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SELF-OBJECTIFICATION AND BODY SHAME AS PREDICTORS OF SPORT PARTICIPATION

A Thesis

Presented to

The Faculty of the Department of Kinesiology

San José State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Juliet A. Rose

August 2008

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ABSTRACT

SELF-OBJECTIFICATION AND BODY SHAME AS PREDICTORS OF SPORT PARTICIPATION

by Juliet A. Rose

The purpose of this study was to determine if self-objectification and body shame could predict female participation in water polo, gymnastics, or a control group of non-sport participants. Past research has given physical activity mixed evaluations on its ability to help women see their bodies less shamefully and more competently; therefore, specific sports were researched. Self-reported measures were used to obtain self-objectification and body shame scores for all participants. This study found through a discriminant analysis that 46.0% of all original grouped cases were correctly classified as water polo, gymnastics, or non-sport participants. There were not significant differences between the three groups on body shame; therefore, sport may not be a place where women can learn to reject culturally based body standards. However, water polo players had significantly lower self-objectification than non-sport participants, suggesting that women's participation in contact sport should be encouraged.

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CHAPTER 1

Introduction

Someone else's eyes burning a line from our eyes down to our toes and back up again. This gaze is the starting point for perceived enjoyment, disapproval, disgust, lust, and more. Kaschak (1992) claimed, "It is in the eye of the beholder, in which women's appearance is reflected, evaluated, and given meaning" (p. 89). The objectifying gaze has been studied within three contexts. Two of these contexts involve the media. The media depicts instances of women being sexually objectified by the gaze, as well as aligning the consumer's eyes with the gaze. The third context occurs within interpersonal encounters (Fredrickson & Roberts, 1997). Though both men and women experience this gaze upon their bodies, the focus of this paper is on women's experience. Women learn to prepare for the gaze by tucking in, pushing up, tanning, applying make-up, working out, denying nourishment, as well as straightening, coloring, or curling their hair. They devote cognitive resources to prepare for and worry about the gaze of others (Fredrickson & Roberts, 1997). According to Young (1990), once sexual objectification is turned inward, women start to see themselves as objects as well as subjects, and it leaves them only partially aware of their body's potential to move. Higher levels of self-objectification are related to body competence that is not fully understood and body awareness that is stifled (Daubenmier, 2005).

Specifically, studies have shown decreases in performance on both physical (Fredrickson & Harrison, 2005) and cognitive (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; Quinn, Kallen, Twenge, and Fredrickson, 2006) tasks for participants

with higher levels of self-objectification. In addition to distracting women from using their full potential to complete a task, self-objectification is correlated with adverse psychological and experiential effects. Higher levels of body shame (Calogero, 2005; Fredrickson et al., 1998; Greenleaf, 2005; Greenleaf and McGreer, 2006; Parsons & Betz, 2001; Quinn, Kallen, & Cathey, 2006; Quinn, Kallen, Twenge, et al., 2006), body surveillance (Greeleaf & McGreer, 2006), disordered eating (Greenleaf & McGreer, 2006; Tiggerman & Lynch, 2001), anxiety (Calogero, 2004; Tiggerman & Lynch, 2001), and fewer flow experiences (Greenleaf & McGreer, 2006) are associated with higher levels of self-objectification.

In light of the consequences associated with the internalization of sexual objectification, Fredrickson and Roberts (1997) argued that women should find ways to know their bodies better and experience them more directly. They suggested participation in sport and other types of physical activity as one way to do this. Research conducted on the relationship between self-objectification and physical activity or sport has resulted in mixed results. Studies have found that women still experience self-objectification and the consequences associated with it regardless of their involvement in moderate to vigorous physical activity (Greenleaf & McGreer, 2006). Parsons and Betz (2001) demonstrated that neither physical activity nor sport correlated with lower levels of self-objectification as compared to a control group. However, Parsons and Betz (2001) also found that participation in more objectifying sports, like gymnastics or dance team, was related to higher levels of body shame. Other research pointed to the importance of motivation for exercise when examining self-objectification (Strelan,

Mehaffey, & Tiggermann, 2003). These studies found that there are several variables capable of influencing how a woman sees herself, not just a physically active or sedentary lifestyle.

Numerous studies have been conducted on female participation in sport from many perspectives. Several researchers (Blinde, Taub, & Han, 1993; Miller & Heinrich, 2001; and Richman & Shaffer, 2000) examined the experience of female athletes but did not control the specific sport the females participated in. These studies encouraged female participation in sport because their results indicated that sport participation was related to personal empowerment, increased instrumental attributes, and higher rates of self-esteem. However, none looked specifically at self-objectification or body shame.

Chase (2006) and Theberge (2003) studied rugby and hockey. These researchers found that their participants enjoyed the physicality that competing allowed them to experience. More specifically, these particular sports allowed participants to experience a sense of control over their bodies and to feel constructive and powerful. Chase (2006) additionally found that all body types were welcome in the sport of rugby, and that the thin ideal for a woman's body was dissolved because of the strength needed to compete successfully. Though Chase (2006) did not measure self-objectification or body shame, the experiences of these rugby players sharply contrasts the findings from those women who competed in gymnastics, cheerleading, or dance team in Parsons and Betz's (2001) study.

Women's gymnastics and water polo were chosen for this study. While both sports teach how to use the body athletically, they contrast one another in several ways.

Gymnasts compete separately from their teammates and competitors through routines that put their bodies on display. Their success is based on judges' subjective opinions. Water polo players compete underwater and battle for the ball amongst their teammates and competitors (Hendrie, 1999). The outcome of water polo matches is based on an objective measure, goals scored. Gymnastics favors a pre-pubescent body shape and size (West, 1998), while water polo emphasizes bigger bodies for success. Interestingly, the attire for both sports is body-contoured and reveals a considerable amount of skin. Therefore, the purpose of this study was to determine if self-objectification and body shame could predict female participation in NCAA Division I water polo, gymnastics, or a control group of non-sport participants.

Hypotheses

The following null hypotheses were made for the purpose of this study:

1. The combination of self-objectification and body shame will not predict participation of water polo players, gymnasts, or control group participants.
2. Participation in water polo, gymnastics, or the control group will not affect self-objectification scores.
3. Participation in water polo, gymnastics, or the control group will not affect body shame scores.

Limitations

The following are limitations of this study:

1. The number of participants is a limitation, because the rosters for the water polo and gymnastics teams at the two west coast universities researched include

approximately 20 people per team or less. Therefore, the total population for this study is externally limited.

2. The members of the control group were all students from the same university and the same department, so the generalizability is limited.
3. The members of the control group were slightly, but significantly, older than the participations in both the water polo and gymnastics groups.
4. Control group participants, on average, were very physically active. Therefore, this study did not have a sedentary population to compare the athletes to.

Delimitations

This study was delimited in the following ways:

1. Participants were women between the ages of 18 and 25 years.
2. Participants in the water polo and gymnastics groups competed at NCAA Division I universities.
3. Participants in the control group did not compete in sport at the collegiate or elite level.
4. To be consistent, data were collected from all participants in the sport groups while they were at their practice sites and in practice attire or sweat suits.

Assumptions

The following assumptions were made in this study:

1. Questions on the self-reported measures were answered honestly and not in a socially desirable manner.

2. Participation in a Division I college sports program has a greater influence on a person's life than competing in sport for two seasons during high school, which was used in a previous study (Parsons & Betz, 2001) to determine athlete status.
3. In this study participants were only queried about current physical activity. Control group participants who previously competed in gymnastics or water polo were not influenced by the sport in the same way as those who currently participate.

Definition of Terms

Body Shame. Body shame exists when there is a discrepancy between the internalized cultural standard and the perceived actual shape and size of the body. Shame is not solely about the body, but about the self, because achievement of the standard is connected to one's identity (McKinley & Hyde, 1996).

Instrumentality. Instrumentality is an assertive, self-reliant, self-determining approach to one's environment (Parsons & Betz, 2001; Spence & Buckner, 2000).

Self-Objectification. Self-objectification is the internalization of an observer's perspective of the body that leads to a form of self-consciousness characterized by habitual monitoring of the body's outward appearance (Fredrickson & Roberts, 1997).

Sexual Objectification. Sexual objectification is the separation of a person's body, body parts, or sexual function from his or her identity, which is made to represent that person and be consumed by another (Fredrickson and Roberts, 1997).

The Gaze. The gaze is an outsider's line of vision that reflects, evaluates, and gives meaning to one's appearance (Kaschak, 1992).

Importance of Study

Fredrickson and Roberts (1997), in response to their creation and analysis of objectification theory, called for girls and women to know their bodies better through "sports participation and other forms of physical risk taking" (p. 198). Past research has given physical exercise mixed evaluations not only on its ability to help women see their bodies less shamefully, but also to help them see themselves as competent subjects rather than submissive objects (Daubenmier, 2005; Greenleaf and McGreer, 2006; Parsons & Betz, 2001; Strelan et al., 2003). Qualitative research has repeatedly reported that female athletes enjoy the control they gain over their bodies' movement through participation in sport (Blinde et al., 1993; Chase, 2006; Theberge, 2003). However, it has not explored self-objectification or body shame specifically. Additionally, several studies that examined women's sport conducted research on a broad level (Blinde et al, 1993; Miller & Heinrich, 2001; Parsons & Betz, 2001; Richman & Shaffer, 2000), encompassing several sports instead of specific ones. Exploring the nature of specific sports, or specific types of sport, is important because some are shown to emphasize appearance and femininity more than others (Parsons & Betz, 2001), and in these cases self-objectification or body shame may be more common.

