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EXPLORING THE RELATIONSHIP BETWEEN SILENCING THE SELF AND RISKY
SEXUAL BEHAVIOR IN BLACK WOMEN

by

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Abstract

Black women are disproportionately affected by HIV. Understanding how sociocultural factors and beliefs contribute to Black women's risky sexual behavior is critical in understanding this health disparity. This study investigated the mediating influence of silencing the self (i.e., putting the needs and wants of a romantic partner before one's own needs) on the relationship between risky sexual behaviors and self-esteem, gender role beliefs, and gender ratio imbalance beliefs and behaviors (GRIBBs) in Black female college students. Participants included 99 female undergraduate students enrolled at a regional Mid-South University. Results demonstrated that risky sexual behavior was not significantly associated with the hypothesized variables. Higher scores on silencing the self was significantly associated with lower self-esteem ($b = -1.42, p < .001$) and higher GRIBBS ($b = .82, p > .001$). The results suggest that silencing the self can still adversely impact Black women, despite its non-significant relationship with risky sex.

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Exploring the Relationship between Silencing the Self and Risky Sexual Behavior in Black Women

Risky sexual behavior has detrimental consequences including: unintended pregnancies, sexually transmitted infections (STIs), and human immunodeficiency virus (HIV). HIV prevention is particularly important because more than 1.2 million individuals in the United States are living with HIV, with 1 in 8 being unaware of their positive status (CDC, 2015a). Black women are disproportionately impacted by HIV/AIDS. In 2011, among women diagnosed with HIV/AIDS, 64% were Black, despite representing only 13% of the female population in the United States (CDC, 2015a). Black women have an HIV prevalence 20 times the rate of White women and 5 times that of Latina women (CDC, 2015b). Illness related to HIV is the leading cause of death among Black women ages 25-34 (CDC, 2015a). Heterosexual sex is still the most common mode of transmission, especially for young Black women living in the South (McNair & Prather, 2004). Specifically, surveillance data has shown that 89% of Black women are infected with HIV via heterosexual transmission (CDC, 2015a). This alarming statistic makes heterosexual relationships among Black women an important area for exploration.

Memphis, Tennessee has alarming rates of HIV that disproportionately affect the Black community. In 2014, Black individuals comprised 82% of new HIV cases in Memphis, TN (Tennessee Department of Health, HIV/STD Program, 2014). Furthermore, Black females comprised 80% of new HIV cases among females. Memphis is ranked seventh for HIV incidence and first for AIDS incidence in the U.S. (CDC, 2013). In 2014, Shelby County ranked first among all counties in Tennessee for new HIV and AIDS cases and ranked first for the number of individuals living with HIV (Tennessee Department of Health, HIV/STD Program, 2014).

Although unplanned pregnancies, STIs, and HIV can be severely mitigated by engaging in safer-sex practices such as using condoms, research has shown that many Black women are not engaging in these preventative behaviors even when in high-risk situations (Bowleg, Lucas, & Tschann, 2004). Woods (1999) found that while Black women reported concern about being infected with HIV because they had multiple sexual partners or were afraid that their partner was being unfaithful, they still did not engage in protective sexual behaviors. Bowleg, Lucas, and Tschann (2004) reported that the majority of women in their sample who described themselves as being in tumultuous and unhealthy relationships endorsed a condom never being used in the previous six months.

Researchers have found several sociocultural factors that influence Black women's risky sexual behavior and increase their HIV risk (Jacobs & Thomlison, 2009; Lambert, 2013; Raiford, Seth, & DiClemente, 2013). These factors can be conceptualized via a race and gender intersectionality framework (Amaro & Raj, 2000; Bowleg, Lucas, & Tschann, 2004; McNair & Prather, 2004) to illustrate their unique impact on Black women. Silencing the self (i.e., when a woman puts the needs and wants of her romantic partner before her own) is one of these factors that was found to impact risky sexual behavior among Black women (Ortiz-Torres, Williams, & Ehrhardt, 2003; Wingood & DiClemente, 1998).

Towards the end of the 20th century, attention was drawn to the lack of theoretical models which take into account the broader contextual factors of a person's life, driving the field of HIV prevention. The existing models took more of an individualistic approach by assuming that the individual has complete control over his/her behavior. Wingood and DiClemente extended the *Theory of Gender and Power* to examine and identify exposures, risk factors, and biological factors that have a negative effect on the health of women, specifically women's vulnerability to

HIV (Wingood & DiClemente, 2000) (see Figure 1). In the context of risky sexual behaviors and HIV, exposures are factors associated with an increased HIV risk, such as attitudes and beliefs. Biological risk factors are related to genetics and the anatomy of a woman, which makes her more likely to contract HIV (i.e., HIV is transmitted easier from men to women than from women to men because women are the receptive partners during sexual intercourse). Guided by this adapted theoretical framework, this study aims to investigate factors associated with risky sexual behaviors among Black women including: silencing the self, self-esteem, gender role beliefs, and gender ratio imbalance beliefs.

Silencing the Self

Silencing the self is a construct that emerged from a longitudinal study on what led to depression in women in heterosexual relationships (Jack, 1991). Silencing the self was described as a coping mechanism in which women inhibit self-expression and limit their own needs in order to avoid conflict, create/sustain relationships, and/or avoid criticism (Jack & Dill, 1992). Silencing the self has been hypothesized to stem from the core belief that the needs of others are more important than one's own (Jack, 1991).

Silencing the self can increase the likelihood of engaging in risky sexual behavior and acquiring HIV, such as giving in to a partner who does not want to use condoms or is unfaithful. A study that explored the relationship between sexual communication and contraceptive use in 73 sexually active couples, ages 14-21, found that females who silenced themselves reported less open communication about sex, leading to lower contraceptive use (Widman, Welsh, McNutty, & Little, 2006). Similarly, Jacobs & Thomlison (2009) also found, among 572 ethnically diverse women between the ages of 50 and 93, that women who engaged in self-silencing were less likely to engage in safer sex practices.

Consistent with the Theory of Gender and Power, Wingood & DiClemente (2000) identified poor assertive communication skills as a behavioral risk factor under the structure of the Division of Power. Silencing the self can be viewed as poor assertive communication skills, specifically in romantic relationships. Women who self-silence are not willing and/or not able to be assertive about their own wants and needs to their partners. Silencing the self has not yet been examined as a potential mediating variable of more established factors known to be associated with risky sexual behaviors.

Self-Esteem

Self-esteem is considered respecting, valuing, and accepting the self, and thus it can be hypothesized that women with high self-esteem value themselves too much to engage in risky sexual behavior (Lambert, 2013). However, research has produced ambivalent findings. Several studies have demonstrated either a positive relationship or no relationship between self-esteem and risky sexual behavior (Long, 2009; Long-Middleton, 2001). Lambert (2013) found that Black adolescent females, ages 14-20, with high levels of self-esteem communicated more with their partners in regards to safer sex practices. However, no significant relationship was found between self-esteem and condom use (Lambert, 2013). Despite mixed results, most studies have generally revealed that lower self-esteem is associated with greater engagement in risky sexual behaviors (Somlai et al., 2000). Ferguson, Quinn, Eng, & Sandelowski (2006) found that in their sample of Black college students, low self-esteem and a willingness to comply with a man's desire not to use condoms were associated with their desire to have a male partner at any cost.

While self-esteem was not originally identified as an exposure or risk factor for HIV in the Theory of Gender and Power, research has demonstrated that power imbalance is associated with low self-esteem (Salmivalli, Kaukiainen, Kaistaniemi, & Lagerspetz, 1999). Because of the

association between self-esteem and power imbalances and the ambivalent findings on the relationship between self-esteem and risky sexual behavior, self-esteem was selected for further exploration in this study.

Gender Ratio Imbalance Beliefs and Behaviors

There is a shortage of Black men in the Black community, which leaves Black women at a disadvantage romantically since Black women are more likely to date and marry within their race (Davis & Noll, 2010). In the United States, excluding those who are incarcerated, there are 83 Black men for every 100 Black women (Wolfers, Leonhardt, & Quealy, 2015). This gender shortage is seen on college campuses, with Black college graduates being more than twice as likely to be female than male each year (Banks, 2012). Because there is a shortage of Black men, Black women may feel that they have less power in their relationships because men have more dating options and they have fewer options due to actual and perceived gender ratio imbalance (McNair & Prather, 2004). This loss of power sentiment can cause Black women to not initiate conversations regarding safe-sex practices out of fear that it will threaten their relationship (McNair & Prather, 2004). In one qualitative study, Black students at a historically Black college stated that the gender ratio imbalance on campus led to many of the male students having multiple female sexual partners, which leaves females having to decide if they want to tolerate this (Ferguson et al., 2006).

