THE ROLE OF SELF-OBJECTIFICATION AND SELF-ESTEEM IN SEXUAL INTIATION

An Undergraduate Research Scholars Thesis

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>INTRODUCTION</td>
<td>6</td>
</tr>
<tr>
<td>II</td>
<td>METHODS</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Participants</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Exclusion Criteria</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Procedure</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Measures</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Statistical Analysis</td>
<td>17</td>
</tr>
<tr>
<td>III</td>
<td>RESULTS</td>
<td>19</td>
</tr>
<tr>
<td>IV</td>
<td>DISCUSSION</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Limitations</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>25</td>
</tr>
<tr>
<td>REFERENCES</td>
<td></td>
<td>27</td>
</tr>
</tbody>
</table>
Sexual behaviors that contribute to unintended pregnancy and STIs is one of the top six health risk behaviors that contribute to death and disability among adolescents. Earlier sexual initiation has been linked to subsequent engagement in high risk sexual behavior. Researchers have examined critical factors associated with sexual risk taking, including self-objectification. Self-objectification has been linked to sexual self-esteem, which was associated with higher levels of engagement in sexual activity. Though the exact mechanism through which this occurs remains unknown. To better understand the effects of self-objectification and self-esteem on sexual initiation in emerging adults, the present study aimed to investigate the role of self-objectification and self-esteem in predicting age of sexual initiation across the sexual timetable. Emerging adults were presented with self-report assessments of self-objectification and self-esteem, as well as a retrospective questionnaire on age of sexual initiation. Results showed that self-esteem did not mediate the relationship between self-objectification and sexual initiation. However, self-objectification and self-esteem appeared to be independent risk factors of sexual initiation. Self-objectification, specifically appearance control, was associated with the initiation of French Kissing, touch penis, vaginal sex, and sexting. Body shame was associated with the initiation of anal sex. Self-esteem was associated with the initiation of more intimate sexual
Self-Objectification and Sexual-Risk Taking

behavior including vaginal sex, anal sex and sexting. These results should inform future research to explore intra-individual factors, especially self-objectification to enhance the specificity of education-, prevention-, and treatment programs.
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CHAPTER I
INTRODUCTION

Adolescence and emerging adulthood is a developmental period integral in the prevention and detection of mental and behavioral health issues. This period is associated with increased involvement in health risk behaviors, including maladaptive eating patterns, behaviors leading to intentional and unintentional injuries, substance use and high risk sexual behavior. High risk sexual behavior is one of the six leading public health concerns contributing to death and disability in adolescents and emerging adults (CDC, 2012). Sadly, the interaction of a unique set of factors contributes to heightened STI vulnerability in youth (CDC, 2013). Such factors include insufficient screening during primary care visits, confidentiality concerns when discussing preventative care with their primary care physicians, the biologically vulnerability of young females to contract a sexually transmitted infection (STI) due to immature endocervix tissue, lack of access to healthcare, and engaging in sexual behavior with multiple partners (CDC, 2013).

Nationwide, 47.4% of high school students had ever had sexual intercourse, with 6.2% of sexually active adolescents having had sex prior to age 13 (CDC, 2012). Further 50% of adolescents and emerging adults ages 15-19 have engaged in oral sex, but it is important to note that a quarter of these youth have never engaged in sexual intercourse (Lewin, 2005). These adolescents and emerging adult my falsely believe that oral sex is less risky and unlikely to transmit and STI. Although a considerable portion of adolescents are engaging in sexual behavior, 39% of adolescents did not use a condom during their last sexual intercourse (CDC,
Self-Objectification and Sexual-Risk Taking

2012). This percentage does not account for the consistency and accuracy with which these condoms are being used. Further, female adolescents are more likely than male adolescents to not use any form of contraceptive (CDC, 2012). They are also more likely to be tested for HIV (CDC, 2012). In conjunction with biological vulnerabilities, these trends may explain why female, heterosexual adolescents are more likely to be diagnosed with an STI.