While participation in gymnastics and water polo may teach athletes about the potential for the body to move and how powerful it is, the nature of each sport's competition is different. Water polo is aggressive, team-based, objectively judged by goals scored, and players are physically intertwined with their competitors. Gymnastics is appearance-based, subjectively judged, and competed in individually. Therefore the

purpose of this study was to determine if self-objectification and body shame could predict female participation in NCAA Division I water polo, gymnastics, or a control group of non-sport participants.

CHAPTER 2

Review of Literature

Objectification theory argues that women who self-objectify internalize an outsider's perspective of themselves and therefore tend to define their self-concept based on their appearance instead of focusing on the capability of their bodies (Fredrickson & Roberts, 1997). The purpose of this study was to determine if self-objectification and body shame could predict female participation in water polo, gymnastics, or a control group of non-sport participants. In order to best comprehend how women come to see their bodies as objects, how self-objectification relates to body shame and how sport and other types of physical activity relate to self-objectification and body shame a comprehensive literature review was conducted. This review includes an examination of Objectification Theory and the influence of physical activity and sport on the perception of the body.

Objectification Theory

Fredrickson and Roberts (1997) created objectification theory as a socio-cultural framework for understanding the lived experiences of girls and women and the consequences they face due to the sexual objectification they encounter. The authors argued that the sexually objectifying gaze that separates a woman's body, or body parts, from her person exists within three contexts: 1) interpersonal and social encounters, 2) visual media that depict interpersonal and social encounters, and 3) people's encounters with visual media. In addition, they theorized that many women have been socialized to internalize, to varying degrees, this sexual objectification. In view of this internalization,

their theory also described the potential emotional consequences and mental health disorders that stem from self-objectification.

Sexual Objectification

The sexually objectifying "gaze" is central to all of the contexts in which a person may experience sexual objectification. It is a visual inspection of the body from an outsider's line of vision that reflects, evaluates, and gives meaning to one's appearance (Kaschak, 1992). As Fredrickson and Roberts (1997) point out, sexualized gazing always leaves the potential for objectification. One way sexual objectification is experienced is through person-to-person encounters. In these interpersonal encounters a woman's body falls prey to an outsider's evaluative gaze. Women potentially encounter this in hallways at school, walkways at work, stores, bars, etc.

Calogero (2004) researched the anticipated gaze of a stranger on female undergraduate students. The participants' instruction sheet informed them that they would be engaging in a conversation with a male or female stranger for five minutes. Calogero (2004) found that when a meeting with a man was expected, and therefore the male gaze was anticipated, shameful feelings about one's body and anxiety related to one's figure increased. These results suggest how powerful simply the idea of the male gaze is to women. As Calogero (2004) pointed out, this was a non-body focused situation and there was not even an actual observer present. It should be noted, however, that the female participants in this study were a convenience sample collected from a general psychology course at a small southeastern university. So, the results may not be generalizable to a larger population with a more diverse set of women. Still, this study

shows that even in innocuous environments where conversation with a male stranger is merely anticipated, women's feelings and emotions can be significantly affected.

The second venue for sexual objectification consists of the media's representation of person-to-person encounters (Fredrickson & Roberts, 1997). As consumers of visual media, audiences see a man staring at a woman in a way that suggests evaluation or inspection of her body. In this case, instead of a woman experiencing sexual objectification directly, she sees another woman experiencing it. Such representations of this can be found in many types of media. The artwork on the cover of a romance novel is typically an example of this interaction.

Finally, the third form of sexual objectification refers to the public's interaction with images portraying the female body or body parts, as seen in television programming, advertisements, magazines, newspapers, movies, music videos, etc. In this context the viewers are aligned with the gaze (Frederickson & Roberts, 1997). This third venue for sexual objectification has been quantified by relative facial prominence or face-ism. Face-ism is the idea that men, relative to women, are depicted by the media with more focus on their heads and faces, while women's bodies, or parts of their bodies, tend to receive more emphasis (Archer, Iritani, Kimes, & Barrios, 1983). This is an important distinction, because studies have found that pictures possessing greater facial prominence received higher competence ratings than those that showed the whole body. This was true even when the same picture was used, but cropped differently (Archer et al., 1983; Schwarz & Kurz, 1989).

Below the surface of sexual objectification is an expectation that a woman's body, face, and demeanor are to be a certain way, which is not defined by abilities. Instead, Kaschak (1992) says,

> [It is defined] by masculine vision, by how pleasing her appearance is judged to be within masculine values of feminine appeal. The more her appearance conforms to these criteria, the more desirable a person she is considered to be.... Asking, "How good a body does a woman have?" for example, refers to how pleasing it is to the male eye, the male touch, rather than how well it serves her (p. 97).

Sexual objectification can be very insidious. Because it is not overt, society seems to be more accepting and slower to criticize it. Sexual objectification is almost impossible to avoid because it is so pervasive and, arguably, unconscious in our culture. Even if evading all forms of media were possible or fair to women, choosing where another's gaze falls is not. Sexual objectification is important to this study because it can be internalized.

Self-objectification

Internalized sexual objectification leads girls and women to be preoccupied with an outsider's view of their physical appearance. As Fredrickson and Roberts (1997) state, "the cultural milieu of objectification functions to socialize girls and women to, at some level, treat themselves as objects to be looked at and evaluated" (p. 177). Research conducted by Aubrey (2006) supports the idea that the media fuel women's focus on their appearance. She found that women who were exposed to objectifying television

programming had significantly higher scores on trait self-objectification. Many women believe their practices to upkeep their appearance are valuable, because looking "pretty," "attractive" or "thin" enables them to succeed socially and even economically (Dion, Berscheid, & Walster, 1972). Arguably, these gains are small and not straightforward compared to the costs they entail for women. These consequences will be discussed in the following section.

Young (1990) argued that the patriarchal society that we live in assigns women to a feminine role in which they are "physically inhibited, confined, positioned and objectified" (p. 42). She reasoned that as a girl comes to understand that she is a girl, she is driven to see her body simultaneously as subject and object. She further contended that this makes women's perceptions of their bodies fundamentally different from men's. Instead of basing all gender differences on anatomy, genetics or hormones, Young (1990) argued that the social character of our society also needs to be considered. Femininity is not only appearing a certain way, but also acting a certain way. Young reasoned that these expectations confine women to knowing and looking at their body such that they are grounded in immanence and operate their bodies within our culture instead of being able to transcend it. "As lived bodies we are not open and unambiguous transcendences that move out to master a world that belongs to us, a world constituted by our own intentions and projections" (Young, 1990, p. 42-43).

James (2000) explored adolescent girls' experiences at swimming pools. Most participants felt that their bodies were on display, so they were conscious that others at the pool were looking at them. Some commented on feeling "naked" because they were

in a bathing suit, or how uncomfortable they felt because their arms and legs were exposed and the "actual shape" of their bodies could be seen. The source of self-consciousness was not simply wearing a bathing suit, but wearing a bathing suit in the presence of others. The importance of the gender of, and familiarity with, the others at the pool varied in importance to the girls in this study. Some girls did not care about their appearance if they were around strangers, but felt especially self-conscious if they were around "popular" boys or girls. They were consumed by their concerns regarding what their peers were thinking while they "gawked" at them. The girls in this study saw their bodies as objects that were subject to judgment by their peers. "You can feel them looking at you. They're probably not, but you always feel like they're looking at you" (in James, 2000, p. 270). This exemplifies of the anticipated gaze that Calogero (2004) found to be so detrimental.

These adolescent girls made two assumptions that were crucial to how they felt. They believed that others were judging them, and they succumbed to believing that these opinions mattered. Even for those girls who were confident about their bodies, self-objectification changed how they viewed themselves. They gave up the power to decide their own worth and handed it over to an external source of judgment. Through this relinquishment they allowed themselves to be limited by the evaluation and judgment of others, which is precisely what Kaschak (1992) argued. This is an important aspect of self-objectification that distinguishes it from other psychological concepts such as body shame. Women experience body shame when they feel that they are failing to live up to the cultural standards they have internalized for their body's appearance (McKinley &

Hyde, 1996). Self-objectification is not based on the satisfaction of living up to any standards, because it happens to girls and women whether or not they are confident about their bodies. Self-objectification is simply taking on a self-concept that is based on an external view of the body held by an outsider, regardless of whether it is anticipated or present, real or perceived (Fredrickson & Roberts, 1997). Young (1990) argued that when a woman takes up her body as a mere thing, she distances herself from it and forms a discontinuous view of herself that serves to deplete her understanding of her body as a competent part of her person.

Consequences: Body Shame and the Depletion of Mental Resources

When a woman looks at her body as an object, she puts her whole person in a potentially harmful position. One important consequence is the prevalence of body shame experienced by women who self-objectify (Fredrickson et al., 1998; Greenleaf & McGreer, 2006; Quinn, Kallen, & Cathay, 2006; Quinn, Kallen, Twenge, et al., 2006). Body shame results from a discrepancy between self-perception of appearance and the ideal standard for appearance (Blessenoff & Snow, 2006). Many women believe this ideal standard is a personal choice, but McKinley and Hyde (1996) argued that it emerges from an internalization of cultural standards and therefore comes from social pressure. They also emphasized that the ideal standard for appearance is almost impossible to achieve because it tends require extreme thinness.

Another possible consequence is the depletion of mental resources. The endless task of envisioning an observer's view of one's body distracts women; therefore, they cannot devote all their mental resources to the task at hand, whether it is cognitive

(Fredrickson et al., 1998; Quinn, Kallen, & Cathay, 2006; Quinn, Kallen, Twenge, et al., 2006) or physical (Fredrickson & Harrison, 2005).