The gender ratio imbalance aligns with the Theory of Gender and Power because it is related to the structure of division of power. It can be hypothesized that the gender ratio imbalance is a social mechanism in which power imbalances are carried out in heterosexual relationships. Research has demonstrated that the shortage of Black men is associated with Black women feeling powerless in relationships (Ferguson et al., 2006). Given this association and

limited research on how this variable may contribute to elevated risk among Black women, it will be examined in the current study.

Gender Role Beliefs

Gender role beliefs are beliefs that one has in relation to certain tasks, behaviors, and personalities that men and women should embrace (Littlefield, 2004). Research has demonstrated that gender role beliefs are influential in the sexual decision making of Black women (Corneille, Zyzniewski, & Belgrave, 2008). Women in today's society are socialized to see themselves relative to others and to place the needs of others before their own (Adler, 2001). Traditional gender role beliefs that encourage women to prioritize the needs of others, take on a more passive role in relationships, and let the man lead in relationships may result in women engaging in risky sexual behavior such as not using condoms or turning a blind eye to infidelity from their partner in order to sustain that relationship (Corneille et al., 2008).

Women who hold more traditional gender role beliefs may be more likely to engage in risky sexual behavior. In a sample of 520 sexually active 18-19-year-old women, Researchers found that in a sample of 325 Black women, more traditional gender role beliefs were linked to fears of potentially losing the relationship, which decreased condom use (Corneille et al., 2008).

Wingood and DiClemente (2000) identified gender role beliefs as a social exposure to HIV in their Theory of Gender and Power. Research has demonstrated a positive association between more traditional gender role beliefs and risky sexual behaviors (Bowleg, Belgrave, & Reisen, 2000; Corneille et al., 2008). To allow for the examination of the intersection of race and gender on risky sexual behavior in Black women, this variable was chosen to be included in the current study.

Silencing the Self and the Three Independent Variables

While the research is limited, there is a likely link between silencing the self and the three independent variables in this proposed current study. Witte and Sherman (2002) found that college women who hold more traditional gender role beliefs are more likely to silence themselves. Research has also demonstrated that women who have low self-esteem are more likely to silence themselves (Woods, 1991). Additionally, the perceived and actual shortage of Black men in a community can lead to some Black women tolerating certain risky sexual behavior such as infidelity from their partner and thereby silence their own wants and needs (e.g., wanting to be in a monogamous relationship; Ferguson et al., 2006). Furthermore, previous work has demonstrated that silencing the self is associated with being less likely to engage in safe sex practices (Jacobs & Thomlison, 2009; Neely-Smith & Patsdaughter, 2004). While research has demonstrated how each one of these variables is associated with one another separately, no previous study has explored how these relationships interact with each other and are maintained due to self-silencing.

Current Study

The current study aimed to investigate how factors associated with the intersection of race and gender influence risky sexual behaviors of Black women. Although self-esteem, gender role beliefs, gender ratio imbalance beliefs, and silencing the self have all been shown to be independently associated with risky sexual behaviors, researchers have not yet explored how silencing the self may explain the relationship among these variables. Specifically, this study investigated the potential mediational role of silencing the self in explaining the relationship between risky sexual behavior and self-esteem, gender role beliefs, and gender ratio imbalance beliefs among Black women.

The specific aims and hypotheses of this study were as follows:

1.) **To investigate the relationship between self-esteem and risky sexual behavior in Black women.** Based on previous research (Mill, 1997; Neely-Smith & Patsdaughter, 2004; Somlai et al., 2000), it was hypothesized that lower self-esteem would be significantly associated with more risky sexual behavior.

2.) **To investigate the potential mediating role of silencing the self on the relationship between self-esteem and risky sexual behavior.** Based on previous research (Woods, 1991), it was hypothesized that silencing the self would partially mediate the relationship between self-esteem and risky sexual behavior.

3.) **To investigate the relationship between gender role beliefs and risky sexual behavior in Black women.** Based on previous research (Bowleg, Belgrave, & Reisen, 2000; Corneille, Zyzniewski, & Belgrave, 2008; Leech, 2010), it was hypothesized that more traditional gender role beliefs would be significantly associated with greater risky sexual behavior.

4.) **To investigate the potential mediating role of silencing the self on the relationship between gender role beliefs and risky sexual behavior.** Based on previous research (Sherman, 2002), it was hypothesized that silencing the self would partially mediate the relationship between gender role beliefs and risky sexual behavior.

5.) **To investigate the relationship between gender ratio imbalance beliefs and risky sexual behavior in Black women.** Based on previous research (Ferguson et al., 2006; McNair & Prather, 2004), it was hypothesized that higher scores on gender ratio imbalance beliefs scale would be significantly associated with greater risky sexual behavior.

6.) **To investigate the potential mediating role of silencing the self on the relationship between gender ratio imbalance beliefs and risky sexual behavior.** Based on previous

research (Ferguson et al., 2006), it was hypothesized that silencing the self would partially mediate the relationship between gender ratio imbalance beliefs and risky sexual behavior.

Methods

Participants

The current sample was extracted from a larger sample of 248 female undergraduate students enrolled at a regional Mid-South University who were 18 years of age or older. Due to the current study's research objectives of focusing on Black, heterosexual women, participants who self-identified with any other racial/ethnic group (besides Black) ($n = 133$) and who self-identified as being homosexual ($n = 7$) or bisexual ($n = 8$) were not included in the final sample. There was one participant who endorsed not being sure of her sexual orientation and was therefore excluded from analyses. Thus, the final sample included 99 females who self-identified as Black and heterosexual, were over age 18 years, and English-speaking. Among participants who self-identified as Black, when asked how they identified in terms of race/ethnicity, 92 (92.9%) endorsed African-American or Black, 5 (5.1%) endorsed Biracial or Multiracial, 1 (1%) endorsed American, and 1 (1%) endorsed Brown. Participants ranged in age from 18 to 49 with a mean age of 22.93 ($SD = 6.21$). A total of 27 (27.3%) were in their first year of college, 25 (25.3%) in their second year, 15 (15.2%) in their third year, 15 (15.2%) in their fourth year, and 17 (17.2%) in their fifth year or beyond. Majority of participants endorsed being completely heterosexual ($n = 79$, 79.8%), and 20 (20, 2.0%) endorsed being mostly heterosexual. Regarding current sexual status, 48 (48.5%) were in an exclusive/monogomous sexual relationship, 21 (21.2%) indicated they were not currently sexually active, 14 (14.1%) were sexually active with only one person but not in a defined, committed relationship, 11 (11.1%) endorsed never having had sex, and 5 (5.1%) were sexually active but not with one specific person. A total of 66

(67.3%) endorsed having older romantic partners, 28 (28.3%) endorsed being the same age as their romantic partners, 4 (4.0%) endorsed having younger partners, and 1 (1%) did not respond. See Table 1 for further characterization of participants.

Procedures

After receiving IRB approval, students from the University of Memphis were recruited to complete the study via the Department of Psychology's subject pool system. The psychology subject pool consists of undergraduate psychology students who are invited to participate in research as part of their academic experience. Participants were recruited via flyers (Appendix A) placed around the psychology department inviting them to take part in this study. The flyers described an opportunity for female students to complete a 1-hour self-administered, online questionnaire concerning their sexual behaviors, for one course credit as compensation for their time and effort. Women who decided to take part in the study signed up via the University of Memphis research participation system (SONA). After reviewing and acknowledging the informed consent (Appendix B) electronically, participants were directed to complete a socio-demographic questionnaire. This was followed by questionnaires (Appendix C) regarding silencing the self, sexual behavior, condom use, gender beliefs, self-esteem, and gender relationship imbalance. After the participants completed the questionnaires, they were directed to a debriefing page, which described the purpose of the study and listed the investigator's contact information to address any questions that may arise after study participation. A list of local resources for mental health services and STI/HIV testing was also provided. Given the online nature of this study, participants did not meet with study staff members in person. We chose this method to help maximize anonymity and privacy as well as encourage honest and open responses.

Measures

Demographics questionnaire. This questionnaire included questions about participants' age, ethnicity, race, sexual orientation, yearly income, family income, perceived SES, and highest level of education completed by participants and their parents.

Sexual Risk Survey (SRS). On the Sexual Risk Survey (Turchik & Garske, 1997), participants were asked about the frequency of sexual risk behaviors in the past six months. The SRS was specifically designed to provide a broad and psychometrically sound measure of sexual risk in college students. The SRS is a 23-item self-report measure that asked participants to report the number of times they have engaged in risky sexual behaviors (e.g., sex with someone they just met, sex with someone who is also engaging in sex with others during the same time period, and vaginal sex without a condom) and the number of sexual partners they have had in the past six months. The SRS was specifically chosen because it assesses multiple forms of risky sexual behavior such as lack of condom use, having multiple partners, and having a partner who is not monogamous. Additionally, it was designed to be used with college samples. The SRS is composed of five subscales: sexual risk taking with uncommitted partners, risky sex acts, impulsive sexual behaviors, intent to engage in risky sexual behaviors, and risky anal sex acts. While each item has the potential to have different reported frequency values, each question is recoded into five ordinal categories (0–4). Since data acquired using this measure are frequently negatively skewed, the following guideline has been developed by the researchers to classify and recode the frequencies of responses that are greater than zero. The SRS items are recoded into five ordinal categories where 0 = 0, 1 = 40% of responses, 2 = 30% of responses, 3 = 20% of responses, and 4 = 10% of responses. The total recoded sum score for this measure ranged from 0 to 63 ($M=19.83$, $SD = 15.18$). Higher scores on the SRS indicated greater sexual risk taking.

