps and our chests

We can lower down a little bit or a lot, depending on what we need today

Plank – crocodile - up dog

Option for up dog is just that – an option

One isn't better than the other, they just can be used for a different focus in our practice

Up dog allow for strengthening shoulders and lengthens front of body

Cobra strengthens lower back

Downward dog – walk the dog (5 breaths)

Lunge

Forward fold

Reverse swan dive

Hands at heart in mountain  
 Moonflowers  
 Moon pose  
 Sunflowers  
 Wide leg squat  
 Mountain  
 Sun salutations (x8)  
 Mountain  
 Swan dive  
 Forward fold  
 Step back to crescent lunge  
 Down dog/child's pose  
 Bent knee/straight leg plank  
 Crocodile  
 Cobra/up dog  
 Down dog/child's pose  
 Step forward to dragon/crescent lunge  
 Forward fold  
 Reverse swan dive  
 Extended mountain  
 Chair  
 Forward fold  
 Step right foot back to lunge  
 Warrior sequence  
 Warrior I  
 Warrior II  
 Reverse warrior  
 Triangle  
 Extended angle  
 Hands to mat, lift back heel to lunge  
 Step back to plank  
 Press back to down dog/child's pose  
 Step right foot forward to lunge  
 Twisting lunge  
 Option for right hand on hip or reaching towards ceiling  
 Can lift back knee off mat if it feels better for joint or for more rotation  
 Option to practice twisting warrior by bringing hands to heart center  
 Breathe deeply in the twisting pose that works best for us  
 Dragon pose  
 Look at back heel to make sure it points up at ceiling to help protect knee  
 Feel weight across top of back foot  
 Press into top of back foot to relieve pressure on knee  
 Option to keep hands on front quad or lift one or both hands  
 Child's pose  
 Side straddle  
 Hands on mat for support



Wider the feet are, the more comfortable it will be to place our hands on the floor and greater the intensity of our thigh stretch

If our feet are narrower, we'll find greater hamstring stretch

Choose the option that suits us best today

Warrior sequence on other side

Forward fold

Notice how pose has changed from start of class

Relax shoulders so we can shake them out a bit

Relax our heads so we can shake them "no"

Reverse swan dive

Mountain with hands at heart

Eagle pose, both sides (5-8 breaths)

Swan dive

Gate pose

Seated forward fold

Seated pigeon, each side (5-8 breaths)

Table top option

Strengthens core & opens shoulders, seated pigeon focuses more on hip flexibility

Seated spinal twist (5 breaths)

sit bones remain on mat

hands on floor/below knee are feather weight

use core muscles to twist – remove hand from knee to check (shouldn't untwist if hand is removed)

Use breath to deepen stretch (inhale to lift through top of head, exhale to add to twist)

Final relaxation in reclining (corpse) pose

Final relaxation

Breathe mindfully (1 minute) – long inhales & exhales, follow breath into and out of body

Notice where our bodies touch the mat (1 minute). Feel the texture of the floor against our feet or heels. Be aware of the feeling of our feet sinking into the mat. Breathing deeply, let's notice how each part of our bodies are in contact with the mat from our feet to our heads.

Our final relaxation today will use a mantra. A mantra is a meaningful word or phrase that we repeat as a way to focus and let go of distractions. We will practice a mantra borrowed from the Buddhist tradition today that follows our breath. As we inhale we say to ourselves "I smile". Let's actually put a smile on our faces as we say this. As we exhale we say "I relax". As we inhale, "I smile", as we exhale, "I relax". Let's breathe deeply, putting all of our attention into our breath and our mantras (2 minutes).

As we finish our meditation, let's notice what effect smiling had on us? Some of us might have noticed that putting a smile on our faces made us feel good. We often think that its feeling good that makes us smile but there is \*research that shows that the opposite is also true. Putting a smile on our faces can also make us feel good, even if we don't have something specific to smile about! This can be a great technique to take with us off of our mats for when we are feeling stressed or upset.

Take a moment to complement ourselves for taking time for our practice and doing something good for ourselves.