Fredrickson et al. (1998) illustrated the relationship between cognitive performance, self-objectification and body shame. They studied how men and women differed on a math test while wearing either a sweater or a swimsuit. They found that for both men and women, simply wearing a bathing suit made them create a definition of themselves based on their bodies, which they interpreted as state self-objectification. After controlling for mathematics ability, they found that men's math scores were unaffected by state self-objectification. Women wearing a one-piece bathing suit, and therefore experiencing more state self-objectification, scored lower on the math test than those wearing a sweater. This gives support to the idea that women become distracted by self-objectifying thoughts, and this distraction is large enough to decrease their cognitive performance. Moreover, for the female, but not the male, participants wearing a swimsuit, having a high self-objectification score was also related to a higher level of body shame.

Additionally, Quinn, Kallen, Twenge, et al. (2006) showed the link between self-objectification and cognitive performance, specifically attention processes, in women. Although they only used female participants, they too set up an environment where half of the participants wore a sweater and the other half wore a swimsuit. Like Fredrickson et al. (1998), they found, through a twenty-statements test, that all participants felt more defined by their bodies when wearing a swimsuit than those wearing a sweater. This was used as a manipulation check for state self-objectification. They found that those women

in the swimsuit condition, across a variety of ethnicities, felt more body shame than those in the sweater condition. While still wearing the swimsuit or the sweater, participants in this study partook in a modified Stroop task. Words appeared on a computer and the participants had to say the color of the ink the word was printed in as quickly as possible. The Stroop effect is based on the participants' management of the interference of attention given to one process (reading) over another (naming ink color) (MacLeod, 1991, as cited in Quinn, Kallen, Twenge, et al., 2006). The researchers used the Stroop test because they thought that it was gender neutral, as compared to the math test used in the aforementioned study. They believed that the math test might have held a stereotype threat for the women in the study. This occurs when a group of people believe they will do something, or not do something, because a stereotype is in place to influence them. As hypothesized, the researchers found that those with higher levels of state self-objectification were significantly slower at completing the Stroop task.

Quinn, Kallen, and Cathay (2006) adopted a similar research design. They too researched men and women on the basis of self-objectification. Instead of looking at performance on a cognitive task, they measured how long body related thoughts lasted after being subjected to the experimental condition of wearing a swimsuit or a sweater. Consistent with previous research, they found that all participants felt more defined by their bodies when wearing a swimsuit than when wearing a sweater, and that women wearing bathing suits experienced more body shame than any of the other groups. In this study, each participant was given a word-stem completion task after changing back into his or her original attire, and then they were instructed to write freely about whatever they

were currently thinking for two and half minutes. The researchers found that women were more likely to continue having thoughts related to their bodies, which was measured by more body-related completions of the word stems and more expressed body-related thoughts in their writing. Moreover, they found that body shame mediated the relationship between self-objectification and ongoing body-related thoughts. Women who experienced more shame were significantly more likely to continue to think about their bodies even after they changed back into their street clothes.

Fredrickson and Harrison (2005) provided evidence for both objectification theory and Young's (1990) arguments by showing how self-objectification negatively related to the physical domain of adolescents and teenagers. Each girl in their study pitched three softballs successively as hard as she could. Meanwhile, a video recorded her body's movement throughout the throw. Each movement was coded by a system that assessed five distinct components: backswing action, trunk action, humerus action, forearm action, and stepping action. Therefore, performance was assessed on an objective measure of each girl's movement. Fredrickson and Harrison (2005) found that across race, age and even previous softball experience, girls who had higher levels of self-objectification threw significantly more poorly than those who had lower levels of self-objectification. Young (1990) would say that the girls in this study performed this way because "we [as women] learn to live out our existence in accordance with the definition that patriarchal culture assigns to us" (p. 42). Differences between boys and girls on throwing may be due to a socially constructed function not an entirely anatomical or genetic function, showing how prevalent and detrimental self-objectification can be.

The research shows that state self-objectification does not just last for a few seconds (Quinn, Kallen, & Cathay, 2006), and that simply wearing a bathing suit alone in a dressing room may not only increase state self-objectification and body shame, but also may decrease performance on multiple cognitive tasks (Fredrickson et al., 1998; Quinn, Kallen, Twenge, et al., 2006). These studies demonstrate how women share their mental resources between the task at hand and their concerns related to how others view them. Furthermore, the simple tasks performed in these studies did not involve a present source of external evaluation or sexual objectification. Body shame also consistently related to self-objectification. When a woman constantly monitors her outward appearance she will notice if it does not match her ideal, and awareness of this discrepancy is a precursor for feeling body shame (Bessenhoff & Snow, 2006). Mental health disorders, such as depression, sexual dysfunction, and eating disorders are also theoretical consequences (Fredrickson & Roberts, 1997; Prichard & Tiggemann, 2005; Roberts & Gettman, 2004).

Here, it is also important to note that self-objectification does not affect all women equally. The observer's perspective can become internalized to varying degrees, and variables such as class, ethnicity, age, sexuality, personal history and physical attributes make each woman different. Interestingly, at least two cited studies found that ethnicity did not influence self-objectification scores (Fredrickson & Harrison, 2005; Quinn, Kallen, Twenge, et al., 2006). Finally, women find ways to protect themselves from their culture's practices of objectification, such as abstaining from wearing tight fitting clothing and makeup (Fredrickson & Roberts, 1997), or by having a high

awareness of their bodies potential to move and act (Daubenmier, 2005). The latter is the focus of the next section.

Physical Exercise and Perception of the Body

Kaschak (1992) argued that women will find the opportunity to develop a well-integrated, more stable sense of self if they ground themselves in an accurate testing of abilities and skills rather than passive evaluation. Young (1990) contended that girls and women are not given the same opportunities as boys and men to use the full capacity of their bodies. Although this differences cannot be generalize for all women or men, it does persist across play, chores, work and sport. Traditional gender roles put men in more physically challenging positions—playing with trucks that have moving wheels vs. stationary dolls, mowing the lawn vs. doing the dishes, working in construction vs. secretarial work, and full contact men's ice hockey vs. non-contact women's ice hockey. Pieces of Young's argument may be outdated, because women now participate in sports like rugby and physically demanding jobs such as firefighting, but there is still merit to what she argued because only a minority of women adopt these more physical roles. Women grow up learning how to be traditionally feminine. Often this process occurs in subtle ways. Girls are told to watch out for dangerous situation and not to get hurt, get dirty, or ruin their clothes. Young asserted that this instills in women a "bodily timidity" that increases with age. "The more a girl assumes her status as feminine, the more she takes herself to be fragile and immobile and the more she actively enacts her own body inhibition" (Young, 1990, p. 44). Girls are also praised when they do something "cute" or for looking "pretty." As girls grow up in a society where they are more often taught to

protect their bodies and less often encouraged to learn about the physical potential that they possess, many are unable to reach the fulfillment in life that they otherwise could.

Still, many girls and women engage in physical activity including walking, biking, mountain climbing, running or participating in aerobics classes at local gyms. There are many ways to be physically active, but any given one may not be a safeguard against self-objectification. Greenleaf and McGreer (2006) researched the differences between physically active women, classified as such through moderate to vigorous involvement in physical activity at least twice a week, and sedentary women on measures of self-objectification, body shame, self-surveillance, disordered eating, flow experiences, and appearance anxiety. Women who did not participate in purposeful activity on a regular basis were included in the sedentary group. Overall, the women who exercised consistently experienced more flow states. Flow states are those moments of optimal experience that feel almost automatic and effortless, yet they involve a highly focused state of consciousness and stretch a person to their utmost capacity (Csikszentmihalyi, 1996). Greenleaf and McGreer (2006) also analyzed their results by categorizing participants as low (score of –25 to –1) or high in self-objectification (score of +1 to +25). Their data showed that women who exercised and scored lower on self-objectification experienced less body shame than women in the sedentary group. However, the differences between exercise groups stopped here. Regardless of participation in physical activity, higher scores on self-objectification related to higher levels of body surveillance, appearance anxiety, and disordered eating. This supports Fredrickson and Roberts' (1997) theory about the consequences of self-objectification,

but questions remain about why body shame was the only variable that differed as a function of exercise level. Were discrepancies between actual and ideal appearance reduced by exercise participation? Several confounding variables may have influenced the internal validity of this study. Activity type, coaching or instruction, exercise environment, fellow participants, or type of clothing worn may have influenced participants' feelings about themselves and their bodies.

Daubenmier (2005) controlled for activity type by specifically comparing yoga participants to aerobics exercisers and to people that had not exercised either activity during the previous two years (baseline group). Of the group that did not exercise via aerobics or yoga, 87% reported exercising regularly. She found that those who participated in yoga were less likely to self-objectify, and had significantly greater body awareness, body responsiveness and body satisfaction when compared to the aerobics and baseline groups. Daubenmier (2005) defined body awareness as the "degree of perceptual awareness of internal bodily sensations" (p. 215), and body responsiveness as degree of responsiveness to these internal bodily sensations. Her mediational analysis revealed that this two-part concept of body awareness explained the yoga participants' lower levels of self-objectification and higher levels of body satisfaction, compared to the non-yoga participants. This illuminated a key main difference between yoga and the other exercise groups. This form of exercise either draws people who already are have higher bodily awareness or instills it in them through the concepts that it teaches. Qualitative research (Theberge, 2003; Yarnel et al., 2006) has found that physical activity

that emphasizes a better understanding of the body can increase one's perception of body competence.