The SRS total scale has proven to have good internal consistency ($\alpha = .88$) and test-retest reliability ($r = .93$; Turchik & Garske, 2009). The Cronbach's alpha coefficient for the current study was .89, indicating good internal consistency.

Silencing the Self Scale (STSS). On the silencing the self scale (Jack & Dill, 1992), participants were asked to answer a questionnaire designed to measure the feelings, thoughts, and actions women use to preserve relationships. The STSS is a 31-item self-report measure and includes statements that reflect how a woman should act to foster and sustain romantic relationships (e.g., I don't speak my feelings in an intimate relationship when I know they will cause disagreement; When my partner's needs and feelings conflict with my own, I always state mine clearly). Responses were given in a likert-type format, ranging from 0-5 with 0 being strongly disagree and 5 being strongly agree. Scores ranged from 34 to 115 ($M = 72.71$, $SD = 17.00$) in the current sample. This measure is comprised of four subscales. The first subscale, externalized self-perception, taps into negative self-judgment. The second subscale, care as self-sacrifice, taps into the securement of attachments by putting the needs of others before the self. The third subscale, silencing the self, taps into the inhibitions of one's self-expression and action to avoid conflict and possible loss of relationship. The fourth subscale, the divided self, taps into the experience of presenting an outer compliant self to live up to feminine role imperatives while the inner self grows angry and hostile. In terms of construct validity, Jack and Dill (1992) found that STSS was significantly positively correlated with depression scores. The STSS total scale has good internal consistency with alpha coefficients for the subscales ranging from .86 to .94 along with good test-retest reliability ranging from .88 to .94 (Jack & Dill, 1992). The Cronbach's α coefficient for the current study was .87, indicating good internal consistency.

Self-Esteem. On the Self-Esteem Scale (Rosenberg, 1965), participants were asked to answer a 10-item questionnaire about both positive and negative feelings about the self. Responses were given in a likert-type format, ranging from 1-4 with 1 being strongly agree and 4 being strongly disagree. Higher scores indicated higher self-esteem. Scores ranged from 16 to 40 ($M=32.79$, $SD = 5.65$) in the current sample. This scale had good internal consistency with alpha coefficients ranging from .77 to .88 along with good test-retest reliability ranging from .82 to .88 (Rosenberg, 1986; Blascovich & Tomaka, 1993). The Cronbach's α coefficient for the current study was .90, indicating excellent internal consistency.

Gender Role Beliefs Scale (GRBS). On the gender role beliefs scale (Kerr & Holden, 1996), participants were asked to complete a questionnaire designed to measure gender role attitudes, gender role ideology, and feminism. The items were used to examine beliefs regarding appropriate behavior for men and women. The GRBS is a 20-item self-report measure with statements about appropriate gender roles (e.g., women should have as much sexual freedom as men; a woman should be as free to propose marriage as a man). Responses were given in a likert-type format. Scores ranged from 1-7 with 1 being strongly agree and 7 being strongly disagree with lower scores indicating more traditional gender role beliefs. Scores ranged from 42 to 132 ($M=83.32$, $SD = 16.02$) in the current sample. The GRBS had an alpha coefficient of .83 through initial testing and .86 through retesting (Kerr & Holden, 1996). The Cronbach's α coefficient for the current study was .79, indicating acceptable internal consistency.

Gender Ratio Imbalance Beliefs Scale (GRIBBS). On gender ratio imbalance beliefs scale (Lanier, 2013), participants were responded to a questionnaire assessing gender ratio imbalance beliefs and how these beliefs influence the sexual behaviors of women. The GRIBBS is a 20-item self-report measure with statements regarding the gender ratio imbalance (e.g., there

are fewer men in my community; I allow my male partners to have sex with other female partners to maintain our relationship). Responses were given in a likert-type format, ranging from 1-5 with 1 being strongly disagree and 5 being strongly agree. Higher scores indicated having more gender ratio imbalance beliefs. Scores ranged from 24 to 64 ($M=40.45$, $SD = 10.47$) in the current sample. The GRIBBS has two subscales: the Gender Ratio Imbalance Beliefs Subscale, which assesses beliefs women have about the gender ratio imbalance and the Gender Ratio Imbalance Behaviors Subscale, which evaluates how these beliefs influence sexual behaviors in women. The GRIBBS had an alpha coefficient of .71 during initial testing (Lanier, 2013). The Cronbach's α coefficient for the current study was .82, indicating good internal consistency.

Data Analytical Plan

Means, correlations, and standard deviations were computed for all variables in IBM's Statistical Package for the Social Sciences (SPSS) 22.0. Pearson correlations were first used to determine the associations among all the variables in the model. Tests of assumptions for linear regressions were conducted and examined including: linearity of relationships, outliers, normality of residuals, homoscedasticity, and multi-collinearity (Hinkle, Wiersma, & Jurs, 2003).

Hypothesis 1 was tested with a linear regression with self-esteem as the independent variable and risky sexual behavior as the dependent variable. Hypothesis 2 was tested by running a mediation analysis using the SPSS PROCESS macro to examine the direct and indirect effects of silencing the self on the relationship between self-esteem and risky sexual behavior.

Hypothesis 3 was tested with a linear regression with gender role beliefs as the independent variable and risky sexual behavior as the dependent variable. Hypothesis 4 was tested by running

a mediation analysis using the SPSS PROCESS macro to explore the direct and indirect effects of silencing the self on the relationship between gender role beliefs and risky sexual behavior. Hypothesis 5 was tested with a linear regression with gender ratio imbalance beliefs as the independent variable and risky sexual behavior as the dependent variable. Hypothesis 6 was tested by running a mediation analysis using the SPSS PROCESS macro to examine the direct and indirect effects of silencing the self on the relationship between gender ratio imbalance beliefs and risky sexual behavior.

Results

Assumptions

The relationship between risky sexual behavior and each of the three independent variables of self-esteem, gender role beliefs, and gender ratio imbalance beliefs appeared to be linear based on examination of simple scatter plots. There was no evidence of curvilinear relationships. None of the variables had outliers, based on examination of boxplot and studentized residual distributions. The residuals for all three relationships appeared to be normally distributed, as there was no clear evidence of skew. There was also no evidence of heteroscedasticity. Further, multi-collinearity did not appear to be a problem as assessed by Tolerance and VIF values.

Covariates

The following demographic variables were associated with risky sexual behavior, and therefore, will serve as covariates in all analyses: current sexual relationship status, $F(1,97) = 16.31, p < .001, Adj. R^2 = .14$, sexual orientation, $F(1,97) = 8.61, p = .004, Adj. R^2 = .07$, and partner age, $F(1,96) = 5.84, p = .018, Adj. R^2 = .05$.

Self-Esteem and Risky Sex

To test hypothesis 1, a simple linear regression was conducted to examine associations between risky sexual behavior and self-esteem, controlling for current sexual relationship status, sexual orientation, and partner age. The overall model was statistically significant, $F(4,93) = 8.99, p > .001$. However, self-esteem was not statistically related to risky sexual behavior ($\beta = -.08, p = .360$).

Regression analysis was used to investigate hypothesis 2, whether silencing the self mediated the relationship between self-esteem and risky sexual behavior. Results indicated that self-esteem was a significant predictor of silencing the self ($b = -1.42, p < .001$). However, self-esteem did not predict risky sexual behavior ($b = -.23, p = .360$). Silencing the self also did not predict risky sexual behavior ($b = -.01, p = .948$). See Figure 1. Bootstrapped confidence intervals revealed that the indirect effect was not significant ($b = .01, 95\% \text{ CI} = -.27, .32$) and the direct effect was not significant ($b = .40, 95\% \text{ CI} = -.80, .32$). The ratio of the indirect to total effect was $-.04$, indicating that the indirect effect of self esteem on risky sexual behavior was $.04$ times less than that of the total effect of silencing the self on that relationship. Thus, the association between self-esteem and risky sexual behavior is not significant, and silencing the self is not a significant mediator of the relationship.

Gender Role Beliefs and Risky Sex

To test hypothesis 3, a simple linear regression was conducted to examine associations between risky sexual behavior and gender role beliefs, controlling for current sexual relationship status, sexual orientation, and partner age. Analyses revealed that the overall model was statistically significant, $F(4,93) = 9.06, p > .001$. However, gender role beliefs were not statistically related to risky sexual behavior ($\beta = -.10, p = .311$).