*\* THE INSTANT CALMING SEQUENCE*

*Using scientific findings in the physiology of relaxation, Dr. Robert Cooper has developed a six-step program that minimizes the negative effects of stress the moment the body begins to feel stressed. He calls it the Instant Calming Sequence.*

*[http://1stholistic.com/Meditation/hol\\_meditation\\_calming\\_sequence.htm](http://1stholistic.com/Meditation/hol_meditation_calming_sequence.htm)*

## Yoga Practice #7

Begin in reclining/corpse pose (bent knee or straight leg)

Belly breathing (hand on belly)

Check for injuries – reminder that nothing should hurt in class

Let go of distractions – thoughts of past or future

Let go of expectations for practice – this is today's yoga practice and it doesn't matter if it's different than the last time's - we need to choose what's best for us today

Give ourselves the hour for our practice

Let go of competition – advanced yoga is practiced by complete focus on our breath and bodies, not by the poses we choose

Alternate knees to chest

Knees to chest

Bridge flow

Cat/cow

Spinal balance (x8)

Spinal balance with hold (3 breaths)

Child's pose

Plank – half crocodile – plank – crocodile – cobra – child's pose flow (x4)

Downward dog – walk the dog (5 breaths)

Down dog – plank – ½ crocodile – plank – crocodile – up dog intro (option as alternative to cobra) – down dog/child's pose

Lunge

Forward fold

Reverse swan dive

Hands at heart in mountain

Moonflowers (x8)

Moon pose with back opening/chest opening/neutral back (5 breaths)

Sunflowers (x8)

Wide leg chair (5 breaths)

Mountain

Sun salutations (x8)

Mountain

Swan dive

Forward fold

Step back to crescent lunge

Down dog/child's pose

Bent knee/straight leg plank

Crocodile

Cobra/up dog

Down dog/child's pose

Step forward to dragon/crescent lunge

Forward fold

Reverse swan dive

Extended mountain

## Chair

Forward fold

Twisting chair

Options for supporting back with hand on quad & hip

Option for strengthening core with hands at heard center

Using breath to lengthen spine to protect back and exhale to gently add to twist

Step right foot back to lunge

Warrior sequence

Warrior I (5 breaths)

Warrior II (5 breaths)

Triangle (5 breaths)

Extended angle (5 breaths)

Hands to mat, lift back heel to lunge

Step back to plank

Press back to down dog/child's pose (option to walk dog in down dog) (5 breaths)

Step left foot forward to lunge & step back foot in half way

Pyramid (5 breaths)

Focus on hip placement

Both feet facing forward

Hands on front quad or floor for support

Gentle hamstring stretch

Bend front knee, bring hands to mat

Warrior III (supported with hands on mat) (5 breaths)

Focus on back foot pointing down

Focus on hips pointing down

Reach through heel

Forward fold

Step right foot forward to lunge

Side straddle (5-8 breaths)

Finding wide enough stance so hands on mat to support self is comfortable (more inner thigh stretch with wider legs, more hamstring with narrower stance)

Long spine before folding forward

Option to walk hands towards feet or keep hands under shoulders for more support

Walk hands around to left leg (left leg forward lunge)

Warrior sequence (step left leg back to lunge) on other side

Reverse swan dive

Mountain with hands at heart

Twisting chair (other side)

Mountain

Dancer, both sides (5-8 breaths)

Swan dive

Gate pose, each side (5 breaths)

Camel (5 breaths)

Child's pose (3 breaths)

Turn towards end of mat, roll down onto back

Reverse pigeon, both sides (5-8 breaths)

Plough pose/legs up pose

Watch plough pose first time because we need to look up at ceiling and never side to side to protect neck

Legs up pose is best option if you are taking care of your back or neck

Keep weight in shoulder blades and backs of arms (not in neck)

Straighter legs provide more hamstring stretch

Lower feet overhead provides more back stretch

Knees to chest

Lying spinal twist, both sides (5-8 breaths)

Final relaxation

Final relaxation

Breathe mindfully (1 minute) – long inhales & exhales, follow breath into and out of body

Our final relaxation today will use a mantra. A mantra is a meaningful word or phrase that we repeat as a way to focus and let go of distractions. As we inhale we say to ourselves “I smile”. Let’s actually put a smile on our faces as we say this. As we exhale we say “I relax”. As we inhale, “I smile”, as we exhale, “I relax”. Let’s breathe deeply, putting all of our attention into our breath and our mantras (2 minutes).

