

BODY ESTEEM AND PSYCHOLOGICAL
WELL-BEING IN FEMALE
YOGA PRACTITIONERS

By

JOY LYN KELLEY

Bachelor of Science
Missouri State University
Springfield, MO
1994

Master of Science
Missouri State University
Springfield, MO
2002

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
May, 2009

BODY ESTEEM AND PSYCHOLOGICAL
WELL-BEING IN FEMALE
YOGA PRACTITIONERS

Dissertation Approval

Al Carlozzi

Dissertation Advisor

John Romans

Diane Montgomery

Katye Perry

Carol Bender

A. Gordon Emslie

Dean of the Graduate College

ACKNOWLEDGMENTS

There are so many who helped create this educational finale: my daughter, Geneva Brasher, who gave up a lot to follow mom through her degree; my husband, companion and cheerleader, Son Il Yun; my patient, ever-steady, and loving parents, Mark and Cheryl Kelley; my grandparents who helped provide my first home, Gene and Geneva Wise; and my brother, Paul Kelley, who kept ruffling feathers insuring the determination to finish.

Many thanks go to the women who filled out the research packets to give the data which made this study possible. The support and love from the following yoga studios was overwhelming: OSU Wellness Center, Life Mastery Services, 3rd Street Yoga, Art of Yoga, Spirit House, and the Yoga Room. Many thanks to my yoga mentors: Carol Bender who provided the first yoga teaching experience, and Valerie Kit Love who mentors, leads, teaches, and inspires. These teachers facilitated the organization and are amazing: Carol Bender, Billie Stiles, LaMecia Stidham, Anise Langley, Mary Talley, Valerie Kit Love, Sara Alavi, Rachel Lawrence-Mor, April Hellen Morgan, Laura Lester, and Martha McQuaid.

I would also like to acknowledge the awesome teacher and researcher, Diane Montgomery for her insight into what I was trying to accomplish, her striving for excellence, and not settling for less. Much gratitude goes to Al Carlozzi for continuing as my committee chair even though he changed his campus home base. I appreciate the

steady presence of John Romans who seemed to step in and help with deadlines, forms, meetings - all the areas in which he excels as leader. Carol Bender was part of this endeavor before it was even an idea. Her interest in yoga and her strength as a woman, teacher, friend, and mentor can not be acknowledged enough. A special thanks go to Katie Perry for helping with the study design, meeting even when she was on sabbatical, and her gentle kindness. And, thank you, Mwarumba Mwavita, for the statistical insight.

TABLE OF CONTENTS

| Chapter | Page |
|---|------|
| I. INTRODUCTION..... | 1 |
| Background to the Problem..... | 4 |
| Statement of the Research Problem..... | 6 |
| Theoretical Framework..... | 7 |
| Purpose of the Study..... | 8 |
| Organization of the Study..... | 9 |
| Research Questions..... | 9 |
| Definition of Terms..... | 10 |
| II. REVIEW OF LITERATURE..... | 12 |
| Philosophical Views of Body Esteem..... | 12 |
| Feminist Theory and Community..... | 15 |
| Objectified Body Consciousness..... | 17 |
| Women’s Health..... | 19 |
| Body, Society, and Culture..... | 20 |
| Biological/Evolutionary Theory..... | 26 |
| Evolutionary Psychology..... | 27 |
| Biological Basis of Body Esteem..... | 29 |
| Feminism and Ecological Evolution..... | 31 |
| Psychological Wellness..... | 32 |
| Positive Psychology..... | 32 |
| Psychological Well-Being..... | 34 |
| Embodiment..... | 35 |
| Biopsychosocial Model of Health..... | 37 |
| Biopsychosocial Model of Health..... | 37 |
| Yoga and Health..... | 38 |
| Summary of Review..... | 43 |
| III. METHOD..... | 44 |
| Participants..... | 43 |
| Instrumentation..... | 46 |

| | |
|---|------|
| Chapter III continued | Page |
| Body Esteem Scale | 47 |
| Psychological Scales of Well-Being | 49 |
| Demographic Questionnaire | 51 |
| Data Analysis | 51 |
| Research Questions | 51 |
| IV. FINDINGS | 53 |
| Demographics | 54 |
| Research Questions | 56 |
| Body Esteem and Psychological Well-Being | 56 |
| Yoga Practice and Body Esteem | 59 |
| Yoga Practice and Psychological Well-Being | 60 |
| V. DISCUSSION, CONCLUSIONS, AND IMPLICATIONS | 65 |
| Summary of Study | 65 |
| Discussion and Interpretation of Findings | 66 |
| Conclusions and Implications | 69 |
| Limitations | 72 |
| REFERENCES | 74 |
| APPENDICES | 88 |
| APPENDIX A: INSTITUTIONAL REVIEW BOARD | 88 |
| APPENDIX B: DEMOGRAPHIC SHEET AND QUESTIONNAIRE | 89 |
| APPENDIX C: FIGURES | 90 |

LIST OF TABLES

| Table | Page |
|---|------|
| 1. Demographic Descriptive Statistics | 55 |
| 2. Correlational Matrix of Study Variables..... | 57 |
| 3. ANOVA of Yoga Practice Separated into Two Levels by Median and Body Esteem | 59 |
| 4. Descriptive Statistics for Body Esteem Divided into Beginning and Advanced Practitioners | 60 |
| 5. ANOVA of Yoga Practice Separated into Two Levels by Median and Psycho-Social Well-Being | 60 |
| 6. Descriptive Statistics for Body Esteem Divided into Beginning and Advanced Practitioners | 62 |
| 7. Correlation Matrix of Practice, Body Esteem, and Psychosocial Well-Being | 63 |

LIST OF FIGURES

| Figure | Page |
|---|------|
| 1. Scatter Plot of Body Esteem and Psychological Well-Being | 90 |
| 2. Histogram of Yoga Practice..... | 90 |

CHAPTER I

INTRODUCTION

Modern culture is stressful and takes a toll on women's health. The American Psychological Association (2007) reports, "Stressors in the lives of women and girls include interpersonal victimization and violence, unrealistic media images of girls and women, discrimination and oppression, devaluation, limited economic resources, role overload, relationship disruptions, and work inequities" (p. 949). As modern Western culture attempts to impose unrealistic standards of health and attractiveness, the toll on the individual psyches of girls and women becomes immense, and leads to feelings of powerlessness (Bordo, 1993). Feelings of powerlessness can lead to symptoms of depression, disturbed body image, eating disorders, and dependency (APA, 2007).

Theories that drive the literature behind this phenomenon are feminist theory, which includes objectification theory, and biological theory, which encompasses the work of evolutionary psychology (Buss, 1995a; McKinley, 1995). The feminist theorists tend to hold a grudge against oppressive patriarchies, while the evolutionary theorists say that oppression exists because that is what biology dictates. Existential theories on happiness center on exposing choices and encouraging the oppressed to transcend their oppression regardless of the etiology.

Women steeped in cultures where their roles are changing in regards to occupational choice, education, and availability of resources suffer from significant dissonance in regards to role expectation (Jung & Forbes, 2006). There becomes a pull between the roles of staying at home as a nurturing mother and increasing education, work load, and earning potential. Many women become caught in the trap of seeking the perfection portrayed in Western culture of all-loving, nurturing, bread winning, and exceptional lover with a perfectly fit body (Bordo, 1993; Brownell, 1991; Jung & Forbes, 2006). As women are continually faced with these stresses, choices have to be made on where to expend their effort and energy.

Fredrickson and Roberts (1997) proposed objectification theory as a “theoretical framework (that) places female bodies in a sociocultural context with the aim of illuminating the lived experiences and mental health risks of girls and women who encounter sexual objectification” (p. 174). The authors define self-objectification as the internalized perspective of another. “This is a particular perspective on self, one that can lead to a form of self-consciousness characterized by habitual monitoring of the body’s outward appearance” (p. 174). Daubenmier (2005) discussed several studies that suggest that physical activity does not reduce self-objectification. She says that mind-body exercises like yoga can help cultivate direct bodily experiences as a means of counteracting the consequences of self-objectification. Godfrey (2006) reports that “yoga reduces anxiety, promotes well-being, and improves quality of life among the women who practice it regularly” (p. 1113).

McKinley (1995) coined the term objectified body consciousness. “I call this experience of the body as an object and the beliefs that support this experience objectified

body consciousness” (p. 6). She mentions that body shame, a component of objectified body consciousness, is also tied to body esteem. Franzoi (1995) reports that men perceive their bodies as a process while women view their bodies as objects of others’ attention, or as he says body as object.

The evolutionary psychologist Buss (1995a, 2003) says that women who are young and beautiful can gain power and access to resources through their association with their male partners. This fosters the powerlessness of women because it limits their ability to gain power and access to resources except through their male partner by using their beauty. Even though this power dynamic is slowly shifting, men still have more resources, and as a result more power, than women (APA, 2007).

Gilligan (1993) suggested that as women give less power to the voice of the internalized other, they gain a personal internal stance, and find their power in their own voices. Yoga offers a way to remove cultural messages of perfection by tuning into a deeper self-awareness or internal voice. Patanjali recorded the yogic sutras and interpreted yoga as a means to remove maya or illusion (Venkatesananda, 1999). Women who practice yoga have a way to remove the fog of maya from the mirror of their cultures; thus tuning into their selves to clarify choices that lead to peak experiences and happiness.

Csikszentmihalyi (1990) discusses flow as “... the positive aspects of human experience – joy, creativity, the process of total involvement with life” (p. xi). McKinley (1995) proposed the idea that because women are objectified they must exist in the presence of another observer limiting their ability to flow in the moment with creativity and actualization. Peak experiences in essence are reserved for those who have a sense of

self from an internalized view, and yoga makes this an option for female practitioners. Yoga is the Sanskrit term which means to yoke or unite. The more yoga is practiced, the more it becomes possible for flow to occur, and sense of other objectification to fall away (Cope, 1999). And, according to Keyes, Shmotkin, and Ryff (2002), this can lead to optimal well-being and health.

Background to the Problem

Women today feel a large amount of stress from cultural pressures to look a certain way, earn a living, and mother perfectly (APA, 2007). They have a cultural mirror that gives them illusion as reflection of the self (McKinley, 1995). Women could benefit from ways to remove this fog of illusion so that they may tune into a deeper self or inner voice, which can help them make conscious choices that may create feelings of appreciation for their bodies, careers, and families (Gilligan, 1993). Focusing on optimal health and psychological well-being instead of pathology may bring great strides in improved health and overall well-being (Diener, Suh, Lucas, & Smith, 1999; Keyes, 2005; Ryff, 1989; Seligman & Csikszentmihalyi, 2000).

The biopsychosocial model of mental wellness is an all encompassing theory which looks at the impact of biological, psychological, and social influences to create and sustain optimal health and well-being (Ryff & Singer, 2000; Suls & Rothman, 2004). Nicassio, Meyerowitz, and Kerns (2004) call for interventions in the field of health psychology which emphasize the interconnected functioning of biology, psychology, and socio/cultural influences. Ryff and Singer (2000) emphasize that the mind and body are inseparable links to health. They suggest the integrating of biopsychosocial factors in

health and clinical settings. Yoga literally means to yoke or bind, and has been used by practitioners to integrate their minds, bodies, and spirits for centuries. It is also a word for a practice which emphasizes interconnected relationships along with uniting the self and universe (Venkatesananda, 1999). This research puts forth the idea that yoga can aid in increasing women's health by helping them relate to their bodies, minds, social community, and perhaps something larger in an integrative fashion.

Overton (2008) defines embodiment as the assertion that perception, feelings, and desires, along with behavior, experience, and living in the world are contextualized by each person being active agents in her specific type of body. Burman (1992) points out that not only has mental health been structured around the medicalization of distress, but also that the subjects of psychological and biomedical theory have largely been male. Thus, this body of knowledge has been embedded in the male-gendered body. This along with cognitivism and the Cartesian argument creates a split between mind and body which takes a toll on the realization of optimal health and wellness in women.

Seligman and Csikszentmihalyi (2000) call for fostering and nurturing health and wellness. "Our message is to remind our field that psychology is not just the study of pathology, weakness, and damage; it is also the study of strength and virtue. Treatment is not just fixing what is broken; it is nurturing what is best (p. 7)." Health is not just the lack of illness, but also the existence of something positive (Keyes, 2005; Ryff & Singer, 1996). Keyes (2002) discusses mental health along a continuum. The medical model assumes the curing of illness, while the health psychology and biopsychosocial models imply a healing or creating wholeness by integrating all the factors of the models.

Statement of the Research Problem

Suls and Rothman (2004) promote the biopsychosocial model as a meta theory which provides a guiding structure to help create multilevel, integrated health and wellness. They assess the need for research into the area of what connects the realms of the biological, psychological, and social. “However, considerable, perhaps even daunting challenges remain as models are needed that specify the processes that connect the biological, psychological, and social systems (p. 119).”

Yoga or the yoking of mind and body may be a path to that integration. Looking at the interconnectedness of psychological well-being and body esteem in female yoga practitioners will indicate if a relationship exists among these variables. It may also lead to further investigations. Interventions based on research into wellness may aid in reducing stress, enhancing quality of life, bolstering the immune system, fostering adherence to provider recommendations, reducing disability, and increasing education and awareness (Nicassio, Meyerowitz, & Kerns, 2004).

It is hoped that the knowledge gained from this study will fuel the passion to continue looking into resources that help women cope with the difficulties of life. By focusing on the positive aspect of psychology and not pathology, women may be able to move beyond culture-imposed roles and biological dictates.

Buss (1995b) discusses his beliefs about healthy science, “One characteristic of a healthy science is that, on the cutting edge, there are competing hypotheses that vie for attention” (p.81). It is clear that in the realm of yoga practice, body esteem, and psychological well-being cutting edge potential exists. Yoga is an ancient philosophy; however, according to McCall (2007) it has just recently become a modern way to yoke

mind, body, and spirit for better health in the West. Yoga can be used as medicine, and it may aid in tying the self (including the body self) to feelings of empowerment.

Theoretical Framework

This study utilized the biopsychosocial metatheory to organize the biological and evolutionary, psychological and well-being, and social and cultural factors. These constructs were examined by collecting data from female yoga practitioners who completed the Body Esteem Scale (Franzoi, 1984), Psychological Scales of Well-Being (Ryff, 1989), and a demographic questionnaire. Specifically, Ryff's (1989) theory of psychological well-being and Franzoi's (1984) theory of body esteem were used to determine the interconnections among the various aspects of human functioning.

In particular, yoga theory and philosophy organizes the interactions of the biopsychosocial model of health. Yoga theory unites and creates embodiment through focus on the present moment through body sensations and the breath (Cohen & Townsend, 2007; Elavsky & McAuley, 2007a). Rani and Rao (1994) describe the purpose of yoga as the achieving of awareness both in body and mind. Specifically, psychological well-being and body esteem are measures which give insight into the participants' feelings about their bodies and their psychological or mental wellness.

Suls and Rothman (2004) say that when the biopsychosocial model is used as an investigative guiding framework it has enabled health psychologists to be at the forefront of this multilevel approach to human wellness. Ryff's (1989) scales of psychological well-being include six subscales which encompass many facets or levels in the psychological and social areas of the biopsychosocial concept of wellness. They are

autonomy, purpose in life, personal growth, environmental mastery, self acceptance, and positive relations with others. Franzoi's (1984) Body Esteem Scale includes three subscales for women which are sexual attractiveness, weight concern, and physical condition. Each of the scales measures an aspect of the biological relationship that respondents cultivated with their bodies.