The engagement of high-risk sexual behavior during adolescence and emerging adulthood leaves youth at greater risk for STIs, including the Human Immunodeficiency Virus (HIV). The Center for Disease Control reports that individuals ages 15-24 comprises only 27% of the sexually active population or 25% of the entire US population but account for 50% of the 20 million new STIs (CDC, 2013). This ranges from 20% of all new Syphilis cases to up to 70% of all new Gonorrhea cases (CDC, 2013). Further, 39% of all new HIV cases are within individuals age 13-29, resulting in 80,461 young people to be currently living with HIV or 10% of all HIV positive individuals (CDC, 2013). Unfortunately, the majority of these youth are unaware of their diagnoses (Whitemore et al., 2012). Moreover, the latency period of Acquired Immunodeficiency Syndrome (AIDS) suggests that most cases diagnosed in individuals in their 20s and even 30s were likely contracted during adolescence (Pandey, Dutt, Nair, Subramanyam, & Nagaraj, 2013). This is the only age group to experience a rise in the rate of HIV infection (CDC, 2013).

Of the 110 million people diagnosed with an STI nationwide are female (CDC, 2013). When examining heterosexuals, women face the most serious, long-term health consequences as a result of undiagnosed and untreated STIs. Most STIs do not lead to death, however they do have
Self-Objectification and Sexual-Risk Taking

the potential to cause death and other serious health problems if left untreated (CDC, 2013). This is frequently the case as many STIs are asymptomatic. Such problems include infertility, chronic pain, cervical cancer, and death (DiClemente, Salazar, & Crosby, 2007). Undiagnosed STIs cause 24,000 women to become infertile each year (CDC, 2013).

High risk sexual behavior is defined as sexual behavior that increases the exposure to and likelihood of acquiring an STI. Such behaviors include early age of sexual initiation, inconsistent or incorrect condom use, number of lifetime sexual partners, frequency of sexual encounters, casual sex, and the exchange partnerships. The treatment of STIs places significant economic strain on the US healthcare system; treatment of only the eight most common STIs costs an estimated $15.6 billion annually (CDC, 2013).

There is a consistent association between earlier initiation for sexual intercourse and the likelihood of contracting an STI during adolescence and emerging adulthood (Kaestle, Halpern, Miller, & Ford, 2005; Coker et al., 1994). Early sexual initiation was found to be associated with increased number of sexual partners, recent sexual intercourse under the influence of alcohol, lower contraception use, inconsistent condom use, and greater occurrence of sexual intercourse (Sandfort, Orr, Hirsch, & Santelli, 2008; Miller, Clar, & Moore, 1997; Santelli, Lowry, Brener, & Robin, 2000). It has been suggested that females who became sexually active between the ages 10 and 14 years were four times as likely to have five or more sexual partners in the past year (Greenber, Magder, & Aral, 1992). Also, females who became sexually active at a younger age were three times as likely to have sex with intravenous drug-using, bisexual, or HIV-infected men, as well as being twice as likely to report a history of STIs within the last five years (Forhan
Self-Objectification and Sexual-Risk Taking

et al., 2009). It seems that behaviors that occur during the age of sexual initiation become later habits. Such as condom use at sexual initiation was found to be habit forming, regardless of gender or age (Shafii, Stovel, Davic, & Holmes, 2004). Adolescents who used condoms during sexual initiation have an increased likelihood of condom use during more recent sexual activity and was additionally associated with a decrease in the likelihood of testing positive for gonorrhea and chlamydia (Shafii, Stovel, Davic, & Holmes, 2004)

Although engaging in sexual behavior is part of the developmental process of maturation, adolescence and emerging adulthood is clearly a period associated with greater sexual risk taking and subsequently increased vulnerability to STIs. Understanding why sexual risk taking appears to be heightened during this developmental period is vital. Given that sexual initiation is first and that early sexual initiation is linked to subsequent engagement in high risk sexual behavior, it is extremely important to examine when trying to understand adolescent and emerging adult sexual risk.

Research has attempted to focus on determining factors associated with engaging in high risk sexual behavior during this developmental period. For example, college-aged females frequently engage in experimental activities that are predictive of sexual risk-taking such as alcohol and various other drugs (Turchik, Garske, Probst, & Irvin, 2010). Theoretical perspectives have examined biological, socio-cultural and behavioral factors in hopes of enhancing prevention-, education-, and treatment programs. As a result it has been proposed that certain cognitive traits play a significant role in the age of sexual initiation during adolescence and emerging adulthood, which render adolescents and emerging adults more susceptible to contracting and STI. The roles
of self-objectification and self-esteem in the manifestation and maintenance of sexual risk taking have emerged as potential mechanisms of discussion.

