SEXUAL OBJECTIFICATION AND SUBSTANCE ABUSE IN YOUNG ADULT WOMEN

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DEDICATION

This dissertation is dedicated to my parents Gene and Anne Rouse,
who are the people that have always told me I could be or
do whatever I wanted in this life
and offered me unconditional love so I believed that they were right,
my sister Gena Borgman,
who has always provided me with unmatchable friendship and laughter,
and my husband, Jeremy Carr, who is my lifetime soul mate and best friend.

I also want to dedicate this dissertation to the world's population of women,
to those who have suffered and have been victimized,
to those that have begun to question the effect culture has had on themselves and other women,
to those that are completely unaware,
and to those that have joined forces to make sociopolitical change.
I pray this research helps with those endeavors.

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ABSTRACT

Objectification Theory (Frederickson & Roberts, 1997) provides a framework for understanding the experiences of women living in a culture that sexualizes the female body. The purpose of this study was to extend the tenets of Objectification Theory by postulating that external and internalized experiences of sexual objectification may be related to women's substance abuse in a sample of 289 young adult females. Findings indicated that sexual objectification experiences and self-objectification were both positively correlated with alcohol abuse. Sexual objectification was also positively correlated with nicotine abuse and other drug abuse. Furthermore, the findings provided support for a theorized mediated model in which sexual objectification was linked to women's substance abuse both directly and indirectly via self-objectification, body shame, and depression.

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CHAPTER I
INTRODUCTION

Substance abuse is an issue that both men and women struggle with; however, research on women and substance abuse is lacking when compared to the plethora of research on men who abuse substances (Columbia University, 1996). Furthermore, alcohol dependence and addiction research using male samples has often been erroneously generalized to all clients (Greenfield, 2002). However, when compared to men, research suggests that women metabolize alcohol differently, experience intoxication or impairment after fewer drinks, experience negative consequences of alcohol abuse more quickly, are at increased risk of dying from alcohol-related incidents, and are less likely to seek assistance from addiction-specific treatment settings (APA, 2007a). Women are also likely to solidify substance abuse from 21 to 34 years, which indicates the importance of examining predictors of substance abuse among young adult women (Columbia University, 1996).

The research base on substance abuse among women suggests that gendered experiences and sexism may be contributing factors to women's substance abuse. Gendered stressors in the lives of women and girls include interpersonal victimization and violence, sexual objectification, unrealistic media images of girls and women, discrimination and oppression, devaluation, limited economic resources, role overload, and work inequities (Glick & Fiske, 1996; Koss, Heisi & Russo, 1994; West, 2002). Research findings suggest that up to 70 percent of women who abuse substances have experienced sexual abuse while only 12 percent of men who abuse substances have experienced sexual abuse (Columbia University, 1996). This suggests that experiences of sexual objectification are prevalent among female substance abusers. Relatedly, Streicher-Breimer's (2001) qualitative study found that women who had experienced sexual abuse,

prostitution, and rape connected these gendered experiences to their substance abuse of heroin. Research also indicates that women who work in male-dominated environments are more likely to use substances than those that do not (Columbia University, 1996). Finally, Zucker and Landry (2007) found that a positive relationship existed between self-reported experiences of sexist events and binge drinking and smoking.

A recent development in feminist psychology has been the articulation of Objectification Theory by Fredrickson and Roberts (1997). Objectification Theory provides a framework for understanding the experiences of women in a culture that sexualizes the female body. Objectification Theory may also be useful in helping to explain how gendered experiences may contribute to women's substance abuse (Frederickson & Roberts, 1997). Objectification Theory postulates that many women are sexually objectified and treated as an object to be valued for its use by others. Sexual objectification occurs in numerous ways such as practices of some men checking out a woman's "goods," whistles or cat calls, sexual comments about women's body parts, depictions of women as sexual objects in the media, unwanted sexual advances, sexual harassment, and sexual abuse and assault (Frederickson & Roberts, 1997; Kozee, Tylka, Augustus-Horvath, & Denchik, 2007; Swim, Hyers, Cohen, & Ferguson, 2001). Fredrickson and Roberts (1997) asserted that as a result of living in a culture that sexually objectifies the female body and personal experiences of being sexually objectified, women internalize this outsider view of themselves to varied degrees and begin to self-objectify by treating themselves as an object to be looked at and evaluated on the basis of appearance. Self-objectification is defined as the act of consistently measuring oneself with cultural standards of beauty and often manifests itself through body surveillance or habitual body monitoring (Frederickson & Roberts, 1997;

Tylka & Hill, 2004; Kozee, Tylka, Augustus-Horvath, & Denchik, 2007). Women self-objectify in terms of body surveillance by adopting a form of self-consciousness in which they habitually monitor their own body's outward appearance and spend significant amounts of attention on how others may perceive their physical appearance (Frederickson & Roberts, 1997).

Objectification Theory posits that an accumulation of sexually objectifying experiences and women's internalization of them via self-objectification may account for various mental health risks that disproportionately affect women, such as eating disorders, unipolar depression, and sexual dysfunction (Frederickson & Roberts, 1997). The purpose of the current study is to extend the tenets of Objectification Theory by postulating that experiences of sexual objectification and self-objectification may be related to women's substance abuse (i.e., alcohol abuse, nicotine abuse, and other drug abuse). In addition, I will use tenets of Objectification Theory to propose a theorized mediated model in which sexual objectification is linked to women's substance abuse via self-objectification, body shame, and depression.

Sexual Objectification, Mental Health, and Substance Abuse

A small body of empirical research has begun to support the theorized links between sexually objectifying experiences and poorer mental health. For example, Morry and Staska (2001) assessed college women's exposure to beauty magazines as one specific type of sexual objectification experience. They found that women's self-reported exposure to beauty (but not fitness) magazines was related to greater levels of disordered eating. Relatedly, Moradi, Dirks, and Matteson (2005) found that women's self-reported experiences of sexual objectification were linked to symptoms of disordered eating. However, no studies have examined whether sexual objectification experiences are related to depression or substance abuse. Although no empirical

studies were found that specifically examined whether sexual objectification experiences are related to depression or substance abuse, studies examining links between other forms of sexism and mental health and substance abuse provide support for these theorized links.

Sexist events, as well as other types of oppressive events, have been shown to be different from generic stressors because they are unique, socially based, chronic, and cause excess stress (Landrine & Klonoff, 1997; Meyer, 2003). Experiencing sexism requires more adaptation than that needed for generic stressors experienced by all people and demands that an individual use coping strategies to manage the extra stress associated with these discriminatory environmental stimuli, which can negatively affect physical and mental health (Clark, Anderson, Clark, & Williams, 1999). In addition, stress from sexism stems from relatively stable underlying social structures, institutions, and processes beyond the individual rather than from individual conditions or events that characterize generic stressors or biological characteristics of an individual (Meyer, 2003).

