Body Image, Body Objectification, and Depression

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Abstract
The present study tested the full objectification theory model, as elaborated by Fredrickson and Roberts (1997), as it applied to the proposed mental health consequence of depression, and as it might be extended to a male population. Results supported some components of the model, but not the model in its entirety. The construct of self objectification was observed to have similar applicability to men and women in relationship to depression. This finding was consistent with recent literature that addresses the implications of the changing sociocultural influence (e.g., the media) on male body image and sexual objectification. Support was found for some, but not all, of the originally proposed mediating subjective psychological experiences that were thought to lead to depression. In this study, there was strong support for appearance anxiety, and weak support for peak motivational states (flow) as mediators of the relationship between self-objectification and depression, but no support for decreased awareness of internal bodily states. There was additional strong evidence for body shame as a mediator of the above relationship; however, in this sample, the direction of the relationship was counter to prediction and created some question as to how exactly the experience of body shame operates. Lastly, expected gender differences in the degree of self-objectification experienced were not found. While women in this sample did report more self objectification, the difference was not statistically significant. This finding was in contrast to early research on self-objectification that demonstrated significant differences between men and women, and that did not find evidence for self-objectification processes in men.

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SCHOOL OF PROFESSIONAL PSYCHOLOGY

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INTRODUCTION

Psychological literature has sufficiently established that the quality of one’s body image is related to the level of one’s self-esteem and psychosocial adjustment (Cash & Henry, 1995; Usmiani & Daniluk, 1997). According to this research, body image disturbance, (also referred to as body image dissatisfaction) is likely to contribute to lower levels of self-esteem and decreased psychosocial adjustment. It has also been established that there are gender differences in the experience of body image dissatisfaction with women generally reporting dissatisfaction more frequently and more intensely than do men (Usmiani & Daniluk, 1997). Body image disturbance has become so prevalent in women that research has demonstrated a “normative discontent” with physical appearance on the part of American women (Cash & Henry, 1995; Kaschak, 1992; Silberstein, Striegel-Moore, & Rodin, 1992).

Historically, several theories (perceptual, developmental, and sociocultural) have been proposed to account for the existence of body image disturbances (Heinberg, 1996). Perceptual theories address the idea that body image disturbances are due to inaccurate perceptions regarding one’s size. Developmental theories regard the physiological and psychological changes that go along with puberty and maturational timing as the catalyst in creating body image disturbances. Sociocultural theories, by definition, explore the impact of cultural standards and societally defined expectations on individuals’ thoughts, feelings, and behaviors (Heinberg, 1996). The present study will focus on sociocultural explanations of body image disturbance and its consequences.
A particularly relevant sociocultural factor in the formation of body image disturbance is the objectification of the female body, in which the reduction of women to physical, often sexualized objects, is largely accepted in American culture and promulgated through the media. Some believe this constant exposure to objectification places women at higher risk for certain mental health problems simply because they exist in a culture that objectifies the female body (Fredrickson & Roberts, 1997). Proposed mental health risks include increased rates of unipolar depression, eating disorders, and sexual dysfunction with male partners. Specifically, though depression commonly occurs in both sexes, research has found that women experience twice as many depressive symptoms as do men, beginning as early as adolescence (American Psychiatric Association, 2000; Kaschak, 1992; Marcotte, et al., 2002; Nolen-Hoeksema, 1990; Stice, et al., 2000).

A woman's experience of her body can greatly influence her affective states. Women whose bodies do not match the proscribed cultural ideal are more likely to experience shame and other negative emotions, such as depression and anxiety, and those women who have also internalized cultural ideals are likely to do so with greater intensity (Fredrickson et al., 1998; McKinley & Hyde, 1996). Women who self-objectify, that is, experience their own bodies as objects, are likely to experience greater depressive symptoms that women who do not (Fredrickson & Roberts, 1997; Rubin, Twinge, & Fredrickson, 2002).

Two groups of researchers have developed theoretical models based on feminist body objectification concepts in an effort to provide a framework for better understanding the interplay of sociocultural factors that contribute to the development of negative body
image and the greater mental health consequences experienced by women (e.g., unipolar depression). Fredrickson and Roberts (1997) have proposed a model of objectification theory emphasizing the concepts of self-objectification and habitual body monitoring as the individual mechanisms that lead to negative emotional and experiential consequences for women. McKinley and Hyde's (1996) model described the experience of Objectified Body Consciousness (OBC), a phenomenon theorized to consist of three components: (a) body surveillance (conceptually similar to habitual body monitoring), (b) internalization of cultural body standards, and (c) beliefs about appearance control. Both of these objectification models incorporate sociocultural factors experienced by women and attempt to explain the way these factors are interrelated and have larger general consequences for females' mental health.

To date, several studies have examined the efficacy of these theoretical models. Much of the work that has been done thus far has focused on the relationship between body image dissatisfaction and eating disorder symptomology, as this is the most direct link to a theory based on consequences of objectifying women's bodies. However, objectification theory also proposes increased risks for women in other areas of mental health, such as depression and sexual dysfunction, and research has begun to examine implications of the models in these areas as well (Muehlenkamp & Saris-Baglama, 2002; Tiggemann & Kuring, 2004).

The literature review section for the present study provides a description of the two major objectification frameworks, McKinley and Hyde's (1996) theory of objectified body consciousness (OBC) and Fredrickson and Roberts' (1997) objectification theory. This section also compares and contrasts the two theories, highlighting areas in which
they overlap as well as ways in which they diverge. This is followed by a review of the empirical literature testing these objectification models and a summary of those findings. Evidence is provided that illustrates the connection between objectification, body image dissatisfaction, and mental health risks for women. Special attention is given to work that focuses on the links between objectification theory and depression.

Additionally, it has recently been noted in the literature that men have begun to express body image concerns similar to those that have historically been experienced by women (Hallsworth, Wade & Tiggemann, 2005; Lorenzen, Grieve & Thomas, 2004; Strelan & Hargreaves, 2005). Although the objectification theories covered in this dissertation were formulated from feminist perspectives examining the consequences of sexual objectification of women's bodies, it can be argued that in today's Western societies men's bodies are becoming increasingly objectified in their own right. The emergence of a media sanctioned and promulgated idealized image of the male body has created the potential for men to experience some of the body image concerns that have plagued women for decades. Thus, the literature review will also include research that has begun to examine body image and body objectification in male populations.
REVIEW OF THE LITERATURE ON OBJECTIFICATION THEORY

Feminist Objectification Theories

Feminist objectification theories emphasize the social constructions that encourage specific beliefs and behaviors that contribute to body image dissatisfaction and other negative body experiences (Kaschak, 1992). The inclusion and focus on sociocultural context, rather than a focus on individual attribution or personality factors, is an integral element of both of the following theories.

McKinley and Hyde’s 1996 Theory of Objectified Body Consciousness (OBC)

The construct of OBC describes the experience of feeling one’s body is an object whose sole purpose is to be looked at by others, specifically by males. Results of this experience include the acceptance of a set of beliefs that change the way a woman views herself and her abilities as well as the development of a repertoire of behaviors that support and reinforce these beliefs. These beliefs and behaviors are illustrated by the three components of the OBC model: (a) body surveillance; (b) internalization of cultural body standards and body shame; and (c) beliefs about appearance control.

Body surveillance is the term used by McKinley and Hyde (1996) to refer to the ways in which a woman watches her body, constantly evaluating herself in terms of how her body looks rather than how it feels. A woman’s relationship with her body becomes depersonalized as she comes to believe that her only purpose is to exist as an object to be looked at by men. This concept, that a woman learns to construct her value and identity as an object of male gaze, is the chief principle of OBC. An unavoidable result of this...
belief is the need to see oneself always from an external perspective, that is, to become a constant self-surveyor in an effort to meet societal and cultural standards and avoid negative evaluation. To achieve this end, women implement body surveillance behaviors.

The second dimension of the OBC model is the internalization of cultural standards and body shame. Cultural standards provide a template against which a woman may judge her body. Unfortunately, current U. S. cultural standards of thinness for the “feminine” body are largely impossible to attain for most women. The difficulty in achieving the ideal body standard can lead a woman to feel intense shame about her body. Internalization of cultural standards describes the phenomenon of mistaking the source of these physical beauty ideals. Women who have internalized cultural standards have come to believe that their beauty ideals are their own personal choices rather than externally imposed goals generated by societal pressure. Illusions of self-determination can intensify the degree to which a woman feels shame if she is unsuccessful in achieving these ideals. Additionally, women may connect achievement or failure to achieve these standards with their identity (i.e., “I am good person because I am thin,” or “I am bad because I am not thin”).

The last component of the model, control beliefs, represents an underlying assumption that women can, with enough effort, exert active control over their body (i.e., they possess the ability to meet any given cultural standard regardless of their genetic body type, ethnicity, economic status, etc.). Furthermore, they come to believe that they have the responsibility to do so, meaning that failure to meet the ideal is due to a lack of effort, motivation, etc., and they are thus accountable for these failures. The false belief
that a woman can control her appearance magnifies shame and other negative feelings when she fails to measure up to the societal ideal.

The experience of OBC creates a paradoxical situation for women. Each of the above beliefs and behaviors can be interpreted in a positive light, and these beliefs and behaviors are generally sustained by such a process. For example, body surveillance can be understood as a way of loving oneself or maintaining one’s health. Holding the view that one has selected one’s own beauty standards is more affirming than accepting the idea that one is driven by societal pressure. Similarly, the illusion that one has control of one’s own physical appearance can feel empowering and more positive than the more realistic notion that appearance is largely predetermined by one’s genetic make-up.

Unfortunately, OBC’s detrimental effects on women’s body and mental health experiences overshadow the seemingly positive aspects. OBC has been shown to be related to lower levels of body esteem and increased levels of restrictive eating practices and disordered eating (McKinley & Hyde, 1996).

Fredrickson and Roberts (1997) Objectification Theory

Objectification theory is the framework used by Fredrickson and Roberts to organize what they view as common experiences of women in Western culture. Their theory posits that women’s experiences are qualitatively different from men’s experiences due to established cultural norms that provide for and condone the practice of sexually objectifying women’s bodies. They argue that in our culture there is an ongoing potential for women to be knowingly or unknowingly objectified, and that this potential for objectification results in subjective and mental health consequences for women.
Sexual objectification occurs when women are viewed as objects for sexual gratification rather than as human individuals capable of agency. "The common thread running through all forms of sexual objectification is the experience of being treated as a body (or collection of body parts) valued predominantly for its use to (or consumption by) others" (Fredrickson & Roberts, 1997, p. 174). Through the use of gaze, women are constantly reminded they are potential targets of sexual objectification.

A major consequence of this is that women and girls may learn to internalize an observer's perspective and eventually begin to regard themselves as objects. Fredrickson and Roberts (1997) refer to this as "self-objectification" and define it as a process in which women relate to themselves from a third-person perspective as objects to be looked at and evaluated, rather than from a first-person perspective as an active being capable of internal feeling and external accomplishment. This way of thinking about oneself leads to a habitual monitoring of one's physical exterior in order to ensure that one meets appearance standards. Objectification theory does not seek to explain how or why the objectification process occurs; rather, its purpose is to illustrate the specific mental health risks women incur as a consequence of living in a culture that habitually objectifies women (Fredrickson & Roberts, 1997). In addition, objectification theory specifies the mechanisms through which self-objectification impacts women's mental health, namely, by negatively affecting women's subjective experiences.

Consequences of Self-objectification for Subjective Experience

In the process of habitual body monitoring that characterizes self-objectification, women are often distracted from their endeavors by thoughts about their appearance. Fredrickson and Roberts (1997) have proposed that these interruptions result in a specific
set of predictable subjective experiences in the following areas: (a) the emotion of shame; (b) the emotion of anxiety; (c) peak motivational states; and (d) the awareness of internal bodily states. A description of each of these consequences follows.

Shame is a negative emotion that occurs when one compares oneself to an internalized or cultural ideal and discovers that one does not meet that ideal. Gender differences in the experience of shame have been found, with women more likely to feel shame than men (Silberstein et al., 1992). Fredrickson and Roberts argue that the cultural bombardment of thin, youthful, white, female images in Western society and mass media presents an almost unattainable standard for women. However, this is the standard most women strive to attain and against which most women evaluate themselves. The inevitable negative comparisons for most women produce feelings of worthlessness, powerlessness, and failure. Additionally, inability to achieve these standards is often equated with moral failure. Furthermore, the practice of habitual body monitoring increases the frequency of comparison and thus the likelihood that shame will recur. Lastly, the elevated importance of failure to meet these body goals intensifies the body shame, making it more difficult to diminish.