Heidrich and Ryff (1993) point out that as women age many of them report a strong sense of psychological well-being despite failing physical health. Contrary to the evolutionary psychology dictum that fertile, young women will be healthier because they will attract the better mate to ensure the propagation of their genes; body esteem data has shown compromised body esteem in college age women (Jung & Forges, 2006). Data show that as women age, the effects of weight gain and reduced objectification result in no age differences in body esteem (McKiney, 2006; Tiggemann & Lynch, 2001). Thomas and Freeman (1990) call for more research on body esteem with age. Years of education does not seem to increase body esteem. As women increase their education, they continue to hold onto the cultural implication that women's beauty is tied into the perfect or ideal body (Jung & Forbes, 2006; McLaren & Kuh 2004).

Purpose of the Study

The purpose of this study was to examine the relationship of body esteem and psychological well-being for female yoga practitioners. It was believed that female yoga practitioners despite body size, shape, and age have cultivated a deep and meaningful relationship to their bodies and selves. In turn, this relationship carries into the way women cope with a stressful cultural environment. This study evaluated the relationship

female yoga practitioners have with wellness through the measures of psychological well-being and body esteem.

Next, the influence of yoga practice on body esteem and psychological well-being was investigated. This line of inquiry examined the role yoga plays in regards to health and wellness. Body esteem and psychological well-being were evaluated for indications of a positive interacting of the biological, psychological, and social levels of health. Or, an indication was given as to the importance of yoga in creating a holistic or optimal feeling of well-being in female yoga practitioners.

Finally, the purpose of this study was to analyze the relationship of the yoga practitioner's age to body esteem and psychological well-being. This premise stems from the work of Tiggemann and Lynch (2001) which examined body image across the lifespan of women.

Organization of this Study

Research Questions

- 1.) What is the relationship of body esteem and psychological well-being?
- 2.) What is the influence of yoga practice on body esteem?
- 3.) What is the influence of yoga practice on psychological well-being?
- 4a.) What is the relationship of age to body esteem?
- 4b.) What is the relationship of age to psychological well-being?

Definition of Terms

Relevant terms to define for this study are body esteem, wellness, psychological well-being, flow, and embodiment. Yogic terms like asana, prana, and maya are explained here. Patanjali recorded the meaning of asana, prana, and maya in the Yoga Sutras (Venkatesananda, 1999).

Body esteem – Body esteem can be defined as how one feels about her body. It is a measure of the relationship to one's body (Franzoi & Shields, 1984).

Wellness – Seligman (2002) expounds upon wellness as that of identifying and understanding positive individual traits of psychological health.

Psychological Well-Being – Fava and Riuni (2003) explain psychological well-being as a sense of autonomy, competence, self-acceptance, belongingness, and purpose.

Flow – Flow can be explained by being deeply focused in an activity to the point of losing self-consciousness and just enjoying the experience at hand (Csikszentmihalyi, 1990).

Embodiment – Hudak, Hogg-Johnson, Bombardier, McKeever, & Wright (2004) explain embodiment as the emphasizing of the body as the site of meaningful experience and not a physical entity separate from the mind or self.

Asana – Asana is the physical practice of yoga. Asanas are the postures yoga practitioners flow through during a yoga practice.

Prana – Prana is the life force which is also used to describe the breath.

Maya – Maya refers to illusion. Yoga is practiced to take the practitioner from the unreal to the real or from darkness to light through the removal of maya. It is the journey to the true self (Cope, 1999).

CHAPTER II

REVIEW OF LITERATURE

The purpose of this review of literature is to describe women's health in today's particular culture. This study was performed to determine the relationship of body esteem and psychological well-being for women who practice yoga. The relevant biological, psychological, and social aspects of women's lives are of interest because it encourages psychological wellness or well-being (Ryff and Keyes, 1995). Body esteem is an indicator of how well women are able to relate to their bodies despite falling short of the unrealistic, cultural definition of beauty (Franzoi & Herzog, 1987). The measures of body esteem and psychological scales of well-being are used with this study to give insight into these areas of healthy functioning.

The philosophical views of body esteem are discussed within the topics of feminist theory, objectification theory, women's health, society, and evolutionary theory. Psychological wellness is rooted in positive psychology and its construct of subjective wellbeing; later developing into the research topic of psychological well-being (Keyes, Shmotkin, & Ryff, 2002). A discussion about yoga and the biopsychosocial model of wellness will conclude this review.

Philosophical Views of Body Esteem

The relevant biological research to this study is centered on body esteem and the evolutionary theory of psychology. Genetics predisposes women to certain wellness issues that men may not have to deal with; however, some women seem to rise above adverse conditions and thrive despite their biological loading. The social and cultural aspects of women's health and in general how they feel about their bodies as a result of cultural pressure are covered in feminist literature. This literature discusses the experiences of women and their embodied experiences living in Western culture where women are objectified. The psychological aspects of women's health include that of quality of life, mental health, and the impact of stress.

Biological and in particular evolutionary psychology has created another view of behavior in Western, dominant culture. Evolutionary psychology suggests that human behavior is a result of the hereditary past, and that the purpose for humans is to ensure survival of genetic material by passing it on to offspring (Buss, 1995a, 1995b, 2003; Buss & Reeve, 2003; Hird, 2006; Saad, 2004). Franzoi and Shields (1984) and Wade (2000) suggest body esteem in women is linked to sexual attractiveness and self esteem. Again, the implication is that being sexually attractive depends on the view of the opposite sex and impacts how women feel about their bodies. This in turn affects their self esteem.

In the current literature, it appears as if Feminist/Objectification Theory and Evolutionary Psychology seem to be polarized around why women's feelings about their bodies are so strongly impacted by their appearance or sexual attractiveness (Buss, 2003; Heenan, 2004; Wright, 1994). Buss (2003) mentions that women benefit from being sexually attractive because this enables them to secure a male partner who has lots of

resources as well as good genes. Instead of body esteem coming from an internal sense of empowerment, it comes from acquiring a powerful male mate.

The biopsychosocial model integrates environment and biology, which deemphasizes psychopathology and emphasizes interrelatedness or a way to improved health without being doomed to the circumstances of heredity or cultural norms – in other words people learn to evolve or grow (Keyes, Shmotkin, & Ryff, 2002). Several studies suggest that a sense of control has a part to play in an overall sense of well-being (Steptoe & Wardle, 2001). Gender plays a role in how control over health is perceived, and women feel less in control of their health than men (Scott, 1997).

Women have more negative feelings about their bodies and this impacts how they experience their bodies (Franzoi, Kessenich, & Sugrue, 1989). Modern yoga studios give practitioners a way to experience their bodies by centering peacefully in typically chaotic normal life, much like ashrams are used in India (Hoyez, 2007). Yoga is considered in the biopsychosocial model of modern medicine (Polakoff, 1993). Several studies draw a link between yoga and health (Cohen & Townsend, 2007; Demakr-Wahnefried, 2007; Elavsky & McAuley, 2007a, 2007b; Lamb, 2004; Polakoff, 1993; Repar & Patton, 2007). If how women relate to themselves and experience their bodies improves or they bring these relationships into conscious awareness, a more positive body esteem along with a more positive sense of psychological well-being and a sense of personal power may be evident in female yoga practitioners.

Feminist Theory and Community

Feminist Theory is anti-oppression, about making the personal political, and connecting through community (Bordo, 1993; DeBeauvoir, 1952; Gilligan, 1993; hooks, 1984; Orbach, 1988; Spitzak, 1990; Wolf, 1991). These authors write about what happens when women experience a movement from being marginalized to having power. The nature of power is tricky. Smith (2005) refers to *Sista II Sista* of Brooklyn and their idea of taking power and making power. She says it is necessary for women to engage at the corporate and political level which is a form of taking power. Yet, she warns against not making power. For if women only engage in taking power, they have the tendency to recreate the politics and corporations already in power. She calls for the responsibility of women to create community within the structures where change has been instigated. bell hooks (1984) encourages women not to imitate men as they rise to power because women can become their own oppressors with women oppressing women. Bordo (1993) warns, “We (women) must first abandon the idea of power as something possessed by one group and leveled against another; we must instead think of a network of practices, institutions, and technologies that sustain positions of dominance and subordination in a particular domain” (p. 166).

Franzoi (2001) performed a study which sheds light on what may lead to feelings of less power in women. Benevolent sexism takes place when women receive social rewards for being sexually attractive. While they idealize traditional female roles, they are forced into subordinate and subservient roles. How can one be powerful when they find power in how others view them? Discussed was hostile sexism, where women are punished for not conforming to traditional female roles. He found that women who had

benevolent sexism beliefs had higher body esteem especially in the area that could be altered using cosmetics, this suggests a sense of power over beauty and subsequently men. He discusses a study by Goldberg, Gottesdiener, and Abramson (1975), which found no difference in the judged facial attractiveness in women who supported and didn't support feminist beliefs. Yet when asked to identify photos of individuals who might be feminist, the study subjects chose photos of less attractive women. Orbach (1988) comments on this systematic crushing of assertiveness in women who embrace feminist ideals, "Women have been condemned as castrating or domineering when they have attempted to assert their rights (p. 206)." This polarization of women as traditional or feminist makes community difficult.

The APA (2007) *Guidelines for Psychological Practice with Girls and Women* (2007) suggests that empowerment expands choices for women – "Guideline 7: Psychologists strive to foster therapeutic relationships and practices that promote initiative, empowerment, and expanded alternatives and choices for girls and women" (p. 966). Wilson (1991) discusses self-actualization, selflessness, and yoga. He suggests that yoga provides a way to self actualize within community. He discusses the idea of flow as described by Csikszentmihalyi (1975, 1976). This discussion alludes to the idea of personal power as it relates to community and how women may be able to achieve selflessness, self-actualization, and feelings of power through practicing yoga in community. Socially, yoga may be a positive choice for women to make in regards to their mental and physical well-being.

Objectified Body Consciousness

Sexual objectification is a form of gender oppression (Daubenmier, 2005; Fredrickson & Roberts, 1997; McKinley, 1995, 1998). Karen Horney from the original source of Wescott (1986) calls gender oppression the socially sanctioned right of all males to sexualize all females regardless of age or status. As girls and women are exposed to this scrutiny, they begin to view themselves from the other's perspective. Many feminists denote this internalization of the male view of the female body (Bordo, 1993; DeBeauvoir, 1952; Gilligan, 1993; hooks, 1984; Spitzak, 1990; Wolf, 1991). McKinley (1995) explains how women's experiences are shaped by the social construction of the female body. Women whose bodies are different from the cultural norms of beauty have more body dissatisfaction, lower body esteem, and more body shame. She suggests that change needs to come from the sociocultural arena, if young women are to feel less vulnerable about their appearance and body.

Objectification Theory according to Fredrickson and Roberts (1997) lends structure and a way to conceptualize how women are affected by dominant, Western culture, including the subsequent health consequences. They describe objectification as the internalization by women of an observer's opinions about their bodies. The price of viewing one's body from the perspective of a dominant other can lead to body consciousness and habitual body monitoring, shame and anxiety, which reduce the chances of experiencing peak motivational states, lower body awareness and dissatisfaction, and increase mental health risks such as depression, sexual dysfunction, and eating disorders (Daubenmier, 2005; Fredrickson & Roberts, 1997; McKinley, 1995,

1998, 2006; McLaren, Kuh, Hardy, & Gauvin, 2004; Roberts & Gettman, 2004; Strelan, Mehaffey, & Tiggemann, 2003).

Roberts and Gettman (2004) studied what happens to women when exposed to objectifying words. They primed women and men with words that encouraged self-objectification or body competence. The women who experienced the language of self-objectification reported more negative emotions and feeling less appealing to the opposite sex than the women receiving comments about body competence, and the men were unaffected by either.

McKinley (2006) suggests that objectification of the body can become part of identity. Women sometimes experience objectification as powerful because they fit the beauty prerequisites of a dominant or patriarchal society (Roberts & Gettman, 2004; Strelan, Mehaffey, & Tiggeman, 2003). This is power through another and not self which could lead to a false sense of empowerment. Csikszentmihalyi (1990) says that to experience flow one must lose self-consciousness. To achieve peak flow experiences would mean self and/or body consciousness was not present. As McKinley (1998) suggests, women observing their bodies as outside observers will be self-conscious. This limits peak experiences and that can contribute to mental health problems.

Daubenmier (2005) studied the self-objectification, body satisfaction, and eating attitudes in yoga practitioners and aerobic athletes. She found that yoga practitioners reported more positively on all constructs. The yoga practitioners reported more body acceptance and practiced yoga for the way it felt as opposed to how it influenced body appearance. She suggested that this was because one's physical appearance played less of a role in yoga practitioner's sense of self. She also said that she found the more

experience the yoga practitioners had, the less self-objectification and greater body satisfaction they experienced.

Women's Health

Goldenberg and Shackelford (2005) report that “William James (1890) suggested the self is that which each of us is tempted to call me, and thus contains multiple aspects including, of course, the physical body” (p. 228). They conducted a study designed to investigate the extent the physical body is integrated into an individual’s sense of self. They found that people with high self esteem with lower body esteem distanced their selves from the body. One role of yoga is to yoke or join the self to the body (Daubenmier, 2005). This could be important in women’s health especially when exercise is needed for health reasons and not necessarily to comply with cultural standards.

Finkenburg, Dinucci, McCune, and McCune (1994) report that “regularly engaging in physical activity appears to have both physical and mental benefits, including more positive evaluation of one’s body and the development of more positive body esteem “(p. 398). Faith and Thompson (2003) discuss several studies that report lifestyle change and physical activity as opposed to structured aerobic exercise leads to bigger health changes that can be maintained with obese women. Csoboth (2003) discusses several studies which suggest that women report higher levels of distress and a lower quality of life than men. She also reports that women are more vulnerable to relational distress with their partners and families which can lead to risk of a heart attack or coronary disease. She makes the following statement, “The experience of stress and the

impact it has on health are shown to be gender specific; therefore, interventions designed to train women to cope with stress must take these differences into account” (p. 472).

Goldenberg et al. (2000) discuss the body as a source of self esteem stating that “Standards of value regarding the physical body seem to be a particularly important source of self-esteem. Those who believe they are meeting these standards may derive a variety of psychological benefits from their bodies, and those who believe they are not may suffer from a broad range of psychological, physical, social, and sexual problems” (p. 120). Collins et al (2003) discuss health and stress. They mention research by Patel (1993) with yoga-based stress management and its large effects on hypertension as well as overall health and stress management. They report that yoga can involve deep muscle relaxation, visualization, and meditation as a way to bring body, mind, and spirit into harmony or balance.

Body, Society, and Culture

Grogan, Williams, and Conner (1996) looked at men and women’s body esteem and found that even though men report increasing pressure to meet the cultural idea of a well-toned man they are generally more satisfied with their bodies than women. Brownell (1991) also mention that body dissatisfaction is greater in women than men. Henderson-King and Henderson-King (1997) looked at the affects of media’s portrayal of the ideal female body on body esteem. They suggest that these images undermine confidence in physical attractiveness. And, they say “Social rewards are clearly influenced by individual’s physical attractiveness” (p. 401).

McLaren and Kuh (2004) examined women's body dissatisfaction, social class, and social mobility. They found that higher education was associated with more dissatisfaction with weight and appearance. These authors discuss Bordo (1993),

This explanation is related to a feminist view on eating disorders, which holds that within a patriarchal society women are limited in the amount of "space" they can occupy. As women gain in education and economic power, they must compensate by taking up a smaller amount of physical space – evidenced by the smaller body size sought by many women and achieved by the few with anorexia nervosa (p. 1583).

Golberg, Bailey, Lenart, and Koff (1996) suggest that women want to be slimmer than they are even when they are below ideal weight.