Research indicates that women's experiences of sexist events, including discrimination, harassment, rape and sexual assault, and physical assault, are related to adverse psychological outcomes, including depression (Koss et al., 2003; Landrine, Klonoff, Gibbs, Masnning, & Lund, 1995; Moradi & Funderburk, 2006; Moradi & Subich, 2002; Swim, Hyers, Cohen, & Ferguson, 2001; Szymanski, 2005). In addition, Klonoff, Landrine, and Campell (2000) found that sexist events may account for gender differences in anxious, depressive, and somatic symptoms. Furthermore, Landrine et al. (1995) found that sexist events are related to psychological distress above and beyond major and minor generic stressful life events.

Experiences of discrimination or living in an environment which is filled with such stimuli has been theorized to be a risk factor for substance abuse problems (Zucker & Landry, 2007). Clark et al. (1999) postulated that individuals who deal with oppressive events may have feelings of anger and depression, which may then lead to coping via use of alcohol or other substances to manage these feelings. Furthermore, Zucker and Landry (2007) posited that women may cope with experiences of sexism by using substances as a numbing mechanism. Relatedly, Jacobson (1986) postulated that women may smoke, and perhaps use other substances, to cope with being undervalued and underpaid and because they fear that if they express their feelings they will come off as unfeminine.

Studies of sexist experiences show that women who self-reported more sexist events in a daily diary had more feelings of anger and depression (Landrine et al.,1995; Swim, Hyers, Cohen, & Ferguson, 2001). In addition, using alcohol as a way to cope with life was moderately correlated with alcohol-related problems among undergraduates (Martens, Rocha, Martin, & Serrao, 2008). Thus, using and/or abusing substances may be one way that women choose to cope with the excess stress associated with experiences of sexism. Supporting this notion, Zucker and Landry (2007) found a positive relationship between self-reported experiences of sexist discrimination (i.e., being treated unfairly because of being a woman) and binge drinking and smoking quantity. Other studies have found a relation between sexual harassment and substance abuse, particularly alcohol (Davis & Wood, 1999; Rospenda; 2002). Sexist stress has also been found to affect girls so that they are more likely to smoke in order to cope with such stress (MacDonald & Wright, 2002). Finally, women's experiences of childhood sexual abuse, an extreme form of sexism and sexual objectification, has been linked to adult use of alcohol and

nicotine (Figuerora-Moseley, Landrine, & Klonoff, 2004; Moran, Vuchinich, & Hall, 2004; Nelson et al, 2002; Thompson, Arias, Basile, & Desai, 2002). Thus, it seems likely that the more sexual objectification a woman experiences the more likely she may be to use and/or abuse substances as a way to cope with excess stress and numb her feelings.

Another way that sexual objectification might affect a woman's propensity to abuse substances is through exposure to sexually objectifying media ads, which pair women's sexuality and appearance with substance use. For example, a Bulgarian Apauna beer commercial features a large breasted woman wearing a revealing top that shows her midriff and a miniskirt that reveals the majority of her lower body. The woman walks into a bar and orders a beer. The bartender hands her a bottle opener, she rolls her eyes at it and puts the beer underneath her shirt next to her breasts and twists the bottle, opening it. The ad also depicts men in the bar entranced in complete adoration of her because they think she opened it somehow with her gigantic breasts. Then she pulls out a long necklace from her immense cleavage, to show a bottle opener. Relatedly, in 2003 a Miller Lite commercial, labeled "Catfight," was aired which featured two buxom women wrestling in wet concrete. This ad caused a lot of media attention to the use of women and sex to pull in the attention of young male beer drinkers (Chura, 2003).

Numerous alcohol and tobacco advertisers have used ads like these to sell their products (Boyd, 1996-7; Chura, 2003; Goodrum & Dalrymple, 1990; Hall & Crum, 1994). For example, Hall and Crum (1994) examined the use of camera shots of men and women's body parts in different brands of 59 beer commercials. They found that women appeared less in beer commercials than men, but their bodily exposure was greater. In addition, there was a 49% likelihood that a commercial had at least one camera shot focused on a woman's chest but men

had only a 24% chance. There were also no male crotch shots but female crotch shots appeared in five ads. Another important finding was that the majority of women appeared in either swimwear or leisure wear, while the men often appeared in work clothes. Commercials like these are direct instances of sexual objectification which women may be subjected to any time they turn on their television. These are just a few examples but these are ones that tell a woman if she drinks this beer she will be hot, sexy, and both admired and desired by men. These commercials also influence a woman in what her place is in the world; to be an object or decoration for men to admire and this is connected with the intake of substances (Bem, 1993).

Since the beginning of cigarette smoking, tobacco advertisements have been aimed at women to promote use in order to maintain thinness and promote sexiness. For example, cigarettes called Lucky Strikes used a slogan "Reach for a Lucky instead (of a sweet)". During this campaign period the sales increased three-fold in this company due to capturing the female market (Boyd, 1996-7). Virginia Slims recently aired a commercial in which a thin woman was depicted wearing a bathing suit and she said, "When we're wearing a swimsuit there's no such thing as constructive criticism." The ad seems to be promoting that the way to stay slim and be sexy is by smoking the product Virginia Slims. Since cigarette smoking is an appetite suppressant women tend to smoke them to stay thin and this leads to vulnerability among women (Pomerleau, Berman, Gritz, Marks, & Goeters, 1994). Societal pressures for thinness, belief that smoking is a good method to control weight, and exposure to tobacco ads which promote women's cigarette use to attain sexiness and thinness have been shown to increase the odds of being a smoker among undergraduate women (Zucker, Harrell, Miner-Rubino, Stewart, Pomerleau, & Boyd, 2001; Zucker & Landry, 2007). In addition, Zucker and Landry (2007)

found that more experiences of sexist discrimination were related to engaging in smoking for the purposes of weight control. Furthermore, using alcohol for conformity reasons (i.e. to fit in, to be liked) was moderately correlated with alcohol-related problems among an undergraduate sample (Martens, Rocha, Martin, & Serrao, 2008)

Research has shown that advertising promises its viewers a fantasy such as if you drink this beer or smoke this cigarette you will be more attractive to the opposite sex and engage in more fun (Miller, 1992). Promises by advertisers are ideals of sex appeal, sexual esteem, sensuality, and sexual attractiveness if you use a certain product (Lambiase & Reichert, 2003). Sexually objectifying cultural messages suggest that by engaging in substance use women will increase their likelihood of being involved with a good looking man. Thus, heterosexual women may also use and/or abuse substances to gain attention from men and to get into and/or maintain romantic relationships. Research indicates that girls and women are more likely to abuse drugs and alcohol as a way to be accepted in their interpersonal relationships (Gomberg, 1996). In addition, female addicts are more likely to have a partner that abuses substances than males; estimates show that one-third to one-half of addicted women live with an addicted man (McCaul & Svikiks, 1999). The fact that women are influenced by their relationships and ones in which they are connected to males brings insight into how substance abuse may be connected to objectification, since many incidences of objectification are inflicted by males such as "male gaze" and sexual violence, as so proudly and boldly portrayed on beer commercials such as males gaping at the sexy woman in a bar drinking while producing some phenomenal feat.

In sum, women who experience sexual objectification in areas of their life may abuse substances as a method to cope with excess stress and numb their feelings of anger or hurt. In

addition, they may also be so exposed to ideals of "womanhood and sexuality" that promote their likelihood of engaging in substance abuse to be sexy, attractive, thin, powerful, and/or to gain attention from men.