Objectification theory is a broad term encompassing: sexual objectification, interpersonal sexual objectification, and self-objectification. Objectification theory suggests that a person is viewed as an object for the benefit, usually sexual, of someone else (Fredrickson & Roberts, 1997). Sexual objectification can be furthered identified in two levels: interpersonal sexual objectification and self-objectification. Interpersonal sexual objectification explains the phenomenon of being aware that your body is an object for others to observe (Fredrickson & Roberts, 1997). It has been suggested that this awareness will lead directly to projecting these feelings inwards, a phenomenon also known as self-objectification (Kozee, 2007). Self-objectification tends to be more prevalent in younger ages and in females (Fredrickson & Roberts, 1997).

Objectification theory has been found to predict a pre-occupation with self-appearance which resulted in negative feelings about one’s body and resulted in a reduced focus on pleasure during sexual activity, thus contributing to sexual dysfunction (Fredrickson & Roberts, 1997). Further, a relationship between interpersonal sexual objectification and self-objectification has been observed, such that women who are already aware of the observance of their body (interpersonal sexual objectification) will likely result in self-objectification. (Lustig, 2013).

Self-objectification mediated interpersonal sexual objectification and engagement in high risk sexual behavior. This suggests that self-objectification account for, at least partially, the association between interpersonal sexual objectification and engagement in high risk sexual
Self-Objectification and Sexual-Risk Taking

behavior (Lustig, 2012). It is not necessarily the awareness of other’s observance of your body that results in risky sexual behavior, but the projection of those feelings inward that may also contribute to high risk sexual behavior. The small body of research has linked self-objectification with engagement of high risk sexual behavior, however this did not include an examination of sexual initiation.

When examining domain specificity of self-objectification, body shame was found to be associated with multiple sexual partners, inconsistent condom use, substance use before sexual behavior, and less self efficacy to engage in condom use (Littleton, et al., 2005; Schooler, et. al., 2005). In addition, individuals who are unsatisfied with their body’s appearance engage in fewer sexual experiences and avoid sexual behavior all together (Ackard, Kearney-Cooke, & Peterson, 2000; Faith, et. al., 1993; Trapnell, et. al., 1997). Broadly, negative body evaluations were found to interfere with sexual behavior and result in sexual avoidance, yet negative body evaluations were also associated with engagement in high risk sexual behavior (Woertman & van den Brink, 2012).

Self-esteem reflects a person’s overall emotional evaluation of his or her own worth (Reasoner, 2010). Sexual self-esteem describes a person’s feelings about their sense of self as a sexual being. Previous research suggests that adolescents and emerging adults who had lower self-esteem reported an earlier sexual initiation and having had high risk sexual partners (Ethier, et al., 2006). Further, positive sexual self-esteem, especially when expressing to their partner that they do not want to have sex, was suggested as the primary predictor of safer sexual behavior with a casual sex partner (Rosenthal, Moore, & Flynn, 1991). However, research has been
Self-Objectification and Sexual-Risk Taking

mixed. Research has also been demonstrated that high risk sexual behavior was predictive of greater female, self-esteem by increasing the female’s feelings of being desired (Fulton, 2012; Goodson, Buhi, & Dunsmore, 2006). While a systematic review of self-esteem and engagement in high risk sexual behavior found no association, and suggested that examining self-esteem with regard to engagement in high risk sexual behavior may be innocuous (Goodson, Buhi, & Dunsmore, 2006).

Further, few studies have examined both self-objectification and self-esteem. Results revealed that self-objectification may lead to lower self-esteem. It was hypothesized that lower sexual self-esteem may be the mechanism through which sexual self-objectification relays sexual risk involvement, although this mediation model was not examined (Calogero & Thompson, 2009). Moreover, the negative outcomes of self-objectification, such as engaging in high risk sexual behavior, were seen as preventable by self-esteem-enhancing strategies (Thogersen-Ntoumani et al, 2011). Broadly, low self-esteem has been associated with risk behaviors in females, but not males (Wild, Flisher, Bhana, & Lombard, 2004).