Regression analysis was used to investigate hypothesis 4, whether silencing the self mediated the relationship between gender role beliefs and risky sexual behavior. Results indicated that gender role beliefs were not a significant predictor of silencing the self ($b = -.16, p = .172$). Furthermore, gender role beliefs did not predict risky sexual behavior ($b = -.09, p = .334$). Silencing the self did not predict risky sexual behavior ($b = .02, p = .828$). See Figure 2. Bootstrapped confidence intervals revealed that the indirect effect was not significant ($b = -.01, 95\% \text{ CI} = -.05, .02$) and the direct effect was not significant ($b = -.09, 95\% \text{ CI} = -.28, .09$). Thus, the association between gender role beliefs and risky sexual behavior was not significant, and silencing the self is not a significant mediator of the relationship.

Gender Ratio Imbalance Beliefs and Behaviors (GRIBBs) and Risky Sex

To test hypothesis 5, a simple linear regression was conducted to examine associations between risky sexual behavior and GRIBBs, controlling for current sexual relationship status, sexual orientation, and partner age. Analyses revealed that the overall model was statistically significant, $F(4,93) = 9.65, p > .001$. However, GRIBBs was not statistically related to risky sexual behavior ($\beta = .15, p = .099$).

Regression analysis was used to investigate hypothesis 6, whether silencing the self mediated the relationship between GRIBBs and risky sexual behavior. Results indicated that GRIBBs was a significant predictor of silencing the self ($b = .82, p < .001$). However, GRIBBs did not predict risky sexual behavior ($b = .26, p = .088$). Further, silencing the self did not predict risky sexual behavior ($b = -.06, p = .558$). See Figure 3. Bootstrapped confidence intervals revealed that the indirect effect was not significant ($b = -.05, 95\% \text{ CI} = -.21, .11$) and the direct effect was not significant ($b = .26, 95\% \text{ CI} = -.04, .55$). The ratio of the indirect to total effect was $-.18$, indicating that the indirect effect of gender ratio imbalance beliefs on risky sexual

behavior was .18 times less than that of the total effect of silencing the self on that relationship. Thus, the association between GRIBBs and risky sexual behavior was not significant, and silencing the self is not a significant mediator of the relationship.

Post Hoc Analyses

Given that the scales measuring risky sexual behavior, silencing the self, and GRIBBs had subscales, analyses were conducted to explore the relationship among the subscales of the risky sexual behavior scale and silencing the self and GRIBBs subscales. Post hoc analyses were conducted using simple linear regressions, controlling for covariates of current sexual relationship status, sexual orientation, and partner age. Of all variables examined, three relationships were significant. Specifically, analyses revealed that the association between the *uncommitted partners subscale* of the risky sexual behavior scale and the *beliefs subscale* of the GRIBBs, was statistically significant, $F(4,93) = 10.13, p > .001$. Further, the association between the *uncommitted partners subscale* and the overall GRIBBs scale was statistically significant, $F(4,93) = 8.94, p > .001$. Additionally, analyses revealed that the association between the *intent to engage in risky sexual behavior subscale* of the risky sexual behavior scale and the *behaviors subscale* of the GRIBBs, controlling for sexual orientation, was statistically significant, $F(2,96) = 7.07, p = .001$.

Discussion

This study aimed to investigate how factors associated with the intersection of race and gender influence risky sexual behaviors among Black women. Specifically, this study investigated the potential mediational role of silencing the self in explaining the relationships between risky sexual behavior and the following variables: self-esteem, gender role beliefs, and gender ratio imbalance beliefs. We expected that lower self-esteem would be associated with

greater risky sexual behavior. However, self-esteem did not predict risky sexual behavior in the current study. Similar results have been found in other studies. In a systematic review exploring the impact of self-esteem on sexual behavior, Goodson and colleagues (2006) found that 60% of empirical studies found no significant relationship between self-esteem and adolescents' sexual behaviors, attitudes, and intentions. Similarly, Lambert (2013) found no significant relationship between self-esteem and consistent condom use among a sample of Black adolescent females aged 14 to 20. While these findings might suggest that for Black women, self-esteem may not play a critical role in their engagement in risky sexual behaviors, other research has shown a positive association (Danielson et al., 2014). Specifically, in a sample of approximately 700 Black female adolescents presenting to sexual health clinics, Danielson and colleagues (2014) found that those classified in the "higher risk group" in terms of sexual behaviors had significantly lower self-esteem scores than those in the "lower risk group." Thus, our study finding may be related to our college student sample. College is seen as a time for sexual exploration (Claxton & van Dulmen, 2013), so self-esteem may not be as strongly linked to risky sexual behaviors since college may seem like a normal time period to engage in risky sexual behaviors (Garcia, Reiber, Massey, & Merriwether, 2012). Further research comparing the relationship between self-esteem and risky sex among college and non-college attending individuals is needed to better clarify these results.

Our study findings also indicated that gender role beliefs did not predict risky sexual behavior. This is contrary to our hypothesis and the vast majority of research findings illustrating a positive relationship between gender role beliefs and risky sexual behavior (Leech, 2010). Yet, there is some evidence to suggest that there is no significant relationship between gender role beliefs and risky sexual behavior (Hall & Pichon, 2014). Specifically, in a sample of 275

heterosexual Black adult women, Hall and Pichon (2014) found that neither possessing a masculine or feminine gender role was associated with any of their five sexual behavior variables, which were: ever feeling obligated to have sex with their partner, ever having more than one sexual partner in a 30-day period, ever having sex with a partner she thought was having sex with somebody else, ever having a one night stand, and ever having a sexually transmitted infections (STI).

There has been research to suggest that the traditional genders roles have begun to shift to align with more modern gender roles, with younger individuals being less likely to endorse traditional gender role beliefs (Sweeting, Bhaskar, Benzeval, Popham, & Hunt, 2014). Thus, our study finding may be related to the sample consisting of college students with the majority of them being in their early 20's ($M = 22.93$, $SD = 6.21$). The scale used to measure gender role beliefs in the current study may not have adequately captured the more modern gender role beliefs of this sample, especially since the scale was developed approximately 20 years ago (Kerr & Holden, 1996). Further research comparing the relationship between gender role beliefs and risky sex among college students utilizing a scale designed to measure gender role beliefs that reflect the current time period is needed to better clarify these results. Furthermore, gender role beliefs were not a significant predictor of silencing the self. This finding contradicts the current trend in the literature that suggests a positive relationship between more traditional gender role beliefs and silencing the self (Brody et al., 2014; Lanier, 2013). The present findings suggest that gender role beliefs do not play a role in risky sexual behavior for Black, female college students.

Similarly, gender ratio imbalance beliefs and risky sexual behavior were not significantly associated in the current study. This finding also contradicts the majority of research findings showing a positive relationship between more traditional gender role beliefs and risky sexual

behavior (Brody et al., 2014; Lanier, 2013). However, a recent study of Black women aged 18 to 61 found that those with greater gender ratio imbalance beliefs were not more likely to report a history of a STI, where STI history was a proxy for risky sexual behavior (Oser et al., 2016). In our study, post hoc analyses revealed an association between having more uncommitted partners and greater gender ratio imbalance beliefs. This is consistent with previous research conducted with over 60 Black college students, where a shortage of Black men on campus increased the “bargaining position” of Black men and fostered a casual sex environment such that students were endorsing a higher number of uncommitted partners (Hall, Lee, & Witherspoon, 2014). Furthermore, an association between intentions to engage in risky sexual behaviors and actually engaging in risky sexual behavior was positive. This finding is in line with previous studies showing an association between intentions and risky sex behaviors (Shahazi et al., 2013). These posthoc findings suggest that while gender ratio imbalance beliefs and behaviors were not associated with overall risky sex behaviors, specific aspects of these two variables were, thus making it important to examine what aspects of risky sex are impacted by gender ratio imbalance beliefs and behaviors in order to intervene appropriately.

Contrary to the hypothesis that silencing the self would mediate the relationships among risky sexual behavior and self-esteem, gender role beliefs, and gender ratio imbalance beliefs and behaviors, silencing the self was not a significant mediator of any of these relationships. While silencing the self did not mediate the relationships between any of the predictor variables and risky sexual behavior in the current study, self-esteem was associated with silencing the self and gender ratio imbalance beliefs. This is consistent with research by Neely-Smith and colleagues (2003), which found that two subscales of the silencing the self scale – external self-perception and divided self, were independent predictors of self-esteem. The current findings suggest that

for Black, female college students, self-esteem is a contributing factor to self-silencing in relationships and putting their partners' needs and wants before their own. It may be that women with low self-esteem feel unworthy to assert their own needs and wants in a relationship. They may also believe in doing whatever it takes to keep their romantic partner because they believe they are not capable or worthy of attracting another partner. However, future research would need to explore these hypothesized explanations. The relationship between silencing the self and gender ratio imbalance beliefs has also been shown in previous studies of Black women (Ferguson, Quinn, Eng, & Sandelowski, 2006; Newsome & Airhihenbuwa, 2013). These results, which indicate that Black women who are aware of the shortage of Black men are more likely to silence themselves in relationships, need to be further understood. For example, targeted interventions for women with these beliefs could be developed such that the interventions are gender and culturally relative aimed at fostering and promoting greater assertiveness in romantic relationships. DiClemente and Wingood (1995) developed and tested a social skills intervention for young Black women aged 18 to 29 that emphasized gender and ethnic pride, HIV risk-reduction information, sexual self-control, proper condom use skills, sexual assertiveness and communication skills, and developing partner norms supportive of consistent condom use.