Next, Fredrickson and Roberts’ objectification theory proposes that women are more likely to experience appearance anxiety and safety anxiety as a result of living in an objectifying culture. Because there is always a potential to be evaluated, women must be alert to the prospect of being watched by others. This uncertainty about whether or not one is currently the subject of scrutiny leads to an increased level of anxiety. Furthermore, women are continuously exposed to anxiety-provoking experiences that necessitate watchfulness over one’s appearance (habitual body monitoring). These
situations can range from the need to constantly monitor and readjust one's clothing (e.g. to ensure low necklines or short hemlines are not revealing too much), to the safety precaution of maintaining awareness of one's environment to protect against sexually motivated bodily harm. These situations necessitate a general vigilance, or anxiety, that is not typically part of men's daily experience.

Another aspect of living in an objectifying culture is the diminished occurrence of peak motivational states that result from a woman relentlessly being interrupted from her thoughts and endeavors. One such motivational state has been termed *flow*, and describes a state in which one becomes completely engrossed in one's own efforts and stretches one's ability to meet desired goals (Csikszentmihalyi, 1999). Flow is thought to be an aspect of intrinsic motivation and an essential element in achieving happiness (Csikszentmihalyi, 1999). Women tend to report fewer experiences of flow, which is a likely result of having one's intellectual and emotional resources drained by habitual self-monitoring. Disruption of prospective peak motivational states occurs when actual others bring attention to a woman's physical body or when a woman becomes self-conscious. These cues refocus a woman toward concern with her appearance and distract her from other pursuits.

Additionally, women have been found to demonstrate less sensitivity to internal bodily cues than men do. Fredrickson and Roberts (1997) cite studies suggesting that women's abilities to detect physiological sensations (heartbeat, stomach contractions and blood-glucose levels) are less accurate than men's abilities to detect these stimuli (Blascovich et al., 1992; Harver, Katkin & Bloch, 1993; Pennebaker & Roberts, 1992). Objectification theory posits that women's perceptual resources may be exhausted by
habitual body monitoring of their external selves, leaving little energy to attend to internal states. Additionally, by internalizing the perspective of a third-person “other” as the main way in which women relate to themselves, they may routinely cease to access their own inner first-person experiences.

Mental Health Risks of Self-objectification

Fredrickson and Roberts have proposed two routes, direct and indirect, by which sexual objectification can lead to negative mental health outcomes for women. The direct route encompasses problems that arise from actual sexual victimization, the experience of literally being used as a sexual object by a perpetrator (e.g., rape or other sexual assault). While further examination of this topic is certainly warranted, this line of research is outside the scope of the present study.

The focus of this section will be on the more indirect way in which sexual objectification contributes to greater mental illness in women. As stated earlier, Fredrickson and Roberts hypothesize that women who are at risk to be objectified will engage in habitual self-monitoring of their bodies, which is likely to produce greater experiences of shame and anxiety, decreased opportunities for peak motivational states, and diminished awareness of internal body states. This set of circumstances is thought to contribute to the increased incidence of unipolar depression, sexual dysfunction with male partners, and disordered eating in women (see figure 1).
Figure 1.
Self-Objectification Model

*Implications for depression.* As stated earlier, women become depressed almost twice as often as do men (American Psychiatric Association, 2000; Kaschak, 1992; Marcotte, et al., 2002; Nolen-Hoeksema, 1990; Stice, et al., 2000). Objectification theory attempts to provide a partial explanation for this gender discrepancy in the incidence of depression by combining aspects of existing etiological theories of depression with the cultural context of women’s experience in a society that sanctions their sexual objectification.

Previous research has identified female biology, women’s inferior social status and lack of power, and gender-specific personality characteristics as three mechanisms by which gender differences may influence the development of depression in women.
Objectification theory reinterprets these factors, explicating the ways each of these areas is impacted through interaction with the social context. In considering female biology, for example, Fredrickson and Roberts (1997) point to biopsychosocial models that indicate that female biology alone (e.g. shifting hormonal levels, hormonally induced physical changes) may not influence depression in females as much as previously believed. These models instead focus on the interaction of biology and social environment in determining psychological consequences. Thus, it is not the fact of different biology itself, but rather the way in which the public reacts to the observable changes in females due to their biology that has important consequences for female depression. A more in-depth discussion of these models is outside the scope of the present review.

Power-status explanations reflect discrimination experienced by women in society. One might conclude that those who experience the most societal oppression should then experience higher rates of depression. This thinking would predict that women of color experience more depression than white women do as a function of the multiple levels of oppression they experience. Fredrickson and Roberts indicate that this is not the case, and they conclude that power-status explanations only account for part of the story. Incorporating objectification theory may help to better account for this phenomenon.

Individual differences in depression have also been explained by pointing to certain personality characteristics often found in women, for instance, nurturance, emotionality, nonassertiveness, self-sacrifice, and relationship-orientation. Some researchers have argued that these personality styles tend to “de-self” women and thus
contribute to depression. Fredrickson and Roberts examine this idea of "losing one's self" in objectification theory by emphasizing the loss of a woman's first-person self-perspective that occurs when a woman self-objectifies. In this sense women cease to see themselves as a "self" at all when they relate to their bodies as external onlookers. As already illustrated, self-objectification has specific subjective consequences (i.e., greater shame and anxiety, decreased flow, and decreased awareness of internal states) that result from this process. These consequences are likely to affect the degree and rate at which a woman becomes depressed.

**Implications for sexual dysfunction.** In addition to experiencing more frequent depression than men do, women also report more sexual dysfunction in heterosexual relationships. Objectification theory proposes that this difference arises from women's practice of habitual body monitoring and the resulting body shame, body anxiety, and lack of awareness of one's internal bodily state that ensues. Women's concern with the appearance of their bodies may interfere with their ability to subjectively attend to their sexual experiences and achieve pleasure from them. "Chronic attentiveness to one's own visual image may consume mental energy that might otherwise be spent on more satisfying and rewarding activity" (Fredrickson & Roberts, 1997, p. 190). Additionally, they argue that body shame and anxiety are negative emotions that are likely to hinder women's ability enjoy sex. Lastly, as earlier stated, habitual concern with external appearance impacts the degree to which women are attuned to their internal bodily cues. This lack of attention could affect the ways in which women respond to physiological signals of arousal and, by extension, could curb their satisfaction with sexual activity.
Implications for disordered eating. Women represent 90% of those diagnosed with eating disorders. The tenets of objectification theory can be directly applied to this problem and Fredrickson and Roberts present two lines of thinking to account for this. The first is that women’s preoccupation with eating and weight control has become so widespread that eating disordered behavior can be viewed on a continuum, with eating disorders representing the extreme and body image dissatisfaction depicting the norm. The second is the idea that development of an eating disorder represents a political protest against a patriarchal, objectifying society. Specifically, women who do not have access to larger societal power view their bodies as the only things they can indeed control and thus either reject societal standards outright (as seen in obesity) or enact restrictive practices (as seen in anorexia and bulimia) to manipulate their bodies.

Objectification theory accounts for the presence of both of these theories in considering eating disorders. This framework can be applied to those women who seek to lessen the negative emotions they experience when their bodies do not measure up to the cultural standards. It can also account for those that may be using their bodies to reject societal standards and the objectifying treatment that goes with them. This second group may attempt to make their bodies look a certain way in an attempt to discourage sexualizing treatment (i.e., either by becoming so thin that they look “less womanly” or by exceeding size expectations of what is societally attractive). In both instances, Fredrickson and Roberts view eating disorders as “passive, pathological strategies, reflecting girls’ and women’s lack of power to more directly control the objectification of their bodies” (1997, p. 192).
Comparing Objectified Body Consciousness and Objectification Theory

In comparing McKinley and Hyde’s OBC model and Fredrickson and Roberts’ objectification theory, one immediately grasps the theories are based on similar constructs. Each of these theories is grounded in feminist thinking and considers the ways in which women’s lives may be shaped by negative body experiences. Both discuss the concept of women’s reduction to objects of male sexual desire and feature a construct that describes the behavior of women monitoring their bodies. Both theories talk about internalizing an outsider’s perspective as a way of evaluating oneself and organizing one’s own experience.

Additionally, these theories both address objectification behaviors as seemingly adaptive within the cultural context because they provide illusions of control and, sometimes, the only degree of power a woman possesses. They each stress the prominence of unrealistic societal ideals in Western culture and how women’s feelings of shame result from failure to meet these standards. Finally, both assert potential mental illness consequences of objectification, specifically, lowered levels of body esteem and disordered eating behaviors.

As described above, objectification theory and OBC provide similar frameworks to understand the mechanism of objectification and its impact on the beliefs women may internalize and the behaviors they may learn to perform. However, Fredrickson and Roberts’ objectification theory goes beyond a description of the workings of sexual objectification and systematically explores specific subjective consequences that individual women encounter as a result of living in an objectifying culture. Objectification theory (1997) provides careful examination of women’s experiences of
shame and anxiety and how these emotional states can negatively impact a woman's experience. This model incorporates the concepts of such peak motivational states as flow and describes reasons why they are difficult for women to achieve. It also explores the implications of an externalizing self-focus on women's ability to attend to internal states. None of these areas are covered in depth in the OBC model.

Furthermore, Fredrickson and Robert's objectification theory model illustrates a connection between objectification and specific mental illness risks for women via these predictable subjective occurrences. The OBC model alludes to sexual objectification as a possible explanation for women's demonstrated mental illness disparities but does not specify the mechanism for how this might occur in the way that objectification theory does, nor does it stipulate specific mental illness risks for women. For example, the idea that peak motivational states enhance the quality of one's life coupled with the difficulty women have in achieving these states provides an interesting bridge to possible reasons for elevated female depression. There are no such specific hypotheses in OBC theory.

Objectification theory has been more fully elucidated than OBC; it better accounts for the differential mental health experiences of women in Western culture. However, both models present an organizational framework that seeks to provide clarification of the female experience in an objectifying culture, and both succeed in this right. Taken together then, these models identify the theoretical consequences of sexual objectification for women. After these models were proposed a number of studies were conducted to examine these theories empirically. Following is a presentation of studies testing these objectification theories.
Empirical Support for Objectification Theories

Body Image and Disordered Eating

Substantial research has been conducted to examine both objectification theory models as they pertain to body image/body esteem and disordered eating. Some of the studies have investigated the OBC model, some explore objectification theory as proposed by Fredrickson and Roberts (1997), and still others have combined some components of both models. The results of these studies show strong support for the notion that objectifying treatment contributes to individual experiences of self-objectification and/or an objectified body consciousness. These circumstances in turn strongly predict the psychological consequences of negative body image and disordered eating for women. A more in-depth description of the findings is presented here.

Tests of Objectification Theories: Body Image Concerns

McKinley (1998) conducted a study on undergraduate men and women to examine the usefulness of the OBC model in conjunction with actual/ideal weight discrepancies in explaining gender differences in body esteem. The results indicated that women reported higher levels of body surveillance, body shame, and actual/ideal weight discrepancy than did men. These results demonstrate support for the OBC model's notion that women view their own bodies as objects and feel shame when they fail to meet cultural body standards. When the analysis controlled for level of OBC, the relationship between gender and body esteem was no longer significant, suggesting that OBC is a mediator in the relationship between gender and body esteem.
Strelan, Mehaffey, and Tiggemann (2003) investigated the relationship between self-objectification, reasons for exercise, body esteem, and self-esteem. Participants were young women (aged 16-25) recruited from fitness centers in Australia. Objectification theory, as proposed by Fredrickson and Roberts (1997), distinguishes between self-objectification and body dissatisfaction. Self-objectification involves preoccupation with physical appearance, but does not necessitate an evaluative or judgmental component. Thus, a woman does not have to be dissatisfied with her appearance to self-objectify. Furthermore, not all women objectify to the same degree or across identical situations. Thus, even women who exercise regularly and do not report dissatisfaction with their appearances may routinely self-objectify.