Previous research examining self-objectification and engagement in high risk sexual behavior remains under researched; with no study to date examining self-objectification and sexual initiation. To add, previous research examining self-esteem and engagement in high risk sexual behavior, including sexual initiation is mixed. Research on self-objectification in early sexual initiation is needed, and may benefit from also examining self-esteem. Greater self-objectification may relay poor self-esteem which may influence an adolescent’s or emerging adult’s engagement in high risk sexual behavior, such as early sexual initiation. Understanding if
Self-Objectification and Sexual-Risk Taking

self-esteem mediates the relationship between self-objectification and early sexual initiation can provide a better understanding of cognitive mechanisms through which these factors related to one another. The objective of the present study is two-fold: (1) to investigate the relationship between self-objectification and sexual initiation as well as self-esteem and sexual initiation and (2) to determine if self-esteem mediates the relationship between self-objectification and sexual initiation.
CHAPTER II
METHODS

Participants
Participants included adolescents and emerging adults between the ages of 18 and 24 (N = 45) recruited from the community and undergraduate psychology courses. More than half of the participants were female (n = 29; 64.4%) and the average age of all participants was 19.13 years (S.D. = 0.79). The vast majority of participants reported Euro-American ethnicity (n = 30; 66.7%), while other reported African American (n = 1; 2.2%) Asian (n = 1; 2.2%), Hispanic (n = 8; 20.0%), and Other (n = 4, 8.9%) ethnicity. Participant romantic status was almost evenly distributed among single-not wanting a relationship (n = 16; 35.6%), dating casually n = 16; 35.6%), and in a monogamous relationship (n = 13; 28.9%). All participants included in the present analyses received either (1) monetary compensation between $25-35, with specific amount earned dependent on task performance (n = 10) or (2) course credit for their participation (n = 35). Demographics information for these participants are listed in Table 1.

Exclusion Criteria
Participants were excluded if they were not between the ages of 15-24 or were taking medication for the treatment of Attention Deficit/Hyperactivity Disorder (ADHD). This age group is reflective of the population examined by the Center for Disease Control and the Adolescent and School Health Division. It encompasses two of the age cohorts identified as being at greatest risk for STI acquisition and transmission. An additional exclusion criterion is necessary because the medications used in the treatment of ADHD have been shown to reduce impulsive behavior as
Self-Objectification and Sexual-Risk Taking

measured by the behavioral assessments included in the study (Tannock, Schacher, Carr, & Chajczyk, 1989). Individuals with a diagnosis of ADHD who were not currently taking medication were allowed to participate. Additionally, individuals not identifying as heterosexual were removed from analysis, but were invited to complete the study, due to the scope of the present study focusing on heterosexual individuals only.

Procedure

All potential participants were invited to the research laboratory where a research assistant informed them of their rights. Participants who chose to take part in the study provided written consent which was previously approved by the Institutional Review Board. Adolescents completed a short demographic questionnaire specifically designed for this study as well as self-report measures of self-objectification (Body Consciousness Scale), Self-esteem (Rosenberg Self-esteem Scale), and sexual initiation (Sexual History Questionnaire; designed specifically for this study). Before completing each questionnaire, participants received standard instructions. Total time for completing the study was 90 minutes.

Measures

Demographics Questionnaire. A demographics questionnaire specifically designed for the present study queried age, gender, sexual orientation, current romantic status, and ethnicity. All participants identified as either male or female. Response choices for sexual orientation included heterosexual, homosexual, bi-sexual or other (queer, questioning, intersex, asexual, pansexual, etc.). Participants also identified their romantic status as single- not seeking a partner, dating casually, in a monogamous relationship, engaged, married, or divorced. Participants were asked
Self-Objectification and Sexual-Risk Taking

to self identify their ethnic origin. Ethnicity included the following categories: White, Black or African American, American Indian or Alaskan Native, Middle Eastern, Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other Asian, Native Hawaiian, Guamanian or Chamorro, Samoan, Other Pacific Islander, Mexican or Mexican American, Puerto Rican, Cuban, Other Spanish/Hispanic/Latino as listed in the 2000 U.S. Census. Other, Unknown, Refused, and “mixed race” answer choices were also provided. Ethnicity was then recoded into four broad groups: African American, Asian, Euro-American, Hispanic and Other for statistical analysis.

**Sexual History Questionnaire (SHQ).** The *Sexual History Questionnaire* (SHQ) was designed specifically for the present study. The measure is computer administered to enhance the privacy of participant responses during data collection and to prevent a bias towards a conservative response style. The SHQ queries sexual risk information including age of sexual initiation, number of lifetime partners, number of partners within the past three months, condom use frequency, ever having unprotected sexual contact, exchange of sex for monies, and beliefs regarding casual sex. Only questions assessing sexual initiation were utilized for the present study. Response choices for *age of sexual initiation* included “Not Applicable” and varying ages (i.e., 8 years old or younger, 12, 13… 24) and were queried with regard to kissing, French kissing, touch breasts, touch penis, touch vagina, oral sex, sexual intercourse and anal sex.