Let’s add to or change our mantra. As we inhale, we’ll say “I am in the present moment”. As we exhale we say “this moment is a gift”. As we inhale, “I am in the present moment”. As we exhale, “this moment is a gift”(2 minutes).

In today’s savasana, we focused on mindfulness. This exercise reminds us that there is something to be appreciated in each moment that we might miss if we are thinking about the past or the future. Last week, I suggested some “homework”, where we focused on being present in an everyday activity like cleaning the house or walking to class. Let’s try that exercise as often as we can this week. When we are walking to class, let’s really be there, walking to class. We can notice the beauty of what’s around us and feel our feet touching the ground. When we are washing the dishes, let’s wash the dishes - feel the temperature of the water and the soap on our hands. Practices like these will help us get the most out of every day.

## Yoga Practice #8

Begin in reclining/corpse pose (bent knee or straight leg)

Belly breathing

Inhale for 4-6 counts & exhale for 4-6 counts

Check for injuries – reminder that nothing should hurt in class

Let go of distractions – thoughts of past or future

Let go of expectations for practice – this is today's yoga practice and it doesn't matter if it's different than the last time's - we need to choose what's best for us today

Give ourselves the hour for our practice

Let go of competition – advanced yoga is practiced by complete focus on our breath and bodies, not by the poses we choose

Alternate knees to chest

Knees to chest

Bridge flow

Cat/cow (X8)

Sunbird (x8)

Child's pose

Plank – half crocodile – plank – crocodile – cobra – child's pose flow (x4)

Downward dog – walk the dog (5 breaths)

Down dog – plank – ½ crocodile – plank – crocodile – up dog intro (option as alternative to cobra) – down dog/child's pose

Lunge

Forward fold

Reverse swan dive

Hands at heart in mountain

Moonflowers (x8)

Sun pose with back opening/chest opening/neutral back (5 breaths)

Sunflowers (x8)

Wide leg chair (5 breaths)

Mountain

Sun salutations (x8)

Mountain

Swan dive

Forward fold

Step back to crescent lunge

Down dog/child's pose

Bent knee/straight leg plank

Crocodile

Cobra/up dog

Down dog/child's pose

Step forward to dragon/crescent lunge

Forward fold

Reverse swan dive

Extended mountain

Chair

Forward fold

Step right foot back to lunge

Warrior flow (x8)

Warrior I (1 breath)

Warrior II (1 breath)

Reverse warrior (1 breath)

Triangle (1 breath)

Extended angle (1 breath)

Hands to mat, lift back heel to lunge

Step back to plank

Press back to down dog/child's pose (option for split dog down dog with hip opening on last time)

Forward to plank with knee tuck option on each side

Option for split down dog with hip opening option before changing sides

Forward fold

Notice how pose has changed from start of class

Relax shoulders so we can shake them out a bit

Relax our heads so we can shake them "no"

Reverse swan dive

Twisting chair (5 breaths)

Standing camel

Twisting chair (5 breaths)

Mountain with hands at heart

Tree, both sides (5-8 breaths)

Notice how this pose feels different than when we practiced it the first week

Balancing poses are supposed to be challenging – remember not to let go of judgment if we wobble or need to step out for a moment. Take a deep breath and refocus on our pose.

Swan dive

Seated spinal twist (5 breaths)

sit bones remain on mat

hands on floor/below knee are feather weight

use core muscles to twist – remove hand from knee to check (shouldn't untwist if hand is removed)

Focus on lift through torso to strengthen core

Option to bend knee on extended leg to reduce hamstring stretch

Seated pigeon/option to lift hips

Keeping foot flexed to maintain knee alignment

Lifting our chests and bringing shin closer to us for more intense stretch

Hips lifted to open shoulders and enhance core strength, maintain pigeon to enhance hip opening

Knees to chest

Dead bug

Fish

Let go of judgment if this pose doesn't feel quite right today – this is a pose that often takes several tries to find "the right spot"

Everyone has some poses that are harder to find that right spot than others – that’s why yoga can be a lifelong practice. Plus, even those poses that we find the right spot in can be adjusted to learn something new in.