Self- Objectification, Mental Health, and Substance Abuse

In contrast to the small empirical base on actual experiences of sexual objectification, a large body of empirical research has consistently supported the theorized links between self-objectification and poorer mental health. Researchers have found that self-objectification is positively related to symptoms of disordered eating, both bulimia and restrictive eating (McKinley & Hyde, 1996; Moradi et al., 2005; Morry & Staska, 2001; Muehlenkamp & Saris-Baglama, 2002; Noll & Fredrickson, 1998; Tiggemann & Kuring, 2004; Tiggemann & Slater, 2001; Tylka & Hill, 2004) and depression (Miner-Rubino, Twenge, & Frederickson, 2002; Szymanski & Henning, 2007; Tiggemann & Kuring, 2004). However, a search of the literature did not identify any study that has examined whether self-objectification is related to substance abuse.

Objectification Theory posits that women who self-objectify will adopt practices that keep them within the guidelines of a culture that demands certain standards of beauty or behavior (Fredrickson & Roberts, 1997). As discussed above, women are repeatedly exposed to cultural messages, often through the media, which sexually objectify women and pair a woman's sexuality with substance use. This objectification may then be internalized by women to varying degrees via self-objectification. Self-objectification may encourage many women to engage in substance use and/or abuse as a way to obtain the ideals of thinness, sexiness, and beauty promoted in U.S. culture. For example, many young women are using steroids to be thin and

maintain low body fat to conform to an ideal of beauty that they want to emulate. It is well known that steroids have been used to increase athletic performance but now the Center of Disease Control and Prevention indicate that 7% of ninth grade girls, and 5% of high school girls abused steroids without a doctor's permission for a non-athletic purpose (U.S. Congress, 2005). In addition, many college women smoke cigarettes specifically to control their weight and promote thinness (Zucker et al., 2001). Thus, it seems that many young women may be actually abusing substances to maintain cultural standards of beauty and behavior.

Theorized Mediation Model

Drawing from Objectification Theory (Fredrickson & Roberts, 1997) and empirical research, I propose that the influence of sexual objectification on women's substance abuse may also be indirect in that it is mediated by several variables. More specifically, I postulate that sexual objectifying experiences will lead to self-objectification, which contributes to body shame, which leads to depression, and results in substance abuse (See Figure 1).

Sexual objectification and self-objectification. Objectification Theory postulates that sexual objectification experiences will lead to more self-objectification. Supporting this theorized link, empirical research focusing on specific instances of sexual objectification, such as trying on swimsuits (Fredrickson et al., 1998; Quinn, Kallen, & Cathey, 2006), magazine exposure (Morry & Staska, 2001), television exposure (Aubrey, 2006), sports participation (Parsons & Betz, 2001), and ballet participation (Tiggemann & Slater, 2001) has found that sexual objectification is positively related to women's self-objectification. Examining women's reported general sexual objectification experiences, both Moradi et al. (2005) and Kozee et al., (2007) found that sexual objectification was positively related to self-objectification.

Self-objectification and body shame. Objectification Theory posits that self-objectification contributes to body shame. Body shame results when women who self-objectify come up short when evaluating themselves in relation to the culture's standards of beauty (Frederickson & Roberts, 1997). This shame is a global attribution in which they feel they are a bad person or are worthless. Numerous studies have supported the mediated link between self-objectification via body surveillance and symptoms of both disordered eating and depression among women (c.f., McKinley & Hyde, 1996; Frederickson, Roberts, Noll, Quinn, & Twenge, 1998; Moradi et al., 2005; Muehlenkamp & Saris-Baglama, 2002; Tiggemann & Kuring, 2004; Tiggemann &Slater,2001; Slater & Tiggemann, 2002; Szymanski & Henning, 2007). Connecting this to substance abuse research, Norman (1997) found that chemically addicted women experience a level of "core" shame that is significantly higher than non-addicted women, indicating the prevalence of shame among substance abusing women. These feelings of shame among addicted women give light to the importance of a possible connection between the shame that occurs through objectifying experiences and the shame that may exist in a substance abusing experience. In fact, Weathers and Billingsley (1982) found that drug-taking behavior may occur more frequently when a woman perceives her body and her sex role in a negative light.

Body shame and depression. Objectification Theory posits that body shame will mediate the relationship between objectification and poorer mental health (Frederickson & Roberts, 1997). That is, many women begin to feel helpless if they cannot fix their bodily flaws and they cannot control other's responses to their appearance which can create depression and lengthen depressive episodes (Frederickson & Roberts, 1997; Morrow & Nolen-Hoeksema, 1990; Nolen-Hoeksema, 1991; Nolen-Hoeksema, 1995; Nolen-Hoeksema, Morrow, & Frederickson, 1993).

While several studies have supported the mediational role of body shame in the link between self-objectification and disordered eating (c.f., Moradi et al., 2005; Tiggemann & Slater,2001; Slater & Tiggemann, 2002), only two studies (Tiggemann & Kuring, 2004; Szymanski & Henning, 2007) have examined the mediational role of body shame in the link between self-objectification and depression. Both studies found that self-objectification led to greater body shame which in turn led to depressed mood; thus, supporting this tenet of Objectification Theory.

Depression and substance abuse. Finally, extending Objectification Theory, I propose that depression will lead to substance abuse. If women are experiencing mental health problems, such as depression, this may increase their tendency to abuse substances. Supporting this assertion, research indicates that women are more likely than men to abuse substances because of negative emotions (Schober & Annis, 1996). Women who drink or smoke are more likely to be depressed than men who drink or smoke (Columbia University, 1996). Furthermore, research indicates that addicted women are more likely to experience depression and anxiety than non-addicted women and every psychiatric diagnosis is more prevalent among abusing women (Stein & Cyr, 1997). Finally, alcoholic women are almost five times more likely to attempt suicide than non-using women (Columbia University, 1996).

Turning to studies using young adult samples, depression has been positively correlated with substance use (Allgower, Wardle, & Steptoe, 2001; Kandel, Raveis, & Davis, 1991). Among Latina adolescents, females who reported depressive symptoms were more likely to smoke cigarettes and risk riding in a car with an intoxicated driver than females without depressive symptoms (Pesa, Cowdery, Westerfiled, & Wang, 1997). Using longitudinal methodology, Tschann, Adler, Irwin, Millstein, Turner, and Kegeles (1994) found that

psychological distress at Time 1 predicted substance use at Time 2, and that more distressed students reported greater substance use than less distressed students. Supporting the theorized mediation role of depression, Muehlenkamp, Swanson, and Braush (2005) found that self-objectification was indirectly related to self-harming behaviors (which included items assessing substance use) via negative body regard and depression, while Zucker and Landry (2007) found that psychological distress mediated the relationship between sexist events and binge drinking and smoking.

In sum, it seems reasonable to investigate the relationship between the constructs of Objectification Theory and substance abuse, since we know some of the indicators of substance abuse seem to coincide with incidences of objectification. Thus, the purpose of the current study is to extend previous research by examining tenets of Objectification Theory as it applies to substance abuse in young adult women. More specifically, I will examine the following hypotheses:

Hypothesis 1: Sexual objectification experiences and self-objectification will be positively correlated with alcohol abuse, nicotine abuse, and other drug abuse.