Brownell (1991) studied dieting and the collision of physiology and culture. She challenged two assumptions. One is that with the right diet and exercise the body can be molded into what is desired. The second is that there are infinite rewards that come with achieving the perfect body ideal. She says, "People seek the ideal, not only because of expected health benefits, but because of what the ideal symbolizes in our culture (self-control, success, and acceptance)" (p. 1). Strunkard, Foch, and Hrubec (1986) conducted twin studies which found that the weights of adoptees and their adoptive parents were unrelated, but there was a strong association to the weight of the biological parents. This suggests that culture not biology is easier to change in regard to the acceptance of a diversity of body types and weights.

Jung and Forbes (2006) did a comparative study of Korean and U.S. college women. They found that Korean women had greater body dissatisfaction and they

suggest that this is because Korean culture is significantly changing in regards to women's roles. They also suggest that when there is cultural change in women's roles such as that occurring during the women's movement in the U.S. in the 60's and 70's body dissatisfaction increases. They found that

the Korean sample had more body dissatisfaction than the U.S. sample, it is important to note that our results are exactly what would be expected if: (1) body dissatisfaction is a response to marked cultural change, particularly changes in women's roles, and (2) young women in Korea have experienced greater role conflicts than young women in the U.S. (p. 47).

Franzoi and Chang (2002) conducted an interesting study on body esteem in Hmong and Caucasian adults. They found that even though this is an Asian culture the Hmong women had more positive attitudes towards their bodies and they expressed less concern with changing their bodies. The authors imply the Hmong culture may be less influenced by changing women's roles, and traditional Asian culture values plumpness in women as a beauty ideal. Kowner (2002) compared Japanese and U.S. culture on body image and body esteem. They found similarities between the two cultures in that women had lower body esteem and were more dissatisfied with their bodies than men.

Akiba (1998) conducted a small study on body esteem in young adults in Iran. He found that his Iranian sample had higher body esteem and contributed this to the censoring of Western media in Iran. This is a patriarchy that hasn't experienced the cultural change of women's roles. Yet, his results showed that Iranian women had lower body esteem than Iranian men.

Cultural groups which live steeped in Western culture such as African American, Latina, and Native American were not believed to be affected negatively because they did not represent in the rising number of eating disorders which were considered white women's problems not problems of women of color (Smolack & Striegel-Moore, 2002). Frisby (2004) conducted a study of body esteem and African American women and found that they had lower body esteem after being exposed to images of African American models; however, after exposure to Caucasian models there was no effect on their body esteem. Wade (2003) also found that black women may be culturally conditioned to not judge their beauty using the same criteria as white women.

Similarly, Beltran (2002) wrote an article about Latina Body construction in Hollywood and regarded Jennifer Lopez's large hips and thighs as a site of social struggle. Beltran says this about the cultural dissonance experienced by young Latinas coping with Western cultural beauty ideals, "... the typical Latina has a body type that is vastly different from the average fashion model, I would venture that many young Latinas have more than their share of struggles with social norms of beauty and ugliness" (p. 82). She also suggests that Jennifer Lopez is countering the tendency for oppression and negative traits associated with bodies that have nonwhite ethnic appearance to be portrayed in contemporary media. Jennifer Lopez is portrayed as having power from within.

It is possible to view Jennifer Lopez not as another victim constructed in a still-racist society as an ethnic sexual object, but as empowered and empowering through asserting qualities such as intelligence, assertiveness, and power – while also proudly displaying her non-normative body and declaring it beautiful (p. 81).

Smith (2005) discusses the overwhelming oppression of Native American women. She suggests that Native American culture was not a patriarchy, and that men, women, and all beings lived interconnected by honoring each other. She alludes to the reasoning of Native American women's traditional female role as a role of honor to be valued not dominated and oppressed, and that beauty had a different connotation which involved diversity through interconnectedness. She has this to say about the plight of Native American women,

It has been through sexual violence and through the imposition of European gender relationships on Native communities that Europeans were able to colonize Native peoples in the first place. If we maintain these patriarchal gender systems in place, we are then unable to decolonize and fully assert our sovereignty (p. 124).

As Native American women lost a sense of self and became objectified, they gained the ability to view their bodies from the perspective of the dominant other. Smith also reports working as a rape crisis counselor and said, "Every Native client I saw said to me at one point, I wish I wasn't Indian" (p. 116).

Franzoi (1995) discussed the body as an object as opposed to the body as a process. He analyzed the influence of gender on how young adults feel towards their body parts. His findings were that masculinity in women was positively correlated to

experiencing the body as an object. Femininity in men was positively correlated with men experiencing the body as object. No difference was found in how genders experience the body as a process. Franzoi, Kessenich, and Sugrue (1989) conducted a study which focused on the gender differences in experiencing body awareness. They found that “When females were attentive to their bodies the feelings they experienced were more negative than were those of males, and this awareness was more likely to be directed toward specific body parts or functions rather than to the body as a whole” (p. 499). The authors believe this is because of the greater social pressure put on women to live up to high attractiveness standards.

Franzoi and Herzog (1986, 1987) identified what body parts were judged in determining physical attractiveness and how they relate to body esteem. These studies showed a big incongruence between what women and men judge to be attractive. Men were judged more attractive by upper body strength and women were judged more attractive by having a lower body weight. These researchers also found that men have more positive attitudes about their bodies than women.

Another study by Annesi (2005) researched how body esteem factors relate with exercise session attendance in women beginning a physical activity program. He found that after 12 weeks of beginning a cardiovascular exercise program the women of his study showed increases in the weight control and physical condition components of body esteem. Yet, the same was not true on the sexual attractiveness component of body esteem. The control groups showed no change on any body esteem component. Franzoi and Herzog (1986) suggest that the male physical attractiveness and the female sexual attractiveness subscales of the BES are the most related to an individual’s evaluation of

his or her overall attractiveness. Thomas and Freeman (1990) reported “BES Sexual Attractiveness was independent of weight and other body-image measures but meaningfully related to self-rated physically attractiveness, self-concept, and social anxiety” (p. 211).

Bartlewski, Van Raalte, and Brewer (1996) looked at the effects of aerobic exercise on social physique anxiety and body esteem in female college students. These authors hypothesize that people who are self-conscious about their bodies exercise less and have lower body esteem. They found that an increase in aerobic exercise decreased social physique anxiety and increased body esteem. Furnham and Boughton (1995) investigated the relationship between body dissatisfaction and eating behavior in female weight watchers and aerobic exercisers. They found that those preoccupied with watching their weight scored higher with eating disorders and body dissatisfaction than aerobic exercisers or control subjects. No significant difference was found between aerobic exercisers and the control subjects.

Biological/Evolutionary Theory

In a paradoxical way culture has created women who have more to do than procreate. As women’s roles evolve the role of men has yet to catch up. According to Smith, Waldorf, and Trembath (1990), as women gain more power in the work force and with the allocation of resources, they continue to be held to strict cultural beauty standards. These authors studied singles’ ads and the requirements of single men and women. Men were not held to the same physical attractiveness standards as the women. Evolutionary Psychology suggests this may be because the physical appearance of men is

less indicative of fertility. Women are increasingly feeling the pressure to be not only physically fit, but also well-educated and resourceful, especially when resource acquirement has not been mentioned for women as a fertility indicator and thus a way to genetically survive.

Buss (2003) discusses the direct oppression and domination of women by men through abuse, rape, and the controlling of resources. He says,

Men do oppress women not only through their control of resources but sometimes through sexual coercion and violence. Men's efforts to control women do center on women's sexuality and reproduction. And women, as well as men, often participate in perpetuating this oppression (p. 212).

Cassidy (2007) lays out the politics of Evolutionary Psychology. She points to the opposite poles of antifeminist biologists who use evolutionary theory as a way to justify this oppression, and left-wing radicals who argue against this justification of racism and sexism.

Evolutionary Psychology

Buss and Reeve (2003) define evolutionary psychology as “the integrative study of behavior and its underlying psychological mechanisms, including their development, activation, and expression, guided by insights provided by modern evolutionary theory” (p. 848). The theory yields insight into why women's feelings about their sexual attractiveness and body esteem may affect their health. Buss (1995a) suggests that women have adapted to an environment in which men own most resources by preferring mates who have the ability to accrue and provide resources. The article details several

hypotheses about sex differences including paternity uncertainty, identifying reproductively valuable women, gaining sexual access to women, identifying men who are able to invest resources in their offspring, and identifying men who are willing to invest in their offspring.

Saad (2004) uses evolutionary psychology to defend his choice to use young and attractive women in advertising. He said, “Men and women have evolved mate preferences that make adaptive sense. Mating with unattractive elderly women or with moronic, submissive, and lazy men are behaviors that, evolutionarily speaking, constitute genetic suicide” (p. 602).

In an article about the future of Evolutionary Psychology, Buss (1995b) suggests that the evolutionary changes humans experience in their psychological makeup are found at the level of neurotransmitters. This means that change is not a matter of choice, and humans are doomed to their genetically predisposed behavioral patterns. He then goes on to say that he is not a dualist and the processes in the brain responsible for behavioral adaptation will reveal a lot about the psychological mechanisms of humans.

Buss (1995b) discusses the importance of genetic variability and the need for more research in the role it plays in evolutionary psychology. Hird (2006) discusses genetic diversity or variability, and in doing so suggests that diversity in sexual orientation may have evolutionary roots. She says, “Psychologists need to be aware that considerable debate exists within evolutionary theory about homosexual behavior, specifically, and sex and sexual practices more generally” (p. 32).

This idea along with what Saad (2004) equated to genetic suicide (men mating with less sexually attractive, older women) could suggest that evolutionary change is

occurring. Gore (2006) sites numerous scientific studies that investigating the impact of the increasing human population is having on the earth. He details the exponential growth of the human population and calls for a change in the way humans relate to each other and the earth. Humans may be adapting to the evolutionary changes and challenges in their environments.

Biological Basis of Body Esteem

McConnell and Swan (2000) say that women today are increasingly exposed to a thinner body ideal but their biology is becoming increasingly obese. They looked at body esteem and body shape satisfaction in Caucasian, premenopausal females, and found that BMI, waist-to-hip ratio, and waist/hip circumferences were significantly correlated to body esteem and body shape. This is somewhat contradictory with what Streeter and McBurney (2003) suggest that men show a preference for women that have a waist-to-hip ratio close to 0.70 irregardless of weight or body size. Singh (1993) reports that men choose female mates based on fecundity or fertility, and this is suggested to be high when the hip-to-waist ratio is close to 0.70. As scientifically researched and reported, men may not choose a mate based on size. However, women are getting the message that having a high BMI makes them less desirable and this is reflected in lower body esteem (Davis, Claridge, & Brewer, 1996; McConnell & Swan, 2000).

Rabbi Boteach (2006) wrote an article about his experiences with his young rabbinical students. In the article he discusses his frustration with the students' emphasis on women's sexual attractiveness and appearance. He ponders what has caused these young men to put appearance above spirit and heart. He also discusses the mystique of

modesty. It bothers him that young women are changing their appearances in dangerous, health jeopardizing ways to attract a potential loving mate.

Sadder still is the way in which the young women of Crown Heights of marriageable age accommodate this growing male shallowness. Last year there was the tragedy of a young Chabad woman in her late teens who died of anorexia. Her case was not an anomaly, as more and more Hassidic girls do everything to keep the pounds off knowing that few rabbinical students will marry them if they are overweight (p. 2).

Anorexia is not conducive to fecundity or the mental and physical health of women.

Wade (2000) discusses body esteem and self-awareness in humans and their evolutionary roles in the way humans compare themselves to the same sex in competing in the ultimate gene pool of survival. Yoga gives women a means of self-awareness that competes with the self on the mat excluding the comparison of self with others. This leads to the idea of self-observer as opposed to another observer being needed for women to experience self-awareness. Wilson (1991) discusses self-actualization and selflessness, and the ways they relate to self-awareness. "Experience management strategies are called forth whenever a person's experience of the moment is not in line with his or her experiencing rules. For most people, this discrepancy automatically leads to the symbolic-cognitive processes that constitute self-awareness" (p. 101). This could correlate to higher body esteem in female yoga practitioners.

Feminism and Ecological Evolution

Buss (2003) agrees with evolutionary feminists in that he says men do oppress women. He also goes on to blame women for their evolutionary choices in mates. He reports that women have traditionally chosen men with a lot of resources and power. Feminists say there in lies the problem (Bordo, 1993; McKinley, 1995; Spitzak, 1990; Wolf, 1991). These same authors imply that it is hard for women to feel good about themselves and have a good relationship with their bodies (body esteem) when they are steeped in a culture which has evolved into men having possession of resources and power. It is difficult for women to gain enough resources and power to care for themselves and their children if they don't fit the beauty ideal of today's culture or without behaving like men, which means oppressing other women who are interested in gaining a share of the small amount of resources already acquired by women.

Wright (1994) says that, "The different feminists often stress ways women are good, and the radical feminists always stress ways men are bad; both tend to ignore female badness and male goodness" (p. 36). This is not the argument which exists in today's literature. Today's feminist literature focuses on evolving past men and women blaming each other for gender oppression, and moving towards learning a new solution. It is about ending oppression and increasing the health of women (DeBeauvoir, 1952; Gilligan, 1993; Hooks, 1984). Silverstein (1996) makes the argument that gender differences can be a result of being members in dominant or subordinate groups. Focusing on social and/or cultural evolutionary reasons as the cause for gender oppression removes the biological piece of the evolutionary or change provoking piece of adaptation. Heenan (2004) suggests that there exists interrelatedness between biology and

social oppressions. It may be at this juncture that change can be created or instigated, and evolving past gender oppression by learning new options may be possible.

Psychological Wellness

Keyes (2005) defines health as more than the absence of disease and draws the parallel to mental health being more than the absence of psychopathology. He also makes the inference that psychological well-being can help provide a holistic assessment of mental health. Going further into the description of positive human functioning and behavior, Keyes (2002) says,

That is, Individuals are functioning well when they like most parts of themselves, have warm and trusting relationships, see themselves developing into better people, have a direction in life, are able to shape their environments to satisfy their needs, and have a degree of self-determination (p. 540).

Positive Psychology

Instead of looking at what is wrong with behavior, positive psychology focuses on what is right with behavior. In particular, positive psychology encompasses well-being, contentment, sense of purpose, satisfaction, hope, optimism, flow, and happiness (Seligman & Csikszentmihalyi, 2000). This focusing on health and happiness instead of pathology creates a way for women to be active agents of change in their lives instead of passive responders to stimuli.

Csikszentmihalyi (Seligman & Csikszentmihalyi, 2000) reports noticing after World War II that many lost a sense of purpose and spiritedness when the war removed

their social support. He also noticed a few who kept their wholeness, integrity, and purpose despite the chaos left by war. “Their serenity was a beacon that kept others from losing hope” (p. 6) Yoga can be used to create a sense of internal peace in one’s being and one’s community. Creating a community which cultivates health is a strong component of healing (Godfrey, 2006).

Lightsey (1994) conducted a study which found that positive thoughts predict future happiness. Happiness, quality of life, and a sense of well-being go together, yet happiness doesn’t have to exist all the time for a sense of psychological well-being or for a positive outlook (Ryff & Keyes, 1995). The ability to think positively can buffer stress and help with the achievement of happiness and success (Lightsey, 1994). This is movement toward psychological well-being because a tendency towards growth becomes the fulfillment of existential challenges of life by moving towards success, development, or actualizing; and not necessarily happiness (Keyes, Shmotkin, & Ryff, 2002).