The results indicated that women who reported high self-objectification were significantly more likely to experience reduced body satisfaction, body esteem, and self-esteem. Women who indicated higher levels of self-objectification tended to exercise more for appearance-related concerns (i.e., to achieve a body that meets societal standards) and less for functional reasons (i.e., health, mood, enjoyment) than women who demonstrated lower levels of self-objectification. These women, whose motivations for exercise were largely appearance-related, did not report the increased body esteem and self-esteem that are usually considered to be positive impacts of exercise in general samples. Women who exercised for functional reasons reported higher levels of body satisfaction and self-esteem. The implication of these findings is that self-objectification results in psychological and behavioral consequences in areas other than restrained eating (i.e., it reduces the psychological benefits of exercise in relation to body image body esteem, depressed mood and anxiety).
Tests of Objectification Theories: Prediction of Disordered Eating in Adults

Noll and Fredrickson (1998) conducted a study with two independent samples of undergraduate women to test the objectification theory proposition that self-objectification increases women's feelings of body shame, which then contributes to increased risk for disordered eating. They hypothesized that body shame partially mediates the relationship between self-objectification and disordered eating. They further hypothesized the existence of a direct link between self-objectification and disordered eating based on anticipated body shame. These hypotheses were supported by the results. The researchers concluded that "individual variation in self-objectification can be measured, and that such differences account for individual variation in disordered eating, an effect largely mediated by experiences of body shame" (Noll & Fredrickson, 1998, p. 634).

Fredrickson, Roberts, Noll, Quinn, and Twenge (1998) distinguished between trait self-objectification (the stable individual differences in the degree to which one self-objectifies) and state self-objectification (the degree to which certain situations can trigger or intensify self-objectification). They conducted two studies at two separate universities to test the following hypotheses: (a) self-objectification produces body shame, which predicts restrained eating; (b) self-objectification diminishes math performance; and (c) the emotional and behavioral consequences of self-objectification will be evident for women, but not for men. The participants were 75 undergraduate women at Duke University and 82 undergraduate students at the University of Michigan (40 men and 42 women). To induce state self-objectification, researchers had participants either try on a swimsuit or a sweater and then complete questionnaires
measuring body shame. Additionally, behavioral measures of eating were obtained by means of a food taste-test, and availability of mental resources was measured by administering a math test.

These two studies found that self-objectification predicts body shame, which in turn predicts restrained eating. The results also indicated that individuals differ in the extent to which they self-objectify (trait self-objectification), women self-objectify more than men, and certain situations such as trying on a swimsuit are more likely to trigger self-objectification than others (e.g., trying on a sweater). The researchers explain this last finding by hypothesizing that trying on a swimsuit may promote a sense of being on display, even in the absence of actual observers. Trying on the swimwear led women to report feelings of shame and disgust. Men who tried on swimwear did not report these feelings. Furthermore, women in the swimsuit conditions performed significantly worse on the math test than did women in the sweater condition or men in either condition. This lends support to the idea that self-objectification interferes with women’s mental resources. Finally, behavioral consequences of self-objectification (i.e., restrained eating) were found for women, but not for men. All of these findings are consistent with objectification theory as proposed by Fredrickson and Roberts (1997).

Tiggemann and Slater (2001) tested the complete model proposed in objectification theory as it applies to disordered eating on two adult populations, former ballet dancers and a general undergraduate psychology student population. In addition to testing the mediational effects of body shame, their research sought to investigate other situational consequences proposed by Fredrickson and Roberts (1997), namely, appearance anxiety, flow experiences, and awareness of internal states. Furthermore,
these researchers were the first to include both Noll and Fredrickson’s (1998) measure of self-objectification and McKinley and Hyde’s (1996) measures of body surveillance and body shame (i.e., two of the three subscales of the Objectified Body Consciousness scale) in a single study.

The results of this study indicated that former dancers had higher levels of self-objectification and self-surveillance than non-dancers. This finding is consistent with the view of self-objectification as both a state and a trait (Fredrickson et al., 1998; Fredrickson & Roberts, 1997). Tiggemann and Slater (2001) contend that repeated exposure to situations that encourage state self-objectification (studying classical ballet from a young age) may result in the development of a lasting personality style (i.e., trait self-objectification) which is significantly different from those who are not habitually exposed to such objectifying situations.

Path analyses were conducted to evaluate the full objectification model with regard to prediction of eating disorders in each of the two participant samples, former dancers and non-dancers. For the former dancers, researchers demonstrated that self-objectification leads to self-surveillance, which itself leads to body shame, appearance anxiety, and decreased flow as predicted by the objectification theories. However, of these three subjective consequences, only body shame predicted disordered eating. Additionally, a significant direct pathway was found for this group between self-surveillance and disordered eating.

With respect to the non-dancers, researchers illustrated a pathway in which self-objectification leads to self-surveillance, which leads to body shame and appearance anxiety, but not decreased flow experiences. As in the sample of former dancers, only
body shame led to disordered eating, and unlike the sample of former dancers there were no significant direct pathways between self-objectification or self-surveillance on disordered eating.

The findings of Tiggemann and Slater provided further support for the above-mentioned links between self-objectification, body shame, and disordered eating. Specifically, the mediating role of body shame proposed by Noll and Fredrickson (1998) was confirmed by the path analysis of both participant groups. However, this study did not find support for the independent contribution of the other proposed consequences of self-objectification (i.e., appearance anxiety, decreased flow, decreased awareness of internal states) in predicting disordered eating. Nevertheless, these researchers observed that these variables may be significant factors in the other mental illness risks proposed by Fredrickson and Roberts' (1997) objectification theory, (i.e., depression and sexual dysfunction).

Tests of Objectification Theories: Prediction of Disordered Eating in Adolescents

Slater and Tiggemann (2002) investigated Fredrickson and Roberts' objectification theory with an adolescent population to determine if the model could be extended to this age group. Participants were a group of adolescent female ballet dancers (age 12 - 16) and a second group of non-dancing female adolescents (age 13 - 15). Because no significant differences were found between these two groups on self-objectification or any of its proposed consequences, results from the two groups were analyzed together.
A path diagram illustrated the results of the test of the full objectification model as it pertains to prediction of disordered eating in this adolescent sample. It was found that self-objectification leads to self-monitoring (previously referred to as "self-surveillance") as well as to body shame and appearance anxiety; self-monitoring leads to body shame; and body shame in turn leads to disordered eating (Slater & Tiggemann, 2002). There was no significant direct pathway found between self-objectification or self-monitoring to disordered eating.

The results of this study extended the previous research concerning Fredrickson and Roberts' objectification theory to an adolescent sample. Data further supported the previously established link between self-objectification, self-monitoring (self-surveillance) body shame, and disordered eating. Additionally, in this study, self-objectification was found to have a direct connection to body shame and appearance anxiety as well as an indirect influence on body shame via self-monitoring. Furthermore, in this sample both appearance anxiety and body shame partially mediated the relationship between self-objectification and disordered eating. This differs from previous research in which appearance anxiety did not have a significant mediating effect. Finally, the results of this study illustrate that self-objectification and its consequences can occur in girls as young as 12 years old. The ability of this model to predict disordered eating in this age group may be especially useful as adolescent women tend to represent a substantial proportion of those diagnosed with clinical eating disorders (Stice & Shaw, 2002).
Tests of Objectification Theories: Lifespan Implications

McKinley (1999) tested hypotheses about age-related differences in OBC in a sample of undergraduate women and their mothers. She found that young women and middle-aged women had different body experiences. Body surveillance was related to body esteem in young women but not middle-aged women, and middle-aged women had lower levels of body surveillance and body shame than did young women. McKinley hypothesized that older women may apply a less stringent set of standards to their bodies than young women do. Internalization of cultural body standards as measured by body shame was related to body esteem by both groups, with no significant differences in the strengths of these relationships.

Tiggemann and Lynch (2001) applied objectification theory as proposed by Fredrickson and Roberts (1997) to a cross-sectional sample of 322 adult Australian women (aged 20 - 84 years). The path analysis demonstrated strong support for the overall model with regard to negative affectivity and the prediction of disordered eating. Results indicated self-objectification leads to habitual body monitoring, which in turn leads to increased body shame and appearance anxiety, which results in greater disordered eating. These results confirm the above findings that shame and appearance anxiety play a strong role in the prediction of disordered eating. With respect to age differences, self-objectification was found to completely mediate the relationship between age and disordered eating.

This study also presented a comprehensive model that integrated propositions of objectification theory with previous research findings of age effects on body dissatisfaction. In short, they found that levels of self-objectification tend to decrease
with age; conversely, weight and body mass index tend to increase with age. The interaction of these oppositional forces may account for the stable levels of body dissatisfaction that have been documented in women across the life span. It may also account for age differences in body surveillance and body esteem reported by McKinley (1999).

**Trait Self-objectification: Personality Attributes and Negative Affect**

In addition to empirical examinations of the consequences of objectification in relation to body image and disordered eating, researchers have also examined the relationship between self-objectification and specific personality attributes. Miner-Rubino, Twenge, and Fredrickson (2002) tested the objectification theory hypothesis that self-objectification is related to shame, anxiety, and depression. Specifically, in this study, Miner-Rubino et al. investigated the relationship between trait self-objectification and the previously established Big Five personality constructs. Participants were 98 University of Michigan undergraduate women who completed measures of self-objectification, depression, body dissatisfaction, and the Big Five personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism, Intellect/Openness to Experience).

The findings of this study indicated that particular aspects of personality are related to self-objectification and that self-objectification predicts negative affectivity. Using a correlational design, researchers found that trait self-objectification had a significant relationship with measures of body shame, depression, and Neuroticism (operationalized in this study as a measure of anxiety). Additionally, there was a significant negative correlation between trait self-objectification and Intellect, indicating
that women who are overly concerned with their physical appearance may have fewer mental resources available to devote to intellectual endeavors. An alternative hypothesis proposes that the increase in depression, anxiety, and body shame (i.e., negative affectivity) that are all related to self-objectification may act to interrupt a woman’s cognitive functioning by making it more difficult to concentrate or think creatively (Miner-Rubino et al., 2002).

The data also indicated that women who held multiple stereotypically masculine traits (e.g., active, assertive, bold, vigorous, daring) were less likely to self-objectify. This finding implies that having many stereotypically masculine traits may provide a potential buffer from internalization of an observer’s perspective and preoccupation with physical appearance (i.e., the two hallmarks of self-objectification). Furthermore, the negative correlation between Intellect and self-objectification suggests another potential protective mechanism; namely, women that are immersed in intellectual or creative pursuits may be less likely to self-objectify because they are focused on attributes other than appearance. On the other hand, this finding may indicate that women who self-objectify may perceive themselves as less intellectual, or may in fact be less intellectual than women who do not self-objectify.

Further Extensions of Objectification Theories

In addition to direct examination of the objectification theory and OBC models as they relate to psychological consequences, studies have been conducted to explore women’s experiences of self-objectification in and of itself. Rubin, Nemeroff, and Russo (2004) qualitatively investigated the ways in which self-identified feminist women experienced objectification. An additional aim of the study was to understand feminist
women’s strategies to maintain positive body images and experiences in an objectifying culture, a culture in which women’s looks often impact their economic and social power. Participants in the studies described themselves as persistently aware of and focused on their bodies. They referred to the process of governing their bodies to be in accord with evaluative others whose looks, comments, and actions conveyed messages of what was and was not socially acceptable. They discussed ways in which their encounters with objectifying treatment in adolescence shaped their views of the meaning of womanhood in society. These qualitative descriptions give further credence to the theoretical propositions of objectification theories as negative phenomena experienced by most women.

Furthermore, participants in the study shared their methods for challenging societal and self-objectification. These resistance tactics ranged from critique of cultural messages about what is considered beautiful, to cognitive strategies that reject the notion of human value being earned only through appearance, to activities such as dance that allowed them to celebrate their bodies physically. These strategies were reported to be helpful but limited in battling objectification consequences. Participants reported the ability to think more adaptively about their bodies, but continued to experience body-related negative emotions such as shame and guilt, especially guilt about simultaneously holding feminist views and not relinquishing internalized cultural beauty ideals.

Calogero (2004) examined Fredrickson and Roberts’ (1997) proposition that self-objectification is the result of internalizing the sexually objectifying gaze of a male observer. Participants were 105 undergraduate women who completed measures of self-objectification and were then told that they were about to meet and interact with a male
partner, a female partner, or no partner, so that the researchers could evaluate interactional processes between strangers. After receiving this information, participants completed a set of questionnaires measuring body shame, social physique anxiety, and dietary intent.