Hypothesis 2: Sexual objectification experiences will be directly and/or indirectly related to substance abuse. That is, sexual objectification will lead to more self-objectification, which in turn would lead to more body shame, which in turn will lead to more depression, which in turn will lead to more substance abuse (See Figure 1).

CHAPTER II
METHOD

Participants

The initial sample comprised 300 women who completed an online survey. Eleven participants with substantial missing data (more than 10% of one or more measures) were eliminated from the dataset which resulted in a final sample of 289 participants. Female participants ranged in age from 18 years to 30 years, with a mean age of 20.03 years (*SD* = 2.31). The sample was 7% African American/Black, 3% Asian American/Pacific Islander, 89% White, and 1% Multiracial. Concerning sexual orientation, 96% percent of participants identified as heterosexual, 4% identified as lesbian/gay/bisexual, and 1% identified as unsure. Participant's relationship status was identified as 31% single and not dating, 36% as single and dating, and 33% as married, partnered, and/or in a committed relationship. In terms of highest level of education, less than 1% did not complete high school, 75% attained a high school diploma, 16% attained a two-year college degree, 8% attained a four-year college degree, and 2% attained a graduate/professional degree. Ninety-nine percent of participants were currently enrolled in a college or university, with 41% being 1st year undergraduates, 22% Sophomores, 21% Juniors, 14% Seniors, 1% graduates students, and 1% Other. Total household income varied among the participants: 31% reported an income less than $29,999, 19% reported an income between $30,000 and $59,999, 17% reported an income between $60,000 and $89,999, and 33% reported an income of $90,000 or more. Participants reported being a member of the following social classes: 6% wealthy, 35% upper middle, 40% lower middle, 17% working class, and 3% poor. In terms of geographical location, 2% resided in the Midwest, 4% in the Northeast, 94% in the South, and 1% in the West.

Forty-eight percent of participants reported their age at first cigarette use and of those who reported it the minimum age of first use was 5 years old and the maximum age reported was 20, with a mean age of 15.52 *(SD*=2.70). Eighty-nine percent of participants reported their age at first alcohol use and of those who reported this the minimum age reported was 6 years old and the maximum age was 21, with a mean age of 16 at first use (*SD*=2.45). Forty-two percent of participants reported their age of first use of drugs and of these participants the minimum age reported was 11 years old and the maximum age was 22, with a mean age of 16 years at first use of drugs (SD=2.20). Participants were asked to report which types of drugs they had used for non-medical purposes and 11% reported benzodiazepine use, 14% reported opiate use, 42% reported cannibas use, 5% reported barbituate use, 67% reported alcohol use, 38% reported nicotine use, 6% reported methamphetamine use, 7% reported cocaine/crack use, 12% reported hallucinogen use, 5% reported solvent-inhalant use, and 1% reported steroid use. Participants indicated whether or not they had ever received substance abuse treatment and 96% reported no treatment for substance abuse and 5% reported they had received treatment for substance abuse. Due to rounding, percentages may not add up to 100%.

Measures

Sexual Objectification. Sexual Objectification was assessed with the Interpersonal Sexual Objectification Scale (ISOS; Kozee, Tylka, Augustus-Horvath, & Denchik, 2007) and the Modified Sexual Experiences Survey (MSES; Testa, VanZile-Tamsen, Livingston, & Koss, 2004). The ISOS consists of 15 items reflecting two factors: body evaluation and unwanted explicit sexual advances. Example items include “How often have you noticed someone staring at your breasts when you are talking to them?” and “How often have you been touched or

fondled against your will?" Participants are instructed to respond to each item by reporting experiences within the past year. Each item is responded to on a 5-point Likert- scale from 1 *(never)* to 5 *(almost always)*. Mean scores are used with higher scores representing greater levels of sexual objectification. Validity of scores on the ISOS was supported via both exploratory and confirmatory factor analyses, by it's positive correlations with sexist degradation, sexist events, internalization of the thin ideal, body surveillance, and body shame, by demonstrating that the ISOS predicted self-objectification above and beyond the variance accounted for by sexist events, and by showing that it was not related to socially desirable responding. Reported internal consistency and test-retest reliability for scores on the ISOS full scale were. 92 and .90, respectively (Kozee et al., 2007). Alpha for the current sample was .92.

The second measures to assess sexual objectification, the MSES, consists of 11 items which reflect sexual aggression that has been experienced since age 14. Sample items include "Have you ever been fondled, kissed, or touched sexually when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you?" and "Have you had sexual intercourse when you didn't want to because a man made you intoxicated by giving you alcohol or drugs without your knowledge or consent?" Responses are yes or no based on whether the experience has occurred. The continuum method of scoring was used to assign a score based on the most serious level of aggression or sexual assault experienced. By this method, participants were coded into one of the following scores: no reported aggression *(0)*, reported unwanted sexual contact *(1)*, reported sexual coercion *(2)*, reported attempted rape *(3)*, and reported rape *(4)*. Reported alpha for the measure is .73. Validity was established by the measures ability to detect certain experiences that might

reasonably be considered sexually aggressive. Coder agreement was 81-94% for experiences classified as rape and 86-95% for coercion. Participant and coder agreement was 40-85% for experiences classified as contact and 16-68% for attempted rape (Testa et al., 2004). Alpha for the current sample was .77.

Self-objectification. Self-objectification was measured by the Body Surveillance subscale of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996), which includes eight items that assess the amount that a woman self-objectifies herself by constantly looking at her body and thinking about her body in the way that it may appear to others. Example items include "I think more about how my body feels than how my body looks" and "I rarely think about how I look". Each item is rated on a 7-point Likert scale from 1 *(strongly disagree)* to 7 *(strongly agree).* Mean scores are used with higher scores representing greater levels of self-objectification. Reported alpha for scores on this subscale with an undergraduate sample was .89. Validity was supported by exploratory and confirmatory factor analyses and by correlating the OBCS full scale and subscales with measures that assess body esteem, disordered eating, private self-consciousness, and social anxiety (McKinley & Hyde, 1996). Alpha for the current sample was .85.

Body shame. Body shame was assessed with the Body Shame subscale of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996), which consists of eight items that reflect how badly a woman feels if she does not meet cultural standards in regard to her body. Example items are "When I can't control my weight, I feel like something must be wrong with me" and "I feel ashamed of myself when I haven't made the effort to look my best." Each item is rated on a 7-point Likert scale that ranges from 1 (*strongly disagree)* to 7 (*strongly agree).* Mean scores

are used with higher scores representing more body shame. Reported alpha for scores on this subscale with an undergraduate sample was .84. Validity was supported by exploratory and confirmatory factor analyses and by correlating the OBCS full scale and subscales with measures that assess body esteem, disordered eating, private self-consciousness, and social anxiety (McKinley & Hyde, 1996). Alpha for the current sample was .85.