Buss (2000) wrote on the evolution of happiness, and suggests that the gap between ancestral and modern environments may not contribute to feeling happy. He calls for the increased closeness of extended kin and developing deep friendships. This would help with the adapting to environmental conditions which lead to jealousy, infidelity, child abuse, and spousal battering. He gives many insights into the obstacles which stand in the way of achieving a high quality of life.

Massimini and Fave (2000) discuss psychological evolution and happiness from a bio-cultural perspective. These authors have adopted a developmental perspective of the evolution of psychology as an emergent trait which brings about deep changes in the ecosystem and the evolution of humanity. Examining only the biological heredity is

reductionistic instead of encompassing the full-breadth of the human psyche which has been shaped by environmental changes along with genetic adaptation over time. In other words, cultural changes can be instigated to aid with the pursuit and experiencing of happiness. Leaving out cultural evolution leaves out the possibility of the realization of cultural values like peaceful and cooperative relationships, equality, and tolerance. “Being both reproducer and transmitter of bio-cultural information units, each human being actively influences the survival and replication of biological and cultural pools” (p. 27). Csikszentmihalyi and Massimini (1985) label this process as the psychological selection of bio-cultural information, which is shaped by both objective and subjective awareness.

Psychological Well-Being

Ryff (1989) tries to define the parameters of psychological well-being. She looked beyond the constructs in the current literature and defined these aspects of psychological well-being: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. It is an on-going process because the tie to positive functioning has little theoretical grounding even though it has often been the subject of psychological literature. This study exposed aspects of psychological well-being which go beyond earlier studies which focused on affect balance, life satisfaction, self-esteem, morale, locus of control, and depression. She found that positive relations with others, autonomy, purpose in life, and personal growth were not significantly tied to previous measures of positive functioning.

Demark-Wahnefried (2007) studied at well-being and quality of life after a life-style intervention with breast cancer survivors, and the study encompassed the realms of emotional, social, and spiritual well-being. Bauer and McAdams (2004) organized a correlational study on growth goals, maturity, and well-being. They found that people who organized their life goals around attaining happiness, meaningful relationships, and/or contributing to society, instead of around attaining money, status, and/or approval were likely to have higher levels of well-being.

Gross (2003) investigated emotional regulation and well-being. They focused on cognitive reappraisal and expressive suppression as strategies for emotional regulation. The cognitive reappraisal involved changing the emotional impact of the situation that felt emotionally threatening, and expressive suppression involves inhibiting the behavior of emotional expression. The authors found that those who could reappraise the situation and make meaning from the experience have more positive emotion, less negative emotion, better interpersonal functioning, and well-being. Keyes, Ryff, and Shmotkin (2002) helped distinguish between subjective well-being (SWB) and psychological well-being (PWB). They define SWB as the measure of life in terms of satisfaction and balance between positive and negative affect. PWB is described as perception of engagement with existential challenges of life.

Embodiment

Embodiment implies the experiences of a human in their particular body. The body and mind are not separate. They are linked in a way that is particular to each individual and her experiences (Scholnik & Miller, 2008). Duquin (1994) calls for an

ethic of care which considers this experience of the whole person – not just a body or a mind, but a mind/body. She discusses the way the athletic body has been represented as a tool or machine without consideration for the person connected with her body, and the subsequent objectification. “From an ethic of care standpoint, the danger of human objectification, of viewing self or others as objects, is the possibility of diminishing emotional responsiveness and empathy” (p. 270). This author also mentions that socialization and emphasis on performance no matter what the cost lead to disembodiment and insensitivity to body well-being. Yoga emphasizes the well-being of the body and the individual’s lived experience. It connects practitioners to their bodies in a way that nourishes well-being (Smith, 2007).

Hudak, Hogg-Johnson, Bombardier, McKeever, and Wright (2004) conducted a study looking at satisfaction with treatment outcome, and they found that patient satisfaction with treatment outcome is linked to states of embodiment. These authors write, “This research suggests that satisfaction with treatment outcome could be facilitated by developing strategies to improve body-self unity, and eliciting and addressing the patient’s most important reason for undergoing treatment” (p. 726). This raises the idea of yoga not only being utilized as treatment, but also being used for increasing treatment satisfaction.

Gadow (1980) discusses the power of the lived body. The lived body is able to act in the world in a way which impacts the environment. Malson, Clarke, and Finn (2007) point out that different body appearances, in particular obese and/or female gendered bodies, experience different lived experiences, and as a result lose the ability to affect and be affected by their environments in positive ways. These authors call for gender equality

to reduce the marginalization of women and in particular women with non-normative body weights. Burman (1992) mentions the role of psychology as one that is “committed to promoting positive images of devalued groups not only to support those groups and improve their current positions, but also to foster new ways of thinking and living that would eradicate such oppression” (p. 50).

Yoga and the Biopsychosocial Model of Health

Keates (2007) reports on the physiological benefits of the different types of yoga. Within the yoga culture are several types of yoga practices. The basic Hatha yoga practice is the slow stretching that is typically associated with yoga, and Bikram yoga has become popular in the United States because it is more cardiovascular and physically challenging while being practiced in heated rooms. Polakoff (1993) talks about the medical culture of alternative health care practices such as yoga. He says “The transition from Western medicine’s narrow biomedical model is now producing what some call a new biopsychosocial mode.” (p. 35).

Biopsychosocial Model of Health

Suls and Rothman (2004) define the biopsychosocial model in their article on the model’s evolution in health psychology as the idea that physical health and well-being are created by the relations of biological, psychological, and social factors. These authors pose this question to health psychologists: “How well do health psychologists embrace and examine the multiple systems that underlie the biopsychosocial model” (p. 121)? They say that how often the biological, psychological, and social/cultural factors are

included in research studies may answer this question. They encourage researchers to investigate the interactions of these factors and consider them as a whole which creates health.

Ryff and Singer (2000) discuss modern challenges with the biopsychosocial model. In particular, they point out that science and humanism are not polar opposites or a dichotomy. Taking into account the biological, psychological, and social/cultural aspects of a person creates a space where wellness involves being treated with the latest science as well as with of compassion and empathy. These authors point out the mind and body can not be separated, and the mind and body are inseparably linked characteristics of health. This is congruent with the yoga philosophy of the self having both mental and physical aspects, which interact as a functioning whole (Cope, 1999; Venkatesananda, 1999). Ryff and Singer (2000) also propose the idea of positive health as it ties to positive psychology with a purpose to emphasize the role of behavioral, environmental, psychological, and social factors in resilience, resistance to disease, optimal human functioning, flourishing, and well-being.

Yoga and Health

Patanjali (2nd century CE) formalized yoga instruction by being the first to write down yogic teachings and philosophy. Venkatesananda (1999) reports that yoga originates from the Sanskrit word for union, and the purpose of yoga is to bring mind, body, and spirit into harmony. Wilson (1991) relates the yogic concept of selflessness to the more current idea of self-actualization. Cope (1999) says that yoga postures improve mood by moving energy through places in the body where feelings of grief or anger are

stored. He said “Hatha yoga is an accessible form of learning self-soothing” (p. 232). Latha (2002) describes yoga as a holistic approach to taking care of one’s health. He emphasizes yoga as an ancient art which involves the individual in the process of healing. He says “Yoga therapy involves use of the individual’s resources and cooperation in healing. One such resource is the attitude of the individual (p. 44).”

Smith (2007) discusses yoga as a process which is adaptable to individuals despite cultural differences. He suggests the dropping of the subject-object distinction because the breath or pranayama helps bring focus to the relation of the body’s inside and outside. “One-pointed consciousness allows for the subjective engagement with a point of focus, eventually leading to the state of Samadhi, the realization of the nature of the true self” (p. 32). This author warns that the research into yoga needs to move beyond the text books into experiencing the practice or process of yoga. “First, he notes that the academic analysis of yoga must extend beyond textual analysis to engage with the experience of practitioners” (p. 32). He describes yoga practice as a mirror for the self. Women who judge their bodies from another’s view then would be unable to tap into the self mirror if viewing from the perspective of other preventing peak flow experiences. Yoga practitioners may be able to rise above or transcend this cultural disadvantage for women and help them see their selves and/or the true essence of their individual selves.

Rani and Rao (1994) investigated the body awareness of yoga practitioners. This was a controlled study, and they found that the yoga-trained group had significantly better body awareness than that of the control group. These authors describe the purpose of hatha yoga as, “...achieving systematically higher awareness of both body and mind which will in turn lead to some control over them” (p. 1103). Junkin, Kowalski, and

Flemming (2007) studied hatha yoga and self-esteem in middle-aged women. They say “Given its heavy focus on acceptance of the body, yoga may represent an ideal activity to be used within the exercise and self-esteem model” (p. S174). The subjects of this study participated in a 12-week yoga program. They had pre- and post-data collections. These authors found “there was general support for a bottom-up flow from exercise to self-efficacy, competence, and acceptance, but no overall change in self-esteem” (p. S174). They called for more research in the area. Elavsky and McAuley (2007a) conducted a randomized controlled trial involving walking and yoga highlighting exercise and self-esteem in menopausal women. Their results supported the idea that middle-aged women could enhance certain aspects of physical self-esteem by participating in physical activities like yoga and walking.

Elavsky and McAuley (2007b) examined physical activity and mental health outcomes during menopause. They used yoga and walking in a randomized controlled study with menopausal middle aged women. The participants had their body composition and fitness level assessed, and a battery of psychological tests before and after four months of participation in an exercise program. They concluded that “Physical activity appears to enhance mood and menopause-related quality of life during menopause; however, other aspects of mental health may be affected only as a result of reduction in menopausal symptoms” (p. 132).

Polakoff (1993) discusses the integration of East and West medical theories. His points include the fact that alternative health options are helping those that are not currently being helped or have reached the point where they have exhausted all avenues of traditional medical intervention. Lamb (2004) mentions the benefits of yoga as many.

She groups the benefits into three categories – physiological benefits, psychological benefits, and biochemical benefits. The physiological benefits include –

Stable autonomic nervous system equilibrium, pulse rate decreases, respiratory rate decreases, blood pressure decreases, galvanic skin response increases, alpha waves increase, EMG activity decreases, cardiovascular efficiency increases, respiratory efficiency increases, gastrointestinal function normalizes, endocrine function normalizes, excretory functions improves, musculoskeletal flexibility and joint range of motion increase, posture improves, strength and resiliency increase, endurance increases, energy level increases, weight normalizes, sleep improves, immunity increases, and pain decreases (p. 1).

Lamb (2004) lists the psychological benefits which include – “somatic and kinesthetic awareness increase, mood improves and subjective well-being increases, self-acceptance and self-actualization increase, social adjustment increases, anxiety and depression decrease, and hostility decreases” (p. 2). She describes how psychomotor and cognitive function improve –grip strength increases, dexterity and fine skills, eye-hand coordination, choice reaction time, steadiness, balance, integrated functioning of body parts, attention, concentration, memory, learning efficiency, symbol coding, depth perception, and flicker fusion frequency all improve. The listed biochemical effects are that glucose, sodium, total cholesterol, and triglycerides decrease, HDL increase, LDL and VLDL decrease, cholinesterase increases, catecholamines decrease, ATPase, Hematocrit, hemoglobin, and lymphocyte count all increase, total white blood cell count decreases, thyroxin, vitamin C, total serum protein, oxytocin, prolactin, and oxygen levels in the brain increase.

Repar and Patton (2007) looked at stress reduction among nurses at the University of New Mexico Hospitals. They identified chronic grief, compassion fatigue, burnout, maladjustment disorders, and workplace stress as common problems leading to stress in nurses. Nurses were offered stress reduction techniques while on break. “As participants listened to music, received massage, learned stretches, wrote haiku, and created collage, they turned their attention away from work and towards themselves – their own emotions and bodily sensations” (p. 184).

Demark-Wahnefried (2007) researched lifestyle interventions like yoga as it relates to quality of life in women with breast cancer. The study she mentions is that of Moadel, Shah, and Wylie-Rosett (2006), which was distinguished for the inclusion of minority subjects and those with a diverse educational background. These researchers found “no significant differences in QOL, fatigue, or distress were observed between women assigned to usual care, although a significant difference was found for social well-being, with the yoga arm experiencing significantly lesser decreases than women in usual care (change scores were -0.51 v-2.78, respectively; $P<.0001$)” (p. 4344).

Cohen and Townsend (2007) researched yoga and the management of hypertension. These authors sited several impressive studies and talked about yoga and empowerment. “Mind-body therapies (MBT’s), in particular, the Transcendental Meditation and yoga, have raised interest because they represent an alternative to medication and may contribute to an increased feeling of empowerment for patients in preventing and treating their hypertension” (p. 800).

Hoyez (2007) discusses the fashion of yoga and how it is perceived in different countries. She says, “Considering the growing connectedness of people and places, it

seems important, nowadays, to include the process of globalization in the way geographers analyze health, therapy, and well-being” (p. 113). She goes on to say that globalization is not just about Americanization of other countries but it is about their emitting cultural values as well. Yoga is used as an example of these phenomena. This author discusses the migration of yoga to the West. She talks about yoga centers such as Yogaville, Virginia and how the centers try to recreate Indian Ashrams by taking into consideration the landscape, a sense of community, and a retreat from society to give a chance for introspection. Also mentioned is the current trend of yoga classes in an urban setting as a way for practitioners to withdraw from the chaos of everyday life and recharge physically and spiritually.

Community and yoga is an important idea. It is the idea of community where each member focuses on her self and her personal best not competing to beat others. This idea may be particularly poignant when considering modern culture and its emphasis of pitting woman against one another in the beauty and mate arena (Buss, 1995a). Yoga fosters the idea of “minding your own mat” because yoga is a spiritual practice which focuses on competition with one’s self not others. This is what is behind the hypothesis of this study: If women practice yoga, experiences of a positive sense of psychological well-being and body esteem could correlate.

Summary of Review

This literature review provided a description of women’s health in modern Western culture. The purpose of this study was to exam body esteem and psychological well-being in female yoga practitioners. The relevant biological, psychological, and

social aspects of women's lives were described in the context of psychological well-being and body esteem. The measures of body esteem and psychological scales of well-being were used with this study to give insight into these areas of healthy functioning.

The philosophical views of body esteem were reviewed along with the subtopics of feminist theory, objectification theory, women's health, society, and evolutionary theory. The roots of psychological wellness and positive psychology were explored. And, yoga as a means of uniting the aspects of the biopsychosocial functioning of practitioners was explored in regards to creating optimal wellness.

CHAPTER III

METHOD

The procedures and method involved in this study are presented in this chapter. The selection of participants and their demographic data are described. The assessment instruments are described and discussed in addition to the data collection procedure. Statistical analysis related to the research questions of this study are discussed.

Women yoga practitioners were asked to complete the BES (1984) which is the Body Esteem Scale developed by Franzois and Shields, and Ryff's Scales of Psychological Well-Being or PSWB (1989). Demographic data included self-reported weight and height, years of practice, reason for practice (health or appearance), number of days per week yoga is practiced, and the type of yoga being practiced.

Participants

The participants for this study were 101 female yoga practitioners out of an estimated total population of 380 from a city in the Southwestern United States. The number of yoga practitioners was limited because of the availability of those practicing yoga in the selected geographic area.

The practicing participants were recruited from the local yoga community by posting fliers and leaving research packets at six local studios that agreed to assist in data collection. Those recruited from yoga studios were given the opportunity to complete the packets and turn them in at the studios, or they were able to send them to the researcher at the address listed on the informed consent.

An application for the Review of Human Research Subjects was submitted to the Oklahoma State University Institutional Review Board and approved prior to data collection. This study was designed so that collected data is recorded in such a way that participants would not be identified directly. See Appendix A for the IRB study approval.