Participants who expected a male partner (and by extension a male gaze) reported significantly greater body shame and social physique anxiety than those who anticipated a female gaze. This finding offers support for the basic tenet of objectification theories (i.e., that it is the internalized male gaze, not just any gaze, that negatively impacts women). Moreover, these results underscore the notion that actual observers need not be present for the negative consequences of self-objectification to occur.

The previous studies provide additional empirical support for the existence of objectification in the lived experiences of women as well as further clarification of the specific trigger (i.e., male gaze) that initiates the onset of this process. Thus, one can conclude that objectifying treatment and the internalization of objectification are important contributors to women’s risk for mental illness for the disordered eating spectrum. Furthermore, because the mechanism of self-objectification has been specified and empirically supported as the female internalization of the sexualized male gaze, this theory can account for some of the gender differences observed in the area of disordered eating.

Research testing both objectification theories provides direct evidence connecting objectification of women with certain psychological consequences, including negative body image/body esteem, shame, appearance anxiety, diminished cognitive performance, and risk for eating disorders. The next section will discuss an area in which these
psychological consequences have been implicated as contributing factors to women's mental illness; namely, unipolar depression. In addition, some researchers have begun to examine directly the links between objectification constructs and depressive symptomology. These findings will also be explored.
Body Objectification and Depression

Stice, Hayward, Cameron, Killen, and Taylor (2000) conducted a 4-year longitudinal investigation of the role of body image and eating disturbances (i.e., dietary restraint and bulimic symptoms) in predicting the onset of major depression in adolescent females. Participants were 1,124 female students from three northern California high schools aged 13 - 16.9 years at study entry. Students completed self-report questionnaires and structured clinical interviews on four separate occasions.

The results indicated that initial body dissatisfaction, dietary restraint, and bulimic symptoms were predictors of major depression among previously nondepressed students over the course of the study. Body mass was not a predictor of depression. The role of body dissatisfaction as a predictor of unipolar depression in females is in line with objectification theory, and the role of self-objectification and OBC in the development of disordered eating behaviors has already been established (see above). Furthermore, Stice et al. noted that body dissatisfaction often leads to dietary restraint and bulimic symptoms in an effort to meet the cultural ideal of thinness. Stice et al. hypothesized that it is likely that these disordered eating behaviors contribute to depression largely because they generate shame and guilt, either because of the behavior itself (for bingeing and purging) or because of the failure to meet one's goal (in dietary restraint). As stated earlier, shame is another psychological consequence of self-objectification and OBC. Thus, these results may provide indirect support for links between objectification models and depression in females.

Direct examination of the relationship between objectification theories and depression has also been conducted. Muehlenkamp and Saris-Baglama (2002) examined
the relationships between self-objectification, lack of internal awareness, depression, and disordered eating in 413 college females. They focused on the construct of lack of internal awareness as a mediator in the relationship between self-objectification and depression. Results of the study found that self-objectification significantly contributed to depressive symptoms. They also reported that the relationship between self-objectification and depressive symptoms was both direct and mediated by internal awareness. This finding was consistent with objectification theory tenets as earlier stated.

However, these researchers focused on self-objectification in the form of body surveillance and body shame, and measured these constructs using McKinley and Hyde's (1996) Objectified Body Consciousness body surveillance and body shame subscales, not Noll and Fredrickson's (1998) Self-Objectification Questionnaire. Though OBC constructs have components that are conceptually similar to Fredrickson and Roberts' (1997) construct of self-objectification, (e.g., OBC's self-surveillance is similar to habitual body monitoring) there are differences, as described in above sections. The Self Objectification Questionnaire does not assess respondents' satisfaction with their bodies; rather, it draws on how concerned respondents are with their physical appearance without a judgmental or evaluative component (Noll & Fredrickson, 1998), as objectification theory proposes that consequences of self-objectification occur regardless of individuals' level of body satisfaction. Moreover, Fredrickson and Roberts' conceptualized increased body shame as a consequence of self-objectification, not part of the construct itself. The use of a body shame measure to evaluate levels of self-objectification (i.e., concern with one's appearance) may have confounded the findings, as it has been previously demonstrated in the literature that body shame is related to mental health risks for
women, independently of self-objectification constructs (Fredrickson et al., 1998; Noll & Fredrickson, 1998; Tiggemann & Slater, 2001). Thus, findings from this study can be more accurately seen as support for a blend of the objectification theory and OBC constructs; namely, body surveillance and body shame as related to depression both directly and mediated by lack of internal awareness.

Muehlenkamp, Swanson, and Brausch (2005) conducted another study of college women that examined the relationship between body objectification and depression, this time as part of an investigation of risk-taking and self-harm behaviors. They administered questionnaires to 391 female undergraduates and hypothesized that "self-objectification" would contribute to negative body regard and depressive symptoms, which would lead to participation in risk-taking behaviors and subsequent self-harm. (In-depth discussion of self-harm and risk-taking behaviors is outside of the scope of this dissertation, and this study is included in this review primarily for its contribution to the understanding of the relationship between objectification and depression.) Again, this group of researchers overlapped the construct of self-objectification as elaborated by Fredrickson and Roberts (1997) with the construct of OBC as described by McKinley and Hyde (1996). The Objectified Body Consciousness Scale was used as a measure of "self-objectification," although as previously discussed, these are two different constructs measured by two different instruments.

Structural equation modeling was used to analyze the relationships among "self-objectification" (i.e., objectified body consciousness) negative body regard, depressive symptoms, risk-taking, and self-harm. Results unexpectedly indicated that "self-objectification" did not have a significant direct effect on depression. Instead, it was
reported that the “relationship [between ‘self-objectification’ and depression] was fully mediated by negative body regard” (Muehlenkamp, et al., 2005, p. 30). These researchers concluded depression may not result from self-objectification unless the self-objectification produces negative body regard (measured in this study by the body shame subscale of the OBC scale). Though they may not have realized it, their unexpected conclusion is more closely in line with Fredrickson and Roberts’ (1997) elaboration of objectification theory than the proposed hypotheses in this study. Fredrickson and Roberts’ model elaborated the idea that self-objectification results in the psychological consequences of increased body shame and anxiety and decreased flow and awareness of internal body states. The presence of these subjective experiences is expected to mediate the relationship between self-objectification and mental illness, which is what occurred in this study. Though there are problems with the operationalization of the variables, the conclusions can be taken as further support for objectification theory premises.

Tiggemann and Kuring (2004) conducted an examination of the applicability of objectification theories to predict unipolar depression with an undergraduate population in Australia. As discussed above, the complete model of self-objectification and its four proposed psychological consequences had found empirical support in relation to disordered eating. However, the full model as elaborated by Fredrickson and Roberts’ (1997) had yet to be examined in relation to depression. This study presented the first test of the complete model of objectification theory as applied to depression.

Participants were 286 Australian undergraduate students (171 women, 115 men) recruited from introductory psychology classes. In this study, the Self-Objectification Questionnaire rather than the OBC scale was utilized to measure self-objectification,
resulting in more accurate assessment of this theoretical construct. However, because the researchers operationalized self-objectification as a form of self-consciousness characterized by habitual body monitoring, they also included a self-surveillance measure. Tiggemann and Kuring hypothesized that self-objectification and self-surveillance and its proposed consequences would be significantly related to outcome variables of depression and disordered eating. Each of the four consequences (shame, anxiety, flow, and lack of internal awareness) was proposed to mediate the relationship between self-objectification and self-surveillance and the outcome variables.

Additionally, men were included in this study in recognition of the increasing trend in the advertising media to “objectify” men’s bodies in ways similar to women. (Further discussion of objectification theory as applied to men will follow in the next section.)

Results of this study indicated as expected that women had significantly higher scores than men on self-objectification and self-surveillance, as well as on the proposed mediators of body shame, appearance anxiety, and the outcome variable of disordered eating. There were no gender differences on flow or depressed mood. In contrast to prediction, women scored significantly higher on awareness of internal states.

Two separate path analyses were conducted to assess the fit of the model for women as well as men. Results indicated that self-objectification, self-surveillance, and the proposed mediators of body shame, appearance anxiety, and lower flow were correlated with depressed mood. In addition, the path analysis for women demonstrated a high degree of fit to the proposed model. Specifically, it was found that self-objectification leads to self-surveillance, which leads to body shame, appearance anxiety, and decreased flow as hypothesized. Of these, body shame and appearance anxiety
predict both disordered eating and depressed mood. Contrary to prediction and earlier research (Muehlenkamp & Saris-Baglama, 2002) awareness of internal bodily states showed a positive, nonsignificant correlation with both disordered eating and depressed mood. Further investigation is needed to clarify the role of internal awareness in relation to both objectification and depression.

Taken together, the results of these studies provide support for relationships between various components of objectification theory models (e.g., habitual body monitoring/self-surveillance, body shame, appearance anxiety, decreased flow, and decreased internal awareness) and depressive symptoms. However, none of the studies found support for the construct of self-objectification as defined by Fredrickson and Roberts (1997) and measured by Noll and Fredrickson (1998), or for the full self-objectification model as elaborated by these researchers. Tiggemann and Kuring (2004) came closest to examining the Fredrickson and Roberts’ model; however, their investigation included a self-surveillance construct in addition to and separate from the construct of self-objectification. Conversely, Fredrickson and Roberts’ conceptualized habitual body monitoring (self-surveillance) as part of the self-objectification construct, in addition to the experience of viewing oneself from a third-person perspective, and valuing one’s appearance over one’s ability. While it may be useful to separate these concepts for purposes of research clarity, doing so changes the investigation of the hypothesized model to an investigation of a modification of the hypothesized model. Though we can say that there is a relationship between self-objectification components, proposed subjective consequences, and depression, we cannot say that there is a direct relationship between the construct of self-objectification and depression, which is
mediated by the subjective consequences of increased body shame, increased appearance anxiety, decreased flow, and decreased internal awareness.
Investigating Extension of Objectification Theory to Males

Objectification theory was developed as a framework for understanding the specifically female experiential consequences of living in a culture that sexually objectifies the female body through male gaze. It was not formulated to include or account for the experiences of men; moreover, initial research with self-objectification noted that the emotional and behavioral consequences seen in female samples were not evident in male samples (Fredrickson et al., 1998). However, in recent years the media and advertising industries have shifted their presentations of males such that society has begun to adopt a muscular body type as the cultural ideal for men (Leit, Gray & Pope, 2002; Pope et al., 2000). As a consequence, men and boys, specifically, adolescent boys and college age men, are also increasingly reporting body dissatisfaction, with a focus on muscularity (Lorenzen, Grieve & Thomas, 2004). Although the cultural meaning of objectification may differ for men and women, the repeated exposure to culturally idealized muscular body images may create an impact in men similar to that historically experienced by women. Thus, recent studies of objectification theory have begun to explore the effects of body objectification in men.

Hebl, King and Lin (2004) have found that men and members of other ethnic groups that do not typically report negative body image experiences can be negatively affected by situations that induce self-objectification (e.g., trying on a swimsuit vs. trying on a sweater). Their replication of a previous study described above (Fredrickson et al., 1998) went a step further in their manipulation of objectification by having male participants try on a Speedo rather than swim trunks to more closely approximate the
feeling of being on display that women tend to experience. Results indicated that both men and women in the swimsuit condition experienced more body shame, demonstrated a poorer performance on a math test, and engaged in more restricted eating than those in the sweater condition. This was true across all ethnic groups in the sample as well (participants were 130 Caucasians, 93 African-Americans, 89 Asian Americans, and 88 Hispanic). Researchers concluded that the dangers of negative body image and self-objectification may be further reaching than previously thought, that is, generalizable beyond Caucasian women to also impact Caucasian men, and men and women of other ethnic groups.

As described above, Tiggemann and Kuring (2004), tested the Fredrickson and Roberts’ (1997) full self-objectification model as it related to depression and disordered eating. As reported above, men experienced significantly lower scores on self-objectification, self-surveillance, body shame, appearance anxiety and disordered eating. There was no difference in flow or depressed mood. Results of path analysis found that the relationships between self-surveillance and the proposed mediators and outcome variables followed a similar pattern as that with women. That is, even though men had significantly lower self-surveillance scores, those men who did report habitual body monitoring also reported increased body shame, appearance anxiety and decreased flow, resulting in disordered eating and depressed mood, following the same pattern as that with women.