Depression. Depression was measured by using the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). The CES-D is a twenty item self-report inventory which measures depressive symptoms. Example items are "I felt fearful," "I had trouble keeping my mind on what I was doing", and "I felt that I could not shake off the blues even with help from my family or friends." Each item is rated on a 6-point Likert scale that ranges from 1 *(never)* to 6 *(always).* Internal consistency estimates ranged from .85 to .90. Validity was supported by correlating the CES-D with other self-report measures of depression, with clinical ratings of depression, and by relationships with variables theorized to be related to it (Radloff, 1977). Alpha for the current sample was .92.

Substance abuse. Substance abuse was assessed via scales used to measure alcohol abuse, nicotine abuse, and other drug abuse. Alcohol abuse was assessed by using the Alcohol Problems (ALC) subscale of the Personality Assessment Inventory (PAI; Morey, 1991). The ALC is a 12 item measure that identifies the classic signs of abuse of alcohol, loss of control of consumption, and secondary problems that may result from substance abuse. Example items on the scale may have the participant rate themselves in such areas as having problems with alcohol in various settings or if there have been problems with use in relationships. Participants answered items on a 4-point Likert like scale that ranges from 1 *(false, not true at all)* to 4 *(very*

true). Reported alpha for the normative clinical sample was .93 and .83 for a college sample. Validity was established by strong correlation with corresponding measures of substance abuse, such as the Michigan Alcoholism Screening Test (MAST; Selzer, 1971). Alpha for the current sample was .81.

Nicotine abuse was measured via three questions assessing frequency and quantity of cigarette smoking. The first question asked participants if they have ever smoked cigarettes. Response options were: 1 (*Never*), 2 (*Once or twice*), 3 (*Occasionally, but not regularly*), 4 (*Regularly in the past*), and 5 (*Regularly now*). The second question asked participants how frequently they smoked cigarettes in the past 30 days. Participants rated their use on a Likert scale, ranging from 1 (*Not at all*) to 8 (*Two or more packs per day*). The third question asked participants to be more precise, and report how many cigarettes they smoked per day during the past 30 days. Participants rated their use on a Likert scale, ranging from 0 (no cigarettes) to 10 (38 or more cigarettes per day; O'Malley, Johnston, & Bachman, 1999; Zucker & Landry, 2007). Self-reported methods of measuring nicotine use are almost as effective as a method for determining smoking behavior as physiological assessments and methods such as the one employed in this study are widely used in survey research (Assaf, Parker, Lapane, McKenny, & Carleton, 2002; Dolcini, Adler, & Bauman, 2003; Vartiainen, Seppala, Lillsunde, & Puska, 2002). Inter-correlations among the three items assessing nicotine abuse for the current sample ranged from .75 to .91. Alpha for the current sample was .91.

Drug abuse was assessed by using the Drug Problems (DRG) subscale of the Personality Assessment Inventory (PAI; Morey, 1991). The DRG is a 12 item measure that identifies the classic signs of abuse of drugs, any loss of control of consumption, and development of life

problems in association with substance abuse. Example items on the scale may have the participant rate themselves in such areas as having problems with drug use or using drugs to change the way they feel. Participants answered items on a 4-point Likert like scale that ranges from 1 *(false, not true at all)* to 4 *(very true).* Reported alpha for the normative clinical sample was .89, .66 in a college sample, and .79 in a mixed sample. Validity was established by strong correlations with corresponding measures of substance abuse, such as the Drug Abuse Screening Test (DAST; Skinner, 1982). Alpha for the current sample was .78.

Procedure

Female participants aged 18-30 years were recruited largely via undergraduate psychology courses, campus organizations, and student groups at a large southern university. This age population was targeted because research shows that many women start their abusing patterns in the young adulthood and in college years, when they binge drink and experiment with drugs (Columbia University, 1996). In addition, participants were also recruited via a hard copy flier or an e-mail announcement of the study sent to the list owner/contact person of a variety of substance abuse related list serves, support groups, and treatment programs serving young adult women. The list owner/contact person was asked to distribute the research announcement to their list serve and to their young adult female friends, colleagues, and students. Those that were recruited via the undergraduate psychology pool received course credit points for their participation. In addition, all participants were eligible to enter into a raffle drawing of $100.00 awarded to one randomly selected participant. From the total participant pool, 80% reported they were recruited through an undergraduate psychology class, 9% reported recruitment through a campus organization, 1% reported recruitment through a substance abuse treatment program, 9%

reported recruitment through an internet list serve, and 1% reported recruitment through a hardcopy flier.

Participants completed an online web-based survey which included a demographic questionnaire and the aforementioned randomly ordered measures. The informed consent stated that the researcher was conducting an empirical study examining gender-related attitudes and experiences and how those may relate to various aspects of women's general well-being. Participants were also informed that the research survey would ask questions about feelings, thoughts, and experiences they may have had as a woman, ways they cope with stressful events, well-being, use of various substances (i.e. nicotine, alcohol, and non-medical and/or illicit drugs), and demographics. Procedures for this website survey were based on published suggestions (Buchanan & Smith, 1999; Michalak & Szabo, 1998; Schmidt, 1997). Methods for protecting confidentiality included having participants access the research survey via a hypertext link rather than e-mail and the use of a separate raffle database so there was no way to connect a person's on-line raffle submission with her submitted survey. Methods used for ensuring data integrity included the use of a secure server protected with a firewall to prevent tampering with data and programs by "hackers" and inadvertent access to confidential information by research participants. Gosling, Vazire, Srivastava, and John (2004) reported that results from Internet studies are not adversely affected by repeat or non-serious responders and are consistent with findings obtained from traditional pen-and-paper methods.

CHAPTER III
RESULTS

Means, standard deviations, and inter-correlations among all continuous variables are shown in Table 1. To test hypothesis 1, a Pearson *r* correlation was conducted to examine the relationship between sexual objectification experiences via the ISOS and the MSES and self-objectification and each of the substance abuse measures (alcohol abuse, nicotine abuse, and other drug abuse). As hypothesized, the ISOS was significantly correlated with alcohol abuse (r = .28), nicotine abuse, (r = .20) other drug abuse (r = .19). Similarly, the MSES was significantly correlated with alcohol abuse (r = .30), nicotine abuse (r = .36), and drug abuse (r = .20). Self-objectification was significantly correlated with alcohol abuse (r = .16) but not with nicotine abuse (r = .06) or drug abuse (r = .01).

To test hypothesis 2, my theory driven mediation model (see Figure 1), structural equation modeling (SEM) was used. Following Tabachnick and Fidell's (2001) recommendation for a two-step approach to analysis, I used the Amos 5.0.1 program to estimate parameters for the measurement model via confirmatory factor analysis (CFA) and for the later simultaneous estimation of the measurement and structural equation models. My sample size of 289 was in the recommended range of 10-20 observations per estimated parameter (Weston & Gore, 2006). To check for univariate non-normality, we evaluated skewness and kurtosis for each measure. West, Finch and Curran (1995) asserted that concern should be raised when using SEM if skewness is greater than 2 and kurtosis is greater than 7. Only one variable was skewed greater than 2 (nicotine abuse skew = 2.05) and no variable had a kurtosis greater than 7. Thus, I determined that no substantial violations existed per West et al's criteria, and therefore no measures required

transformation. To check for multivariate non-normality, we evaluated Mardia's coefficient of multivariate kurtosis. Although Mardia's coefficient of multivariate kurtosis indicated some degree of non-normality (obtained value = 22.065; critical ratio = 8.861), Lei and Lomax (2005) have found that parameter estimates and most model fit indices are robust to non-normality given maximum-likelihood estimation and a sample size of 100 or more participants. Thus, I proceeded with our analyses using maximum-likelihood estimation.