Yarnel et al. (2006) researched girls' experiences at Camp Blaze, a firefighting camp for girls aged 16-19. The researchers reported that this space allowed girls to see their bodies for the power that they possessed not for how they looked. The activities at Camp Blaze are not what would be considered traditional exercise, or even an experience to which most girls and women have access, but this study captures how girls can be taught to see their bodies differently. Campers learned how to suit up and wear a 30-pound uniform, work individually and as a team to handle a fire hose, rappel out of a five-story building, and navigate through a burning building while also being responsible for fellow campers. After each session they had a "rehabilitation" period that was used for rest, nourishment, venting, and reflection. During this time they talked with other campers and crewmembers about what they had done well, what they could have done better and what they learned. Yarnel et al. (2006) believed that this allowed the girls to be completely absorbed in the experience and to gain a sense of competence and control. Many girls were quoted as saying that they felt much better about themselves when they overcame their fears and completed a task. They learned about their own abilities and were encouraged to take risks with their bodies as opposed to being told to avoid dangerous situations. One camper commented, "When we went into the search and rescues, I started to freak out a little. Getting over that was really good for me because that was my step into 'I can do this' " (in Yarnel et al., 2006, p. 154). Additionally, the leaders served as models for how to use their bodies, as well as verbally teaching the

campers about accessing the bulk of their power. Seeing females use their bodies this way and practicing these techniques allowed these girls to understand how to use their bodies to their fullest potential.

Participation in the activities at Camp Blaze allowed each of these young women to challenge the stereotypical views they had of their bodies when they entered camp. "Emerging senses of control and competence expanded campers [*sic*] understanding about their body potential" (Yarnel et al., 2006, p. 156). Instead of feeling fragile and perceiving themselves as objects defined by others, they saw themselves as women who could do anything. This study showed both the setting and the physical tasks that allowed girls to experience their bodies as processes, not objects, and to feel pride rather than shame. The researchers showed that these girls left camp seeing their bodies as powerful and skilled.

Sport and Perception of the Body

In today's society girls are given more chances to understand their bodily potential through increased opportunities in youth, high school, and collegiate sport. Body potential, or body competence, is closely related to instrumentality. A person who is highly instrumental is said to have an assertive, self-determining, self-reliant approach to life, which is important because it leads the way for higher self-esteem, general adjustment, and decreased depression and anxiety (Parsons & Betz, 2001; Spence & Buckner, 2000). The following studies demonstrate the crucial link between sport and instrumentality.

Miller and Heinrich (2001) found that middle school and college aged female athletes scored themselves higher on instrumental attributes (e.g., assertive, active, independent) and had higher athletic competence self-concepts than female non-athletes of the same age. They also found that middle school athletes had significantly greater scores of athletic competence than college athletes. While this could relate to age of the participant, it could also mean there are important differences between the types of sport played or the coach's philosophy. In terms of type of sport played, the middle school participants played volleyball or basketball, and the undergraduate participants competed in volleyball, basketball, soccer and cross-country. Similar to the study conducted by Yarnel et al. (2006), this study did not measure self-objectification. However, it can be argued that the female athletes in this study had a more in-depth understanding of their bodies. This was inferred because the athletes scored higher on instrumentality and athletic competence measures (Miller & Heinrich, 2001). Frederickson and Roberts (1997) recommended a more advanced understanding of the body to deter self-objectification, and Young (1990) argued this understanding was what women were lacking.

Similarly, Richman and Shaffer (2000) examined the relationship between pre-college sport participation and self-esteem in college students. They found that sport participation not only significantly correlated with self-esteem, but also with four intervening variables. The four intervening variables were college academic competence, body image, physical competence and masculinity. It should be noted that masculinity and femininity, as scored by the Bem Sex Role Inventory (BSRI, Bem, 1974) or the

Physical Attributes Questionnaire (PAQ, Spence, Helmreich, & Stapp, 1975), are now accepted as measures of instrumentality and expressiveness, respectively (Parsons & Betz, 2001; Spence & Buckner, 2000). Richman and Shaffer (2000) further found that the four intervening variables mediated the relationship between sport participation and self-esteem. They concluded that either sport participation impacted self-esteem by cultivating these variables, or that if these psychosocial benefits were not achieved then sports participation could actually detract from self-esteem. This study did not measure self-objectification, but it did show how intimately linked sport participation can be to body image, instrumentality and physical competence. Richman and Shaffer (2000) advocated researching specific types of sport and the quality of the athletes' sport experiences as ways to further understand this field.

In the first of two studies presented in their research article, Parsons and Betz (2001) investigated the types of women's sports collegiate men and women saw as more or less connected to appearance and femininity. Cheerleading, dance team, gymnastics and synchronized swimming scored highest on a combined mean of femininity and appearance scores as rated by both men and women. Golf, lacrosse, crew, and field hockey scored the lowest on these measures. The authors then used this information when measuring high school sport participation in first-year college students. Their results revealed that body shame was related to more extensive participation in both physical activity and sport. More specifically, participation in more objectifying sports (i.e. gymnastics, dance team, cheerleading, and synchronized swimming) was related to higher levels of body shame. They also found that girls who participated in two or more

sports had higher levels of instrumentality than those who participated in only one sport. However, participation in physical activity of any type, outside of sport, more consistently related to instrumentality measures than sports participation. It is important to note that athletes who exercised outside of their sport were also included in the physical activity group. Furthermore, Parsons and Betz (2001) did not find that any type of physical activity, sport or otherwise, related to lower levels of self-objectification, as measured by the self-surveillance and control beliefs subscales of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996).

Unfortunately, this study was based on some initial assumptions that limited the impact of its results. Studying college students, even if they are first-years, is not the same as studying high school students. The participants were classified into athlete or non-athlete groups according to the number of seasons played in high school, yet the dependent measures were based on their present self-evaluation. The authors also classified any participant who had played two or more seasons of high school sport as an athlete. More telling results might have been obtained by researching college athletes who have had more extensive participation in sport and by looking at specific sports.

Blinde et al. (1993) did investigate female college athletes, and did so by conducting semi-structured phone interviews that examined personal empowerment and sports participation. Bodily competence, perceptions of a competent self, and a proactive approach to life were the three main themes the researchers uncovered as outcomes of sport participation (Blinde et al., 1993). Knowing how to take care of one's body and seeing it as important, as well as possessing an enabling sense of personal control or body

mastery, were the components that made up the bodily competence theme. Further making the case for personal empowerment, these women believed that sport prepared them for stressful and competitive situations outside of sport. "What it [sport] gives me is a self-assurance of my own…capabilities, and my own self-strength and self-power" (Blinde et al, 1993, p. 53). Participants felt that sport gave them a stronger sense of self-efficacy and independence, which helped them set goals, seek out challenges and stay motivated in their academic and personal lives. These themes show how sport can enhance a woman's lived experience, and sharply contrast with Young's (1990) depiction of the average woman. Unfortunately, the influence of different sporting environments was not described in this study. Even though the authors looked at a variety of athletes, basketball, track and field, volleyball, swimming, gymnastics, etc., they could not differentiate results by sport because their sample size was too small (n=24).

Theberge (2003) also researched this topic qualitatively. She looked at how girls experienced their bodies in relation to women's ice hockey. The girls' experiences in this study also showed how female participation in sport may be a positive experience. Theberge (2003) asserted that, "confrontational sports celebrate the force and power that is at the heart of the association of sport and masculinity" (p. 49). Ice hockey, rugby, and water polo are examples of confrontational, or contact, sport. The players Theberge (2003) followed consistently reported being unafraid to be physically aggressive, and they did not play with the fear of getting hurt in the back of their minds. Similarly to the athletes in the study by Blinde et al. (1993), the players even commented on how much they derived satisfaction from the physicality they experienced through their participation

in ice hockey. One player, in particular, commented that she not only liked the feeling of using her own strength, but also like being able to control it and use it in a constructive way (Theberge, 2003).

Studies on female rugby participants reveal that women enjoy the way the physical nature of the sport makes them feel (Chase, 2006; Chu, Leberman, How, & Bachor, 2000). Chase (2006) found that the women in her study were drawn to rugby especially because other female contact sports generally rule out tackling and body checking. The freedom of movement associated with rugby translated into new challenges for many of the players, as opposed to other sports like netball, which made them feel like their movement was suppressed (Chu et al., 2000). The aggressive and rough play was an outlet for some, and an opportunity for others, to experience their body as they had never had before. "I feel like I am occupying my body from my finger tips to my toes. I am my body, and I am controlling it and what it does. I feel powerful, and strong. Even if it is a bad tackle I still feel strong if they go down. I feel larger than I am" (in Chase, 2006, p. 238).

For many players, in addition to enjoying the knowledge about their bodies, rugby dissolved perceptions of the ideal woman's body. For example, an ex-gymnast who switched to competing in rugby was no longer perpetually concerned with being thin. She commented, "Gymnastics was always about losing weight…No matter how big or small I am when I feel like I am fit and I feel like I'm strong, I feel like I look good. Rugby has done only good things for me in terms of body image" (in Chase, 2006, p. 241). Furthermore, for 29 out of the 30 women interviewed, an ideal rugby body did not

exist. Instead, they believed every body type had a place and a purpose on the field. Chase (2006) did not speak directly about resisting self-objectification, but she argued that participation in rugby, not simply any sport, allowed women to re-appropriate their bodies. The participants in her study liked their muscular and bruised bodies, and only wanted to change them to increase their strength, and knew they were resisting traditional femininity.

Although this paper focuses on the experiences of girls and women, boys and men are not free from self-objectifying thoughts. The research, however, suggests that women are more negatively affected by self-objectifying thoughts than men are (Aubrey, 2006; Fredrickson & Roberts, 1997; Fredrickson et al., 1998; Quinn, Kallen, & Cathay, 2006; Roberts & Gettman, 2004; Young, 1990). Women who participate in sport internalize cultural body standards to a certain degree. In some cases this seems to be a good thing, like the women who participated in the rugby study. The rugby environment set a standard of strength and power, and internalization of this norm allowed women to use their bodies more skillfully (Chase, 2006; Chu et al., 2000). Water polo may provide a similar environment because of the physicality inherent in it.