However, results also indicated an unexpected negative relationship between self-objectification and body shame with men. That is, body shame increased with lower levels of self-objectification, in contrast to theoretical prediction. Additionally, for men,
self-objectification was not correlated with disordered eating or depressed mood. This support for the construct of self-surveillance, and not self-objectification may be related to the fact that the theoretical framework is based on sexual objectification of women’s bodies and therefore not as easily transferable to men as the basic idea of self-surveillance. Also, the results may have more to do with specification of the constructs involved in body ideals, (i.e., thinness for women, masculinity for men). It may be that the Self-Objectification measure did not adequately tap into a self-objectification process for men in the same way it does for women, especially in light of the fact that men were not included in the validation process for the measure. Further investigation is necessary to clarify these results.

Hallsworth, Wade, and Tiggemann (2005) attempted to clarify the role of self-objectification in men by examining three groups; bodybuilders, weightlifters, and undergraduate students (controls). In the sport of bodybuilding the focus is on appearance, emphasizing masculinity, while in weightlifting the focus is on functional ability and strength, (e.g., how much can one lift?) Previous research has demonstrated that bodybuilders experience levels of body image disturbance and disordered eating that are similar to men with eating disorders (Mangweth, Pope, Kemmler & Eichenbichler, 2001). Thus, it was hypothesized that bodybuilders would experience higher levels of self-objectification, self-surveillance, body shame, appearance anxiety, depression, body dissatisfaction, and drive for masculinity than either weightlifters or controls. It was also hypothesized that body shame and appearance anxiety would mediate the relationship between self-objectification, self-surveillance, and outcome variables of depression, bulimia, body dissatisfaction, and drive for masculinity across all three groups of men.
Results illustrated that, as predicted, bodybuilders scored significantly higher on levels of self-objectification than the other two groups, providing support for the idea that environments that emphasize focus on one’s appearance may generate self-objectification processes. Body builders also evidenced higher levels of body dissatisfaction and drive for muscularity than controls. This is in accordance with previous research that suggests men who exercise for appearance improvement reasons rather than health motivated reasons are more likely to report lower body esteem (Strelan & Hargreaves, 2005). However, in contrast to expectation from previous findings (Tiggemann & Kuring, 2004) bodybuilders were similar to controls on measures of self-surveillance, with weightlifters reporting significantly less self-surveillance than both bodybuilders and controls. Additionally in contrast to prediction, there were no significant differences between the groups on measures of body shame, appearance anxiety, or depression. Thus, while some men may experience self-objectification or objectifying environments, this does not necessarily translate into increased self-surveillance, and may not have the same consequences for men that it has for women.

Path analysis investigated the model across all three groups of men and demonstrated that self-objectification was significantly related to self-surveillance, and also had a direct relationship with drive for muscularity. As expected, self-surveillance was associated with appearance anxiety, which was positively related to body dissatisfaction, bulimia, and depression. Unexpectedly, there was no significant relationship between self-surveillance and body shame. However, there was a relationship between body shame and the outcome variables of depression, bulimia, and drive for muscularity.
These findings provide support for the idea that defining oneself based on appearance rather than competency, e.g., self-objectification (Fredrickson and Roberts, 1997), has implications for men's body image and body dissatisfaction in ways similar to women, but that the psychological and mental health consequences may not be the same. The mechanisms of objectification and consequential pathways proposed for women (Fredrickson and Roberts, 1997) have not been supported with respect to men. Specifically, the role of body shame continues to be in question. Previous research (Tiggemann & Kuring, 2004) reported a negative relationship with self-objectification and body shame. This result was not replicated, as the correlations among self-objectification, body shame, and the outcome variables were in the expected direction for this study. Additionally, body shame was not found to mediate the relationship between self-objectification and disordered eating or depressed mood as has been seen in previous studies with women (McKinley, 1998; Noll & Fredrickson, 1998; Slater & Tiggemann, 2002; Tiggemann & Kuring, 2004). Furthermore, the roles of flow and internal awareness were not examined in this study.

It should be noted that the theoretical underpinnings of objectification theory may have resulted in a gender-specific theory that is not wholly transferable to a male population without modification. Research on objectification that have included men have suggested that men experience lower levels of self-objectification than women (Hebl, King, & Lin, 2004; Tiggemann & Kuring, 2004), and the correlation between men's self-objectification and body esteem is relatively small as compared to women (Strelan & Hargreaves, 2005; Tiggemann & Kuring, 2004). Men may experience body image issues that parallel those of women, but less frequently and less severely (Strelan
Thus, while it is important to recognize the growing cultural influences on male body ideals and the negative consequences that follow, it cannot be ignored that men and women continue to have differential experiences, with women at risk for greater consequences. More clarification is required to expand the limited understanding of how self-objectification and cultural objectification may influence the experience of men. At this time, no studies were available that addressed the experience of gay men. It would seem that the experiences of individuals in this group would add to the understanding of the self-objectification process for men, as this is a group that may be influenced by a sexually objectifying male gaze in a way similar to that of heterosexual women.
RATIONALE AND OBJECTIVES FOR PRESENT STUDY

Objectification theory provides a comprehensive framework for describing women's subjective experiences and their mental illness risks. Because the model proposed by Fredrickson and Roberts (1997) stipulates specific mechanisms by which objectifying treatment negatively impacts women, its tenets can be empirically tested. In the areas of body image and disordered eating, considerable research has explored the usefulness of the model. As reported above, the findings provide strong support for the hypotheses that, in women, self-objectification predicts subjective psychological consequences (i.e., shame and anxiety), and subjective consequences predict disordered eating (Fredrickson et al., 1998; Noll & Fredrickson, 1998; Slater & Tiggemann, 2002; Tiggemann & Lynch, 2001; Tiggemann & Slater, 2001.)

The current research sought to examine one postulated mental health risk of objectification theory that has not been largely studied, that is, the incidence of increased rates of unipolar depression in women. Thus far, only one study has attempted to test the full elaboration of the Fredrickson and Roberts (1997) model of objectification theory with respect to depression (Tiggemann & Kuring, 2004). This study found support for the idea that self-objectification leads to self-surveillance (an OBC concept) which leads to the psychological consequences of shame, anxiety, and decreased flow, which in turn lead to depressed mood. However, this study overlapped objectification and OBC constructs (e.g., self-objectification and self-surveillance, respectively). It also failed to find support for the role of decreased awareness of internal bodily states. Finally, it was
conducted on a population of Australian undergraduate students sampled from introductory psychology classes, which may limit generalizability to U.S. populations.

The present study was designed to test the applicability of Fredrickson and Roberts' (1997) objectification theory to depression, specifically, how it is related to depression in a U.S. undergraduate population. It diverges from the methodology of the Tiggemann and Kuring study by concentrating specifically on Fredrickson and Roberts' (1997) concept of self-objectification and excluding the OBC concept of self-surveillance. Additionally, this study improved upon their methodology by using a full mediation model as elaborated by Baron and Kenny (1986) to more completely examine the contributions of the hypothesized subjective consequences of self-objectification (i.e., appearance anxiety, body shame, decreased flow, and decreased awareness of internal body states) in predicting unipolar depression in college students. Finally, participants were sampled via an email solicitation that reached the entire undergraduate population, not just the psychology students in efforts to obtain a broader, more generalizable sample.

Secondly, this study also attempted to extend the applicability of objectification theory to a male population, following Tiggemann and Kuring (2004), and Hallsworth, Wade, and Tiggemann (2005), who found some support for the existence of objectification processes in men, but conflicting information on the specific pathways and mechanisms. At this time, the role of body shame is most in question as Tiggemann and Kuring found an unexpected negative relationship between self-objectification and body shame with men, and Hallsworth et al., found a positive but nonsignificant relationship between these variables. This research will again explore this issue in an attempt to clarify the findings.
Specific Hypotheses

Based on the Fredrickson and Roberts' (1997) model:

Hypothesis 1: There should be a significant, positive, direct relationship between self-objectification and depression, illustrating that individuals who score high in self-objectification will report greater levels of depression.

Previous research with women has shown that self-objectification should have a positive relationship with appearance anxiety, and with body shame, and a negative relationship with flow and awareness of internal bodily states (Fredrickson et al., 1998; Noll & Fredrickson, 1998; Slater & Tiggemann, 2002; Tiggemann & Kuring, 2004; Tiggemann & Lynch, 2001; Tiggemann & Slater, 2001).

Hypothesis 2: Each of these four psychological consequences (shame, anxiety, flow, internal awareness) should have a partial mediating effect on the relationship between self-objectification and depression.

Results of this study should confirm that self-objectification increases women’s level of appearance anxiety and body shame, and diminishes women’s experience of flow states and women’s awareness of internal bodily states, significantly impacting women’s depression.

Hypothesis 3: For men, results should follow the same direction as that for women; however, the reported levels of self-objectification are expected to be significantly lower for men than for women.

Previous research (Tiggemann & Kuring, 2004) demonstrated men’s results on these measures followed the same direction as in women and that men obtained significantly lower scores on self-objectification, body shame, and appearance anxiety.
than women did. Differences in men's and women's scores for other subjective consequences (e.g., flow, internal awareness) did not reach significance in previous research, but will be examined in the present study.
METHOD

Participants

Participants were 243 undergraduate students (185 women, 58 men) ranging in age from 18 to 31 years ($M = 19.75, SD = 1.756$). One additional respondent identified as transgendered, and was subsequently removed from the analyses. The ethnic background of the sample was 66.4% Euro American ($n = 161$), 15.2% Asian-American ($n = 37$), 9% multi-racial ($n = 22$), 2.9% Latino ($n = 7$), 2% African-American ($n = 5$), 1.6% Native American/Alaska Native ($n = 4$) and 2.9% declined to respond ($n = 7$).

Included in the sample were 98 Freshmen (40.2%), 44 Sophomores (18.4%), 55 Juniors (22.5%), and 46 Seniors (18.9%). Participants were recruited via email invitation that went out to undergraduates at Pacific University in Portland, Oregon. In exchange for participation, students were offered the opportunity to be entered in a raffle drawing to win one of two (2) gift cards valued at $50 each. Additionally, students in psychology classes were offered the opportunity to earn course credit in exchange for participation.

The rationale for targeting a college population was previous research has shown that the negative impacts of self-objectification processes are greater in young adult and adolescent females than in middle-aged or older women (McKinley, 1999; Tiggemann & Lynch, 2001). In addition, college-aged women have been found to have an elevated risk for depressive episodes (Boggiano & Barrett, 1991; Oliver, Reed, & Smith, 1998).
Measures

Self-Objectification

Self-Objectification was measured by the current version of the Self-Objectification Questionnaire (SOQ) developed by Noll and Fredrickson (1998, see Appendix A). This instrument assesses the extent to which women and men treat themselves as objects, (i.e. placing higher value on third person, appearance-based attributes rather than first person, ability or experientially based attributes. The questionnaire asks participants to rank order ten body attributes (strength, physical coordination, energy level, health, physical fitness, weight, sex appeal, physical attractiveness, firm/sculpted muscles, and measurements) in order of importance to the participant’s physical self-concept. Scores range from -25 to +25, with positive scores indicating self-objectification (e.g., a greater emphasis on appearance than competency). Convergent and divergent validity were established for the SOQ through positive correlations with appearance anxiety, r = 0.56, and body size dissatisfaction, r = 0.33. Body shame and self-objectification were found to be positively correlated at r = 0.54 (Noll, 1996; as cited in Melbye, 2005). Test-retest reliability has not been reported in the literature.

Body Shame

Body Shame was measured by the Body Shame subscale of the Objectified Body Consciousness scale developed and validated by McKinley and Hyde (1996, see Appendix B.) It measures the extent to which an individual feels shame if his or her body does not meet cultural standards. The scale consists of eight items and uses a 7-point Likert scale ranging from strongly disagree to strongly agree with a midpoint of neither.
agree or disagree. Participants can choose to respond NA if an item does not apply to them. Following McKinley and Hyde (1996), scores are derived by summing items for each scale and dividing by the number of non-missing items. Scores range from 1.0 to 7.0, with higher scores indicating greater body shame. Scales were normed on undergraduate women aged 18 to 21 years. McKinley and Hyde reported test-retest reliability as \( (r = .79; p < .001, \text{body shame scale}) \), and the internal consistencies of this scale as moderate to high \( (\alpha = .75) \). Construct validity was achieved for each of the subscales using factor analysis. For the present study, similar reliability coefficients were obtained for the total sample \( (\alpha = .79) \), slightly higher for women \( (\alpha = .82) \), and lower for men \( (\alpha = .65) \).