**Rosenberg Self Esteem Scale.** (Rosenberg, 1965), The Rosenberg Self-Esteem scale is a global self-esteem questionnaire, which consists of ten-items answered on a four-point scale (i.e. strongly agree, agree, disagree, or strongly disagree). The list of statements deals with the
Self-Objectification and Sexual-Risk Taking

participant’s general feelings about themselves (e.g., “On the whole I am satisfied with myself”). The scale measures both positive and negative feelings that an individual has with regard to themselves. Thus, five items have positively worded statements and five have negatively worded statements. The five negatively worded statements are reversed scores. Higher total scores reflect, greater self-esteem.

Objectified Body Consciousness Scale. (McKinley & Hyde, 1996), The self-objectification questionnaire consists of 24 items on a 7-point scale, ranging from strongly disagreeing to strongly agreeing. The questionnaire measures body surveillance (how much a person thinks of his or her body in terms of how it looks), body shame (whether a person believes he or she is a bad person when he or she does not achieve cultural body standards), and appearance control beliefs (whether a person believes he or she can control his or her appearance). The participant will rate how much they disagree or agree with the statement, or if it is NA. There is an option for NA (not applicable) if the statement does not apply to the participant. For example, if the statement says “When I am happy, I feel like singing” and the participant never felt happy, they would choose NA. Higher scores on each domain reflected greater objectification.

Statistical Analysis

Analyses were conducted in the statistical computer software system, SPSS to examine the relationship between self-objectification, self-esteem and sexual initiation. Specifically linear regressions were conducted to determine if self-objectification and self-esteem predicted sexual initiation. In addition, age, gender and ethnicity were included as covariates.
Self-Objectification and Sexual-Risk Taking

Mediation analyses was conducted according to the format as outlined in Hamilton, Ansell, Potenza, and Sinha (Hamilton, Ansell, Reynolds, Potenza, & Sinha, 2013). Regressions conducted within the mediation model included self-objectification, self-esteem and age of sexual initiation. To test the proposed mediation model (Figure 1), ordered regressions were used to test a, b, c and c’ pathways. The “a” pathway represented non-standardized beta values from the linear regressions of self-objectification on the proposed mediator or self-esteem (Hamilton et al., 2013). The “b” pathway represented the regression of the mediator, self-esteem, on the dependent variable, age of sexual initiation. The “c” pathway represents the linear regression of the self-objectification score on age of sexual initiation without impulsivity in the model. The “c’” pathway represents the linear regression of self-objectification on age of sexual initiation with the effects of self-esteem controlled. The “c’” pathway is also called the direct effect of self-objectification on age of sexual initiation as it represents the effects of self-objectification on age of sexual initiation independent of self-esteem. Models were run for self-objectification with self-esteem as the mediating variable, age of sexual initiation as the dependent variable, and romantic status as a covariate. This variable was chosen as a covariate because it was positively associated with age of sexual initiation. Mediation was determined to occur if the effect of the c pathway decreased in the c’ pathway (Hamilton et al., 2013). If the effect was reduced but still significant partial mediation was determined by conducting a Sobel's test of mediation to show if the reduction was statistically significant.
CHAPTER III

RESULTS

First, regression analyses were conducted to determine the association between each domain of self-objectification and age of sexual initiation, as well as the association between self-esteem and sexual initiation. Surveillance was not associated with age of sexual initiation for any behaviors. Increased Body Shame was significantly associated with delayed age of initiation for anal sex ($\beta = 0.421$, $p = 0.004$). Appearance control was significantly ($p < 0.05$) with age of initiation for French Kiss ($\beta = 0.416$), touch penis ($\beta = 0.309$), vaginal sex ($\beta = 0.332$), and sexting ($\beta = 0.332$), as well as approaching significance with regard to touch breasts ($\beta = 0.051$, $p = 0.051$) and touch vagina ($\beta = 0.281$, $p = 0.065$; table 2); greater control over one’s appearance was associated with a delayed sexual onset.