Plough

Final relaxation

Final relaxation

Breathe mindfully (1 minute) – long inhales & exhales, follow breath into and out of body

One of the guiding principles of yoga is called Ahimsa, the practice of non-violence or love.

We can practice greater Ahimsa towards others if we first apply it to ourselves. An exercise to help us on our way is called “Gorgeous on the Inside”. Often times we find ourselves

criticizing not only our physical appearance but also our personal characteristics. How often do we catch ourselves saying “I’m not good at that” or “I’m not smart enough”? Let’s take the

next several moments to create a list of no less than 5 things we like about ourselves. It could

be our ability to listen to others, remember people’s names or that we are funny. How many

times have people told us that we are caring, open to new ideas or fun to be around? As we

create our list, let’s imagine ourselves writing those good things on a piece of paper. *Pause for*

*2 minutes*. Now if there was a file cabinet in our minds, we would want to file that list of our

good characteristics close to the front so that we can take it out and review it as often as

possible. Let’s remember it’s there in those times when we find ourselves being critical of us.

This is an important practice, as the better we become at showing ourselves Ahimsa, the better we will become at showing Ahimsa towards others.

Take a moment to complement ourselves for taking time for our practice and doing something good for ourselves.



## Yoga Practice #9

Begin in reclining/corpse pose (bent knee or straight leg)

Belly breathing

Inhale for 4-6 counts & exhale for 4-6 counts

Check for injuries – reminder that nothing should hurt in class

Let go of distractions – thoughts of past or future

Intro to whisper breathing

Used to improve focus

Practice whenever we can today and notice impact

Alternate knees to chest

Knees to chest

Cat/cow (X8)

Child's pose

Plank – half crocodile – plank – crocodile – cobra – child's pose flow (x4)

Downward dog – walk the dog (5 breaths)

Lunge

Forward fold

Reverse swan dive

mountain

Moonflowers (x8)

Sunflowers (x8)

Wide leg chair (5 breaths)

Mountain

Sun salutations (x8)

Mountain

Swan dive

Forward fold

Step back to crescent lunge

Down dog/child's pose

Crocodile push up

Bent knee/straight leg plank

Crocodile

Cobra/up dog

Down dog/child's pose

Step forward to dragon/crescent lunge

Forward fold

Reverse swan dive

Extended mountain

Chair

Forward fold

Step right foot back to lunge

Warrior series (take 2 breaths with eyes closed to tune into pose)

Warrior I

Warrior II

Triangle

Extended angle  
Hands to mat, lift back heel to lunge  
Step back to plank  
Press back to down dog/child's pose (option for split dog down dog with hip opening option)  
Forward to plank with knee tuck option on each side  
Option for split down dog with hip opening option before changing sides  
Twisting lunge  
Side straddle  
Warrior series, twisting lunge other side  
Forward fold  
Reverse swan dive  
Warrior II against wall  
Balancing half moon (enter from WII)  
Forward fold  
Balancing half moon (enter from WIII)  
Forward fold  
BHM series other side  
Supported fish (use block)  
Plough/legs up wall  
Inverted pigeon  
Legs up wall final relaxation

Final relaxation

Breathe mindfully (1 minute) – long inhales & exhales, follow breath into and out of body  
Pool of light relaxation  
complement ourselves for taking time for our practice and doing something good for ourselves.

## Appendix E

### Instructor Qualifications

Joanne Greene, RYT 200, the program instructor, holds the RYT 200 or Registered Yoga Teacher 200 hour certification from Yoga Alliance. In order to obtain her certification, she was required to complete training through approved schools in the areas of teaching technique, teaching methodology, anatomy & physiology, yoga philosophy and ethics, as well as complete a minimum of 200 hours of instruction. Joanne completed all of her training hours through Yogafit, a style of yoga developed for the fitness industry that is grounded in exercise science and accessibility. Yogafit has focused all of its training on making yoga safe and enjoyable for any person, no matter their experience, age or fitness level. Joanne has also been certified as a group fitness instructor through the Aerobics and Fitness Association of America and as a personal trainer through the American Council on Exercise. She has been instructing yoga regularly since 2002 for Washington State University Recreation and also teaches indoor cycling, pilates, gravity and yolates classes. Joanne was responsible for overseeing the development of the group fitness and mind body programs for the department through her role as Assistant and Associate Director for the University Recreation.