A major strength of this study was the focus on Black women, which allowed examination of the role race and gender plays in sexual beliefs, attitudes, and decisions. While the term "silencing the self" emerged over 20 years ago (Davis, 1971), it has only recently been examined in Black women. Further, the use of online self-administered questionnaires may have promoted honest responses.

Limitations

However, despite these strengths, there were several limitations. This was a cross-sectional study of female college students with a relatively small sample size. Because the population of interest is Black women, a sample of solely college students limits the generalizability of the results. The use of college students may have limited the range of risky sex experiences. For example, 10% of the sample endorsed never having had sex before. Additionally, this study employed self-report measures to gather information from participants only; while this made data collection convenient, there was no way to validate participant responses. Furthermore, the exact circumstances of survey completion are unknown since participants had the freedom to complete the study anywhere. The retrospective design of some of the measures introduces the possibility of bias and inaccurate reports of sexual behavior. For example, participants were asked to report their engagement in past sexual experiences over the last 6 months. This strategy requires participants to attempt to recall previous sexual acts, which may be impacted by forgetting as well as recall bias.

Future Directions

Future studies should continue exploring how silencing the self impacts Black women. Furthermore, a more diverse sample of Black women may yield more fruitful results. Because this research aims to address issues unique to Black women, using measures developed and validated for Black women might be warranted. Given the paucity of such measures, a qualitative study that explores black women's experiences with self-silencing may be an important next step. Because silencing the self was associated with self-esteem and gender ratio imbalance beliefs, future research should examine the effects of interventions aimed at reducing silencing behaviors.

Clinical Implications

Developing strategies to reduce self-silencing in Black female college students may be a prime target for intervention given that those who self-silenced endorsed lower self-esteem and greater gender ratio imbalance beliefs. In previous research with college students, low self-esteem and gender ratio imbalance beliefs have been associated with negative consequences, including alcohol use, unstable mood, and risky sexual behavior (Gullette & Lyons, 2006; Pritchard & Wilson, 2007; Warner et al., 2011). Clinicians working with Black female college students should explore the construct of silencing the self in therapy to assess whether the client is engaging in silencing behaviors and the potential consequences in the client's life.

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Table 1

Demographic distribution for sample

Demographic Characteristic	Total Sample (n = 99)
Age	<i>M</i> = 22.93 (<i>SD</i> = 6.21)
Year in College	
1 st Year	27 (27.3%)
2 nd Year	25 (25.3%)
3 rd Year	15 (15.2%)
4 th Year	15 (15.2%)
5 th Year and Beyond	17 (17.2%)
Personal Annual Income	
Unemployed or Disabled	23 (21.7%)
<\$10,000	51 (48.1%)
\$10,000-20,000	23 (21.7%)
\$21,000-\$30,000	3 (2.8%)
\$31,000-\$40,000	2 (1.9%)
\$76,000-\$100,000	1 (.9%)
\$100,000-\$200,000	2(1.9%)
Family Annual Income	
Unemployed or Disabled	12 (12.1%)
<\$10,000	10 (10.1%)
\$10,000-20,000	11 (11.1%)
\$21,000-\$30,000	15 (15.2%)
\$31,000-\$40,000	15 (15.2%)
\$41,000-\$50,000	14 (14.1%)
\$51,000-\$75,000	8 (8.1%)
\$76,000-\$100,000	9 (9.1%)
\$100,000-\$200,000	4 (4.0%)
Father's Highest Education Level	
Elementary School	3 (3.0%)
Partial Junior High School	3 (3.0%)
Partial High School	8 (8.1%)
High School Graduate	41 (41.4%)
Partial College	23 (23.2%)
College Graduate	11 (11.1%)
Graduate or Professional Degree	2 (2.0%)
Don't Know	7 (7.1%)
Mother's Highest Education Level	
Partial Junior High School	1 (1.0%)
Partial High School	9 (9.1%)
High School Graduate	27 (27.3%)
Partial College	34 (34.3%)
College Graduate	19 (19.2%)
Graduate or Professional Degree	9 (9.1%)

Table 1 (Continued)

Demographic distribution for total sample

Demographic Characteristic	Total Sample (n = 99)	(n = 99)
Relationship Status		
Married	10 (10.1%)	
Separated (not divorced)	1 (1.0%)	
Never Married (single and dating; less than 6 months)	11 (11.1%)	
Never Married (in a relationship more than 6 months)	33 (33.3%)	
Never Married (Single but living with a partner)	3 (3.0%)	
Never Married (single and dating more than one person)	5 (4.7%)	
Never Married (single and not dating)	36 (36.4%)	
Sexual Orientation		
Completely Heterosexual	79 (79.8%)	
Mostly Heterosexual	20 (20.2%)	
Partner's Age		
A lot older than participant (5 years or more)	6 (6.1%)	
Slightly older than participant (1-4 years older)	60 (60.6%)	
The same age as participant	28 (28.3%)	
Slightly younger than participant (1-4 years younger)	3 (3.0%)	
A lot younger than participant (5 years or more)	1 (1.0%)	
Ever Used a Female Condom		
Yes	6 (6.1%)	
No	81 (81.8%)	
Never had Sex	12 (12.1%)	

Table 2

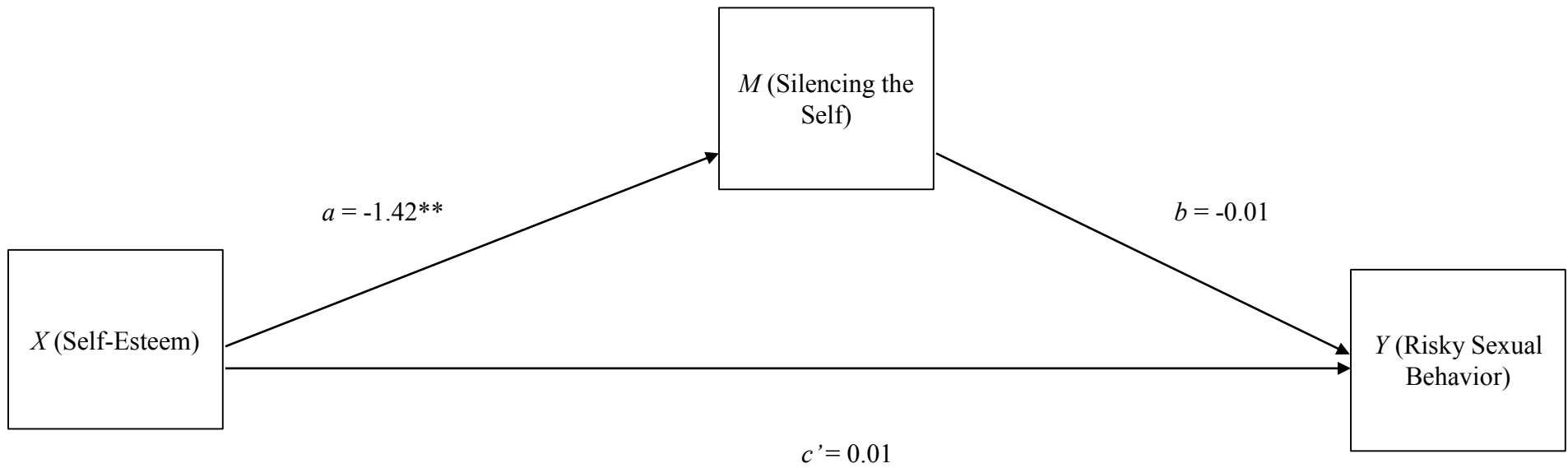
Means, Standards Deviations, and Correlations of Variables

	SRS	SS	GRIBBS	GRBS	STS
SRS	19.83 (15.18)	-.09	.18	-.10	.09
SS		32.79 (5.65)	-.44**	-.15	-.49**
GRIBBS			40.45 (10.47)	-.25*	.52**
GRBS				83.32 (16.02)	-.11
STS					72.71 (17.00)

Note. Diagonal of table provides means (and standard deviations) for continuous variables. SRS = Sexual Risk Scale; SS = Rosenberg Self-Esteem Scale; GRIBBS = Gender Ratio Imbalance Beliefs Scale; GRBS = Gender Role Beliefs Scale; STS = Silencing the Self.