Instrumentation

The Body Esteem Scale (BES) by Franzoi and Shields (1984) was used to assess body esteem, which is a measure of how one feels about her body. The BES for women has 32 items answered in Likert-like format about feelings involving body parts, function, and appearance. The items require a response from 1 (have strong negative feelings) to 5 (have strong positive feelings). The three female scales were used for this study and include sexual attractiveness, weight concern, and physical condition.

The Psychological Scales of Well-Being (PSWB) by Ryff (1989) was used to assess psychological well-being. The PSWB has six 14-item scales requiring a Likert-like response to each of the items ranging from 1 (strongly disagree) to 6 (strongly agree). The six scales include autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self acceptance.

The Demographic Questionnaire is a survey that assessed descriptive information, such as age, race, level of education, height, weight, and yoga practice. The questions about yoga practice include practicing for health/appearance reasons; length, frequency, and duration of practice; type of yoga practiced, practice as a source of enjoyment or happiness, and the extent to which yoga enhances feelings of community and well-being.

Body Esteem Scale

The Body Esteem Scale (BES) was selected for this study to assess body esteem (Franzoi & Shields, 1984) in female yoga practitioners and nonpractitioners because it was the only researched instrument mentioned in the literature which measures the relatively new research construct of body esteem (Annesi, 2005; Connors & Case, 2006; Elavsky & McCauley, 2007a; Elavsky & McCauley, 2007b; Franzoi, 2001; Franzoi & Chang, 2002; Frisby, 2004; Goldenberg & Shackelford, 2005; Kowner, 2002; Mendelson, McLaren, Gauvin, & Steiger, 2002; Rouvez, Bouget, Pannafleux, Champley, & Filaire, 2007; Wade, 2003).

The Body Esteem Scale has 35 items answered in Likert-like format about feelings involving body parts, function, and appearance. The scale ranges from 1 (have strong negative feelings) and goes to 5 (have strong positive feelings). Both the female and male scales have three subscales. The female subscales are Sexual Attractiveness, Weight Concern, and Physical Condition. The sexual attractiveness scale consists of responding to feelings about body scent, nose, lips, ears, chin, breasts, appearance of eyes, cheeks/cheekbones, sex drive, sex organs, sex activities, body hair, and face. The weight concern scale includes appetite, waist, thighs, body build, buttocks, hips, legs,

figure or physique, appearance of stomach, and weight. And, the physical condition scale consists of ranking feelings about physical stamina, reflexes, muscular strength, energy level, biceps, physical coordination, agility, health, and physical condition.

Franzoi (2001) states while simultaneously mentioning other researchers' studies, "Since its development, a number of studies suggest that the BES is adequately valid and reliable, and relatively free from socially desirable responding (Franzoi & Shields, 1984; Franzoi & Herzog, 1986; Thomas & Freeman, 1990)" (p. 181). Franzoi and Herzog (1987) mention, "The BES has been shown to be factorially sound (Franzoi & Shields, 1984) and each subscale has adequate internal consistency (coefficient alphas ranging from .78-.87) (p. 22)."

Franzoi and Herzog (1986) conducted research to create more information on convergent and discriminant validity of the BES. "Good convergent and discriminant validity was demonstrated by the Male Upper Body Strength and Physical Condition subscales and by the female Weight Concern, Physical Condition, and Sexual Attractiveness subscales" (p. 24). This study did not find a relationship between how attentive people are to their bodies and body esteem, yet it did indicate a relationship to how people feel in regards to their general physical condition and body esteem. This makes the construct of body esteem an excellent measure that can lend inferences to how an individual feels about her body, and how this affects her with feelings about health.

Thomas and Freeman (1990) studied the construct validity of the female subscales for the BES. Their research results support the construct validity of the BES female subscales and their utility for research in populations like the one used for this study. This study showed that it was a good measure for older women and generalizable to

populations other than the college population on which it was normed. These authors also suggest that studies are needed to address the changes in body esteem over time.

Psychological Scales of Well-Being

The Psychological Scales of Well-Being (Ryff, 1989) is a self report measure, and was developed from many theoretical recordings of positive functioning. It consists of six measured dimensions – self acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. These dimensions are scales divided into 14 items each where each item is given a value from 1 to 6 by the rater – strongly disagree (1), moderately disagree (2), slightly disagree (3), slightly agree (4), moderately agree (5), and strongly agree (6).

Examples of items for each of the subscales follow. For the autonomy scale respondents are asked to indicate their level of agreement or disagreement with these items: Sometimes I change the way I act or think to be more like those around me. Or, People rarely talk me into doing things I don't want to do. Example items for the environmental mastery scale are: In general, I feel I am in charge of the situation in which I live. And, I find it stressful that I can't keep up with all of the things I have to do each day. For the personal growth scale, items include: I am the kind of person who likes to give new things a try. Or, when I think about it, I haven't really improved much as a person over the years. The positive relations scale consists of items such as: I enjoy personal and mutual conversations with family and friends. And, I feel like I get a lot out of my friendships. Examples of the purpose in life scale are: I used to set goals for myself, but that now seems like a waste of time. And, my aims in life have been more a

source of satisfaction than frustration to me. The self acceptance scale contains items like: In general, I feel confident and positive about myself. Or, the past had its ups and downs, but in general, I wouldn't want to change it.

The internal consistency (α) coefficients for the scales are self acceptance, .93; positive relations with others, .91; autonomy, .86; environmental mastery, .90; purpose in life, .90; and personal growth, .87 (Ryff, 1989). The test retest coefficients were reported as self acceptance, .85; positive relations with others, .83; autonomy, .88; environmental mastery, .81; purpose in life, .82; and personal growth, .81 (Ryff, 1989). Keyes (2005) says the scales show good construct validity. Yet, Kafka and Kozma (2002) question the scales and their foundation in well-being studies, and suggest the validity value rests in the face validity of the instrument.

Ryff (1995) mentions that age and sex differences exist with certain scales. The dimensions of purpose in life and personal growth show scores of older adults as significantly lower than midlife and young adults. Both older and midlife adults score significantly higher than young adults on the dimension of environmental mastery. Self acceptance does not exhibit age differences. Autonomy showed age increments from young adulthood to midlife. Most data suggests no age differences with the subscale positive relations; however, there is data that suggests older adults score higher than midlife and young adults. The only scale showing significant sex differences is positive relations with women scoring higher than men.

Demographics Questionnaire

Demographic information was requested of all research participants by a questionnaire designed for this study. Other information requested from participants included their reasons for practicing yoga (health or appearance, organization, sense of purpose, feeling refreshed or exhausted, calm or energized, and a sense of solitude or community), age, education, self-reported weight and height, years of practice, type of practice, duration, and number of days per week that they practice.

Data Analysis

A correlational design and ANOVA were used to evaluate the data collected for this study. This helped conceptualize the relational aspects involving the variables as well as the descriptives for each instrument. This design helps to establish the presence or lack of relationship among the variables, which is the gateway to opening further research which may infer causation.

Research Questions

1.) What is the relationship of body esteem and psychological well-being?

To answer this research question involving body esteem and psychological well-being of female yoga practitioners, a correlational analysis was conducted looking at the relationship of body esteem and psychological well-being. The subscales of the BES and the PSWB along with total BES and total PSWB were examined. The regression of total

BES and total PSWB was determined to examine shared variance of these to dependent variables.

2.) What is the influence of yoga practice on body esteem?

3.) What is the influence of yoga practice on psychological well-being?

One way ANOVA was used to analyze the influence of yoga practice to body esteem and psychological well-being. Then further investigation of the psychological scales of well-being followed. Descriptive tables were generated to explain the statistical findings.

4a.) What is the relationship of age to body esteem?

4b.) What is the relationship of age to psychological well-being?

Correlational analysis was used to assess research questions 4a and 4b.

CHAPTER IV

FINDINGS

The purpose of this study was to examine the relationship of body esteem and psychological well-being for female yoga practitioners. It was believed that female yoga practitioners despite body size, shape, and age have cultivated a deep and meaningful relationship to their bodies and selves. In turn, this relationship carries into the way women cope with a stressful cultural environment. This study evaluated the relationship female yoga practitioners have with wellness through the measures of psychological well-being and body esteem.

Next, the influence of yoga practice on body esteem and psychological well-being was investigated. This line of inquiry examined the role yoga plays in regards to health and wellness. Body esteem and psychological well-being were evaluated for indications of a positive interacting of the biological, psychological, and social levels of health. Or, an indication was given as to the importance of yoga in creating a holistic or optimal feeling of well-being in female yoga practitioners.

Finally, the purpose of this study was to analyze the relationship of the yoga practitioner's age to body esteem and psychological well-being. This premise stems from the work of Tiggemann and Lynch (2001) which examined body image across the lifespan of women.

The demographics are described and analyzed with a descriptive table. A correlation matrix was setup to examine the relationship of total body esteem and total psychological well-being along with the subscales for each research instrument. The frequency of the values reported for the independent variable, length of practice, was utilized to define two groups – advanced and beginner practitioners. Then these new groups were used to evaluate the influence of yoga practice to the dependent variables of psychological well being and body esteem. ANOVA analysis was used to investigate these questions and suggest further investigation into the subscales of psychological well-being.

Demographics

Table 1 shows the descriptive data for the respondents of this study. The 101 female yoga practitioners ranged from 18 to 84 years of age. The estimated population of possible participants was 380. The mean age of the participants was 47.05 years. The average height reported was 64.99 inches with the shortest height 60 inches and the tallest 71 inches. Self reported weight ranged from 100 to 200 pounds. The average weight reported was 139.70 pounds.

Table 1

Demographic descriptive statistics

| Statistic | N | Minimum | Maximum | Mean | Std. Deviation |
|-----------|-----|---------|---------|--------|----------------|
| Age | 101 | 18 | 84 | 47.05 | 13.354 |
| Height | 101 | 60 | 71 | 64.99 | 2.468 |
| Weight | 101 | 100 | 200 | 139.70 | 22.258 |

Note. Age is measured in years. Height is reported in inches. And, weight is reported in pounds.

Race, education level, and the type of yoga practiced were other demographic items. The demographic questionnaire is Appendix B (p. 89). Of the 101 female participants 1 reported being African American, 3 identified as Native American, 3 reported being Asian, 2 were Hispanic/Latina, 91 said they were White/Caucasian, and 1 respondent checked other and reported being Middle Eastern. For education, 2 respondents said they had a high school diploma/GED, 15 reported some college, 34 said they had Bachelor's degrees, 37 reported having Master's degrees, 12 had a Doctoral degree, and one participant checked other and reported having a minister's degree. Responding to the type of yoga they prefer to practice, participants reported that 25 preferred hatha yoga, 4 practiced power yoga, 4 said they practiced ashtanga yoga, 8 reported restorative yoga, 58 preferred to integrate several types of yoga, and 2 respondents checked other writing in flow yoga and Iyengar yoga.

Research Questions

Investigation of Question 1: What is the relationship of body esteem and psychological well-being?

Body Esteem and psychological well-Being

According to the correlation matrix of this study's variables (Table 2, p. 57), there is a positive correlation between total body esteem and total psychological well-being with a correlational value (R) of .366 at the .01 level of significance. In order to investigate the strength of this relationship the adjusted R^2 was calculated. Figure 1 (Appendix C, p. 90) is the scatter plot indicating this linear relationship. The adjusted R^2 of 15% infers that if body esteem is known then 15% of psychological well being can be explained. These items are interrelated but they are not measuring the same constructs.

The three subscales for body esteem, sexual attractiveness, weight concern, and physical condition all show a positive correlation to total psychological well-being with values of .278 (.01 level of significance), .371(.01 level of significance), and .239 (.05 level of significance) in that order.

Table 2

Correlational matrix of study variables

| | | AGE | SEXATTR | WTCON | PHYSCON | AUTO | ENVMAS | PERSGROW | POSREL | PURPLIFE | SELFACC | TOTALBES | TOTALPWB |
|----------|---------------------|--------|---------|--------|---------|--------|--------|----------|--------|----------|---------|----------|----------|
| AGE | Pearson Correlation | 1 | | | | | | | | | | | |
| | Sig. (2-tailed) | . | | | | | | | | | | | |
| | N | 101 | | | | | | | | | | | |
| SEXATTR | Pearson Correlation | -.109 | 1 | | | | | | | | | | |
| | Sig. (2-tailed) | .278 | . | | | | | | | | | | |
| | N | 101 | 101 | | | | | | | | | | |
| WTCON | Pearson Correlation | -.008 | .619** | 1 | | | | | | | | | |
| | Sig. (2-tailed) | .936 | .000 | . | | | | | | | | | |
| | N | 101 | 101 | 101 | | | | | | | | | |
| PHYSCON | Pearson Correlation | .053 | .342** | .529** | 1 | | | | | | | | |
| | Sig. (2-tailed) | .601 | .000 | .000 | . | | | | | | | | |
| | N | 101 | 101 | 101 | 101 | | | | | | | | |
| AUTO | Pearson Correlation | .304** | .157 | .268** | .185 | 1 | | | | | | | |
| | Sig. (2-tailed) | .002 | .116 | .007 | .064 | . | | | | | | | |
| | N | 101 | 101 | 101 | 101 | 101 | | | | | | | |
| ENVMAS | Pearson Correlation | .492** | .172 | .362** | .218* | .498** | 1 | | | | | | |
| | Sig. (2-tailed) | .000 | .086 | .000 | .028 | .000 | . | | | | | | |
| | N | 101 | 101 | 101 | 101 | 101 | 101 | | | | | | |
| PERSGROW | Pearson Correlation | .366** | .287** | .317** | .106 | .473** | .527** | 1 | | | | | |
| | Sig. (2-tailed) | .000 | .004 | .001 | .291 | .000 | .000 | . | | | | | |
| | N | 101 | 101 | 101 | 101 | 101 | 101 | 101 | | | | | |
| POSREL | Pearson Correlation | .363** | .190 | .101 | .083 | .418** | .529** | .444** | 1 | | | | |
| | Sig. (2-tailed) | .000 | .058 | .317 | .412 | .000 | .000 | .000 | . | | | | |
| | N | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | | | | |
| PURPLIFE | Pearson Correlation | .299** | .195 | .325** | .320** | .434** | .605** | .455** | .611** | 1 | | | |
| | Sig. (2-tailed) | .002 | .050 | .001 | .001 | .000 | .000 | .000 | .000 | . | | | |
| | N | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | | | |
| SELFACC | Pearson Correlation | .378** | .320** | .413** | .258** | .508** | .663** | .556** | .612** | .783** | 1 | | |
| | Sig. (2-tailed) | .000 | .001 | .000 | .009 | .000 | .000 | .000 | .000 | .000 | . | | |
| | N | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | | |
| TOTALBES | Pearson Correlation | -.033 | .824** | .892** | .725** | .250* | .309** | .301** | .155 | .338** | .410** | 1 | |
| | Sig. (2-tailed) | .745 | .000 | .000 | .000 | .012 | .002 | .002 | .122 | .001 | .000 | . | |
| | N | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | |
| TOTALPWB | Pearson Correlation | .473** | .278** | .371** | .239* | .712** | .817** | .728** | .781** | .807** | .866** | .366** | 1 |
| | Sig. (2-tailed) | .000 | .005 | .000 | .016 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | . |
| | N | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 |

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

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

Note. The abbreviations are as follows. Total BES is total body esteem. The three BES subscales are sexattr for sexual attraction, wtcon for weight concern, and physcon for physical condition. Total PWB is total psychological well-being. The six PWB subscales are auto for autonomy, envmas for environmental mastery, persgrow for personal growth, posrel for positive relations, purplife for purpose in life, and selfacc for self-acceptance.