> Water polo is a fierce team sport, likened in intensity to street hockey. And as in hockey, the idea is to get the ball into the net, at each end of the pool and doggedly guarded by a goalie. The six-person field aggressively passes a soccer-size ball through a gauntlet of equally aggressive opponents, pushing, grabbing and even elbowing (Hendrie, 1999, ¶ 4).

However, when traditional standards of thinness are internalized, instead of, or possibly in addition to, strength and power, many women experience a greater amount of body shame. Shame is especially strong when there is large discrepancy between what a person looks like and what she wants to look like (McKinley & Hyde, 1996). Different sporting environments may emphasize diverse body standards, and women who participate in a sport like gymnastics may be more independent, decisive, and competitive than those who don't participate in sport. However, gymnasts may still self-objectify more or feel more body shame than those who participate in water polo or no sport at all.

CHAPTER 3

Method

The purpose of this study was to determine if self-objectification and body shame could predict female participation in NCAA Division I water polo, gymnastics, or a control group of non-sport participants. This chapter describes the selection of participants for the present study. It also explains the design and instruments that were used to collect data on self-objectification and body shame.

Participants

After obtaining approval from the San José State University Human Subjects-Institutional Review Board (see Appendix A), 119 women were recruited to participate in this study. This included 41 water polo players and 29 gymnasts from two west coast NCAA Division I teams, as well as 49 women who did not participate in sport at an elite level, and were thus considered the control group. College aged women, 18-25 years, were selected for this study based on the work of Greenleaf (2005) who found that younger women (18-30 years) had higher levels of self-objectification and body shame. Moreover, self-objectification, appearance anxiety, disordered eating symptomology (Tiggermann & Lynch, 2001), and body shame (McKinley, 2006) have been found to significantly decrease with age. Therefore, data from 23 of the women recruited for the control group were not included in the analysis, because their age exceeded the age limit. In addition, four women in the control group were not included in the analysis because they classified their proficiency level as advanced for at least one type of activity they were participating in (see Appendix B). In total, there were 22 women in the control

group and 92 women in the entire sample for this study. None of the participants were compensated for participation in this study through academic extra credit, money, or otherwise.

The purpose of recruiting women from Division I college sports was to ensure that sport had significantly impacted their lives. Current participation at an elite level suggests years of previous involvement. The researcher assumed that an extended period of participation would have a greater effect on the athletes than two seasons in high school, which was used in previous research to define an athlete (Parsons & Betz, 2001). Water polo was used because it was believed to represent a sport similar to crew and basketball, which have been said to focus minimally on appearance and femininity (Parsons & Betz, 2001). Additionally, the physical nature of the game and high volume of contact with other players, both above and below the water, make it similar to rugby and hockey. Previous research on both these sports, provided by Theberge (2003) and Chase (2006), suggested that the physical components of ice hockey and rugby allowed women to know the power they were capable of more intimately. Water polo coach Guy Baker reported, "We play a very physical game. In a way it's more physical than the men's game because there is more suit to grab and pull" (in Hendrie, 1999, ¶ 8). Chase (2006) especially emphasized how the rugby environment changed the way the participants prioritized what they needed to look and feel like to be confident with and enjoy their bodies.

Gymnastics was selected because it was thought to represent a counter to water polo. The nature of gymnastics competition focuses not only on the strength of the

athlete to succeed in each event, but also on the appearance of the body as each gymnast moves through her routine. Gymnasts wear body-contoured and revealing clothing for competition, performance is subjectively scored, and a prepubertal body build is favorable for success (West, 1998). These characteristics suggest space for only one type of body in gymnastics, and one that is difficult to attain and maintain. In addition, gymnastics was rated by college-aged men and women as one of the top three women's sports to emphasize appearance and femininity (Parsons & Betz, 2001). These traits may be emphasized because the body is on display while a gymnast competes, especially because gymnasts perform separately from their teammates. Water polo provided an interesting contrast because similar apparel is worn, but in water polo the body is underwater and surrounded by teammates and competitors.

Instrumentation

Demographic and Physical Exercise Questionnaire

A demographic questionnaire created by the researcher was used to gain demographic information, including: age, ethnicity, year in school, and athletic scholarship status. Height and weight were intentionally not included so that participants would not be primed to think about their body type before filling out the self-objectification and body shame questionnaires. A series of questions that queried participants about current exercise participation were included. These questions gathered information on type of exercise, length of participation, hours per week, and proficiency level (see Appendix B). Exercise participation questions were included to weed out advanced athletes from the control group.

Self-objectification

The Self-Objectification Questionnaire, developed and validated by Noll and Fredrickson (1998), was used to measure participants' concern for their appearance. The questionnaire did not include an evaluative or judgmental component. Participants were asked to rank five appearance-based items (e.g., sex appeal, weight) and five competence-based items (e.g., physical fitness, strength) from most important to least important. Any respondents who assigned the same item more than once were excluded from the analysis. For example, assigning "energy level" as most important and fifth most important disqualified that person from being included in this study. Participants were also excluded if they neglected to rank a trait and left an item blank. Trait self-objectification scores were obtained by separately summing the ranks for appearance-related items (c, e, f, h, and j) and competence-related items (a, b, d, g, and i) and then subtracting the sum of competence ranks from the sum of appearance ranks. Scores could range from –25 to 25. Higher, positive scores indicated stronger self-objectification.

Body Shame

The body shame subscale of the Objectified Body Consciousness scale (McKinley & Hyde, 1996) was used to measure the discrepancy between internalized cultural body standards and one's perceived ability to meet them. Shame is not simply linked to the body, but also the self because internalizing the cultural standard links it to one's identity. Examples of items on this scale are: "I would be ashamed for people to know what I really weigh," and "When I am not exercising enough, I question whether I am a good

person" (McKinley & Hyde, 1996). Items like these were answered by rating one's degree of agreement on a seven-point continuum. One represented "strongly disagree" and seven represented "strongly agree." Participants were excluded if they answered "not applicable" (N/A) more than twice, or if they neglected to circle more than two items on the scale. For undergraduate women the internal consistency of this scale is adequate ($\alpha = .84$).

Procedure

Participants were recruited from women's water polo and gymnastics teams by first approaching each team's coach and gaining permission. During initial phone and e-mail contact with the coaches, the researcher explained the purpose of her investigation and why she wished to use the athletes on that particular team. The coaches were told that the purpose of the study was to investigate individuals' thoughts and feelings about their bodies. One coach requested and was faxed a copy of the questionnaire packet. Upon gaining permission, the researcher met with the athletes before a mid-season practice and handed out a questionnaire packet to all those who wished to participate. The packet included an informed consent form (see Appendix C), the demographic and physical exercise questionnaire, the Self-Objectification Questionnaire (Noll & Fredrickson, 1998), and the body shame sub-scale of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996). Before the women filled out their packets they were reminded that their name would not be attached to the answers they chose and were asked find to a comfortable place where they could fill out the questionnaires without the help of other teammates. They were also informed that there was a minimal amount of risk

for participating, which was the possibility of having more concentrated thoughts on their bodies. After packets were completed, the researcher collected them, debriefed the participants on the study's purpose, answered any questions they had, and provided contact information if the study's results were requested.

For the control group, participants were recruited from an undergraduate class at a west coast university. As with the participants recruited from the sports teams, only women between the ages of 18 and 25 years were included in the study. To avoid influencing the results, participants were not told a specific age range was going to be used. Responses from those who were outside this age range were excluded when the data was entered. Additionally, those who participated in collegiate sport or at an advanced level (see Appendix B) in activities they were currently participating in were excluded from the study to provide a true contrast to the sports groups. The researcher introduced the study in the same way, the same packets were filled out, and the group was debriefed in the same fashion as the sports teams.

Design

All groups completed the questionnaire packet, including the Self-Objectification Questionnaire (Noll & Fredrickson, 1998) and the body shame subscale of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996), to acquire scores for self-objectification and body shame. The obtained self-objectification and body shame scores were used to predict classification of participants into water polo, gymnastics or a control group of non-participants. Therefore the classification of women into one of three groups, water polo participants, gymnasts, or non-sport participants was the

dependent variable. The predictors of group membership, self-objectification and body shame were the independent variables.

Analysis of Data

The data were analyzed using SPSS 16.0 (Statistical Package for the Social Sciences) through a discriminant analysis to find how accurately self-objectification and body shame would predict membership to water polo, gymnastics or non-sport participation as compared to actual membership. Previous research has used rank data in a discriminant analysis to research how groups can be distinguished (Russell & Cox, 2003). Therefore self-objectification scores and body shame scores were used to characterize the differences between the sport participation groups. Both of these predictor variables were entered at the same time. Follow-up analyses of variance (ANOVAs) were run to examine individual group differences.

This study is important because it furthers the debate on how physical activity, specifically sport, is related to how women see their bodies. More precisely, it is significant because it researched a susceptible age group (Greenleaf, 2005; McKinley, 2006; Tiggerman & Lynch, 2001), and compared two specific sports whose participants were competing at the elite level and a control group. Additionally, while both water polo players and gymnasts wear body-contoured apparel, the nature of the competition, the scoring, and the most desirable body type of each sharply contrasts the other. Lastly, water polo has never been researched in this field of study. For these reasons, the purpose of this study was to determine if self-objectification and body shame could

predict female participation in NCAA Division I water polo, gymnastics, or a control group of non-sport participants.

CHAPTER 4

Results

Self-objectification and body shame scores, along with demographic and physical activity information, were collected from 119 participants. Data were analyzed for 92 of these participants. All participants excluded were part of the control group; 23 women were over the age limit of 25 years and four classified themselves as advanced in a physical activity they were presently engaging in. Therefore, 27 recruited women did not meet the requirements of the control group. All participants were females; their age ranged from 18 to 25 years, with a mean age of 20.57 (SD = 1.72). Table 1 displays the means and standard deviations of age for each group. Additionally, it portrays the percentages of each group for year in college and the percentage of each group that received an athletic scholarship.