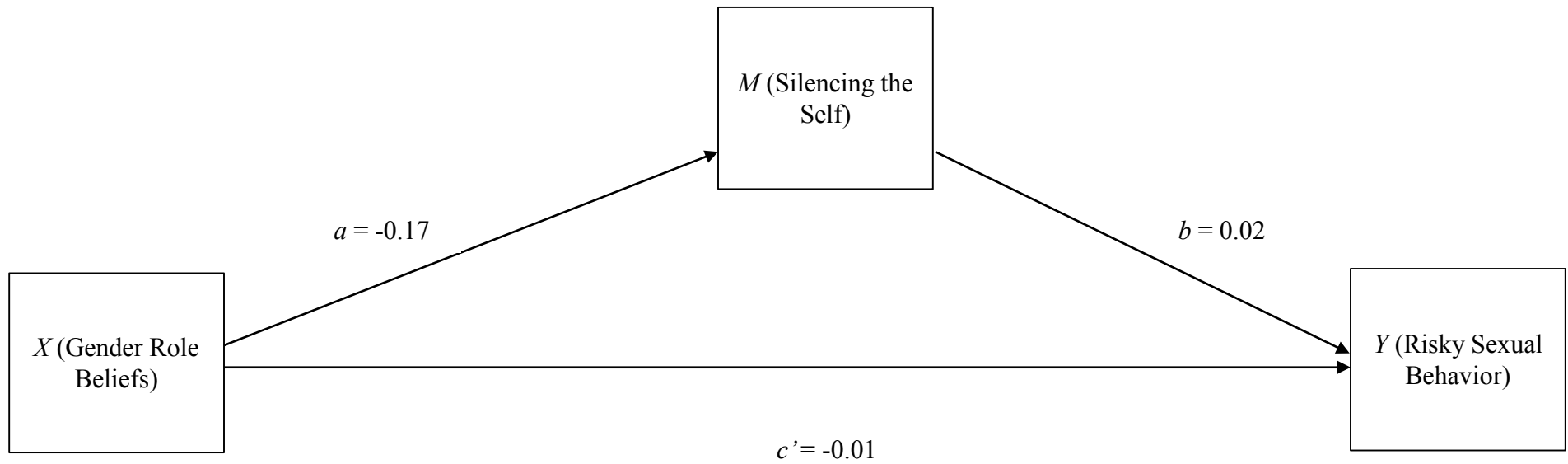
* $p < .05$

** $p < .01$



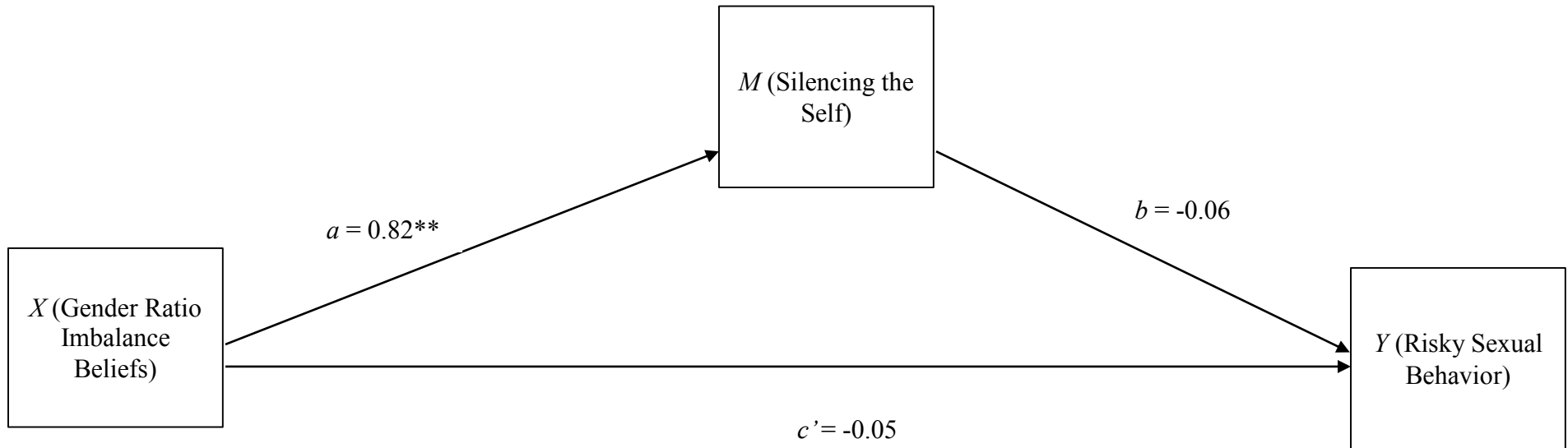
Note: * $p < .05$, ** $p < .01$

Figure 1. Standardized regression coefficients for the relationship between self-esteem and risky sexual behavior as mediated by silencing the self



Note: * $p < .05$, ** $p < .01$

Figure 2. Standardized regression coefficients for the relationship between gender role beliefs and risky sexual behavior as mediated by silencing the self



Note: * $p < .05$, ** $p < .01$

Figure 3. Standardized regression coefficients for the relationship between gender ratio imbalance beliefs and risky sexual behavior as mediated by silencing the self

Appendix A



UNIVERSITY OF MEMPHIS RESEARCH VOLUNTEERS NEEDED

We are looking for University of Memphis female college students who are 18 years of age or older to volunteer in a research study, entitled **Sex, Relationships, and Power Study**. This study is designed to examine sexual behaviors and attitudes of female college students and will involve completing confidential questionnaires.

Students will login to SONA to complete this survey, which will take approximately one hour to complete.

Students who complete this study will receive 1 SONA credit for 1 hour participation.
(IRB number: #3967)

Robin Hardin, at 901.678.2908 rnhardin@memphis.edu To sign up, go to http://memphis.sona-systems.com/	Robin Hardin, at 901.678.2908 rnhardin@memphis.edu To sign up, go to http://memphis.sona-systems.com/	Robin Hardin, at 901.678.2908 rnhardin@memphis.edu To sign up, go to http://memphis.sona-systems.com/	Robin Hardin, at 901.678.2908 rnhardin@memphis.edu To sign up, go to http://memphis.sona-systems.com/	Robin Hardin, at 901.678.2908 rnhardin@memphis.edu To sign up, go to http://memphis.sona-systems.com/	Robin Hardin, at 901.678.2908 rnhardin@memphis.edu To sign up, go to http://memphis.sona-systems.com/	Robin Hardin, at 901.678.2908 rnhardin@memphis.edu To sign up, go to http://memphis.sona-systems.com/	Robin Hardin, at 901.678.2908 rnhardin@memphis.edu To sign up, go to http://memphis.sona-systems.com/
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Appendix B



Institutional Review Board

315 Administration Bldg.
Memphis, TN 38152-3370
Office: 901.678.2705
Fax: 901.678.2199

Consent to Participate in a Research Study Sex, Relationships, and Power Study

WHY ARE YOU BEING INVITED TO TAKE PART IN THIS RESEARCH?

You are being invited to participate in a research study to help us learn about the social and cultural factors that influence sexual behaviors among female college students. College students engage in sexual behaviors that may leave them at risk for negative consequences, such as unplanned pregnancy and/or sexually transmitted infections (STIs), including HIV. You are being invited to participate because you are 18 years of age or older, female, and are a current student at The University of Memphis. If you volunteer to take part in this study, you will be one of about 250 people to do so.

WHO IS DOING THE STUDY?

The people in charge of this study are Robin Hardin (*Lead Investigator*), graduate student at The University of Memphis, Department of Psychology. She is being guided in this research by Dr. Idia Thurston (*Mentor*) of The University of Memphis, Department of Psychology.

WHAT IS THE PURPOSE OF THIS STUDY?

We aim to explore underlying factors that may be impacting risky sexual behavior in female college students. Some sexual behaviors leave college students vulnerable to unplanned pregnancy and/or STIs, including HIV. The information gained from this study will help us better understand sexual behaviors of female college students and factors that are influencing it.

ARE THERE REASONS WHY YOU SHOULD NOT TAKE PART IN THIS STUDY?

You should not take part if you are NOT 18 years of age or older, female, and if you are NOT a registered student at The University of Memphis.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?

The study will take place online through SONA, and it will take one hour to complete.

WHAT WILL YOU BE ASKED TO DO?

You will be asked to complete questionnaires with a number of questions regarding your sexual behaviors, self-esteem, substance use, gender role beliefs, and gender ratio imbalance beliefs.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?

To the best of our knowledge, participation in this study would cause no more than minimal risk and discomfort. Some participants may experience embarrassment, distress, or upsetting emotions when answering questions based on their experiences with the potentially sensitive topic of sexual behaviors and relationships as well as substance use. An additional potential risk could be the negative consequences of having sensitive information you shared in this study revealed. However, steps have been taken to protect your privacy and confidentiality by not linking your responses to your name. If you become upset or concerned by the questions or wish to get more information about any of these topics, please contact one of the resources on the list provided below or contact the lead investigator, Robin Hardin at 901.678.2908.