## Appendix F

**WASHINGTON STATE UNIVERSITY**  
**Educational Leadership and Counseling Psychology**  
**Research Study Consent Form**

**Study Title:** The Effects of Yoga on Body Dissatisfaction, Self-Objectification, and Mindfulness of the Body in College Women

**Researchers:**

Dr. Laurie "Lali" McCubbin, Ph.D.  
Assistant Professor, Education and Leadership and Counseling Psychology  
(509) 335-2816  
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509-335-9117  
Dr. Jane Barga, Ph.D.  
Psychologist and Associate Director, Counseling Services  
(509)-335-4511

Following your yoga experience, we would like to ask you to participate in a follow up research study by completing a survey packet and interview questions to assess the long term affects of yoga. The survey packet is identical to the previous survey packets you have completed prior to beginning your yoga classes. The surveys in this packet will be related to your thoughts and feelings about your body. During the interview, I will ask you to confidentially write down thoughts and feelings about your yoga experience in response to specific questions. Completion of the surveys and interview should take approximately 20 minutes. Please note that you may refuse to answer any question in any survey or interview at any time.

WSU IRB #10464-005  
Approved: 3/9/2009  
Valid until: 8/2/2009

**Are there any benefits to me if I participate in this survey and interview?**

The potential benefits to you for participating in this survey and interview are that it will provide you with the opportunity to reflect upon your experience with yoga, and how your yoga experience may have impacted your body awareness, body satisfaction, and/or your relationship with your body. Your participation in this study may help clinical practitioners as well as individuals suffering from body dissatisfaction identify potential new and accessible options for body dissatisfaction treatment

**Are there any risks to me if I participate in this survey and interview?**

The potential risks from taking part in this survey and interview are the possibility for emotional discomfort responding to survey and interviews. To minimize these risks, you are encouraged to inform the investigator if you are experiencing any emotional distress as a result of responding to survey or interview questions. The principal investigator will make a counseling referral if emotional or psychological distress is indicated.

**Will my information be kept private?**

The data for this study will be kept confidential to the extent allowed by federal and state law. No published results will identify you, and your name will not be associated with the findings. Under certain circumstances, information that identifies you may be released for internal and external reviews of this project. The information you provide on questionnaires or in interviews will be coded and kept in a separate location from any potential identifying information, such as e-mail addresses. The key that identifies your code will be kept in a locked file cabinet. Only the investigators identified above, will have access to the key and they will keep the information confidential. Data will be stored in a locked filing cabinet and protected computer within a locked office to ensure security. The results of this study may be published or presented at professional meetings, but the identities of all research participants will remain anonymous. The data for this study will be kept for 7 years.

Your participation in this research is completely voluntary. You may choose not to be part of this follow up study. There will be no penalty to you if you choose not to take part. You may choose not to answer specific questions or to stop participating any time. The WSU IRB has reviewed and approved this addendum for human subjects participation. If you have questions about this study or the information in this form, please contact the researcher:

Dr. Laurie "Lali" McCubbin, Ph.D.  
Assistant Professor, Education and Leadership and Counseling Psychology  
(509) 335-2816

If you have questions about your rights as a research participant, or would like to report a concern or complaint about this study, please contact the Washington State University

WSU IRB #10464-005  
Approved: 3/9/2009  
Valid until: 8/2/2009

Institutional Review Board at (509) 335-3668, or e-mail [irb@wsu.edu](mailto:irb@wsu.edu), or regular mail at:  
Albrook 205, PO Box 643005, Pullman, WA 99164-3005.

**What does my signature on this consent form mean?**

Your signature on this form means that:

- You understand the information given to you in this form
- You have been able to ask the researcher questions and state any concerns
- The researcher has responded to your questions and concerns
- You believe you understand the research study and the potential benefits and risks that are involved.