Table 1
Group Descriptions

	Sport					
	Water Polo Players (n = 41)		Gymnasts (n = 29)		Control (n = 22)	
Age: Mean (Standard Deviation)	19.80	(-1.27)	20.31	(-1.37)	22.32	(-1.67)
Year in College: %[a]						
Freshman	24%		21%		0%	
Sophomore	32%		17%		0%	
Junior	20%		31%		32%	
Senior	17%		31%		32%	
Graduate Student	2%		0%		32%	
Athletic Scholarship: % yes[b]	54%		69%		0%	

[a] Water Polo = 5% missing; Control = 4% missing

[b] Water Polo = 9% missing

Ethnicity is the only demographic item included in this study that is not incorporated in Table 1. Given the opportunity to choose how to be ethnically coded there were 20 categories for 92 participants; 64% of participants self-identified as White. It was not the intent of this study to analyze differences between ethnic groups. Instead, attention is brought to ethnicity to demonstrate the diversity of the sample.

Table 2 shows the means and standard deviations of self-objectification and body shame for each sport. Self-objectification scores could have ranged from -25 to +25; higher, positive scores indicative of greater self-objectification. Body shame scores could have ranged from one to seven; higher scores indicative of greater body shame.

Table 2
Means and Standard Deviations for Sport

	Sport					
	Water Polo Players		Gymnasts		Control	
	M	(SD)	M	(SD)	M	(SD)
Self-objectification	-9.45	(10.66)	-4.93	(10.71)	-1.76	(12.06)
Body Shame	3.26	(1.06)	3.76	(0.95)	3.34	(1.24)

Correlations

Prior to further analyses, correlations were conducted on several different variables. Table 2 depicts correlations between sport, age, self-objectification and body shame. As this table demonstrates, sport and age were moderately correlated, $r(90) = .554$, $p < .01$. Control participants were, on average, older than both water polo players and gymnasts. Table 3 also depicts that there were weak correlations between age and self-objectification and body shame. Thus, although there were differences in age

between these groups, this did not account for group differences in self-objectification or body shame.

Table 3
Correlations between Sport, Age, Self-objectification and Body Shame

	1	2	3	4
1. Sport	-	0.554*	0.277*	0.066
2. Age		-	0.174	0.137
3. Self-objectification			-	0.460*
4. Body Shame				-

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

Additionally, Table 3 illustrates that the correlation between self-objectification and body shame was moderate, $r(90) = .460$, $p < .01$.; therefore, both variables can be used as predictors in the discriminant analysis. Had they been strongly correlated it would have been inappropriate to enter them into the discriminant analysis, because they would not have been contributing to the separation of cases in different ways (SPSS, 1990).

Discriminant Analysis

To ascertain if self-objectification and body shame data could predict group membership to water polo, gymnastics or the control group, SPSS 16.0 was used to perform a discriminant analysis. In the first part of the analysis, Wilks' lambda was calculated to determine how equal the group centroids were. A visual representation of the group centroids from this analysis can be seen in Figure 1, where they are shown as points created by coordinates that correspond to each groups' mean on each canonical

discriminant function (Klecka, 1980). Canonical discriminant functions are a linear combination of variables, self-objectification and body shame in the present study, that best differentiate between groups (SPSS, 1999). Wilks' lambda varies from 0 to 1, and larger scores indicate more similarity between group centroids. Therefore, Wilks' lambda accounts for the proportion of the total variance in the discriminant scores not explained by differences among the groups (SPSS, 1999). In this study, Wilks' lambda = .882, $p < .05$ when testing if functions labeled 1 through 2 were equal across the three group centroids. A test of function two, with function one taken out, reflects further population differentiation, Wilks' lambda = .950, $p < .05$. Therefore, the first null hypothesis was rejected because the group centroids were not equal. This null hypothesis stated: the combination of self-objectification and body shame will not predict differences between water polo players, gymnasts and control group participants. Furthermore, the conclusion can be drawn that the model was discriminating. Because significance differences were found, post hoc tests were warranted. However, practical significance is limited, because Wilks' Lambda for functions 1 through 2 and 2 were large.

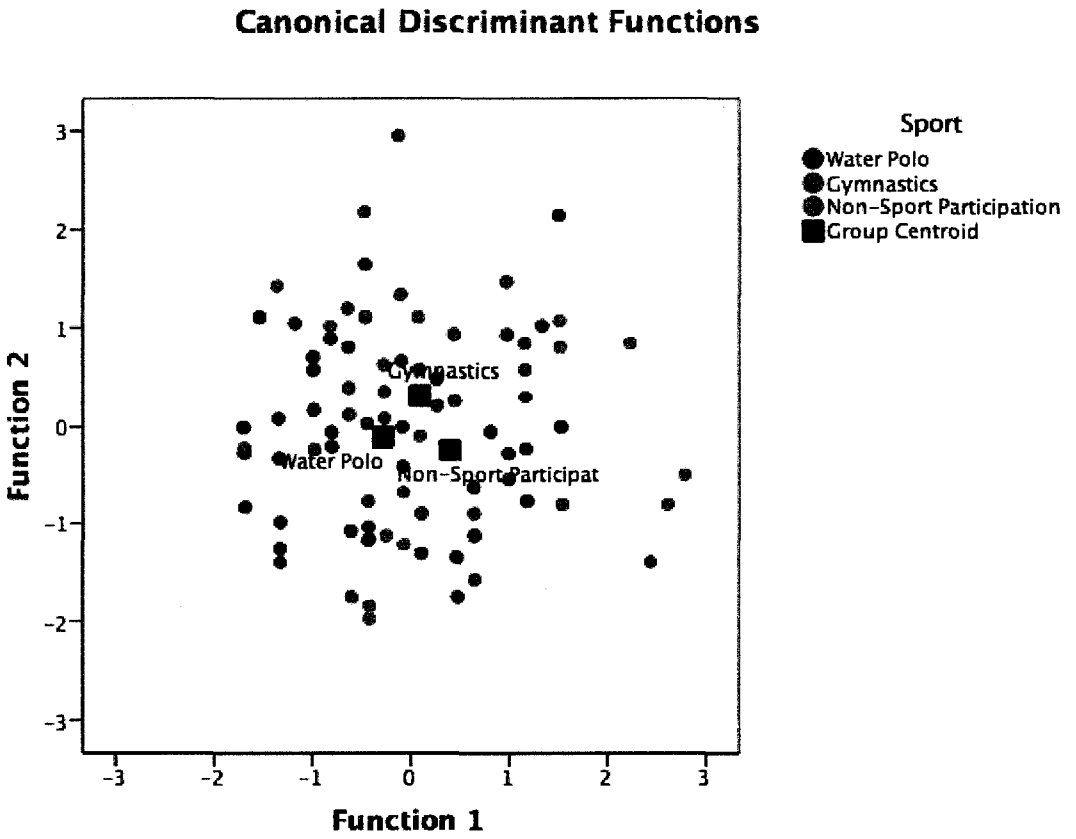

Figure 1. This scatter plot shows how the canonical discriminant functions (the linear combination of self-objectification and body shame) maximize the differences between the means of the three sport groups. Self-objectification had its strongest correlation with Function 1 and body shame had its strongest correlation with Function 2.

The second part of a discriminant analysis determines if groups, here water polo, gymnastics and control, can be accurately classified based on the simultaneous consideration of the independent variables, better than chance alone. The statistical significance of group differences was supported because 46.0% of all original grouped cases were correctly classified. When left to chance alone, three groups would be correctly classified 33.3% of the time. Individually, classification results showed that 47.4% of water polo players were correctly classified as water polo players; 51.7% of

gymnasts were correctly classified; and 35.0% of control participants were correctly classified (see Table 4 for a full summary).

Table 4
Classification Results[a]

		Sport	Predicted Group Membership			
			Water Polo	Gymnastics	Control	Total
Original	Count	Water Polo	18	9	11	38
		Gymnastics	9	15	5	29
		Control	7	6	7	20
	%	Water Polo	47.4	23.7	28.9	100.0
		Gymnastics	31.0	51.7	17.2	100.0
		Control	35.0	30.0	35.0	100.0

a. 46.0% of original grouped cases correctly classified.

A follow-up univariate ANOVA between-subjects test of difference showed that participants' levels of self-objectification varied significantly as a function of their sport participation, $F(2, 87) = 3.641$, $p < .05$, Eta squared = .077. More specifically, post hoc tests showed through Tukey's HSD statistic that self-objectification scores were significantly lower for water polo players ($M = -9.45$, $SD = 10.655$) than non-sports participants ($M = -1.76$, $SD = 12.058$). Therefore, the second null hypothesis was rejected. However, mean self-objectification differences between water polo players and gymnasts ($M = -4.93$, $SD = 10.71$) were not significantly different. Post hoc analyses on body shame scores for the three groups showed that differences were not significant $F(2, 86) = 1.919$, $p = .153$. Therefore, the third null hypothesis was accepted.

CHAPTER 5

Discussion

The purpose of this study was to determine if self-objectification and body shame could predict female membership in NCAA Division I water polo, gymnastics, or a non-sport control group. In this chapter the findings of this study will be discussed in relation to existing theory, the limitations present, and future directions for research.

Data was collected from 119 college aged women from two NCAA Division I west coast universities. Of these women 70 were elite athletes, including 41 water polo players and 29 gymnasts. Forty-nine participants were initially recruited for the control group; after age and exercise proficiency level delimited entries data from 22 participants were analyzed. The women in the control group were on average older than both water polo players and gymnasts, with the water polo participants having the youngest average age.