You also have the choice to end the study at any time or skip questions that make you feel uncomfortable. In general, researchers have taken steps to minimize the risks of this study but there may be unknown risks. Please note that The University of Memphis does not have any funds budgeted for compensation for injury, damages, or other expenses.

WILL YOU BENEFIT FROM TAKING PART IN THIS STUDY?

You will receive one SONA credit per hour for completing this study. This is a total of one possible SONA credit. While there is no direct benefit to you, your willingness to take part in this study may, in the future, increase researchers' understanding of this topic.

DO YOU HAVE TO TAKE PART IN THE STUDY?

If you decide to take part in this study, it should be because you really want to volunteer. You will not lose any benefits or rights that you would normally have at The University of Memphis if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering. As a student, if you decide not to take part in this study, your choice will not have any effect on your academic status or grade in class.

IF YOU DON'T WANT TO TAKE PART IN THE STUDY, ARE THERE OTHER CHOICES?

You are not required to take part in this study. If you choose not to be in the study, there are no other choices except not to participate.

WHAT WILL IT COST YOU TO PARTICIPATE?

There are no financial costs associated with taking part in this study. It will require about 1 hour of your time.

WILL YOU RECEIVE ANY REWARDS FOR TAKING PART IN THIS STUDY?

You will receive one SONA credit hour for participating in this study. You are allowed to discontinue the study at any time without losing any credit for the activity that you started.

WHO WILL SEE THE INFORMATION THAT YOU GIVE?

We will make every effort to keep private all information that identifies you to the extent allowed by law. By law, there are a few limits to confidentiality. These limits were developed in part to ensure the safety of research participants. The researchers are required by law to take some action if there is suspicion that you may harm yourself or somebody else or if there is suspicion that a child may be in danger. Also, we may be required to show information which identifies you to people who need to be sure we have done the research correctly; these would be people from such organizations as the University of Memphis.

All information gathered in this study will be confidential. Your responses from Qualtrics will be saved in a password-protected online database that only study staff can access. When we share findings from this study in presentations or publications, information from all participants will be combined so you will never be personally identified.

CAN YOUR TAKING PART IN THE STUDY END EARLY?

If you participate in this study, you can choose to end at any time. If you no longer want to be a part of this study, you can stop at any time. You will not be treated differently by study staff if you decide to stop taking part in the study at any time.

ARE YOU PARTICIPATING OR CAN YOU PARTICIPATE IN ANOTHER RESEARCH STUDY AT THE SAME TIME AS PARTICIPATING IN THIS ONE?

You may take part in this study if you are currently involved in another research study.

WHAT IF NEW INFORMATION IS LEARNED DURING THE STUDY THAT MIGHT AFFECT YOUR DECISION TO PARTICIPATE?

Any new information that might change your willingness to stay in this study will be provided to you immediately. You may need to complete a new informed consent form if the information is provided after you have joined the study.

WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS, CONCERNS, OR COMPLAINTS?

Before you decide to take part in this study, please ask us any questions. If you have questions, suggestions, concerns, or complaints about the study after you participate, you can contact the study investigators, Robin Hardin at 901.678.2908 or Dr. Idia Thurston at 901.678.4690. If you have questions about your rights as a study participant, contact the Institutional Review Board

for the Protection of Human Subjects via email at irb@memphis.edu or by phone at 901-678-2705. If you would like additional resources or should you wish to be connected with local and affordable service providers, please note the list provided below.

INFORMATION ABOUT LOCAL RESOURCES FOR MENTAL HEALTH AND STI/HIV

MEMPHIS MENTAL HEALTH RESOURCES:

- *U of M Psychological Services Center*, Psychology Building, Room 126: (901) 678-2147; <http://www.memphis.edu/psychology/psc/index.php>
- *U of M Counseling Center*, Wilder Tower, Room 214: (901) 678-2068; <http://www.memphis.edu/counseling/>
- *U of M Student Health Services*, 200 Hudson Health Center: (901) 678-2287; <http://www.memphis.edu/health/>
- *Memphis Crisis Center*: (901) 274-7477; <http://memphiscrisiscenter.org/>

MEMPHIS HIV/STI RESOURCES:

- *Packer STD/HIV Clinic*: (901) 222-9385; <http://www.shelbycountyttn.gov/index.aspx?NID=850>
- *Planned Parenthood Greater Memphis Region*: (901) 725-1717; <http://www.plannedparenthood.org/planned-parenthood-memphis-tennessee>
- *Friends for Life Corporation*: (901) 272-0855; <http://www.friendsforlifecorp.org/>
- *Connect to Protect*: (901) 595-5989; <http://connect2protect.org/coalitions/memphis/>
- *Hope House*: (901) 272-2702, ext. 206; <http://www.hopehousememphis.org>
- *CHOICES: Memphis Center for Reproductive Health*: (901) 274-3550; <http://memphischoices.org/medical-services/hiv-aids-services>
- *Memphis Gay and Lesbian Community Center*: (901) 278-6422; <http://mglcc.org/>
- *Le Bonheur Children's Medical Center - Community HIV Network*: (901) 287-4764; <http://www.lebonheur.org/kids-health-wellness/le-bonheur-in-the-community/community-hiv-network/>

You can contact the study's lead investigator, Robin Hardin at 901.678.2908, or her mentor, Dr. Idia Thurston at 901.678.4690, with any questions you have now or at a later date. Should you wish to receive a summary of study findings at the end of this study, you may do so by contacting us.

By checking the box below, you are confirming that you are at least 18 years old and are agreeing to be in this study. You should print a copy of this consent form for your records and a copy will also be kept with the study records.

- I have read, understood and printed the above consent form and desire of my own free will to participate in this study.*

**Appendix C
Demographics Questionnaire**

1. What is your age in years?

_____ YEARS

2. What is your date of birth?

_____ Month _____ Day _____ Year

3. What is your gender?

- a. Male
- b. Female
- c. Transgender (MTF)
- d. Transgender (FTM)
- e. Transgender Other Specify Below _____

4. Please indicate your ethnicity below:

___ Hispanic or Latino
___ Not Hispanic or Latino

5. What is your race/ethnic heritage? (Please select all that apply.)

- a. American Indian or Alaska Native
- b. African-American or Black
- c. Asian
- d. Native Hawaiian or Other Pacific Islander
- e. White or European American
- f. Biracial or Multiracial: _____
- g. Some Other Race, please specify: _____

*****IF B IS SELECTED, THEN ANSWER ITEM #6: HOW DO YOU SPECIFICALLY IDENTIFY?*****

6. How do you specifically identify?

- a. African
- b. African-American or Black
- c. Caribbean
- d. Other, please specify: _____

7. Approximately what is your parents' yearly income?

- | | |
|---------------------------|----------------------|
| a. Unemployed or disabled | f. \$41,000-50,000 |
| b. Under \$10,000 | g. \$51, 000-75,000 |
| c. \$10,000-20,000 | h. \$76,000-100,000 |
| d. \$21,000-30,000 | i. \$100,000-200,000 |
| e. \$31,000-40,000 | j. over \$200,000 |

8. Are you receiving any financial assistance from your parents (i.e., live at home, tuition, spending money, etc)?

_____Yes _____No

9. Approximately what is your yearly income?

- | | |
|---------------------------|----------------------|
| a. Unemployed or disabled | f. \$41,000-50,000 |
| b. Under \$10,000 | g. \$51, 000-75,000 |
| c. \$10,000-20,000 | h. \$76,000-100,000 |
| d. \$21,000-30,000 | i. \$100,000-200,000 |
| e. \$31,000-40,000 | j. over \$200,000 |

10. Which of these phrases best describes your socioeconomic status?

- a. I live very well.
- b. I live comfortably.
- c. I live from paycheck to paycheck.
- d. I don't have a steady income.
- e. I have no current income.