Total body esteem correlates positively to the autonomy (.250 (.05 level of significance), environmental mastery (.309), personal growth (.301), purpose in life (.338), and self acceptance (.410) subscales of psychological well-being with the latter three being at the .01 level of significance.

There was relatedness found between the three subscales of body esteem and the six subscales of psychological well-being. The body esteem scale of sexual attractiveness correlates positively to the psychological well-being scales of personal growth (.287) and self acceptance (.320) both at the .01 level of significance.

The weight concern subscale of body esteem positively correlates to the psychological scales of well-being subscales of autonomy (.268), environmental mastery (.362), personal growth (.317), purpose in life (.325), and self-acceptance (.413) at the .01 level of significance.

Finally, the physical condition subscale of body esteem correlates positively to the environmental mastery (.218), purpose in life (.320), and self acceptance (.258) scales of psychological well-being. Environmental mastery was significant at the .05 level. Both purpose in life and self acceptance were significant at the .01 level.

Investigation of Questions 2 and 3:

2. What is the influence of yoga practice on body esteem?
3. What is the influence of yoga practice on psychological well-being?

Yoga Practice and Body Esteem

The variable of length of practice was divided to explore the ANOVA analysis of yoga practice on body esteem. The data division was created by looking at the frequency distribution, and making a cut at 24 months where 51.5% of the participants practiced at this level or under as beginners. While 48.5% of them practiced above this level as advanced practitioners. The ANOVA table (Table 3) shows the F ratio of 7.882 shows a significant influence of practice on body esteem. The α for body esteem was .8331 indicating that the items on the BES assess for mostly body esteem.

Table 3

ANOVA of yoga practice separated into two levels by median and body esteem

| TOTALBES | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | 1998.374 | 1 | 1998.374 | 7.882 | .006 |
| Within Groups | 25100.181 | 99 | 253.537 | | |
| Total | 27098.554 | 100 | | | |

Note. TOTALBES is the total for all three subscales of body esteem.

Table 4 (p. 60) organizes the body esteem variable's descriptive statistics into beginner and advanced practitioners. Total body esteem for women consists of 32 items which can be scored as high as 5 for a possible high score of 160. The total mean body esteem for beginning practitioners was 108.40 and for advanced practitioners was 116.51. The maximum possible score for the sexual attractiveness scale is 65. The mean for sexual attractiveness in beginning practitioners was calculated as 44.38 and for advanced practitioners 47.86. The largest amount that can be measured with the weight concern scale is 50. The mean for beginners was 31.58 and advanced was 33.12. For the physical

condition scale the highest reportable score is 45. The mean for beginners was 32.44 and advanced was 35.53.

Table 4

Descriptive statistics for body esteem divided into beginning and advanced practitioners

| | Practice | | | | | |
|-----------------------|----------|--------|--------------------|----------|--------|--------------------|
| | Beginner | | | Advanced | | |
| | N | Mean | Standard Deviation | N | Mean | Standard Deviation |
| Total Body Esteem | 52 | 108.40 | 17.183 | 49 | 116.51 | 14.707 |
| Sexual Attractiveness | 52 | 44.38 | 7.431 | 49 | 47.86 | 6.384 |
| Weight Concern | 52 | 31.58 | 7.487 | 49 | 33.12 | 7.058 |
| Physical Condition | 52 | 32.44 | 5.955 | 49 | 35.53 | 4.857 |

Yoga Practice and Psychological Well-Being

The same groups were used to analyze yoga practice and psychological well-being. However, this time significance was not found. Table 5 shows the 2 levels divided by mean.

Table 5

ANOVA of yoga practice separated into two levels by median and psychological well-being

| TOTALPWB | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|------|------|
| Between Groups | 79.811 | 1 | 79.811 | .037 | .847 |
| Within Groups | 210842.4 | 99 | 2129.721 | | |
| Total | 210922.2 | 100 | | | |

Note. TOTALPWB is the total for all six subscales of psychological well-being.

Each subscale of psychological well-being (autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self acceptance) was explored utilizing ANOVA and no significance was found. The α for psychological well-being was .7947 indicating that most of the items on the PSWB assess for psychological well-being.

Table 6 (p. 62) organizes the psychological well-being variable's descriptive statistics into beginner and advanced practitioners. The psychological scales of well-being consists of 6 subscales with 14 questions which can be given a value up to 6. The maximum score for total psychological well-being is 504. The highest possible score for each scale is 84. The mean reported for total psychological well-being in beginners was 409.08 and in advanced practitioners was 409.49. The means calculated for autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self acceptance were for beginners 63.79, 65.60, 74.02, 69.73, 66.33, and 69.62; and for advanced practitioners were 66.33, 66.18, 74.80, 67.84, 64.80, and 69.55 respectively.

Further Investigation of Yoga Practice and Body Esteem and Psychological Well-Being

A correlation matrix was created to analyze the relationships of the variables of yoga practice, body esteem, and psychological well-being. Table 7 (p. 63) data show the results. Yoga practice and psychological well-being do not show a correlation. Yet, yoga practice and body esteem show the R value of .248 which is significant at the .05 level of significance.

Table 6

Descriptive statistics for body esteem divided into beginning and advanced practitioners

| Total Psychological | Practice | | | | | |
|-----------------------|----------|--------|--------------------|----------|--------|--------------------|
| | Beginner | | | Advanced | | |
| | N | Mean | Standard Deviation | N | Mean | Standard Deviation |
| Well Being | 52 | 409.08 | 42.568 | 49 | 409.49 | 49.687 |
| Autonomy | 52 | 63.79 | 10.195 | 49 | 66.33 | 10.109 |
| Environmental Mastery | 52 | 65.60 | 9.631 | 49 | 66.18 | 11.823 |
| Personal Growth | 52 | 74.02 | 9.627 | 49 | 74.80 | 8.756 |
| Positive Relations | 52 | 69.73 | 10.156 | 49 | 67.84 | 12.746 |
| Purpose in Life | 52 | 66.33 | 7.265 | 49 | 64.80 | 7.921 |
| Self Acceptance | 52 | 69.62 | 9.694 | 49 | 69.44 | 9.260 |

The independent variable of yoga practice was evaluated with a histogram. The distribution of yoga practice is depicted in Figure 2 (Appendix C, p.90). This graph illustrates that the data is skewed for the independent variable of yoga practice. The mean is about 50 months or over 4 years of practice. The population of 101 yoga practitioners was recruited at various yoga studios. For the most part, those who filled out the research packets were advanced practitioners. Because of this narrow range, using yoga practice for prediction is not recommended, and any interpretation should be considered with caution (Keppel & Wickens, 2004).

Table 7

Correlation matrix of yoga practice, body esteem, and psychological well-being

| | | PRAC | TOTALPWB | TOTALBES |
|----------|---------------------|-------|----------|----------|
| PRAC | Pearson Correlation | 1 | .089 | .248* |
| | Sig (2-tailed) | | | |
| | N | 101 | | |
| TOTALPWB | Pearson Correlation | .089 | 1 | .366** |
| | Sig (2-tailed) | .377 | | .000 |
| | N | 101 | 101 | 101 |
| TOTALBES | Pearson Correlation | .248* | .366** | 1 |
| | Sig (2-tailed) | .012 | .000 | |
| | N | 101 | 101 | 101 |

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

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

Note. The abbreviations of PRAC , TOTALPWB, and TOTALBES represent practice in years, total psychological well-being, and total body esteem respectively.

Investigation of Questions 4a and 4b

4a. What is the relationship of age to body esteem?

4b. What is the relationship of age to psychological well-being?

Age, Body Esteem, and Psychological Well-Being

The correlation values from (Table 2, p. 57) were used to evaluate these questions. Age did not correlate with body esteem, but it did show a significant correlation with psychological well-being.

Total body esteem does not show a significant correlation with age. One of the three scales of body esteem, physical condition, shows significant relatedness with a

positive correlation with level of education with a value of .205 at the .05 level of significance.

Psychological well-being shows a significant relationship with the independent variable of age. Age is positively correlated with a value of .473 at the .01 level of significance

The six subscales of psychological well-being exhibit some correlation with age. Autonomy is positively correlated with age at the .01 level of significance with a value of .304. Environmental mastery shows positive correlation with age (.492) at the .01 level of significance. Also, personal growth positively correlates with age (.366) at the .01 level of significance. Positive relationships were also positively correlated to age (.363) at the .01 level. Purpose in life and self acceptance show relatedness to age. Both correlated positively with age values of .299, and .378 (.01 level of significance).

In Summary, body esteem and psychological well-being were related; yet not to the point where they don't stand alone with what they measure. Yoga practice was found to influence body esteem. But, the data for psychological well-being was skewed with the average length of practice being over 4 years. Age and body esteem in this study of female yoga practitioners were not related. And, age and psychological well-being were related. Many conclusions and implications can be drawn from this data.

CHAPTER V

DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

This chapter represents an overview of this study and an interpretation of the results. Discussions on the implications of the results are explored, and recommendations for future research are suggested.

Summary of Study

The purpose of this study was to examine the relationship of body esteem and psychological well-being for female yoga practitioners. Women are exposed to many stresses which make wellness a challenge (APA, 2007). The biopsychosocial model focuses on integrating the biological, social, and psychological factors of well-being. Yoga literally means to yoke, join, or unite (Cope, 1999). This study explored the interrelatedness of yoga practice to body esteem and psychological well-being.

This study was designed for female yoga practitioners in a Southwest community to voluntarily participate in answering and ranking items on a demographic questionnaire, the Body Esteem Scale (BES) (Franzoi & Shield, 1984), and the Psychological Scales of Well-Being (PSWB) (Ryff, 1989).

A correlation matrix was created to assess the relationships of body esteem, psychological well-being, and age. ANOVA was utilized to assess the independent variable of yoga practice and its influence on body esteem and psychological well-being. This led to further investigation of these variables.

Discussion and Interpretation of Findings

The first research endeavor of this study was the exploration of the relationship of body esteem and psychological well-being. A correlation matrix was created to evaluate the possibility of relationship, and a significant, positive, linear relationship existed between these two variables. The three subscales of body esteem (sexual attractiveness, weight concern, and physical condition) all correlated positively to total psychological well-being. Total body esteem showed a positive correlation with the autonomy, environmental mastery, personal growth, purpose in life, and self-acceptance scales of psychological well-being.

The individual scales were compared and the results indicated relatedness between the three individual scales of body esteem and the six individual scales of psychological well-being. The body esteem subscale of sexual attractiveness correlates positively to the psychological well-being scales of personal growth and self acceptance. The BES subscale of weight concern positively correlates to the PWB subscales of autonomy, environmental mastery, personal growth, purpose in life, and self-acceptance. And, the BES subscale of physical condition correlates positively to the PWB subscales of environmental mastery, purpose in life, and self-acceptance.

The Cartesian argument postulates a split between mind and body, and does not apply here. It seems that the physical and mental are tied into a relationship which is significant. How one experiences her body impacts her psychological makeup as well as vice versa. This finding may be explained by the biopsychosocial model of wellness (Ryff & Singer, 2000; Suls & Rothman, 2004). Feeling good about one's body has a positive impact on psychological well-being, or a strong sense of psychological wellness relates to positive feelings about the body and its parts and functions. These findings are inline with what Hudak, Hogg-Johnson, Bombardier, McKeever, and Wright (2004) explained as embodiment which stresses the body as a place of significant experience not just an entity separate from the mind or self.

The second line of inquiry for this research was the influence of yoga practice on body esteem. ANOVA was used to analyze the influence of yoga practice on body esteem. The years of practice reported were divided into two groups based on median. This study showed significant influence of yoga practice on body esteem. The F ratio was 7.882 at .006 significance. This supports the idea of body as process suggested by Franzoi (1995) and not image or objectified object of other as McKinley (1995) described. Also demonstrated by Franzoi and Herzog (1986), when they found that body esteem was a valid measure of a particular type of self esteem, and not related to public body consciousness.

The third question revolved around the influence of yoga practice on psychological well-being. ANOVA and the same levels of grouping were used to analyze yoga practice influence on psychological well-being. No significance was found. Further analysis of ANOVA with the 6 subscales indicated no significance as well. With

additional investigation, a correlation matrix looking at yoga practice, body esteem, and psychological well-being showed no relationship between psychological well-being and practicing yoga.

Exploring the data more in depth, the data distribution for the construct of psychological well-being was analyzed. The data is skewed with the average length of practice being around 4 years. The respondents were mostly experienced practitioners and seasoned practitioners of yoga. Because of this narrow range, using yoga practice for prediction should be done with caution (Keppel & Thomas, 2004).

Investigating the distribution and mean scores of body esteem and psychological well-being provided more information. The mean score of body esteem for the beginner group of yoga practitioners was 108.40 with a range of scores from 69 to 140. The advanced group of yoga practitioners had a mean score of 116.51 with a range of scores from 90 to 150. The highest possible score would be 160 and the lowest possible score being 32. The female yoga practitioners in this study scored relatively high on the BES.

The mean score for psychological well-being was 409.08 for the beginning group with a range of scores from 310 to 488. The mean for psychological well-being for the advanced group was 409.49 with the range from 261 to 495. The highest possible score would be 504 and the lowest possible score being 84. It is clear that the female yoga practitioners of this study scored high on the PSWB.

The fourth question for this study was an inquiry into the relationship of age and body esteem or age and psychological well-being in female yoga practitioners. Correlation values were used to assess the possibility of relationship among these variables. Total body esteem did not show a significant correlation with age. This

confirms some of what was discovered in the literature review. That is, as women age, the result is not reduced body esteem (McKinney, 2006 ; Tiggemann & Lynch, 2001).

Psychological well-being did significantly correlate with all the independent variables of age. This is congruent with the findings of Heidrich and Ryff (1993) who found that as women age many of them report a strong sense of psychological well-being despite failing health. The autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self acceptance subscales show positive correlation with age. This makes sense from a developmental stand point, and is supported in the literature involving psychological well-being and aging (Heidrich & Ryff, 1993).

Conclusions and Implications

The following can be concluded from this study with female yoga practitioners. A positive linear relationship exists between body esteem and psychological well-being. Yoga practice appears to positively influence body esteem. The results of this study indicate that yoga practice did not influence psychological well-being. Upon closer examination, it can be concluded that the data was mostly from experienced yoga practitioners who scored relatively high on the psychological scales of well-being skewing the data making interpretation difficult. And, body esteem does not appear to correlate with age which is similar to previous findings. Psychological well-being correlated positively with age.

This study showed a positive linear relationship between body esteem and psychological well-being. This offers the idea of a body-mind that is inseparable as is identified by the biopsychosocial theory of wellness. The field of health psychology calls

for wellness treatments which enhance optimal wellness (Nicassio, Meyerowitz, & Kerns, 2004). Yoga is an ancient art, philosophy, and science which focus on the integration of mind and body (Daubenmier, 2005).

Because the biopsychosocial model of health and wellness calls for clinical interventions that integrate mind and body, the implications of this finding are for yoga and other mind/body practices to be utilized for optimal wellness in women.

Psychological well-being and body esteem are interrelated in female yoga practitioners. Fostering a relationship between body and mind yokes or joins them for integrated wellness (Ryff & Singer, 2000).

Yoga practice does positively influence body esteem. Yoga may cultivate a relationship with the body. Wilson (1991) studied self-actualization, selflessness, and self-awareness. This may be the map of the way yoga gives women a means of self-awareness that competes with the self on the mat excluding the comparison of self with others. The implication for this finding may be that yoga helps women focus on themselves and improving their personal relationships with their bodies instead of competition with other women for body esteem.