Fredrickson and Roberts (1997) recommended that research be conducted to better understand how physical risk taking could teach women to appreciate the competency of their bodies' potential to move. They believed that having such an understanding would help women be less consumed by their appearance and thus have lower levels of self-objectification. Additionally, if a woman values the competence-related attributes of her body then she may be less likely to internalize cultural standards of what a female body should look like, which tends to be very thin. The measure of body shame used in the present study is a representation of this internalization because shame is created from a discrepancy between what a woman perceives herself to look like

and what her ideal is (Bessenhoff & Snow, 2006; McKinley & Hyde, 1996). Consistent with previous research (Fredrickson et al., 1998; Greenleaf & McGreer, 2006; Quinn, Kallen, & Cathay, 2006; Quinn, Kallen, Twenge, et al., 2006), the current study found that self-objectification and body shame were moderately and positively correlated.

Though self-objectification and body shame scores were moderately correlated, and thus both were used in the discriminant analysis to test if self-objectification and body shame could predict participation in water polo, gymnastics or membership in the control group. It was found that the model did significantly distinguish between the three groups on the basis of self-objectification and body shame. Therefore the first null hypothesis, stating that the combination of self-objectification and body shame would not predict water polo, gymnastics or control group participation, was rejected. This study focused simply on two variables, self-objectification and body shame, and these variables were able to significantly predict participation in water polo, gymnastics and the control group. This is especially remarkable because both gymnasts and water polo players wear similar attire that is contoured to the body, and both groups participated in elite sport where a high level of body competence is essential for success.

Follow-up post hoc analyses did not find significant differences between the three sport groups based on body shame. The lack of significant differences between water polo players, gymnasts and control participants on body shame suggested that athletes are not simply influenced by the body shape and size standards for the sport within which they participate. If they were, water polo players would be expected to have less body shame than gymnasts and control participants, because bigger bodies are favored for

water polo, while a pre-pubertal size is favored for gymnasts. However, athletes can also be influenced by cultural standards. Cultural standards for the female body tend to favor an extremely thin silhouette (Bessenhoff & Snow, 2006) and are virtually impossible to realize (McKinley & Hyde, 1996). McKinley and Hyde (1996) argued that body shame scores reflect internalized cultural norms for body shape and size. The lack of significant differences between group means for body shame suggests that sport is not necessarily a venue where women can learn to reject cultural standards.

The lack of significant difference in body shame scores between the three groups is inconsistent with previous research (Parsons & Betz, 2001), which found that body shame related to female participation in objectifying activities like gymnastics, dance team and cheerleading. Therefore, another way to interpret the lack of difference in body shame scores between gymnasts and the other two groups is that other variables influenced gymnasts' body shame scores. The coaching philosophy implemented or the team dynamic present in each of the two gymnastics teams may have facilitated an environment that did not breed high levels of body shame. On other gymnastics teams coaches may try to regulate exactly what their athletes eat, how they burn calories, and how much they weigh. While this might be for fitness-related reasons, athletes could interpret it as appearance-related criticism.

The findings of the current study did not indicate significant differences between water polo players and gymnasts in relation to self-objectification. As previous research suggested, sport can teach women about their own physical competency, which allows them to better realize their bodies' potential to move (Chase, 2006; Chu, Leberman, How,

& Bachor, 2000; Scraton, Fasting, Pfister, & Bunuel, 1999; Theberge, 2003; Wegewood, 2004). Female water polo players compete in a rugby-like sport, where success is necessarily related to power, strength and aggressive play (Hendrie, 1999), but they wear body-contoured bathing suits. Their bodies are not on display as a function of the competition, but their revealing attire has been significantly related to higher levels of self-objectification and body shame in previous research (Fredrickson et al., 1998; James, 2000; Quinn, Kallen, & Cathay, 2006; Quinn, Kallen, Twenge, et al., 2006). In contrast, gymnastics has been traditionally represented as a feminine sport (Parsons & Betz, 2001; Koivula, 2001), because there is no contact with competitors and it has an aesthetic component that focuses on how the body appears as it moves through space. Parsons and Betz (2001) associated it to other physical activities like dance and cheerleading by classifying it as objectifying and linking it to higher levels of body shame. However, the skill required to compete in gymnastics at an elite level teaches women about the strength of their bodies. Gymnasts learn how to best use their bodies to complete difficult routines on the balance beam, uneven bars, floor, and vault. Successful completion of a difficult gymnastics routine could instill a feeling of body-related competence. In addition, in order to complete some of the very risky movements that are a part of regular competition, gymnasts must have a high level of proprioception. Therefore, elite level sport may draw women who self-objectify less or teach both water polo players and gymnasts to value competency-related physical attributes. In addition, both sports have components, such as wearing revealing and body-contoured apparel, which may contribute to a valuing of appearance-related physical attributes. The complex

relationship between sport and perception of the body, as discussed here, may explain why greater differences in self-objectification did not exist between the two sports.

The most interesting finding from this study was that there were significant differences in self-objectification between water polo players and the control group. The results from this study show that type of physical activity may be related to level of self-objectification. More specifically, this study adds to current research by reporting that water polo players had lower self-objectification scores than control group participants. This research cannot project causality. Thus, either water polo creates an experience that decreases self-objectification, or women who have low levels of self-objectification are drawn to sports like water polo. Chase (2006) and Wegewood (2004) both found through qualitative research that female participation in very physical sports helped women learn to view their body differently. In particular, Chase (2006) wrote about women who were once focused on being small, thin and model-like who transitioned to enjoying larger, muscular, and fit bodies through their participation in rugby. Likewise, Wegewood (2004) found that through learning to play Australian Rules football, high-school aged females became more confident and developed a sense of self that was more powerful than they previously thought possible.

Motivation for exercising may have contributed to the difference in self-objectification between the control participants and water polo players. Strelan et al. (2003) found that a group of women who exercised at a fitness center were most likely to exercise for appearance related reasons. This type of motivation has been strongly linked to higher levels of self-objectification (Prichard & Tiggerman, 2005; Strelan et al., 2003).

Conversely, motivation related to health and fitness reasons strongly and negatively correlated with self-objectification, as did motivation related to mood/enjoyment, although the correlation was moderately significant (Strelan et al., 2003).

Significant differences in self-objectification between water polo players and the control group supports Daubenmier's (2005) research, which found self-objectification significantly varied by activity type. She compared yoga, aerobics, and non-participation in yoga and aerobics. This study adds NCAA Division I water polo to yoga as an activity related to lower levels of self-objectification. This finding is especially important because whether water polo teaches women to self-objectify less or draws women who self-objectify less it suggests that water polo is a sport where participation should be encouraged. Fields (2005) wrote about how females have gone to court to fight for the opportunity to participate in contact sport. It has been a contested space because young women were believed to be too weak to play. Even in cases where this was obviously untrue, those opposing female participation in contact sport argued that the quality of the sport and the development of masculinity in male athletes would be harmed because of a female presence (Fields, 2005). This shows how deeply connected contact sport is to traditional masculinity within American culture. This study gives support to women who desire a place in water polo, a contact sport; because, self-objectification was significantly lower for water polo players than the non-sport control group. Lower self-objectification is important because previous research has related higher levels to not only decreased cognitive (Fredrickson et al., 1998; Quinn, Kallen, & Cathay, 2006; Quinn, Kallen, Twenge, et al., 2006) and physical performance (Fredrickson & Harrison,

2005), but also to disordered eating (Greenleaf & McGreer, 2006; Tiggerman & Lynch, 2001), depression, and sexual dysfunction (Fredrickson & Roberts, 1997).

Limitations

Several limitations influenced the control group. The members of this group were students from one university and were all in the same major. Even though many studies have used convenience sampling, it still limits the research because the sample obtained may not be truly representative of the general population.

Another limitation was that the control group was quite active and therefore may not have been representative of the general population. The CDC and the ACSM recommended that adults should accumulate 30 minutes of moderately intense physical activity at least five days a week, or 20 minutes of vigorously intense physical activity three days a week (Pate et al, 1995). Data collected in 2005 showed that only 59.6% of young adults (age 18-24) actually met these guidelines (Haskell et al., 2007). On average the women in the control group of the present study were physically active four hours a week. Many of them reported walking or some other form of cardiovascular exercise as a part of their physical activity on an average week. Thus, even if they were only exercising at a moderate intensity, they were still exceeding the recommended guidelines. Therefore they may have understood their bodies more competently than a truly representative sample. Interestingly, an appearance-related reason for exercising may have fueled their high level of physical activity, which would also explain their higher self-objectification scores. It would be interesting for future research to use a control population of non-exercisers.

The control group participants were also significantly older than the athletes. In fact, even though participants were recruited from an undergraduate class, 23 of the women expected to be included in the study were over the age of 25 and their data was excluded from analysis, which made the sample size of this group substantially smaller than that of the other two groups.

Another limitation to this study is that elite-sport participants were not queried about how long they had been competing in their sport. For example, some water polo players might have been competitive swimmers who had only been playing water polo for a short period of time, while others may have played from a young age. This variable may have influenced the self-objectification or body shame scores.

Conclusion and Future Research

As feminist theorists have pointed out, the patriarchal society that we live in teaches women from a very early age to protect their bodies and find value in them based on an outsider's opinion of their appearance (Kaschak, 1992; Young, 1990). This objectification, turned inward, can lead to several consequences including body shame, which, as this study found, may not be challenged by participation in sport. However, one way to find body-based value outside of appearance attributes is to participate in physically challenging activities (Blinde, Taub, & Han, 1993; Chase, 2006; Miller & Heinrich, 2001; Richman & Shaffer, 2000; Theberge, 2003; Wegewood, 2004). Women waged legal battles for years demanding the right to participate in contact sport (Fields, 2005) to experience their body's potential to achieve physical success. Girls and women continue to fight for opportunities and social acceptance in sport (Chu et al., 2005;

Migliaccio & Berg, 2007). This struggle exists because female participation in contact sport disrupts traditional notions of femininity (Koivula, 2001). Women often are perceived as too fragile to play and many internalize this perception without truly testing its merit (Young, 1990).