**Appearance Anxiety**

This construct was measured by the Appearance Anxiety Scale (Dion, Dion, & Keelan, 1990, see Appendix C). The measure consists of 30 items scored on a 5-point Likert scale (0 = “never,” 4 = “almost always”). Scores range from 0 to 120 with higher scores indicating greater levels of appearance anxiety. Construct validity was determined using convergent validity methods. Dion, Dion, & Keelan reported high internal consistency and test-retest reliability \( (\alpha = .86, \ r = .89) \). For this sample, obtained inter-item reliability coefficients were even higher for the total sample \( (\alpha = .91) \); and for women \( (\alpha = .91) \), and slightly lower for men \( (\alpha = .89) \).

**Flow**

Flow has been defined as a positive experiential state that occurs when a person is completely engaged in a task or performance in a situation where personal skills are available to meet required challenges (Csikszentmihalyi, 1999; Jackson & Marsh, 1996).
Flow was measured by three subscales of the Flow State Scale developed by Jackson and Marsh (1996, see Appendix D): concentration on task at hand, loss of self-consciousness, and transformation of time. Each subscale consists of four statements, for a total of 12 items. Following Tiggemann and Kuring’s (2004) criteria for adapting the items to produce trait measurements rather than statements, items were put in the present tense and asked about tasks in general. Items were scored on a 5-point Likert scale (1 = “never,” 5 = “almost always”). Scores range from 12 to 60 with higher scores indicating increased levels of flow. Construct validity was obtained by confirmatory factor analysis. Jackson and Marsh (1996) reported high internal reliabilities for the three subscales (α = .81 -.82). For this sample the obtained reliability coefficient for the total sample was (α = .85), for women (α = .84) and for men (α = .88).

Awareness of Internal Bodily States

This construct refers to one’s awareness of internal bodily sensations (e.g. pulse, breathing, etc.) and was measured by the private body consciousness subscale of the Body Consciousness Scale (Miller, Murphy, & Buss, 1981, see Appendix E). This scale consists of 5 items scored on a 5-point Likert scale (1 = “extremely uncharacteristic,” 5 = “extremely characteristic”). Scores range from 5 to 25 with higher scores representing a greater awareness of internal bodily states. Construct validity was obtained with factor analysis. Researchers reported moderate test-retest reliability (r = .69). For this sample the obtained internal reliability coefficient of the total sample was moderate (α = .67), slightly lower, but still moderate for women (α = .62) and moderate to high for males (α = .78).
Beck Depression Inventory - Second Edition

The BDI - II (Beck, 1996) is a well-known measure of depressive symptoms consisting of 21 items assessing the severity of affective, behavioral, cognitive and somatic symptoms of depression. Each item is scored on a 3-point scale. Total scores, obtained by adding the items, range between zero and 63. Cut score guidelines have been provided to maximize sensitivity and specificity. The following categories have been suggested to describe diagnoses of major depression: (a) score ranges of 0 - 13, minimal; (b) 14-19, mild; (c) 20-28, moderate; and (d) 29-63, severe (Beck, 1996).

Scores were normed using a sample of 500 outpatients from four east coast clinics (two suburban subsamples, two urban subsamples), as well as on a control sample of 120 college students. The reliability coefficient \( \alpha \) was .92 for the outpatients and .93 for the college students. The BDI-II has shown evidence of convergent and discriminant validity with several other psychological tests (positive correlations with the Beck Hopelessness Scale, \( r = .68 \); Hamilton Psychiatric Rating Scale for Depression, \( r = .71 \); and lower positive correlations with the Hamilton Rating scale for Anxiety, \( r = .47 \)). Factorial validity is provided by the intercorrelations among the 21 BDI-II items. Kaiser's measure of sampling adequacy for this intercorrelation matrix was .95 (Beck, 1996). For this study, internal consistency was high across all three groups, total sample (\( \alpha = .90 \)), women (\( \alpha = .89 \)), and men (\( \alpha = .90 \)).

Procedure

Surveys were sent via email to approximately 1,250 undergraduate students enrolled at Pacific University, Forest Grove, Oregon. The response rate over a two-week
period was approximately 20% of the total undergraduate population. The email consisted of a letter of introduction identifying the researcher and her institutional affiliation, and asking students to participate in a study concerning how people feel about themselves and their bodies. Interested parties were directed to follow a provided hyperlink to a third-party data-collection site (Survey Monkey) to ensure anonymity of the participants. Participants were first made aware of confidentiality policies and asked to give informed consent via an electronic signature and thus assigned a participant number. Next, they were asked to provide limited demographic information (age, year in school, ethnicity, and relationship status). Participants then completed a 78-item questionnaire, composed from the above-described measures. At the end of the on-line survey, participants had the option to end their participation or click on a link to another webpage where they could receive compensation for completing the measures. Students in undergraduate psychology classes provided contact information to obtain a receipt for course credit, and other students provided information to enter a raffle drawing for a chance to win one of two $50 gift card prizes.

Analyses

Following the guidelines set out by Baron and Kenny (1986), four separate mediation analyses were conducted for each group (men, women, and total sample) to test the mediation effect for each proposed subjective consequence of self-objectification (body shame, appearance anxiety, flow, and awareness of internal experience) on the outcome variable of depression. Each path in the model was tested using regression analysis. The first step of each analysis used simple regression analysis to establish 2
significant direct relationship between the predictor (self-objectification) and the dependent variable (depression). Next, the relationship between the predictor and the proposed mediator (body shame, appearance anxiety, flow, or awareness of internal experience, respectively) was determined using a simple regression. In the third step of each analysis, a hierarchical regression was conducted to show a relationship between the proposed mediator and the dependent variable (depression) after controlling for the predictor, self-objectification. Finally, the difference in the significance level of the relationship path between self-objectification and depression between the first and third regression equations was examined. If all other parameters of the model were significant and the relationship between the predictor (self-objectification) and the dependent variable (depression) became non-significant after the mediator was entered into the equation, the result was a finding of complete mediation. If all other parameters of the model were significant and a significant relationship remained between self-objectification and depression after the mediator was entered into the regression equation, the mediation was considered partial.
RESULTS

Gender Differences

Independent samples t-tests were conducted to compare the scores for males and females on self-objectification, the proposed mediators (body shame, appearance anxiety, flow, and internal bodily awareness) and depression. Table 1 provides the mean scores and standard deviations on all variables for men and women separately. The one respondent who identified as transgendered was excluded from the analyses due to lack of statistical power to evaluate that category.

Table 1. Means and Standard Deviations of Self-Objectification and its Proposed Consequences

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Range</th>
<th>Men (n = 58)</th>
<th>Women (n = 185)</th>
<th>Sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Objectification</td>
<td>-25 - +25</td>
<td>-2.69</td>
<td>13.27</td>
<td>-1.59</td>
</tr>
<tr>
<td>Proposed Mediators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Shame</td>
<td>1 - 7</td>
<td>4.76</td>
<td>1.06</td>
<td>4.30</td>
</tr>
<tr>
<td>Appearance Anxiety</td>
<td>0 -120</td>
<td>45.74</td>
<td>16.87</td>
<td>55.23</td>
</tr>
<tr>
<td>Flow</td>
<td>12 - 60</td>
<td>34.07</td>
<td>7.99</td>
<td>32.38</td>
</tr>
<tr>
<td>Internal Bodily Awareness</td>
<td>5 - 25</td>
<td>17.24</td>
<td>4.39</td>
<td>18.01</td>
</tr>
<tr>
<td>Outcome Measure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>0 - 63</td>
<td>9.16</td>
<td>8.12</td>
<td>11.82</td>
</tr>
</tbody>
</table>

55
Counter to prediction (Hypothesis 3), results of these analyses demonstrated no significant difference between the mean scores of males and females on the self-objectification measure \([t(241) = -.56, p = .58]\), with an extremely small magnitude of difference in the means (\(\text{eta squared} = .001\)). There were statistically significant gender differences in the mean scores of two of the proposed mediators, body shame \([t(241) = 2.76, p = .007]\); and appearance anxiety \([t(241) = -3.58, p = .000]\). In contrast to prediction, men scored significantly higher than women on the measure of body shame (see Table 1). However, the magnitude of the differences in the means on the body shame measure was small (\(\text{eta squared} = .03\)). The scores on the appearance anxiety measure were in line with prediction, as women scored significantly higher than men did, with a small effect size (\(\text{eta squared} = .05\)). As expected, women obtained a lower mean score on the measure of flow, though analyses of gender differences on this proposed mediator yielded nonsignificant results \([\text{flow, } t(241) = 1.53, p = .13]\). In a similar finding to Tiggemann & Kuring (2004), women in this study scored higher than men on the measure of internal bodily awareness, contrary to the expectation of objectification theory; however, unlike their findings the difference between groups in the present study was nonsignificant \([\text{internal bodily awareness, } t(241) = -1.38, p = .17]\). The effect sizes of mean differences for these two variables were also very small (\(\text{eta squares} = .009\) and \(.008\), respectively). Women scored significantly higher than men did on the depression measure \([t(241) = -2.10, p = .04]\). The magnitude of the differences in the means was small (\(\text{eta squared} = .018\)).
Mediator Analysis and Correlations

Table 2 illustrates the observed relationships between self-objectification and each of the proposed mediators, between self-objectification and depression, and between each of the proposed mediators and depression.

Table 2. Correlations between Self-Objectification and Proposed Mediators, and Correlations between Proposed Mediators and Depression

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample</td>
<td>(n=58)</td>
<td>(n=185)</td>
<td>Sample</td>
<td>(n=58)</td>
<td>(n=185)</td>
</tr>
<tr>
<td>Self-Objectification</td>
<td>-.30</td>
<td>-.28</td>
<td>-.31</td>
<td>-.38</td>
<td>-.36</td>
<td>-.37</td>
</tr>
<tr>
<td>Body Shame</td>
<td>.42</td>
<td>.40</td>
<td>.43</td>
<td>.48</td>
<td>.45</td>
<td>.47</td>
</tr>
<tr>
<td>Appearance Anxiety</td>
<td>-.14</td>
<td>-.28</td>
<td>-.09</td>
<td>-.23</td>
<td>-.28</td>
<td>-.20</td>
</tr>
<tr>
<td>Flow</td>
<td>-.001</td>
<td>-.01</td>
<td>-.001</td>
<td>.13</td>
<td>.19</td>
<td>.10</td>
</tr>
</tbody>
</table>

As expected, self-objectification was found to have a significant, positive correlation with depression in the total sample ($r = .25, p = .000$), in men ($r = .36, p = .003$) and in women ($r = .22, p = .002$), supporting the first hypothesis. Interestingly, the correlation between these two variables was strongest in the male subsample. In both men and women, shame was unexpectedly found to be negatively correlated with self-objectification (men: $r = -.28, p = .016$; women: $r = -.31, p = .000$) and depression (men: $r = -.28, p = .003$; women: $r = -.37, p = .000$). Appearance anxiety was moderately positively correlated with self-objectification (men: $r = .40, p = .001$; women: $r = .43, p = .000$) and depression (men: $r = .45, p = .000$; women: $r = .47, p = .000$) for both groups and the total sample. Flow was significantly correlated with self-objectification ($r = -.14$, .000).
$p = .016$) and depression ($r = -.23, p = .000$) in the total sample, and in the male sample (self-objectification and flow: $r = -.28, p = .018$; depression and flow: $r = -.28, p = .018$). In women, flow was significantly correlated with depression in the expected negative direction ($r = -.20, p = .003$); however, it was not significantly correlated with self-objectification ($r = -.09, p = .122$). Internal awareness was not significantly correlated with self-objectification for either group or the total sample. The correlation between internal awareness and depression did not reach significance in the male or female subsamples, and only reached significance at the $p < .05$ level for the total sample ($r = .13, p = .022$).