The findings on the influence of yoga on psychological well-being were not conclusive. There was no influence of yoga on psychological well-being despite the high scores on the PSWB. This study had a population of very experienced yoga practitioners. The data can not be used for prediction. More research is needed in this area. Because of the skewed data on experienced yoga practitioners, a good picture of influence of yoga practice on psychological well-being was not evident in this study. However, the practitioners scored relatively high on the PSWB.

There was no relationship found with body esteem and age. Franzoi and Herzog (1986) tied body esteem to self esteem. Wade (2000) implied that body and/or self esteem depend(s) on the view of the opposite sex. According to the evolutionary psychologist Buss (2003) as women age they become less desirable to the opposite sex. If women's body and/or self esteem depend(s) on the view of the opposite sex, then it would be expected that body esteem would be negatively correlated to age. Yet, it was not, and this follows suit with previous studies by McKinney (2006a) and Tiggeman and Lynch (2001).

The implications for this finding suggest that female yoga practitioners are somehow able to move past the biological dictates and cultural impositions on what makes their bodies attractive to opposite sex even as they age. Psychological well-being correlated positively to age. This study confirms what has been inferred and studied by Heidrich and Ryff (1993). That women report a strong sense of psychological well-being as they age despite the associated decline in health.

The implication for this finding is that as women develop psychologically, they are able to integrate their life's experiences into meaningful, fulfilling, and positive ways. This follows Keyes's (2002) description of positive human functioning and behavior along with their functions for better health and wellness. And, it is in alignment with happiness and health which Seligman and Csikszentmihalyi (2000) describe as a sense of purpose, satisfaction, hope, optimism, and flow.

Yoga focuses on an internal experience (Cope, 1999). As women tune into this internal experience or voice, they may be able to look past the cultural pressures of women and create improved health and overall well-being (Diener et al., 1999; Keyes,

2005; Gilligan, 1993; and Seligman & Csikszentmihalyi, 2000). As Godfrey (2006) suggests, yoga can be used to create a sense of peace in one's being and one's community. Solitude and community may somehow be similar and both may be needed for self-actualization and peak experiences. There is a need for more research on this topic. Yoga could be an important tool for women and clinicians who want to foster health, happiness, and wellness.

Limitations

The limitations in this study relate to the study population and the measuring and defining of yoga practice. The study population was from the Southwest United States. Culture varies and a diverse sample of yoga practitioners from not only different states, but also from throughout the world is needed to thoroughly investigate the influence of yoga practice on body esteem and psychological well-being.

The study population consisted of mostly advanced practitioners. A variety in the number of years experience is needed to make conclusions about the influence of yoga on body esteem and psychological well-being.

Measuring yoga practice could involve more than length of practice. Grouping practitioners by length of practice does not necessarily make them more advanced with years of practice. Other factors such as the number of days a week practiced and the length of the practice session need to be considered.

This study focused on relations and influence of yoga practice. It can not be used to imply cause and effect. In order for yoga to be utilized in clinical settings to enhance wellness, more research providing empirical evidence of treatment success is necessary.

REFERENCES

- Akiba, D. (1998). Cultural variations in body esteem: How young adults in Iran and the united states view their own appearances. *The Journal of Social Psychology, 138*, 539-540.
- Annesi, J. (2005). Relations of body esteem factors with exercise session attendance in women initiating a physical activity program. *Perceptual and Motor Skill, 100*, 995-1003.
- American Psychological Association. (2007). Guidelines for psychological practice with girls and women. *American Psychologist, 62*, 949-979.
- Bartlewski, P., Van Raalte, J., Brewer, B. (1996). Effects of aerobic exercise on the social physique anxiety and body esteem of female college students. *Women in Sport and Physical Activity Journal, 5*(2), 49-57.
- Bauer, J., & McAdams, D. (2004). Growth goals, maturity, and well-being. *Developmental Psychology, 40*, 114-127.
- Beltran, M. (2002). The Hollywood Latina body as site of social struggle: media constructions of stardom and Jennifer Lopez's "cross-over butt". *Quarterly Review of Film & Video, 19*, 71-86.
- Bordo, S. (1993). *Unbearable weight: Feminism, western culture, and the body*. CA: University of California Press.

- Boteach, S. (2006). The receding hemlines of crown heights. *Beliefnet*. Retrieved October 8, 2008, from <http://www.beliefnet.com>
- Brownell, K. (1991). Dieting and the search for the perfect body: Where physiology and culture collide. *Behavior Therapy*, 22, 1-12.
- Burman, E. (1992). Feminism and discourse in developmental psychology: Power, subjectivity, and interpretation. *Feminism and Psychology*, 2, 45-59.
- Buss, D. (1995a). Psychological sex differences: origins through sexual selection. *American Psychologist*, 50, 3, 164-168.
- Buss, D. (1995b). Author's response: the future of evolutionary psychology. *Psychological Inquiry*, 6, 1, 81-87.
- Buss, D. (2000). The evolution of happiness. *American Psychologist*, 55, 15-23.
- Buss, D. (2003). *The Evolution of Desire: Strategies of Human Mating*. (Revised Edition). New York: Basic Books.
- Buss, D., & Reeve, K. (2003). Evolutionary psychology and developmental dynamics comment on Lickliter and Honeycutt. *Psychological Bulletin*, 129, 848-853.
- Cassidy, A. (2007). The (sexual) politics of evolution. *History of Psychology*, 10(2) 199-226.
- Cohen, D., & Townsend, R. (2007). Yoga and hypertension. *The Journal of Clinical Hypertension*, 9, 800-801.
- Connors, J., & Case, P. (2006). Sex, body esteem, and self-esteem. *Psychological Reports*. 98, 699-704.
- Cope, S. (1999). *Yoga and the quest for the true self*. New York: Bantam Books.

- Collins, F., Sorocco, K., Haala, K., Miller, B., & Lovallo, W. (2003). Stress and health. In Cohen, McChargue, & Collins (Ed.), *The Health Psychology Handbook*. (pp. 169-186), Thousand Oaks: Sage Publications, Inc.
- Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety*. San Francisco: Jossey-Bass
- Csikszentmihalyi, M. (1979). The flow experience. In D. Goleman, & R. J. Davidson (Ed.), *Consciousness: Brain, States of Awareness and Mysticism*. New York: Harper Row.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience – Steps towards enhancing the quality of life*. New York: Harper & Row Publishers Inc.
- Csikszentmihalyi, M., & Massimini, F. (1985). On the psychological selection of bio-cultural information. *New Ideas in Psychology*, 3, 115-138.
- Csoboth, C. T. (2003). Women's health issues. In Cohen, McChargue, & Collins (Ed.), *The Health Psychology Handbook*. (pp. 469-484), Thousand Oaks: Sage Publications, Inc.
- Daubenmier, J. (2005). The relationship of yoga, body awareness, and body responsiveness to self-objectification and disordered eating. *Psychology of Women Quarterly*, 29, 207-219.
- Davis, C., Claridge, G., & Brewer, H. (1996). The two faces of narcissism: Personality dynamics of body esteem. *Journal of Social and Clinical Psychology*, 15, 153-166.
- DeBeauvoir, S. (1952). *The second sex*. New York: Alfred A. Knopf.
- Demark-Wahnfried, W. (2007). Move onward, press forward, and take a deep breath: can lifestyle interventions improve the quality of life of women with breast cancer, and how can we be sure? *Journal of Clinical Oncology*, 25, 4344-4345.

- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*, 276-302.
- Duquin, M. (1994). The body snatchers and Dr. Frankenstein revisited: Social construction and deconstruction of bodies and sport. *Journal of Sport and Social Issues, 18*, 268-281.
- Elavsky, S. & McCauley, E. (2007a). Exercise and self-esteem in menopausal women: a randomized controlled trial involving walking and yoga. *American Journal of Health Promotion, 22*, 2, 83-92.
- Elavsky, S. & McCauley, E. (2007b). Physical activity and mental health outcomes during menopause: a Randomized Controlled Trial. *Annals of Behavioral Medicine, 33*, 2, 132-142.
- Faith, M., & Thompson, J. (2003). Obesity and body image disturbance. In Cohen, McChargue, & Collins (Ed.), *The Health Psychology Handbook*. (pp. 125-145). Thousand Oaks: Sage Publications, Inc.
- Fava, G., & Riuni, C. (2003). Development and characteristics of a well-being enhancing psychotherapeutic strategy: Well-being therapy. *Journal of Behavioral Therapy and Experimental Psychology, 34*, 45-63.
- Finkenber, M., Dinucci, J., McCune, S., & McCune, E. (1994). Personal incentives for exercise and body esteem: A canonical correlation analysis. *The Journal of Sports Medicine and Physical Fitness, 34*, 398-402.
- Franzoi, S. (1995). The body-as-object versus the body-as-process: Gender differences and gender considerations. *Sex Roles, 33*, 417-437.

- Franzoi, S. (2001). Is female body esteem shaped by benevolent sexism? *Sex Roles, 44*, 177-188.
- Franzoi, S., & Chang, Z. (2002). The body esteem of Hmong and Caucasian young adults. *Psychology of Women Quarterly, 26*, 89-91.
- Franzoi, S., & Herzog, M. (1986). The Body Esteem Scale: A convergent and discriminant validity study. *Journal of Personality Assessment, 50*, 24-31.
- Franzoi, S., & Herzog, M. (1987). Judging physical attractiveness: what body aspects do we use? *Personality and Social Psychology Bulletin, 13*, 1, 19-33.
- Franzoi, S., Kessenich, J., & Sugrue, P. (1989). Gender differences in the experience of body awareness: an experiential sampling study. *Sex Roles, 21*, 499-515.
- Franzoi, S., & Shields, S. (1984). The Body Esteem Scale: multidimensional structure and sex differences in a college population. *Journal of Personality Assessment, 48*, 173-178.
- Frisby, C. (2004). Does race matter? effects of idealized images on African American women's perceptions of body esteem. *Journal of Black Studies, 34*, 323-347.
- Fredrickson, B., & Roberts, T. (1997). Objectification theory: toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21*, 173-206.
- Furnham, A., & Boughton, J. (1995). Eating behavior and body dissatisfaction among dieters, aerobic exercisers and a control group. *European Eating Disorders Review, 3*, 35-45.
- Gadow, S. (1980). Body and self: A dialectic. *The Journal of Medicine and Philosophy, 5*, 172-185.

- Gilligan, C. (1993). *In a different voice: psychological theory and women's development*. Boston: Harvard University Press.
- Godfrey, J. (2006). Toward optimal health: Eva Selhub, M. D., discusses mind-body medicine for women. *Journal of Women's Health, 15*, 1111-1115.
- Goldberg, P., Gottesdiener, M., Abramson, P. R. (1975). Another put-down of women? Perceived attractiveness as a function of support for the feminist movement. *Journal of Personality and Social Psychology, 32*, 113-115.
- Goldberg, J., Bailey, S., Lenart, E., & Koff, E. (1996). A new visual image rating scale for females: Correlations with measures of relative fatness, weight dissatisfaction, and body esteem. *Perceptual and Motor Skills, 82*, 1075-1084.
- Goldenberg, J., McCoy, S., Pyszczynski, T., Solomon, S., & Greenberg, J. (2000). The body as a source of self-esteem: the effect of mortality salience on identification with one's body, interest in sex, and appearance monitoring. *Journal of Personality and Social Psychology, 79*, 118-130.
- Goldenberg, J., & Shackelford, T. (2005). Is it me or is it mine? Body-self integration as a function of self-esteem, body-esteem, and mortality salience. *Self and Identity, 4*, 227-241.
- Gore, A. (2006). *An inconvenient truth: The planetary emergency of global warming and what we can do about it?* New York: Rodale.
- Grogan, S., Williams, Z., & Conner, M. (1996). The effects of viewing same-gender photographic models on body-esteem? *Psychology of Women Quarterly, 20*, 569-575.

- Gross, J. (2003). Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362.
- Heenan, C. (2004). Biological politics: Feminist and anti-feminist perspectives –a reappraisal. *Feminism and Psychology*, 14, 401-403.
- Heidrich, S., & Ruff, C. (1993). Physical and mental health in later life: The self-system as mediator. *Psychology and Aging*, 8, 327-338.
- Henderson-King, E., & Henderson-King, D. (1997). Media effects on women's body esteem: Social and individual difference factors. *Journal of Applied Social Psychology*, 27, 399-417.
- Hird, M. (2006). Sex diversity and evolutionary psychology. *The Psychologist*, 19, 30-32.
- hooks, b. (1984). *Feminist theory from margin to center*. (2nd ed.) MA: South End Press.
- Hoyez, A. (2007). The 'world of yoga': The production and reproduction of therapeutic landscapes. *Social Science and Medicine*, 65, 112-124.
- Hudak, P., Hogg-Johnson, S., Bombardier, C., McKeever, P., & Wright, J. (2004). Testing a new theory of patient satisfaction with treatment outcome. *Medical Care*, 8, 726-739.
- Jung, J., & Forbes, G. (2006). Multidimensional assessment of body dissatisfaction and disordered eating in Korean and US college women: A comparative study. *Sex Roles*, 55, 39-50.
- Junkin, S., Kowalski, K., & Fleming, T. (2007). Yoga and self-esteem: exploring change in middle-aged women. *Journal of Sport and Exercise Psychology*, 29, S174-S175.

- Kafka, G. J., & Kozma, A. (2002). The construct validity of Ryff's Scales of Psychological Well-Being (SPWB) and their relationship to measures of subjective well-being. *Social Indicators Research, 57*, 171-190.
- Keates, N. (2007). Gearing up: Is yoga just posing as a good workout? *Wall Street Journal (Eastern Edition)*. 250. New York, 1.
- Keppler, G. & Wickens, T. (2004). *Design and Analysis: A Researcher's Handbook.. (4th ed.)*. NJ: Pearson Education Inc.
- Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Research, 43*, 207-222.
- Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73*, 539-448.
- Keyes, C. L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology, 82*, 1007-1022.
- Kowner, R. (2002). Japanese body image: Structure and esteem scores in a cross-cultural perspective. *International Journal of Psychology, 37*, 149-159.
- Lamb, T. (2004). Health benefits of yoga. *International Association of Yoga Therapists*, Retrieved August 10, 2006, from <http://www.iayt.org/site/publications/articles/hlthbenefits.php>
- Latha (2002). Yoga attitude scale construction and validation. *Journal of Indian Psychology, 20*, 43-50.

- Lightsey, R. (1994). "Thinking positive" as a stress buffer: The role of positive automatic cognitions in depression and happiness. *Journal of Counseling Psychology, 41*, 325-334.
- Malson, H., Simon, C., & Finn, M. (2007). I don't think that's normal: A reflection on accounts of experiences of treatment or eating disorders. *Feminism and Psychology, 17*, 417-424.
- Massimini, F., & Fave, A. (2000). Individual development in a bio-cultural perspective. *American Psychologist, 55*, 24-33.
- McCall, T. (2007). *Yoga as medicine: The yogic prescription for health and healing*. New York: Bantam Books.
- McConnell, K., & Swan, P. (2000). Body esteem and body shape satisfaction in women with regional adiposity. *Journal of Social Behavior and Personality, 15*, 505-513.
- McKinley, N. (1995). Women and objectified body consciousness: A feminist psychological analysis. (Doctoral Dissertation, University of Wisconsin-Madison, 1995). *Dissertation Abstracts International, 56* (5-B), 2901.
- McKinley, N. (1998). Gender differences in undergraduates' body esteem: The mediating effect of objectified body consciousness and actual/ideal weight discrepancy. *Sex Roles, 39*, 113-123.
- McKinley, N.M. (2006). The developmental and cultural contexts of objectified body consciousness: a longitudinal analysis of two cohorts of women. *Developmental Psychology, 42*, 679-687.
- McLaren, L., & Kuh, D. (2004). Women's body dissatisfaction, social class, and social mobility. *Social Science and Medicine, 58*, 1575-1584.