Because the χ^2 statistic and goodness of fit indexes such as the GFI and NFI are easily distorted by factors extrinsic to actual model misspecification (e.g., number of indicators per factor, sample size), the adequacy of the measurement and structural model fit was based on the following goodness-of-fit indexes that minimize the effect of extrinsic factors: comparative fit index (CFI), Tucker Lewis index (TLI), incremental fit index (IFI), and root mean square error of approximation (RMSEA; Martens, 2005). Models with CFI, TLI, and IFI goodness of fit indexes greater than .95 and RMSEA values below .05 indicate an excellent fitting model (Hu & Bentler, 1999). Models with CFI, TLI, and IFI values between .90 and .94 and RMSEA values between .06 and .10 indicate an adequate fit to the data (Brown & Cudeck, 1993; Hu & Bentler, 1999).

In the confirmatory model, the two scales of sexual objectification (ISOS and MSES) were constrained to load onto the Sexual Objectification factor, and the three of substance abuse (alcohol abuse, nicotine abuse, and drug abuse) were constrained to load on to the Substance Abuse factor. As recommended by Russell, Kahn, Spoth, and Altmaier (1998) three measured indicators (parcels) for the self-objectification factor, body shame, and depression factors were created. First, for each scale an explanatory factor analysis was conducted using the maximum likelihood (ML) method of extraction, and a single factor was specified to be extracted. Second,

items were rank-ordered according to the magnitude of the factor loadings. Third, items were successively assigned (from the highest to the lowest factor loading) to each of three parcels in order to equalize the average loadings of each parcel on its respective latent factor. Finally, for each parcel, items were averaged to arrive at a mean total score. Parcels were then used to estimate their respective latent variable (i.e., self objectification, body shame, and depression) within the SEM analyses. The five factors were permitted to correlate with one another. Fit statistics for the measurement model indicated an excellent fit of the data: CFI = .98, TLI =.97, IFI = .98, and RMSEA =.048. In addition, each measure significantly loaded on its intended latent factor Absolute factor loadings ranged from .60 to .72 for sexual objectification, .78 to .89 for self-objectification, .72 to .82 for body shame, .87 to .91 for depression, and .64 to .70 for substance abuse. Therefore, I moved to the next stage of the analysis, examination of the structural model and its fit to the data.

Two SEM analyses were conducted for partial and fully mediated models predicting substance abuse (see Figure 1). The first model was a partially mediated model that included an estimate of the direct effect between sexual objectification and substance abuse, as well as the mediated paths from sexual objectification and substance abuse via self-objectification, body shame, and depression. Next, the fully-mediated model was tested in which the direct path between sexual objectification and substance abuse was constrained to zero. The two nested models will were then compared to see if including the direct paths from sexual objectification to substance abuse improves the fit of the model to the data (Holmbeck, 1997).

Fit statistics for the partially mediated SEM model indicated an excellent fit of the data: CFI = .97, TLI = .96, IFI = .97, RMSEA = .049. All paths were significant. Fit statistics for the

fully mediated SEM model also indicated an adequate fit of the data: CFI = .95, TLI = .9r, IFI = .95, RMSEA = .063. All paths were significant. Nested model comparison of the partially mediated model to the fully mediated model indicated that they were significantly different (difference $\chi^2 = 34.40$, $df = 1$, $p < .001$). Thus, the partially mediated model was retained as a better fit to the data.

Partial mediation indicated that sexual objectification was both directly ($\beta = .52$) and indirectly (through self-objectification, body shame, and depression) related to substance abuse.

To test whether this four-step chain of mediation from sexual objectification to substance abuse was significant I used a bootstrap analysis to create 10,000 bootstrap samples from our dataset as recommended by Mallinckrodt, Abraham, Wei, and Russell (2006). Results of my analysis using a bias corrected 95% confidence interval for indirect relations indicated that the indirect link was statistically significant at $p < .05$. The mean indirect (unstandardized) effect was .02; the standard error of the mean indirect effect was .013; and the 95% confidence interval for the mean indirect effect was .004 (lower limit) and .058 (upper limit). The standardized indirect effect of sexual objectification on substance abuse via self-objectification, body shame, and depression was $\beta = .01$ (i.e., .24 x .65 X .38 X .17). The squared multiple correlation for substance abuse was .31, which indicated that the variables in the model accounted for approximately one-third of the variance in substance abuse. The relationship among latent variables for the final model is shown in Figure 3.

CHAPTER IV
DISCUSSION

The present study aimed to extend the tenets of Objectification Theory by postulating that external and internalized experiences of sexual objectification may be related to women's substance abuse (i.e., alcohol abuse, nicotine abuse, and other drug abuse). Consistent with my first hypothesis, results indicated that both measures of sexual objectification, the ISOS and the MSES, were positively correlated with all three substance abuse measures. This suggests that both "everyday" as well as extreme forms of sexual objectification experiences are related to higher levels of alcohol, nicotine, and other drug abuse among young adult women. Also supporting my first hypothesis, more internalized sexual objectification via self-objectification was related to more alcohol abuse suggesting that some women may be abusing alcohol in order to obtain the ideals of beauty and sexiness promoted in U.S. culture. Contrary to my first hypothesis, self-objectification was not related to nicotine abuse or other drug abuse. This is in contrast to other research indicating that smokers (individuals who reported currently smoking every day and who had smoked more than 100 cigarettes in their lifetime or self-reported they currently smoked) scored higher on self-objectification than non-smokers (individuals who reported currently smoking everyday and who had smoked less than 100 cigarettes in their lifetime or who self-reported that they had never smoked in their lifetime (Fissel & Lafreniere, 2006; Harrell, Fredricson, Pomerleau, & Nolen-Hoeskema, 2006). The different findings may be a result of the different methods used to assess smoking status/nicotine abuse. It could also be that smoking motives (i.e., smoking for weight control) may be more important than actual smoking status or behaviors in its relation to self-objectification.

Consistent with my second hypothesis, the findings also indicated that sexual objectification is related to substance abuse both directly and indirectly. These findings suggest that women who experience high amounts of sexually objectifying experiences are more likely to abuse substances, and are consistent with other research indicating a relationship between sexist discrimination and personal distress, smoking quantity, and binge drinking among women (Zucker & Landry, 2007). The results of my analyses also revealed a large direct effect of sexual objectification on experiences of substance abuse (β =.52), according to Cohen and Cohen's (1983) guidelines of .10, .30, and .50 for small, medium, and large effect sizes, respectively. This finding suggests that sexually objectifying experiences can have a profoundly negative impact on women's problems related to substance abuse.

The findings of my theorized model also indicated that sexual objectification experiences may influence substance abuse indirectly. That is, the data supported the notion that more sexual objectification experiences leads to more self-objectification, which leads to greater body shame, which lead to more depression, which leads to more substance abuse. Although the indirect effect of sexual objectification on substance abuse through my proposed mediated model was significant; it is important to note that the indirect effect was small, especially when compared to the large direct effect of sexual objectification on substance abuse found in this study.