Self-esteem was significantly associated with vaginal sex ($\beta = 0.312$, $p = 0.039$), anal sex ($\beta = 0.342$, $p = 0.023$), and sexting ($\beta = 0.333$, $p = 0.027$; table 3). Self-objectification -- body surveillance ($\beta = 0.138$, $p = 0.365$), body shame ($\beta = -0.014$, $p = 0.927$), appearance control ($\beta = 0.016$, $p = 0.916$) was not significantly predictive of self-esteem, therefore further mediation analyses were not conducted.
CHAPTER IV

DISCUSSION

The project sought to investigate the role of self-objectification and self-esteem in predicting age of sexual initiation. Research examining self-objectification and age of sexual initiation is limited. And research is mixed in its understanding of self-esteem and age of sexual initiation. No study to date has examined self-esteem as a mediator between self-objectification and age of sexual initiation. Findings revealed that self-objectification was related to age of sexual initiation but these associations varied by domain. Self-esteem was also associated to age of sexual initiation, but was limited in the number of associations when compared to self-objectification. Finally, self-esteem was not found to mediate the relationship between self-objectification and age of sexual initiation.

The three constructs of self-objectification examined in this study include body surveillance, body shame, and appearance control. Previous research indicated that body surveillance, or how much a person thinks about how their body looks, was directly related to sexual risk behaviors in undergraduate women (Watson, et. al., 2013). Contradictory to past findings, results in the present study showed that body surveillance was not correlated with age of sexual initiation. It may be that an adolescent or emerging adult who is preoccupied with thoughts about how s/he’s body looks, may be more apt to viewing the body as an object; especially a sexual object that should look attractive to others. And that this may contribute to engagement in high risk sexual behavior, including sexual initiation. However it could be that for some adolescents or emerging adults a preoccupation with thoughts of how their body causes increased self-consciousness
Self-Objectification and Sexual-Risk Taking

because the body is being viewed and therefore, engagement in sexual behavior is less likely, especially behavior in which a naked body would be looked at. As a result, since it could influence behaviors towards and away from risk behavior, overall findings are not significant. This is consistent with beta values for body surveillance that are both positive and negative.

Previously body shame has previously been positively related to sex with multiple partners, inconsistent condom use, substance use before sexual behavior, and less self-efficacy to engage in condom use (Littleton, et. al., 2005; Schooler, et. al., 2005). Results showed that greater body shame was significantly associated with a later initiation age of anal sex. Suggesting that people who believe they are a bad person when they do not achieve cultural body standards engage in anal sex later in life. Due to anal sex being a very intimate sexual behavior with sexual connotations of dominance, as well as being an untraditional sexual act, individuals with higher body shame might wait until they are older to engage in that behavior, because they are less comfortable with their body. Similar to body surveillance, body shame may not have been significantly related to other more traditional sexual behavior (e.g., kissing or vaginal sex) because it can be a contributor to earlier or late sexual initiation. Meaning that engaging in sexual behavior and at earlier ages may be a way to receive interpersonal validation of body attractiveness; and this validation may serve to contradict and help cope with negative self-beliefs about not meeting body standards. On the other hand, feelings of not meeting cultural standards may decrease sexual self-confidence and deter a person from engaging in sexual behavior, where a lack of meeting cultural standard would be evident. This again was consistent with having both negative and positive overall beta values.
Self-Objectification and Sexual-Risk Taking

Appearance control was significantly and positively correlated with a broad range of sexual behavior, such as French kissing, touching penises, vaginal sex, and sexting. The association with touch breasts and touch vagina was approaching significance. These results suggest that adolescents and emerging adults who have desire to maintain control over their appearance are likely to have a delayed sexual initiation for the aforementioned behaviors. These results are consistent with what would be expected. Adolescents and emerging adults who have a desire to control how they appear can also be conceptualized as those that are greatly concerned with their appearance, which may not just be limited to physical appearance but their personal reputation. Although society has shifter over the past few decades to that of more sexual permissive ideals, it is still assumed that adolescents and emerging adults who engage in sexual behavior very early are “slutty” or sexually promiscuous -- beliefs that would not promote an individual’s reputation. Thus, adolescents and emerging adults who are concerned with control their appearance would have a decreased desire to engage in early sexual initiation and instead have a preference for delayed sexual initiation, which was observed. It is believe that appearance and not body surveillance or body shame was most closely associated with age of sexual initiation, because adolescents are more sensitive to and responsive to peer approval and rejection, than they are able to process intra-personal cognitive thoughts and struggles (i.e., body surveillance and body shame). The results that appearance control was not significantly associated with or approaching significance with all sexual behavior is believed to be related to a small sample size with limited power. Interestingly, previous research examining appearance control and engagement in sexual risk behavior was not found.
High self-esteem was positively and significantly correlated with a delayed sexual initiation for intimate sexual behaviors including vaginal sex, anal sex, and sexting. This is consistent with previous research that related low self-esteem with engaging in sexual behavior with risk partners and initiating sex earlier (Ethier, et al., 2006). Also, positive sexual self-esteem has been related in previous research to safer sexual behavior with a casual sex partner and was considered a protective factor. These results could be interpreted a number of ways. First, the significant association with some behaviors and not all could be an artifact of limited power. Second it could be reflective of the findings of the systematic review (Goodson, Buhi, & Dunsmore, 2006) that suggested that the relationship between self-esteem was innocuous due to both significant and non-significant association between self-esteem and engagement in high risk sexual behavior. It could be that this relationship is ill-defined because, like demonstrated for sexual initiation, it depends on the specific behavior. And third, it could be that global self-esteem may not be as domain specific as sexual self-esteem in understanding engagement in sexual risk behavior, including early initiation of sexual behavior.