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**Statement of Consent**

I give my voluntary consent to take part in this follow up study by completing the survey.  
I will be given a copy of this consent document for my records.

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Participant

**Statement of Person Obtaining Informed Consent**

I have carefully explained to the person taking part in the study what he or she can expect.

I certify that when this person signs this form, to the best of my knowledge, he or she understands the purpose, procedures, potential benefits, and potential risks of participation.

I also certify that he or she:

- Speaks the language used to explain this research
- Reads well enough to understand this form or, if not, this person is able to hear and understand when the form is read to him or her

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Valid until: 8/2/2009



- Does not have any problems that could make it hard to understand what it means to take part in this research.

\_\_\_\_\_  
Signature of Person Obtaining Consent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Person Obtaining Consent

\_\_\_\_\_  
Role in the Research Study

WSU IRB #10464-005  
Approved: 3/9/2009  
Valid until: 8/2/2009

## Appendix G

**WASHINGTON STATE UNIVERSITY****The Effects of Yoga on Body Satisfaction, Self Objectification  
and Mindfulness of the Body Study****PLEASE READ BEFORE SIGNING!****Assumption of Risk, Release of Liability and WARNING!**

In consideration for being allowed to participate in The Effects of Yoga on Body Satisfaction, Self Objectification and Mindfulness of the Body Study (**hereafter referred to as the YOGA STUDY**), I voluntarily agree to assume all risks involved in participating in, traveling to or from **YOGA STUDY** activities and using Washington State University programs, facilities and equipment. I understand that direct supervision by Washington State University staff may not be provided and by participating in or traveling to or from the activities of the **YOGA STUDY** **I expose myself to the risk of injuries including but not limited to temporary or permanent muscle soreness, sprains, strains, cuts, abrasions, bruises, ligament and/or cartilage damage, head, neck or spinal injuries, loss of use of arms and/or legs, eye damage, emotional trauma, disfigurement or death.** I also recognize that there are both foreseeable and unforeseeable risks of injury or death that may occur as a result of my participation in or traveling to or from the activities of the **YOGA STUDY** that cannot be specifically listed. I also recognize that the actions of other participants in the **YOGA STUDY** or users of Washington State University programs, services, facilities, and equipment may cause harm or loss to my person or property and agree to assume the risks of same.

### Release of Liability

**I, my heirs and assigns hereby release the State of Washington, the Regents of Washington State University, Washington State University and the employees, agents or representatives of Washington State University (hereafter referred to as the UNIVERSITY GROUP) from any and all liability, claims, costs, expenses, injuries or losses including those resulting from acts of negligence by the UNIVERSITY GROUP that I may otherwise sustain as a result of my participation in or traveling to or from the YOGA STUDY. I also release the UNIVERSITY GROUP from loss or damage to my person or property caused by other participants of the YOGA STUDY or other users of Washington State University programs, services, facilities, and equipment.**

If any part or portion of this Assumption of Risk and Release of Liability is determined to be invalid or unenforceable, the remaining parts or portions shall be enforceable. This release and all matters related to your activities involving Washington State University shall be governed by and interpreted in accordance with Washington law. I have carefully read this Assumption of Risk and Release of Liability and fully understand its contents. I am aware that this Assumption of Risk and Release of Liability is a contract between the UNIVERSITY GROUP and myself and I sign it of my own free will.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

THIS DOCUMENT WILL BE CONSIDERED EFFECTIVE FROM THIS DATE FORWARD.

Name (please print): \_\_\_\_\_

Signature of the Witness to the Signing of this document: \_\_\_\_\_

Witness Name (please print) \_\_\_\_\_

**NOTE:** We strongly encourage you to consult with a physician before participating in any physical activity to determine any potential conditions that may adversely affect your participation. We encourage those with pre-existing conditions to wear a medical alert bracelet or neck tag indicating the appropriate medical information. We strongly recommend that all participants have a medical insurance policy, either through university offered programs or through an outside agency that will cover injuries or illness that may occur due to participation in or use of Washington State University programs, services, facilities and equipment. **If you have any questions regarding the language or details of this document prior to signing, please call 509-335-8732, SRC Room 250, WSU.**