I would also like to highlight the positive correlations between sexual objectification experiences and depression (r = .33 for ISOS and r = .13 for MSES) found in our study. As articulated by Fredrickson and Roberts (1997) sexual objectification experiences are theorized to be a precursor to mental health problems that disproportionately effect women (i.e., eating disorders, depression, and sexual dysfunction). Although evidence for the positive relationship

between sexual objectification experiences and disordered eating symptomology has been found (c.f., Moradi, Dirks, & Matteson, 2005), this is the first study that links sexual objectification experiences with depressive symptoms. Taken together, the results of our study are consistent with Fredrickson and Roberts' (1997) assertions that women's mental health is negatively affected by cultural practices of sexually objectifying women.

Limitations and Directions for Future Research

Limitations of this study include sampling method (convenience sample and use of undergraduate students recruited largely through their enrollment in psychology courses at a Southern University), the use of self-report measures, and a correlational and cross-sectional research design. Generalizability of our study is limited by the lack of racial/ethnic, sexual orientation, and educational diversity in the sample. Thus, our theorized model needs to be tested with women of color, sexual minority women, and non-college educated women to see if similar relations among constructs exist. Our study is also limited by the age range we targeted (i.e. between 18-30 years old), and thus we do not know if these results generalize to women who are middle-aged and older. Finally, generalizability is limited by our focus on a sample from the United States. Given the fact that sexual objectification of women is not just a United States phenomenon, research testing our theorized model with women in other countries is needed.

As is true with all self-report data, participants may not have responded honestly to survey items and results could be due to a general tendency to respond negatively or method variance. Individual differences are also likely to exist in judgments about what constitutes a sexually objectifying experience. The cross-sectional nature of our data precludes us from

drawing conclusions about causal links between sexually objectifying experiences, self-objectification, body shame, depression, and substance abuse and necessitates the consideration of alternate models. For example, it is possible that women with pre-existing self-objectification, body shame, depression and/or substance abuse problems may be more likely to perceive sexually objectifying experiences or to have greater recall of such events when asked to report them on a survey. In addition, when a woman abuses substances she may become more uninhibited and more likely to be in environments or situations in which sexual objectification occurs. Thus, longitudinal research that follows college women over time, such as over the course of an academic year, and uses a cross-lagged model is needed to provide further support for the potential cause-effect relationships between sexual objectification, self-objectification, body shame, depression, and women's substance abuse. Furthermore, it is possible that other, unmeasured variables such as stressful experiences and family dysfunction that are not related to gender might play a role in the relationships among variables in our study. Thus, future research might include Objectification Theory variables along with other factors that have been theorized to be related to substance abuse.

Another limitation of this research is the fact that there may not be a lot of women that want to even admit they have problems with substance abuse, since there are so many unwritten gender rules about "women who overuse" or are addicted. There are many women that hide that they abuse substances or have a substance addiction and may feel unable to share that even within an anonymous survey; there are so many women who feel they have to hide a problem because they embody cultural values that delineates being a "good woman" or a "good mom" or a "good daughter", which does not include struggling with substance abuse problems. This is

part of the cultural problem because culture says women are supposed to socially engage in substance use but it is more acceptable for a man to develop a problem with using than a woman; hence many women are closet users.

Another direction for future research would be to survey a sample of women who have been clinically diagnosed with substance abuse, substance dependence and/or depression to see if similar relations among study variables exist and/or to compare them with non clinical samples of women to see if they score higher on measures assessing external and internalized sexual objectification. Other methods, which do not include self-report may also be beneficial to use in future research, since many women may hide the fact that they are using substances due cultural stereotypes about women and substance abuse described above. A qualitative study might also be very effective at bringing out the dynamics that surround substance abuse for women such as environmental contributors or the effects that specific instances of sexual objectification may have had on the likelihood to abuse a substance. Many women use specific substances to maintain an ideal of beauty which could be better defined and give a greater voice to the experience with the use of a qualitative method. Finally, future research might examine potential moderators, such as feminist identity attitudes and internalized sexism, of the sexual objectification-substance abuse links. For example, other studies have found that sexist events exacerbates psychological distress for women with high levels of passive acceptance of traditional gender roles and denial of sexism and for women with high levels of internalized misogyny (i.e., devaluation of women and belief in male superiority (Moradi & Subich, 2002; Szymanski, Gupta, Carr, and Stewart, in press). In addition, Sabik and Tylka (2006) found that feminist identity synthesis attitudes buffered the sexist events-disordered link among women.

Clinical Implications

There are many clinical implications from the findings of our study. First, psychologists are encouraged to pay close attention to the role of external factors, such as sexual objectification, that may be contributing to their presenting problems in order to avoid overpathologizing them (APA, 2007a). Next, psychologists are encouraged to inquire about a wide range of sexually objectifying experiences including body evaluation, unwanted explicit sexual advances, sexual aggression, and rape in their intake assessments and clinical interviews and to include these experiences in their case conceptualizations. Attending to sexually objectifying experiences would also be important to address throughout therapy via helping clients see how their substance abuse problems might be related to sexually objectifying experiences they may have had as well as in providing corrective emotional experiences for clients that have had such experiences. In addition, educating clients about the connections between sexual objectification experiences and substance abuse found in this study might help clients feel less badly about the existence of their own difficulties and see them in a contextual light. Helping clients see how sexual objectification experiences contributes to alcohol, nicotine, and other drug problems may decrease shame they experience about these difficulties and enable them to work more productively on reducing or eliminating their substance use and abuse. In addition, clinicians might lessen the potential impact that sexually objectifying experiences have on young adult women's substance abuse problems by using therapeutic strategies designed to decrease their self-objectification, body shame, and depression.

On a systemic level, it would be beneficial to develop workshops and outreaches for young adult women that describe the emotional and psychological dangers of external and

internalized self-objectification, advocate for critical thinking concerning the narrow images of women in the mass media as sexually objectified and ultra thin, facilitate self-acceptance among female clients, and assist women in developing strategies that challenge the sexually objectifying attitudes and behaviors of others (APA, 2007b). Outreaches targeting young adult women who may be entering environments that place them at increased risk of being sexually objectified such as college , fraternity little sister organizations, cocktail waitressing, and modeling, may be particularly useful. Developing outreach and intervention strategies designed to target men's attitudes and behaviors that contribute to the sexualization of girls and women are also crucial. Furthermore, large scale population level interventions aimed at changing social norms concerning male and female relationships, the sexualization of women, and the pairing of women's substance abuse with being sexy are needed. Finally, the results of this study provide evidence for the need for advocacy at policy levels. For example, psychologists and the APA could work with relevant federal agencies and industry to reduce the use of sexualized images of women in all forms of media and substance use products (APA, 2007b).

In conclusion, the model proposed in this study provided a good fit to the data and provided evidence of a significant large direct effect of sexual objectification on substance abuse, as well as, a smaller indirect effect through self-objectification, body shame, and depression. The findings also support the significance of using Objectification Theory as a model for understanding gendered aspects of women's substance abuse and encourage clinicians to attend to experiences of sexual objectification in their work with female clients struggling with substance abuse issues.