Fields (2005) found that participation in traditionally masculine sports, like football, was thought to make women less feminine and therefore less desirable to men. Instances of this can still be found today. Migliaccio and Berg (2007) found that players in a professional women's tackle football league had considerable trouble attaining support from their local community. Community members complained that one article per season was too much coverage in the local newspaper. The findings of the current research study suggest that contact sport, specifically water polo, may be related to lower levels of self-objectification. Therefore this study suggests, on the basis of self-objectification, that women's participation in water polo should be encouraged. However, the lack of significant difference between the three groups in body shame shows that a complex relationship between physical activity, the body, and perception of the body exists, and future research is needed to determine if sport is a place where women can learn to reject culturally based body standards.

This study only used two teams for each of its sporting groups. As suggested, coaching style or coaching philosophy may have had an impact on the dependent measures. It would be useful for coaches, psychology of coaching professors, and sports psychologists working with coaches to understand the impact of coaching style and philosophy on players as it relates to self-objectification and body shame. Understanding

of the influence of coaching philosophy on self-objectification and body shame would be beneficial, not only for players' well being, but also because higher levels of self-objectification result in devoting attention to self-surveillance rather than concentration on the task at hand (Fredrickson & Harrison, 2005; Quinn Kallen, & Cathay, 2006; Quinn, Kallen, Twenge, et al., 2006).

The current study was unable to draw conclusions about the relationship between ethnicity, sport, and perceptions of the body because the majority of participants were white, and the remaining 36% of participants (n = 33) self-identified among 19 different ethnic categories. Therefore the sample size within each of these categories was not large enough to warrant analysis based on ethnicity. However, future research could conduct this study with a larger sample to find if, and potentially in what ways, cultural norms within ethnic groups influence findings. Russell and Cox (2003) studied African American and Caucasian women and found that while social physique anxiety could be predicted by a discrepancy between ideal and actual weight for Caucasian women it did not be predict social physique anxiety for African American women. Future research could study how internalization of cultural standards differs by ethnicity, as well as how this relates to sport participation.

Future research should also replicate this study but use several additional variables in the discriminant analysis. Previous research has found that variables such as disordered eating, flow states, body awareness, body responsiveness and appearance anxiety have relationships with physical activity (Calogero, 2005; Daubenmier, 2005; Fredricson et al., 1998; Greenleaf, 2005; Greenleaf & McGreer, 2006; Tiggerman &

Lynch, 2001). Including these variables may result in a discriminant analysis that is better able to classify groups. The instruments used to obtain self-objectification and body shame scores may also be modified to be more appropriate for athletes. The body shame subscale of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996), used in the present study, included statements that may not be applicable for elite athletes. The following are examples of such statements:

> I would be ashamed for people to know what I really weigh. I never worry that something is wrong with me when I am not exercising as much as I should. When I'm not exercising enough, I question whether I am a good enough person (McKinley & Hyde, 1996).

Athletes tend to be very fit and therefore may not be ashamed of their weight. Additionally, participation in elite sport necessitates regular exercise to be competitive. Therefore some of the questions on the scale may not applicable to them.

The research conducted in this study cannot project causality, so it is left to be determined whether women who have low levels of self-objectification are drawn to water polo or the sport instills it in them. Either way, as this study found, water polo players had lower levels of self-objectification than the non-sport control group. Because higher levels of self-objectification are related to increased body shame (Calogero, 2005; Fredrickson et al., 1998; Greenleaf, 2005; Greenleaf and McGreer, 2006; Parsons & Betz, 2001; Quinn, Kallen, & Cathey, 2006; Quinn, Kallen, Twenge, et al., 2006), disordered eating (Greenleaf & McGreer, 2006; Tiggerman & Lynch, 2001), depression and sexual dysfunction (Fredrickson & Roberts, 1997) the findings from this study suggest that

water polo should be encouraged. It would be interesting to conduct a longitudinal study to look at women throughout their water polo careers, in middle school, high school and college, and compare them to a control group of non-sport participants on measures of self-objectification and body shame. This type of research would show how a female athlete's perception of her body changes over time. Chase's (2006) study suggested that women learn about the competency of their bodies through participation in rugby. Her qualitative research depicted how women can learn to enjoy their bodies for their strength. They appreciated being bigger, muscular, and bruised instead of aspiring to attain a smaller and thinner body. A longitudinal study could illustrate this process. Moreover, this research, and previous research (Daubenmier, 2005), has shown that activity type is related to self-objectification. Therefore a longitudinal study that researches specific types of sport would also further the understanding about what types of physical activity lead to more positive psychological and experiential consequences for women. Additionally, this information could help physical educators, parents/guardians, and sport psychologists make appropriate recommendations to young females.

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APPENDIX A. Human-Subjects Institutional Review Board Approval

San José State
UNIVERSITY

Office of the Provost
Associate Vice President
Graduate Studies & Research

One Washington Square
San José, CA 95192-0025
Work: 408-924-2427
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To: Juliet Rose
1695 Filbert St #1
San Francisco, CA 94123

From: Pamela Stacks, Ph.D.
Associate Vice President
Graduate Studies and Research

Date: February 26, 2008

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"Self-objectification and body shame as predictors of sports participation"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to all data that may be collected from the subjects. The approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Dr. Pamela Stacks, Ph.D. immediately. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information. This approval for the human subject's portion of your project is in effect for one year, and data collection beyond February 26, 2009 requires an extension request.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.

Protocol # S0802026

cc. Tamar Semerjian, 0054

The California State University:
Bakersfield, Channel Islands, Chico,
Dominguez Hills, East Bay, Fresno,
Fullerton, Humboldt, Long Beach,
Los Angeles, Maritime Academy,
Monterey Bay, Northridge, Pomona,
Sacramento, San Bernardino, San Diego,
San Francisco, San José, San Luis Obispo,
San Marcos, Sonoma, Stanislaus

APPENDIX B. Demographic & Physical Exercise Questionnaire

INSTRUCTIONS: Fill in the box on the right, or circle a response when prompted, with the most accurate answer for you.

Question:	Answer:
1. Age:	
2. Ethnicity:	
3. *University** Year (**circle one**):	**Freshman, Sophomore, Junior, Senior, Graduate Student**
4. Did you receive an athletic scholarship to attend *University** (**circle one**)?	**YES** or **NO**

5. Participation in Physical Exercise and/or Sport:

a) Do you regularly exercise? **NO** or **YES** (circle one)

If you answered **YES** to a) please complete the table below. Regarding the 4th and final column, write **beginning**, **beginning-intermediate**, **intermediate**, **intermediate-advanced**, or **advanced** based on how you perceive your proficiency at that activity.

What activity(ies) do you most frequently do:	Length of Participation (months/years):	Hours per week, on average, of participation:	What proficiency level do you consider yourself:
Example: Yoga	**4 months**	**3 hrs/week**	**Beginning-intermediate**
1.			
2.			
3.			
4.			
5.			
6.			

Note. Questions 5 is modified from Daubenmier's (2005) measure for extent of exercise participation. From, Daubenmier, J. J. (2005). The relationship of yoga, body awareness, and body responsiveness to self-objectification and disordered eating. *Psychology of Women Quarterly,* 29, 207-219.

*The appropriate acronym was typed here for each university used in this study.

APPENDIX C. Informed Consent Form

San José State
UNIVERSITY

College of Applied Sciences and Arts

Department of Kinesiology

One Washington Square
San Jose, CA 95192-0054
Voice 408 924-3010
Fax 408 924-3053

Consent Form

Agreement to Participate in Research

Responsible Investigator: Juliet Rose, SJSU Graduate Student
Title of Protocol: Understanding Body Perceptions

1. You have been asked to participate in a research study investigating how individuals think and feel about their bodies.
2. You will be asked to fill out three short questionnaires in a quiet room on campus. It will take approximately 10-20 minutes.
3. Minimal risk, such as feeling negative emotions about, or more concentrated thought on, your body might be encountered due to participation in this study.
4. There are no discernable benefits to participating in this study.
5. Although the results of this study may be published, no information that could identify you will be included.
6. There is no compensation for participation in this study.
7. Questions about the research may be addressed to Juliet Rose, (408) 826-9485. Complaints about the research may be presented to Dr. Sherlie Reekie, Department of Kinesiology Chair, (408) 924-3012. Questions about a research subjects' rights, or research-related injury may be presented to Pamela Stacks, Ph.D., Associate Vice-President, Graduate Studies and Research, at (408) 924-2480.
8. No service of any kind, to which you are otherwise entitled, will be lost or jeopardized if you choose to "not participate" in this study.
9. Your consent is being given voluntarily. You may refuse to participate in the entire study or in any part of the study. You also have the right to not answer question you do not wish to answer. If you decide to participate in the study, you are free to withdraw at any time without any negative effect on your relations with San Jose State University or any other participating institutions.
10. At the time that you sign this consent form, you will receive a copy of it for your records, signed and dated by the investigator.
    - The signature of a subject on this document indicates agreement to participate in the study.
    - The signature of a researcher on this document indicates agreement to include the above named subject in the research and attestation that the subject has been fully informed of his or her rights.

_____ _____
Signature Date

_____ _____
Investigator's Signature Date

The California State University
Chancellor's Office
[illegible]
Bakersfield • Chico • East Bay • Fresno
Fullerton • Hayward • Long Beach
Los Angeles • Maritime Academy
Monterey Bay • Northridge • Pomona
Sacramento • San Marcos • Sonoma • Stanislaus
San Francisco • San Jose • San Luis Obispo
[illegible]