Mediation analyses were not conducted because self-objectification was not predictive of self-esteem. Thus self-esteem did not mediate or explain the relationship between self-objectification and self-esteem. It may be that self-objectification and self-esteem are independent cognitive processes that influences engagement in high risk sexual behavior. However, an additional explanation is that self-objectification is strongly linked sexual internalization of self, specifically sexual self-esteem and not global self-esteem, which may be too broad in the areas assessed. Consequently it is believed that sexual self-esteem may mediate the relationship between self-objectification and sexual initiation, and engagement in high risk sexual behaviors.
Limitations

The present study had several limitations. First data collection was restricted to self-report data. As a result, respondents may under-report behaviors that are viewed as undesirable to society, especially engagement in high risk sexual behavior or early sexual initiation. However, the researchers did attempt to minimize a bias to a more conservative response style by converting questionnaires to electronic formats that are submitted electronically versus being returned to a researcher. Further, although a complex model of factors is involved in adolescents and emerging adult STI vulnerability the present study focused on examining a part of that model by concentrating only on the cognitive processes of self-objectification and self-esteem with regard to only early sexual initiation. The study was also cross-sectional and therefore cannot prove causality. Also due to a small sample size, there was not enough power to conduct separate analyses by gender. However, it is believed that there are gender differences, since engagement in sexual risk behavior has different social implications for males and females. Participants in the present study were not representative of all adolescents and emerging adults. The sample was limited in ethnic diversity, younger adolescent ages (13-16 years), and included adolescents and emerging adults that were in school. Minorities are engage in sexual behavior at earlier ages (CDC, 2012). Minorities are also disproportionately affected with African Americans and Latinos accounting for 84% of all new HIV infections among 13-19 year-olds and 76% of 20-24 year-olds (CDC, 2010). African American females make up only 16% of the population aged 13-24; however they account for 64% of the HIV infection. In addition ethnic groups may vary is their cultural standards of body image, which may influence how self-objectification and self-esteem may influence their sexual initiation. Further since school is believe to be a protective factor from poor health outcomes, these findings are believed to be an underestimate of the
Self-Objectification and Sexual-Risk Taking

health-risk consequences (Bernard & Marshall, 1997; Rutman, Park, Castor, Tauali, & Forquera, 2006).

Future studies examining a more complex model of risk factors, expanding its scope to other high risk sexual behavior (e.g., condom use) and inclusion of sexual self-esteem is needed. In addition, studies examining how self-objectification and self-esteem change over time due to the cognitive development that occurs during adolescents and emerging adulthood, especially during puberty and how this may affect the influence of these two variables on the engagement in high risk sexual behavior, including early sexual initiation is needed. This may also help clarify assumptions of causality. These studies should focus on obtaining a larger sample size encompassing a diverse population of gender, various ethnic groups and ages, and continue to minimize participant discomfort by ensuring confidentiality and privacy of responses.