Contrary to prediction (Hypothesis 2), the lack of correlation obtained between internal awareness and self-objectification in any of the three analyses illustrated that internal awareness did not have a mediating effect on the relationship between self-objectification and depression in this sample, and was thus excluded from further analysis. Additionally, flow did not have a mediating effect on these variables in the subsamples of women and men, and thus was analyzed only across the total sample.

Figure 2 illustrates body shame as a proposed mediator of the relationship between self-objectification and depression.

![Mediation Diagram](image)
Table 3 lists the results of the analysis for body shame as a proposed mediator of the relationship between self-objectification and depression.

Table 3. Body Shame as a Mediator between Self-Objectification and Depression

<table>
<thead>
<tr>
<th></th>
<th>Total Sample</th>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regression</td>
<td>( b )</td>
<td>( \beta )</td>
<td>( R^2/A , R^2 )</td>
</tr>
<tr>
<td>SO → Dep</td>
<td>.16</td>
<td>.25</td>
<td>.06</td>
<td>.000</td>
</tr>
<tr>
<td>SO → BS</td>
<td>-.03</td>
<td>-.30</td>
<td>.09</td>
<td>.000</td>
</tr>
<tr>
<td>BS → Dep(SO) ( ^a )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( SO )</td>
<td>.10</td>
<td>.15</td>
<td>.09</td>
<td>.000</td>
</tr>
<tr>
<td>( BS )</td>
<td>-.26</td>
<td>-.33</td>
<td>.09</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: SO = Self-Objectification; Dep = Depression; BS = Body Shame

* Relationship between BS and Dep, controlling for SO; results are reported for the complete regression equation, with all variables entered.

For the total sample, body shame partially mediated the relationship between self-objectification and depression, although the relationship was in an unexpected, negative direction. The first regression analysis of self-objectification on depression was statistically significant (\( \beta = .25, p < .001 \)), and accounted for approximately 6% of the variance in depression. Second, self-objectification was a significant negative predictor of body shame (\( \beta = -.30, p < .001 \)), accounting for approximately 9% of the variance in depression. In the final regression equation, body shame was a significant negative predictor of depression (\( \beta = -.33, p < .001 \)), after controlling for the effect of self-
objectification. Approximately 16% of the variance in depression was explained by both self-objectification and body shame, with body shame alone accounting for 10% of the variance in depression ($\Delta R^2 = .10, F(1, 240) = 29.05, p < .001$). Because the relationship between self-objectification and depression remained statistically significant after the mediator was entered into the equation ($\beta = .15, p = .016$), the mediation was considered partial.

Interestingly, for women, body shame completely mediated the relationship between self-objectification and depression, in the negative direction with both variables. The first regression analysis of self-objectification on depression was statistically significant ($\beta = .22, p < .01$), and accounted for approximately 5% of the variance in depression. Second, self-objectification was a significant negative predictor of body shame ($\beta = -.31, p < .001$), accounting for approximately 10% of the variance in depression. In the final regression equation, body shame was a significant negative predictor of depression ($\beta = -.33, p < .001$), after controlling for the effect of self-objectification. Approximately 15% of the variance in depression was explained by both self-objectification and body shame, with body shame alone accounting for 10% of the variance in depression ($\Delta R^2 = .10, F(1, 182) = 21.33, p < .001$). Because the relationship between self-objectification and depression became non-significant after the mediator was entered into the equation, ($\beta = .11, p = .118$), the result was a finding of complete mediation.

For men, the relationship between self-objectification and depression was partially mediated by body shame in the negative direction. The first regression analysis of self-objectification on depression was statistically significant ($\beta = .36, p < .01$), and
accounted for approximately 13% of the variance in depression. Second, self-objectification was a significant negative predictor of body shame ($\beta = -.28, p < .05$), accounting for approximately 8% of the variance in depression. In the final regression equation, body shame was a significant negative predictor of depression ($\beta = -.29, p < .05$), after controlling for the effect of self-objectification. Approximately 20% of the variance in depression was explained by both self-objectification and body shame, with body shame alone accounting for 8% of the variance in depression ($\Delta R^2 = .10, F(1, 55) = 5.17, p < .05$). Because the relationship between self-objectification and depression remained statistically significant after the mediator was entered into the equation ($\beta = .28, p = .03$), the mediation was considered partial.

Figure 3 illustrates appearance anxiety as a proposed mediator of the relationship between self-objectification and depression.
Table 4 lists the results of the analysis for appearance anxiety as a proposed mediator of the relationship between self-objectification and depression.

### Table 4. Appearance Anxiety as a Mediator between Self-Objectification and Depression

<table>
<thead>
<tr>
<th>Regression</th>
<th>Total Sample</th>
<th></th>
<th></th>
<th>Women</th>
<th></th>
<th></th>
<th>Men</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>β</td>
<td>R²/ΔR²</td>
<td>Sig. (p)</td>
<td>B</td>
<td>β</td>
<td>R²/ΔR²</td>
<td>Sig. (p)</td>
<td>B</td>
</tr>
<tr>
<td>SO→Dep</td>
<td>.16</td>
<td>.25</td>
<td>.06</td>
<td>.000</td>
<td>.14</td>
<td>.22</td>
<td>.05</td>
<td>.003</td>
<td>.22</td>
</tr>
<tr>
<td>SO→AA</td>
<td>.59</td>
<td>.42</td>
<td>.18</td>
<td>.000</td>
<td>.60</td>
<td>.43</td>
<td>.19</td>
<td>.000</td>
<td>.51</td>
</tr>
<tr>
<td>AA→Dep (SO)</td>
<td>.04</td>
<td>.06</td>
<td>.23/17</td>
<td>.000</td>
<td>.008</td>
<td>.01</td>
<td>.22/18</td>
<td>.000</td>
<td>.13</td>
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<td>SO</td>
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<td>.352</td>
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<td>AA</td>
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</tbody>
</table>

Note: SO = Self-Objectification; Dep = Depression; AA = Appearance Anxiety

* Relationship between AA and Dep, controlling for SO; results are reported for the complete regression equation, with all variables entered.

For the total sample and both subsamples, appearance anxiety completely mediated the relationship between self-objectification and depression in the expected, positive direction. In the total sample, the first regression analysis of self-objectification on depression was statistically significant (β = .25, p < .001), and accounted for approximately 6% of the variance in depression. Second, self-objectification was a significant positive predictor of appearance anxiety (β = .42, p < .001), accounting for approximately 18% of the variance in depression. In the final regression equation,
appearance anxiety was a significant positive predictor of depression ($\beta = .46, p < .001$), after controlling for the effect of self-objectification. Approximately 23% of the variance in depression was explained by both self-objectification and appearance anxiety, with appearance anxiety alone accounting for 17% of the variance in depression ($\Delta R^2 = .17, F(1, 240) = 53.69, p < .001$). Because the relationship between self-objectification and depression became nonsignificant after the mediator was entered into the equation ($\beta = .06, p = .352$), the mediation was complete.

For women, the first regression analysis of self-objectification on depression was statistically significant ($\beta = .22, p < .01$), and accounted for approximately 5% of the variance in depression. Second, self-objectification was a significant positive predictor of appearance anxiety ($\beta = .43, p < .001$), accounting for approximately 19% of the variance in depression. In the final regression equation, appearance anxiety was a significant positive predictor of depression ($\beta = .47, p < .001$), after controlling for the effect of self-objectification. Approximately 22% of the variance in depression was explained by both self-objectification and appearance anxiety, with appearance anxiety alone accounting for 18% of the variance in depression ($\Delta R^2 = .18, F(1, 182) = 41.55, p < .001$). Because the relationship between self-objectification and depression became nonsignificant after the mediator was entered into the equation, ($\beta = .01, p = .854$), the result was a finding of complete mediation.

For men, the first regression analysis of self-objectification on depression was statistically significant ($\beta = .36, p < .01$), and accounted for approximately 13% of the variance in depression. Second, self-objectification was a significant positive predictor of appearance anxiety ($\beta = .40, p < .01$), accounting for approximately 16% of the
variance in depression. In the final regression equation, appearance anxiety was a significant positive predictor of depression ($\beta = .36, p < .01$), after controlling for the effect of self-objectification. Approximately 24% of the variance in depression was explained by both self-objectification and appearance anxiety, with appearance anxiety alone accounting for 11% of the variance in depression ($\Delta R^2 = .11, F(1, 55) = 7.88, p < .01$). Because the relationship between self-objectification and depression became nonsignificant after the mediator was entered into the equation ($\beta = .21, p = .103$), the mediation was considered complete.

Figure 4 illustrates flow as a proposed mediator of the relationship between self-objectification and depression.

Figure 4.

Table 5 lists the results of the analysis for flow as a proposed mediator of the relationship between self-objectification and depression. Because there were no
statistically significant differences on this measure between male and female subgroups, only the results from the total sample are shown.

Table 5. Flow as a Mediator between Self-Objectification and Depression

<table>
<thead>
<tr>
<th>Regression</th>
<th>b</th>
<th>β</th>
<th>R²</th>
<th>ΔR²</th>
<th>Sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO→Dep</td>
<td>.16</td>
<td>.25</td>
<td>.06</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>SO→Flow</td>
<td>-.08</td>
<td>-.14</td>
<td>.02</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td>Flow→Dep (SO)°</td>
<td></td>
<td></td>
<td>.10/.04</td>
<td></td>
<td>.002</td>
</tr>
<tr>
<td>• SO</td>
<td>.15</td>
<td>.22</td>
<td></td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>• Flow</td>
<td>-.23</td>
<td>-.20</td>
<td></td>
<td>.002</td>
<td></td>
</tr>
</tbody>
</table>

Note: SO = Self-Objectification; Dep = Depression

° Relationship between Flow and Dep, controlling for SO; results are reported for the complete regression equation, with all variables entered.

For the total sample, flow partially mediated the relationship between self-objectification and depression in the expected, negative direction. The first regression analysis of self-objectification on depression was statistically significant (β = .25, p < .001), and accounted for approximately 6% of the variance in depression. Second, self-objectification was a statistically significant, but weak negative predictor of flow (β = -.14, p < .05), accounting for approximately 2% of the variance in depression. In the final regression equation, flow was a statistically significant negative predictor of depression (β = -.20, p < .01), after controlling for the effect of self-objectification. Approximately 10% of the variance in depression was explained by both self-objectification and flow, with flow alone accounting for 4% of the variance in depression (ΔR² = .04, F(1, 240) = 10.18, p < .01). Because the relationship between self-objectification and depression remained statistically significant after the mediator was entered into the equation (β = .22, p < .001), the mediation was considered partial.
DISCUSSION

The aim of the present study was to investigate the application of Fredrickson and Roberts' (1997) objectification theory model to depression. Fredrickson and Roberts proposed that the relationship between self-objectification and depression in women would be mediated by the subjective consequences of increased body shame, increased appearance anxiety, decreased peak motivational experiences (i.e., flow), and decreased awareness of internal bodily states. Later research suggested that the relationships among these variables would follow a similar pattern for male samples (Tiggemann & Kuring, 2004). The results of this study supported parts of this premise, but not all.

The first specific hypothesis was that there would be a significant, positive, direct relationship between self-objectification and depression, illustrating that individuals who score higher in self-objectification will report greater levels of depression. This hypothesis was supported by the results for the total sample, as well as for male and female subsamples. It should be noted that correlations were small to moderate (total sample: \( r = .25 \); men: \( r = .36 \); women: \( r = .22 \)), and the mean scores on the depression measure were below the clinical cutoff (men: \( M = 9.16 \); women: \( M = 11.82 \)). In this sample, 39 participants (approximately 16% of the sample) met the criteria for mild depression (BDI score of 14 - 19), 28 participants (approximately 12%) met the criteria for moderate depression (BDI score of 20 - 28), and 8 participants (approximately 3% of the sample) met the criteria for severe depression (BDI score of 29 - 63). All participants were directed to the University Counseling Center resource page at the end of the survey.
Examination of the relationship between these variables in a sample of clinically depressed individuals would provide stronger evidence to support objectification theory tenets.

The second hypothesis assumed that each of the four proposed psychological consequences (body shame, appearance anxiety, flow, and awareness of internal bodily states) would have a partial mediating effect on the relationship between self-objectification and depression. Inherent in this hypothesis was the assumption that each one of the proposed mediators would be correlated with self-objectification and with depression in a particular direction. Body shame and appearance anxiety were expected to be positively correlated with self-objectification and depression, and flow and internal awareness were expected to be negatively correlated with self-objectification and depression. The results did not fully support this hypothesis.