- McLaren, L., Kuh, D., Hardy, R., & Gauvin, L. (2004). Positive and negative body-related comments and their relationship with body dissatisfaction in middle-aged women. *Psychology and Health, 19*, 261-272.
- Mendelson, B., McLaren, L., Gauvin, L., & Steiger, H. (2002). The relationship of self-esteem and body esteem in women with and without eating disorders. *International Journal of Eating Disorders, 31*, 318-323.
- Mendelson, B., White, D., & Mendelson, M. (1996). Self-esteem and body esteem: effects of gender, age, and weight. *Journal of Applied Developmental Psychology, 17*, 321-346.
- Moadel, A., Shah C., & Wylie, R. (2006). Randomized control trial of yoga among multiethnic sample of breast cancer patients: effects on quality of life instrument. *Journal of Clinical Oncology, 25*, 6027.
- Nicassio, P., Meyerowitz, B., & Kerns, R. (2004). The future of health psychology interventions. *Health Psychology, 23*, 132-137.
- Orbach, S. (1988). *Fat is a Feminist Issue I and II*. New York: Galahad Books.
- Overton, W. (2008). Embodiment from a relational perspective. In W. F. Overton, U. Müller, & J. L. Newman (Eds.), *Developmental Perspectives on Embodiment and Consciousness*, (p. 1-18). New York: Taylor and Francis.
- Patel, C. (1993). Yoga based therapy. In P.M. Lehrer & R.L. Woolfolk (EDs.), *Principles and Practice of Stress Management* (2nd ed.) (pp. 89-138). New York: Guilford.
- Polakoff, P. (1993). Blended east-west medical theories, treatment methods gain acceptance. *Occupational Health and Safety, 62* (3) 35-37.

- Rani, J., & Rao, P. (1994). Body awareness and yoga training. *Perceptual and Motor Skills, 79*, 1103-1106.
- Repar, P., & Patton, D. (2007). Stress reduction for nurses through arts-in-medicine at the University of New Mexico Hospitals. *Holistic Nursing Practice, 21*, 4, 182-186.
- Roberts, T., & Gettman, J. (2004). Mere exposure: gender differences in the negative effects of priming a state of self-objectification. *Sex Roles, 51*, 17-27.
- Rouveiz, M., Bouget, M., Pannafleux, C., Champley, S., & Filaire, E. (2007). eating attitudes, body esteem, perfectionism and anxiety of judo athletes and nonathletes. *International Journal of Sports Medicine, 28*, 340-345.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*, 1069-1081.
- Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science, 4*, 99-104.
- Ryff, C. D., & Keyes, C. L. M. (1995). The Structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*, 719-727.
- Ryff, C. D., & Singer, B. (1996). Psychological well-being: Meaning, measurement, and implications for psychotherapy research. *Psychotherapy and Psychosomatics, 65*, 14-23.
- Ryff, C. D., & Singer, B. (2000). Biopsychosocial challenges of the new millennium. *Psychotherapy and Psychosomatics, 69*, 170-177.
- Saad, G. (2004). Applying evolutionary psychology in understanding the representation of women in advertisements. *Psychology and Marketing, 21*, 593-612.

- Scholnick, E. K., & Miler, P. H. (2008). Uncovering the body in conceptual development: A feminist perspective. In W. F. Overton, U. Müller, J. L. Newman, (Eds.), *Developmental Perspectives on Embodiment and Consciousness*, (p. 247-279). New York: Taylor and Francis.
- Scott, C. (1997). Gender and attribution of control over health and physical size. *The Journal of Social Psychology*, 137, 387-388.
- Seligman, M. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Free Press.
- Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5-14.
- Silverstein, L. (1996). Evolutionary psychology and the search for sex differences. *American Psychologist*, 160-161.
- Singh, D. (1993). Adaptive significance of waist-to-hip ratio and female physical attractiveness. *Journal of Personality and Social Psychology*, 65, 293-307.
- Sista II Sista. <http://www.sistaIIsista.org>
- Smith, A. (2005). Native American feminism, sovereignty, and social change. *Feminist Studies*, 31, 116-132.
- Smith, B. (2007). Body, mind, and spirit? Towards an analysis of the practice of yoga. *Body and Society*, 13, 25-46.
- Smith, J., Waldorf, V., & Trembath, D. (1990). "Single white male looking for thin, very attractive . . ." *Sex Roles*, 23(11,12), 675-685.

- Smolak, L., & Striegel-M (2002). Challenging the myth of the golden girl: Ethnicity and eating disorders. In *Eating Disorders: Innovative Directions in Research and Practice* (pp. 111-132). Washington DC: American Psychological Association.
- Spitzak, C. (1990). *Confessing excess: Women and the politics of body reduction*. New York: State University of New York Press.
- Stephoe, A., & Wardle, J. (2001). Locus of control and health behavior revisited: A multivariate analysis of young adults from 18 countries. *British Journal of Psychology*, 92, 659-672.
- Streeter, S., & McBurney, D. (2003). Waist-hip ratio and attractiveness: new evidence and a critique of a “critical test”. *Evolution and Human Behavior*, 24, 88-98.
- Strelan, P., Mehaffey, S., & Tiggemann, M. (2003). Self-objectification and esteem in young women: the mediating role of reasons for exercise. *Sex Roles*, 48, 89-95.
- Strunkard, A., Foch, T., & Hrubec, Z. (1986). A twin study of human obesity. *Journal of the American Medical Association*, 256, 51-54.
- Suls, J., & Rothman, A. (2004). Evolution of the biopsychosocial model: prospects and challenges for health psychology. *Health Psychology*, 23, 119-125.
- Thomas, C., & Freeman, R. (1990). The Body Esteem Scale: construct validity of the female subscales. *Journal of Personality Assessment*, 54, 204-212.
- Tiggemann, M., & Lynch, J. (2001). Body image across the life span in adult women: The role of self-objectification. *Developmental Psychology*, 37, 243–253.
- Venkatesananda, S. (1999). *Enlightened living, a new interpretative translation of the Yoga Sutra of Maharsi Patanjali*. Sebastopol, CA: Anahata Press.

- Wade, J. (2000). Evolutionary theory and self perception: Sex differences in body esteem predictors of self-perceived physical and sexual attractiveness and self-esteem. *International Journal of Psychology, 35*, 36-45.
- Wade, J. (2003). Evolutionary theory and African American self-perception: Sex differences in body-esteem predictors of self-perceived physical and sexual attractiveness, and self-esteem. *Journal of Black Psychology, 29*, 123-141.
- Wescott, M. (1986). *The feminist legacy of Karen Horney*. New Haven, CT: Yale University Press.
- Wiggins, M. & Moode, F. (2000). Analysis of body esteem in female college athletes and non-athletes. *Perceptual and Motor Skills, 90*, 851-854.
- Wilson, S. (1991). Self-actualization and selflessness: a social-psychological analysis. *Journal of Social Behavior and Personality, 6*(5), 97-108.
- Wolf, N. (1991). *The beauty myth: How images of beauty are used against women*. New York: Harper Collins Inc.
- Wright, R. (1994). Feminists meet Mr. Darwin. *The New Republic, 34-46*.

APPENDIX A

Oklahoma State University Institutional Review Board

Date: Monday, November 24, 2008
IRB Application No: ED08177
Proposal Title: Body Esteem and Psychological Well-Being in Female Yoga Practitioners

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 11/23/2009

Principal Investigator(s):

| | |
|------------------|---------------------------|
| Joy Kelley ✓ | Al Carozzi |
| 17508 Zinc | MH 2415, 700 N. Greenwood |
| Edmond, OK 73012 | Tulsa, OK 74106 |

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,



Shelia Kennison, Chair
Institutional Review Board

APPENDIX B

Demographic Sheet and Questionnaire

Directions: Please answer each question by filling in the blank or checking the appropriate space.

1) How old are you? Age _____ years

2) Race (Check all that applies):

- _____ a) African American/Black
 _____ b) American Indian/Native American
 _____ c) Asian/Asian American
 _____ d) Hispanic/Latina
 _____ e) White/Caucasian
 _____ f) Other: _____

3) Highest level of education you have completed. (please choose just one)

- _____ some high school
 _____ high school diploma/GED
 _____ technical or trade school
 _____ some college
 _____ an Associates Degree
 _____ a Bachelor's Degree
 _____ a Masters Degree
 _____ a Doctoral Degree
 _____ Other: _____

4) How tall are you? _____ feet _____ inches

5) Approximately how much do you weigh? _____ pounds

6) How long have you practiced yoga? _____ months _____ years

7) When you do practice yoga, how long in duration is your practice? _____ minutes

8) How many days of the week do you practice? _____

9) What type of yoga do you prefer to practice? (please choose just one)

- _____ hatha
 _____ power
 _____ asthanga
 _____ restorative
 _____ integrative of different types of yoga
 _____ other: _____

Directions: Please circle the x closest to the area that best describes you.

I practice yoga because:

| | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---------------------------------------|
| <u>It's good for my health</u> | x | x | x | x | x | x | x | <u>It's good for how I look</u> |
| <u>It organizes my life</u> | x | x | x | x | x | x | x | <u>It disorganizes my life</u> |
| <u>It confuses me</u> | x | x | x | x | x | x | x | <u>It provides a sense of purpose</u> |
| <u>It leaves me refreshed</u> | x | x | x | x | x | x | x | <u>It leaves me exhausted</u> |
| <u>It provides calm</u> | x | x | x | x | x | x | x | <u>It provides energy</u> |
| <u>It provides solitude</u> | x | x | x | x | x | x | x | <u>It provides social community</u> |

APPENDIX C

Figures

Figure 1: Scatter Plot of Body Esteem and Psychological Well-Being

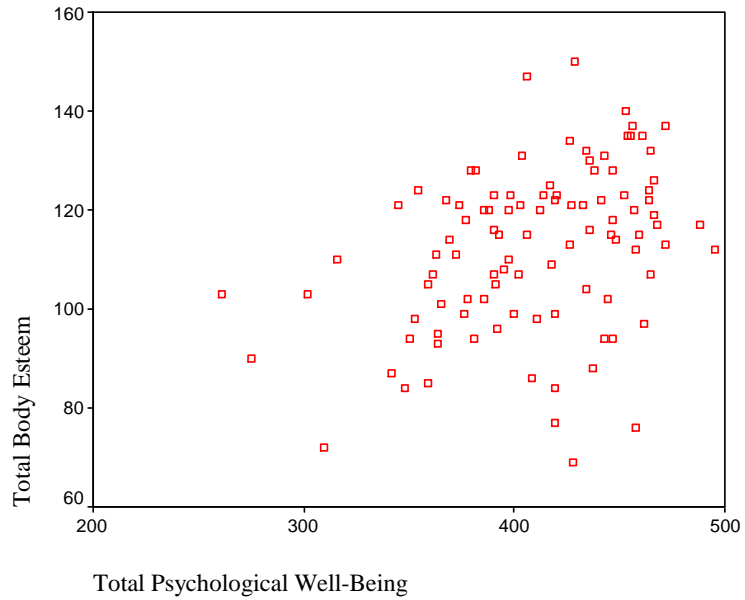
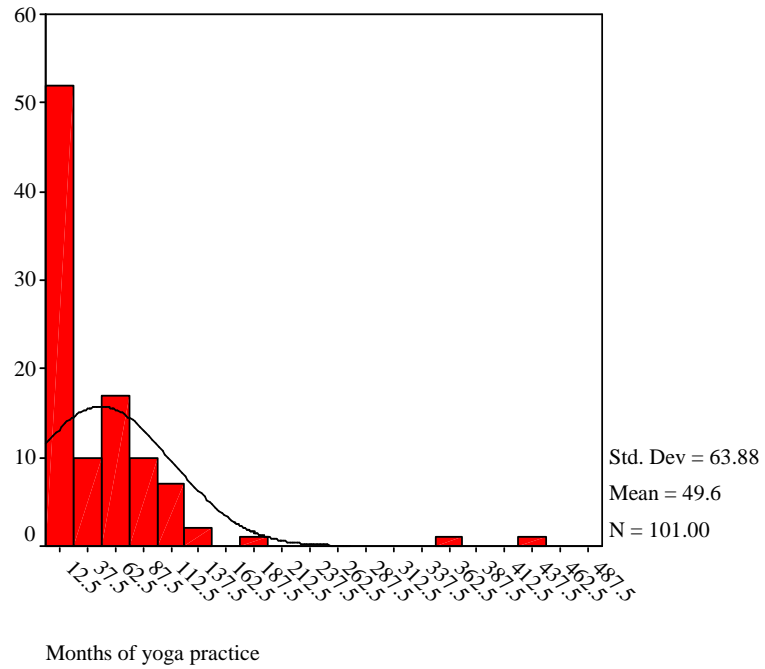


Figure 2: Histogram of Yoga Practice



VITA

Joy Lyn Kelley

Candidate for the Degree of

Doctor of Philosophy

Dissertation: BODY ESTEEM AND PSYCHOLOGICAL WELL-BEING IN FEMALE
YOGA PRACTITIONERS.

Major Field: Counseling Psychology

Education:

- Completed the requirements for the Doctor of Philosophy in Counseling Psychology at Oklahoma State University, Stillwater, OK in May 2009.
- Completed the requirements for the Master of Science in Counseling at Missouri State University, Springfield, MO in December 2002.
- Completed the requirements for the Bachelor of Science in Science Education at Missouri State University, Springfield, MO in December 1994

Experience:

- Completed APA doctoral internship at Oklahoma University Health Sciences Center on July 1, 2007.

Professional Memberships: Phi Kappa Phi (2004-present)—Member of the National Honor Society of Phi Kappa Phi
American Psychological Association (2003-present)—
Student member APA Divisions 17 and 32; Affiliate –
Psychological Association Divisions of Counseling and
Humanistic Psychology.

Name: Joy Lyn Kelley

Date of Degree: May, 2009

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: BODY ESTEEM AND PSYCHOLOGICAL WELL-BEING IN
FEMALE YOGA PRACTITIONERS

Pages in Study: 90

Candidate for the Degree of Doctor of Philosophy

Major Field: Counseling Psychology

Scope and Method of Study:

Body esteem and psychological well-being were studied in female yoga practitioners. Female yoga practitioners (N=101) from studios located in the Southwest U.S. were asked to complete a demographic questionnaire, the body esteem scale, and the psychological scales of well-being. Another interpreted variable was age.

Findings and Conclusions:

A positive correlation was found among subscales for body esteem and psychological well-being. A linear regression found the adjusted R^2 to be 15%. Analysis of variance for yoga practice and body esteem indicated a significant influence of yoga practice on body esteem $F = 7.882$ between beginner and advanced yoga practitioners groups. About half of the participants were beginners with less than 24 months experience; while the other half ranged from 2 to 36 years. The ANOVA of yoga practice and psychological well-being showed no significance and needs further investigation. The data for this study was skewed towards many respondents being advanced practitioners. Age was positively correlated to psychological well-being. Despite the decline in health with the aging process, women yoga practitioners showed increased psychological well-being with age. Body esteem did not correlate with age raising questions for further study about women of all ages and their struggle with feeling good about their bodies.

ADVISER'S APPROVAL: Al Carlozzi