Conclusion

The aim of the present study was to better understand the relationship between self-objectification, self-esteem and age of sexual initiation -- extremely under researched topics, in hopes of advancing information that may inform education-, prevention-, and treatment programs. Self-esteem and self-objectification appear to be independent risk factors for sexual initiation and are associated with the initiation of different sexual behaviors across the timetables. However, self-esteem was found to be limited in the number of associations, and is associated to more intimate sexual behaviors (vaginal sex, anal sex, and sexting). It is believed that future research may benefit more from observing sexual self-esteem and no global self-esteem. Self-objectification appears to be domain specific, with appearance control most strongly
Self-Objectification and Sexual-Risk Taking

associated with sexual initiation across a spectrum of behavior. Self-esteem was found not to mediate the relationship between self-objectification and age of sexual initiation. The present study supported and clarified previous research but also highlighted that self-objectification is a critical but previously understudied variable for understanding sexual risk behavior in adolescence and emerging adults. Results indicate that self-objectification may play an important role in the manifestation of sexual risk behavior in adolescence and emerging adulthood. Our understanding of mechanisms that underlie sexual risk taking during this developmental period would benefit greatly from increased research on the role of cognitive processes. This research should be used to guide future research that will enhance education-, prevention-, and intervention programs for adolescents and emerging adults.
REFERENCES


Self-Objectification and Sexual-Risk Taking


Self-Objectification and Sexual-Risk Taking


Self-Objectification and Sexual-Risk Taking


Self-Objectification and Sexual-Risk Taking

Figure 1: Mediation Model
Table 1:

**Demographics of participants**

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Female</td>
</tr>
<tr>
<td>Sample size (n)</td>
<td>45</td>
<td>29</td>
</tr>
<tr>
<td>Age (years)</td>
<td>19.13 (0.79)</td>
<td></td>
</tr>
<tr>
<td>Ethnicity (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Euro-American</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>aK-BIT 2</td>
<td>102.44 (12.09)</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* a $M = 100$, S.D. = 15
**Table 2:**

*Regression analysis involving the association between Self-Objectification and Sexual Initiation*

<table>
<thead>
<tr>
<th></th>
<th>Body Surveillance</th>
<th>Body Shame</th>
<th>Appearance Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>p</td>
<td>β</td>
</tr>
<tr>
<td>Kiss</td>
<td>-0.161</td>
<td>0.295</td>
<td>0.035</td>
</tr>
<tr>
<td>French Kiss</td>
<td>-0.179</td>
<td>0.246</td>
<td>0.006</td>
</tr>
<tr>
<td>Touch Breast</td>
<td>-0.119</td>
<td>0.442</td>
<td>-0.035</td>
</tr>
<tr>
<td>Touch Penis</td>
<td>-0.132</td>
<td>0.393</td>
<td>-0.006</td>
</tr>
<tr>
<td>Touch Vagina</td>
<td>-0.126</td>
<td>0.414</td>
<td>-0.049</td>
</tr>
<tr>
<td>Oral Sex</td>
<td>0.037</td>
<td>0.810</td>
<td>0.027</td>
</tr>
<tr>
<td>Vaginal Sex</td>
<td>-0.025</td>
<td>0.872</td>
<td>0.128</td>
</tr>
<tr>
<td>Anal Sex</td>
<td>0.181</td>
<td>0.240</td>
<td>0.421</td>
</tr>
<tr>
<td>Sexting</td>
<td>-0.154</td>
<td>0.317</td>
<td>-0.030</td>
</tr>
</tbody>
</table>

* denotes significance level of p < 0.05 or **p < 0.01
Table 3:

*Regression analysis involving the association between Self-Esteem and Sexual Initiation*

<table>
<thead>
<tr>
<th>Action</th>
<th>Self-Esteem</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiss</td>
<td>0.146</td>
<td>0.344</td>
</tr>
<tr>
<td>French Kiss</td>
<td>0.107</td>
<td>0.488</td>
</tr>
<tr>
<td>Touch Breast</td>
<td>0.158</td>
<td>0.307</td>
</tr>
<tr>
<td>Touch Penis</td>
<td>0.135</td>
<td>0.381</td>
</tr>
<tr>
<td>Touch Vagina</td>
<td>0.137</td>
<td>0.375</td>
</tr>
<tr>
<td>Oral Sex</td>
<td>0.206</td>
<td>0.180</td>
</tr>
<tr>
<td>Vaginal Sex</td>
<td>0.312</td>
<td>0.039*</td>
</tr>
<tr>
<td>Anal Sex</td>
<td>0.342</td>
<td>0.023*</td>
</tr>
<tr>
<td>Sexting</td>
<td>0.333</td>
<td>0.027*</td>
</tr>
</tbody>
</table>

* denotes significance level of $p < 0.05$ or **$p < 0.01$