In line with prediction, appearance anxiety was found to mediate the relationship between self-objectification and depression across all three analyses (women, men, total sample). As expected, there were significant, positive correlations among the variables indicating that as self-objectification increased, appearance anxiety increased, and as appearance anxiety increased, depression increased. This replicated previous findings for disordered eating (Noll & Fredrickson, 1998; Tiggemann & Lynch, 2001; Tiggemann & Slater, 2001) and depressed mood (Tiggemann & Kuring, 2004).

Although body shame was found to be a partial mediator of the relationship between self-objectification and depression in the total sample and in the male sample, and a complete mediator of the relationship in the female sample, the correlations were in an unexpected negative direction across all three groups. In this sample, as self-
objectification increased, body shame decreased; moreover, as body shame increased, depression decreased. This finding was in contrast to previous tests of objectification theory in female samples (Noll & Fredrickson, 1998; Slater & Tiggemann, 2002; Tiggemann & Kuring, 2004; Tiggemann & Lynch, 2001; Tiggemann & Slater, 2001); and one finding in a male sample (Hallsworth, Wade, & Tiggemann, 2005).

However, the findings in this sample replicated previous findings by Tiggemann and Kuring (2004) with respect to their male sample, where they also found a significant negative relationship between self-objectification and body shame in men. In that study, Tiggemann and Kuring hypothesized that the negative correlation observed in men could be related to the Self-Objectification Questionnaire itself, as it is a measure that was not designed to evaluate male samples. They speculated that items on the measure that assess competency-based attributes in women (e.g. “strength”, “physical fitness”) might tap into an appearance-based attribute in men, where the drive for muscularity is primary, in contrast with women, where the drive for thinness is historically more salient.

In the present study, negative relationships between body shame and self-objectification, and body shame and depression, were found in both male and female subsamples. This suggested that more is going on than measurement discrepancy between genders. Furthermore, the direct relationship between self-objectification and depression was significant and in the expected, positive direction for both women and men, thus lending support to the idea that objectification leads to negative consequences like depressed mood.

It seemed counter-intuitive that the experience of greater negative feelings about one’s body (e.g., body shame) would result in fewer depressive feelings. One possible
explanation for these findings was that perhaps those men and women who self-objectify and are more concerned with habitually monitoring their body exert greater efforts to control their appearance through exercise, clothing, make-up, grooming, etc. It could be that when these external efforts are successful, these individuals' levels of body shame are decreased. Furthermore, the energy expended in maintaining this external appearance management and the lack of acceptance for oneself without these external efforts may result in subclinical depressive states. Further investigation is necessary to understand these findings.

In this study, flow was found to partially mediate the relationship between self-objectification and depression in the total sample. The correlations among the variables were in the expected, negative direction. Results indicated that as self-objectification increases, flow decreases, and as flow decreases, depression increases. However, the observed correlations were small and did not reach statistical significance in the male and female subsamples. These results indicated that the role of flow in contributing to depression is relatively minor in this sample.

As in previous research (Tiggemann & Kuring, 2004) the relationships among awareness of internal bodily states, self-objectification, and depression were mostly nonsignificant. The one exception was a very weak, statistically significant, positive correlation between internal awareness and depression in the total sample ($r = .13, p < .05$). The nonsignificant correlations between self-objectification and internal awareness were in the expected, negative direction; the nonsignificant correlations between internal awareness and depression were in an unexpected positive direction. Internal awareness was not found to be a mediator in any of the groups.
This finding is in contrast with other research (Muehlenkamp & Saris-Baglama, 2002) that reported the relationship between self-objectification and depressive symptoms was mediated by internal awareness. This apparent contradiction may be explained by measurement differences. Muehlenkamp and Saris-Baglama conceptualized decreased awareness of internal bodily states as “difficulties identifying feelings and bodily sensations” (Muehlenkamp & Saris-Baglama, 2002, p. 373), (i.e., alexithymia) and used factor analysis to create an “Alexithymia factor” from three other measures. The present study, following Tiggemann and Kuring (2004) used the private body consciousness subscale of the Body Consciousness Scale (Miller, Murphy, & Buss, 1981). Results indicated that when internal body awareness is conceptualized as a form of private body consciousness, it does not appear to play a significant role in the relationship between self-objectification and depression.

Overall, in terms of Hypothesis 2, the only proposed mediator that had a strong mediating effect in the expected direction was appearance anxiety. Hypothesis 2 was thus largely unsupported. The role of internal awareness was not confirmed in this sample, and the role of flow was weakly supported and is open to question. The proposed mediator of body shame had a strong effect, but in the direction opposite of prediction.

The final hypothesis proposed that results in the male sample should follow the same direction as those in the female sample (as specified in Hypothesis 2), but that levels of self-objectification should be significantly lower in men than levels of self-objectification in women. It was also assumed that men would score lower than women scored on all of the measures, although these differences might not necessarily reach
statistical significance. This assumption was made based on previous findings that the emotional and behavioral consequences of self-objectification were evident for women, but not for men (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998).

In addition, the original objectification theory proposed by Fredrickson and Roberts (1997) and initial testing of the self-objectification concept did not assume men experienced self-objectification, because by definition, it was seen as the stemming from the internalization of the sexualized male gaze, a phenomenon supported by research (Calogero, 2004). (Though not specified in the literature, it appears this assumption was made with only heterosexual men in mind, a limitation that will be addressed in later sections.)

The results from this study partially support Hypothesis 3. Results did support the prediction that correlations among the variables would be in the same direction for men as they were for women. However, as noted above, the direction of results in this sample were at times contrary to expectation based on the literature, seen specifically in the examination of the body shame component.

In terms of expected gender differences on the self-objectification measure, Hypothesis 3 was not supported. Although the mean score for men was slightly lower than the mean score for women, the results of this study showed no statistically significant differences between men and women in their levels of self-objectification. This may be due to the fact that neither group's level of self-objectification was especially elevated ($M = -1.59$, women; $M = -2.69$, men) on a measure in which scores ranged from $-25$ (low self-objectification) to $+25$ (high self-objectification). It should also be noted that there were over three times as many women in the sample as there
were men in the sample (women, n = 185; men, n = 58). This discrepancy in sample size
may have been a factor when evaluating differences between the two groups. The
smaller male sample may be less representative of the men at this university, as smaller
samples can be more easily skewed and less generalizable. Thus, it is possible that
significant differences between men and women at this university may exist, but were not
captured in this sample.

In evaluating gender differences on the other measures, results were variable, with
some differences reaching statistical significance. In line with prediction, women scored
higher on the appearance anxiety measure, and lower on the flow measure, but the
difference only reached statistical significance on the anxiety measure (p < .01). In
contrast with prediction, men reported greater body shame (significant at p < .01), and
women reported more internal bodily awareness. As expected, women scored higher on
the measure of depression, although as stated above, neither group's scores reached
clinical levels of depression (women: M = 11.82, p < .05; men: M = 9.16, p < .05).

In summary, women continue to report more self-objectification than men in this
current sample, although these differences were not significant. As expected, women also report
more appearance anxiety, less flow, and more depression. Men, surprisingly, report more
body shame, which may be an indication of the impact of the media's increasing focus on
male musculature in recent years.
SUMMARY AND CONCLUSIONS

Summary

The present study sought to test the full objectification theory model, as elaborated by Fredrickson and Roberts (1997), as it applied to the proposed mental health consequence of depression, and as it might be extended to a male population. Results supported some components of the model, but not the model in its entirety. The construct of self-objectification was observed to have similar applicability to men and women in relationship to depression. This finding was consistent with recent literature that addresses the implications of the changing sociocultural influence (e.g., the media) on male body image and sexual objectification.

Support was found for some, but not all, of the originally proposed mediating subjective psychological experiences that were thought to lead to the mental health consequence of depression. In this study, there was strong support for appearance anxiety, and weak support for peak motivational states (flow) as mediators of the relationship between self-objectification and depression. Decreased awareness of internal bodily states was not supported as a mediator in this relationship. There was additional strong evidence for body shame as a mediator of the above relationship; however, in this sample, the direction of the relationship was counter to prediction and created some question as to how exactly the experience of body shame operates. Speculation was provided to account for this discrepancy, although it is clear that further research is
necessary to understand whether the observed discrepancy in this sample was an anomaly, or whether the role of body shame truly has a different function in depression than it does in disordered eating.

Lastly, expected gender differences in the degree of self-objectification experienced were not found. While women in this sample did report more self-objectification, the difference was not statistically significant. This finding was in contrast to early research on self-objectification that demonstrated significant differences between men and women, and that did not find evidence for self-objectification processes in men (Fredickson, Roberts, Noll, Quinn & Twenge, 1998). The results of the present study have supported the idea that as men are increasingly subject to sociocultural media pressures to attain unrealistic body standards, they may be more inclined to self-objectify, such that there was no significant difference in the reported levels of self-objectification between men and women in this sample.

One implication of these results is that the experience of men should be increasingly included in both theoretical models and empirical examinations of objectification processes and consequences. Additionally, mental health professionals, especially those who work with adolescent and college-age males, need to be aware of the possibility of body image concerns in men and related experiences of appearance anxiety and/or depression. As sociocultural pressures for idealized body standards continue, both women and men may suffer from self-objectification, appearance anxiety, and depression.
Limitations and Future Research Directions

It should be noted that this study has several limitations in terms of generalizability. Firstly, the sample is not random, as the study is limited only to college students in the Pacific Northwest. Older women and men, non-college educated women and men, and/or women and men living in other parts of the country (e.g., women and men living in more tropical climates where bodies are more often on display) may have experiences that are not represented by the sample women and men in this study, and would thus yield different results.

Secondly, the method of participant recruitment (via email) could bias the results in the sense that people who are more computer literate may be more likely to respond. Again, this group of “computer literate women or men” may have distinct differences from the population of women or men in general. Moreover, the method of data collection (via remote computerized survey) eliminates the possibility of interaction (and thus clarification) between the participant and the researcher, which could result in misunderstanding what is being asked in the questionnaires. On the other hand, this method of data collection may have been a possible advantage, in that social desirability bias may not have been as strong because the researcher wasn’t present when participants completed the measures.

Lastly, the results may have been influenced by a self-selection bias. Surveys were emailed to approximately 1,250 undergraduate students, and approximately 20% agreed to participate. It is unknown why some students chose to participate while others did not. It may be that body image concerns were more salient to those students who chose to participate and thus influenced that decision and subsequent results. Conversely,
students who experienced more extreme negative self-regard or depressed mood may have avoided responding due to unwillingness to report these dysphoric feelings. All of these selection factors must be taken into consideration when extrapolating from the results of this study.

Another area of concern is the hetero-centric nature of the bulk of the literature pertaining to objectification theory. Objectification theories have suggested consequences for all women, but they have largely focused on the experiences of heterosexual women. Furthermore, the extension of objectification theory to male populations brings to light the fact that none of the studies specifically discuss the experience of gay men. Given that objectification theory focuses on the subjective experiences that occur when anticipating a sexually objectifying male gaze, it would seem that gay men would also be subject to the kinds of disadvantages to which women are subject. This study did not take into account the sexual orientation of the participants, thus no analyses can be made to attempt to elucidate the experience of gay or lesbian individuals. Future research should be done to examine if there are differences in the experiences of gay men and heterosexual men, and lesbian women and heterosexual women.

Lastly, the majority of the participants in this study were Euro-American \( (n=161; 66.4\%) \), or Asian-American \( (n=37; 15.2\%) \). African-American and Latino participants made up less than 5% of the sample \( (n=12) \). Future research should examine the experiences of more diverse populations to clarify the contribution of ethnic background to the experience of objectification and its potential mental illness consequences.
Conclusion

The implication of the present research findings is that the mental illness experiences of individuals may be impacted by their socialization into an objectifying culture. This may necessitate a more complex way of understanding and treating those who are diagnosed with depression, especially when it can be observed that depressive symptoms are comorbid with body image disturbance. Additionally, it is hoped that increased empirical evidence of the mental illness consequences suffered by individuals as a result of pathological societal norms and accepted practices (i.e., objectifying women, and more recently, men) will underscore the need for creating societal change, beginning with more realistic images of women and men in the media, and hopefully extending to valuation in society of more than just appearance.
REFERENCES


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