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Table 1 *Means, Standard Deviations, and Inter-Correlations for All Study Variables*

Variable	*X*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	*16*
1. ISOS	2.49	.65	---															
2. MSES	1.34	1.58	.43**	---														
3. Self Objectification full scale	4.89	1.08	.13*	.16**	---													
4. SO1	4.62	1.21	.11	.11	.89**	---												
5. SO2	4.93	1.21	.14	.17**	.92**	.71**	---											
6. SO3	5.20	1.26	.09	.12*	.84**	.60**	.71**	---										
7. Body Shame full scale	3.50	1.29	.15*	.21**	.55**	.44**	.48**	.55**	---									
8. BS1	3.43	1.47	.09	.14*	.51**	.37**	.46**	.54**	.88**	---								
9. BS2	3.36	1.37	.15*	.19**	.41**	.38**	.34**	.39**	.85**	.60**	---							
10.BS3	3.80	1.81	.14*	.21**	.48**	.38**	.43**	.48**	.83**	.62**	.55**	---						
11. Depression full scale	1.86	.56	.22**	.13*	.19**	.17**	.16**	.18**	.34**	.30**	.30**	.26**	---					

12. DEP1	1.87	.61	.16**	.11	.21**	.19**	.17**	.20**	.31**	.27**	.28**	.24**	.93**	---				
13. DEP2	1.96	.61	.23**	.14*	.17**	.16**	.14*	.15*	.30**	.28**	.26**	.22**	.94**	.79**	---			
14. DEP3	1.72	.57	.22**	.11	.15**	.12*	.14*	.15**	.34**	.30**	.30**	.27**	.91**	.77**	.80**	---		
15. Alcohol Abuse	1.54	.48	.28**	.30**	.16**	.15*	.15*	.11	.22**	.14*	.24**	.17**	.08	.06	.07	.08	---	
16. Nicotine Abuse	.66	1.12	.20**	.36**	.06	.10	.03	.03	.10	.06	.10	.09	.13*	.11	.13*	.13*	.38**	---
17. Drug Abuse	1.48	.51	.19**	.20**	.01	.03	.02	-.03	.10	.06	.12*	.06	.28**	.23**	.24**	.24**	**.46****	.48***

Note. * p<.05; ** p < .01. ISOS = Interpersonal Sexual Objectification Scale; MSES = Modified Sexual Experiences Survey; SO1, SO2, and SO3 = parcels of item assessing self-objectification; BS1, BS2, and BS3 = parcels of items assessing body shame; DEP1, DEP2, and DEP3 parcels of items assessing depression

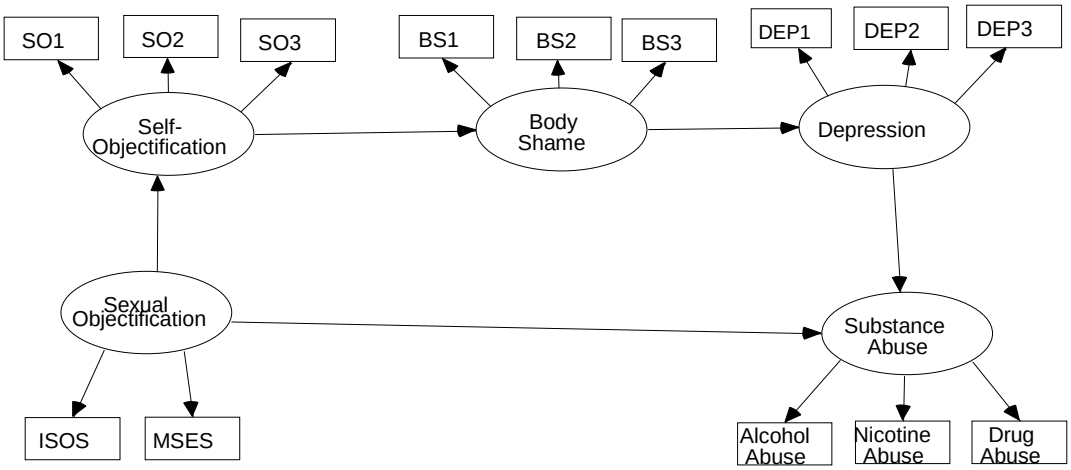


Figure 1. Hypothesized partially mediated model (all lines) and fully mediated model (all lines except for the direct path between sexual objectification and substance abuse).

Note. ISOS = Interpersonal Sexual Objectification Scale; MSES = Modified Sexual Experiences Survey; SO1, SO2, and SO3 = parcels of item assessing self-objectification; BS1, BS2, and BS3 = parcels of items assessing body shame; DEP1, DEP2, and DEP3 parcels of items assessing depression.

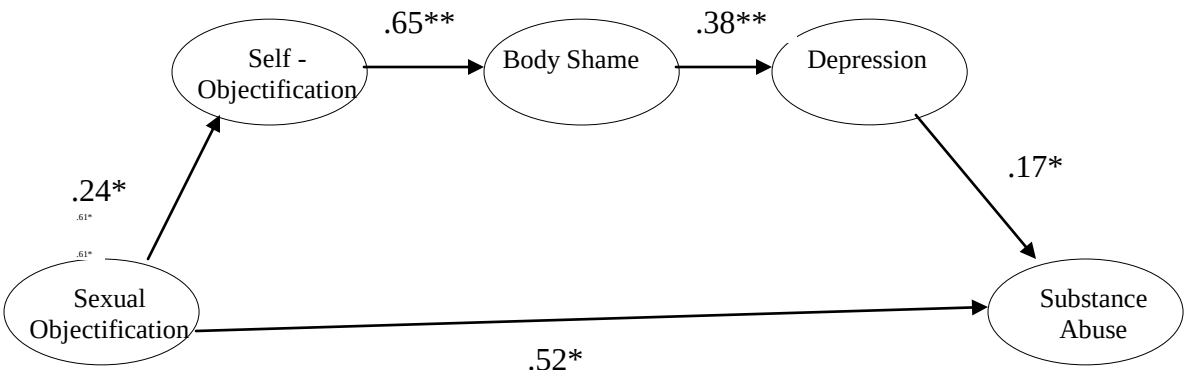


Figure 2. Relations among latent variables for the partially mediated model of sexual objectification to substance abuse. All coefficients are standardized values. *p<.05; ** p < .001

VITA

Erika Rouse Carr was born in Oklahoma City, OK on August 13, 1979. She was raised in Goldsboro, NC and went to grade school at Rosewood Elementary and middle school at Goldsboro Middle School. She graduated from Goldsboro High School in 1997. From there, she went to Harding University in Searcy, AR and received a B.A. in speech pathology in 2002. Erika went on to obtain a M.A. in Counseling from Harding Graduate School in Memphis, TN and received that degree in 2005. She worked for a year after her degree at a psychiatric facility, Lakeside Behavioral Health System, and then went on to enter her doctoral program in Counseling Psychology at the University of Tennessee in Knoxville, TN in the fall of 2006. Erika is currently in pursuit of her Ph.D. within this program and her anticipated graduation date is during the Summer of 2011.