11. Your father's education is:

- | | |
|--|--|
| a. Elementary school (6th grade or lower) | b. Partial junior high school (7th or 9 th grade) |
| c. Partial high school (10th-12 th grade) | d. High school graduate (technical or training school) |
| e. Partial college training | f. College graduate |
| g. Partial graduate training | h. Graduate of professional degree |
| | i. Don't know |

12. Your mother's education is:

- | | |
|--|--|
| a. Elementary school (6th grade or lower) | b. Partial junior high school (7th or 9 th grade) |
| c. Partial high school (10th-12 th grade) | d. High school graduate (technical or training school) |
| e. Partial college training | f. College graduate |
| g. Partial graduate training | h. Graduate of professional degree |
| | i. Don't know |

13. What year are you in college?

- a. 1st year
- b. 2nd year
- c. 3rd year
- d. 4th year
- e. 5th year and beyond

14. What is your religion?

- a. None
- b. Anglican
- c. Baptist
- d. Catholic
- e. Methodist (including African Methodist Episcopal [AME]/Presbyterian)
- f. Muslim
- g. Nondenominational
- h. Pentecostal
- i. 7th Day Adventist
- j. COGIC
- k. Other: _____

15. What is your current relationship status? (Choose one.)

- a. Never married. Single and not dating.
- b. Never married. Single and dating a few different people.
- c. Never married. Single and dating/hanging out with one person (less than 6 months).
- d. Never married. Single and involved in a long-term monogamous relationship (more than 6 months).
- e. Never married. Single but living with partner.
- f. Engaged
- g. Married
- h. Separated, not divorced
- i. Divorced
- j. Widowed
- k. Other, please specify: _____

16. What is your current sexual relationship?

- a. having sexual relationships with several people
- b. sexually active, but not in a sexual relationship with one specific person
- c. sexually active with only one person but not in a defined, committed relationship
- d. in an exclusive monogamous sexual relationship
- e. not currently sexually active with another person
- f. I have never had sex

17. Which one of the following best describes your feelings?

- a. Completely heterosexual (attracted only to persons of the opposite sex)
- b. Mostly heterosexual (mainly attracted to persons of the opposite sex and slightly attracted to persons of the same sex)
- c. Bisexual (equally attracted to men and women)
- d. Mostly homosexual (mainly attracted to persons of the same sex and slightly attracted to persons of the opposite sex)
- e. Completely homosexual (gay/lesbian, attracted to persons of the same sex)
- f. Not sure

18. During your life, with whom have you had sexual contact?

- a. I have never had sexual contact.
- b. Females only
- c. Males only
- d. Females and males

19. What is the race/ethnicity of most of the individuals you have gone on a date with?

- a. American Indian or Alaska Native
- b. Non-Hispanic Black or African-American
- c. Asian
- d. Hispanic or Latino
- e. Native Hawaiian or Other Pacific Islander
- f. Non-Hispanic White or European American
- g. Biracial or Multiracial: _____
- h. Some Other Race/Ethnicity, please specify: _____

20. What is the race/ethnicity of most of your previous and current sexual partners?

- a. American Indian or Alaska Native
- b. Non-Hispanic Black or African-American
- c. Asian
- d. Hispanic or Latino
- e. Native Hawaiian or Other Pacific Islander
- f. Non-Hispanic White or European American
- g. Biracial or Multiracial: _____
- h. Some Other Race/Ethnicity, please specify: _____
- i. I have never had sex

21. My sexual partners tend to be:

- a. A lot older than me (5 years or more older than me)
- b. Slightly older than me (1-4 years older than me)
- c. The same age as me
- d. Slightly younger than me (1-4 years younger than me)
- e. A lot younger than me (5 years or more younger than me)

22. Having a partner at all times is important to me.

- a. Strongly Agree
- b. Agree
- c. Disagree
- d. Strongly Disagree

23. How old were you when you had your first menstrual cycle? _____

24. Have you ever used a female condom for protection during sex?

- a. Yes
- b. No
- c. I have never had sex

Sexual Risk Survey (SRS)

Instructions: Please read the following statements and record the number that is true for you over the past month for each question on the blank. If you do not know for sure how many times a behavior took place, try to estimate the number as close as you can. Thinking about the average number of times the behavior happened per week or per month might make it easier to estimate an accurate number, especially if the behavior happened fairly regularly. If you've had multiple partners, try to think about how long you were with each partner, the number of sexual encounters you had with each, and try to get an accurate estimate of the total number of each behavior. If the question does not apply to you or you have never engaged in the behavior in the question, put a "0" on the blank. Please do not leave items blank. Remember that in the following questions "sex" includes oral, anal, and vaginal sex and that "sexual behavior" includes passionate kissing, making out, fondling, petting, oral-to-anal stimulation, and hand-to-genital stimulation. Please consider only the last month when answering and please be honest.

In the past 6 months:

1. How many partners have you engaged in sexual behavior with but not had sex with?
2. How many times have you left a social event with someone you just met?
3. How many times have you "hooked up" but not had sex with someone you didn't know or didn't know well?
4. How many times have you gone out to bars/parties/social events with the intent of "hooking up" and engaging in sexual behavior but not having sex with someone?
5. How many times have you gone out to bars/parties/social events with the intent of "hooking up" and having sex with someone?
6. How many times have you had an unexpected and unanticipated sexual experience?
7. How many times have you had a sexual encounter you engaged in willingly but later regretted?

For the next set of questions, follow the same direction as before. However, for questions 8–23, if you have never had sex (oral, anal or vaginal), please put a "0" on each blank.

In the past 6 months:

8. How many partners have you had sex with?
9. How many times have you had vaginal intercourse without a latex or polyurethane condom? Note: Include times when you have used a lambskin or membrane condom.

10. How many times have you had vaginal intercourse without protection against pregnancy?
11. How many times have you given or received fellatio (oral sex on a man) without a condom?
12. How many times have you given or received cunnilingus (oral sex on a woman) without a dental dam or adequate protection?
13. How many times have you had anal sex without a condom?
14. How many times have you or your partner engaged in anal penetration by a hand (“fisting”) or other object without a latex glove or condom followed by unprotected anal sex?
15. How many times have you given or received analingus (oral stimulation of the anal region, (“rimming”)) without a dental dam or adequate protection?
16. How many people have you had sex with that you know but are not involved in any sort of relationship with (i.e., “friends with benefits”, “fuck buddies”)?
17. How many times have you had sex with someone you don’t know well or just met?
18. How many times have you or your partner used alcohol or drugs before or during sex?
19. How many times have you had sex with a new partner before discussing sexual history, IV drug use, disease status and other current sexual partners?
20. How many times (that you know of) have you had sex with someone who has had many sexual partners?
21. How many partners (that you know of) have you had sex with who had been sexually active before you were with them but had not been tested for STIs/HIV?
22. How many partners have you had sex with that you didn’t trust?
23. How many times (that you know of) have you had sex with someone who was also engaging in sex with others during the same time period?

The Silencing the Self Scale

Please circle the number that best describes how you feel about each of the statements listed below. If you are not currently in an intimate relationship, please indicate how you felt and acted in your previous intimate relationships.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1. I think it is best to put myself first because no one else will look out for me.	1	2	3	4	5
2. I don't speak my feelings in an intimate relationship when I know they will cause disagreement.	1	2	3	4	5
3. Caring means putting the other person's needs in front of my own.	1	2	3	4	5
4. Considering my needs to be as important as those of the people I love is selfish.	1	2	3	4	5
5. I find it is harder to be myself when I am in a close relationship than when I am on my own.	1	2	3	4	5
6. I tend to judge myself by how I think other people see me.	1	2	3	4	5
7. I feel dissatisfied with myself because I should be able to do all the things people are supposed to be able to do these days.	1	2	3	4	5
8. When my partner's needs and feelings conflict with my own, I always state mine clearly.	1	2	3	4	5
9. In a close relationship, my responsibility is to make the other person happy.	1	2	3	4	5
10. Caring means choosing to do what the other person wants, even when I want to do something different.	1	2	3	4	5

Gender Role Beliefs Scale (GRBS)

Instructions: Please read the following statements and indicate the number that best represents your opinion in the blank beside each statement.

KEY: 1 = Strongly Agree 4 = Undecided 6 = Moderately Disagree
2 = Moderately Agree 5 = Slightly Disagree 7 = Strongly Disagree
3 = Slightly Agree

1. It is disrespectful for a man to swear in the presence of a lady. _____
2. Women should not expect men to offer them seats on buses. _____
3. Homosexual relationships should be as socially accepted as heterosexual relationships. _____
4. The initiative in courtship should usually come from the man. _____
5. It bothers me more to see a woman who is pushy than a man who is pushy. _____
6. When sitting down at the table, proper respect demands that the gentleman hold the lady's chair. _____
7. Women should have as much sexual freedom as men. _____
8. Women should appreciate the protection and support that men have traditionally given them. _____
9. Women with children should not work outside the home if they don't have to financially. _____
10. I see nothing wrong with a woman who doesn't like to wear skirts or dresses. _____
11. The husband should be regarded as the legal representative of the family group in all matters of law. _____
12. I like women who are outspoken. _____
13. Except perhaps in very special circumstances, a gentleman should never allow a lady to pay the taxi, buy the tickets, or pay the check. _____
14. Some equality in marriage is good, but by and large the husband ought to have the main say-so in family matters. _____
15. Men should continue to show courtesies to women such as holding open the door or helping them on with their coats. _____
16. It is ridiculous for a woman to run a locomotive and for a man to darn socks. _____
17. A woman should be as free as a man to propose marriage. _____
18. Women should be concerned with their duties of childrearing and house tending, rather than with desires for professional and business careers. _____
19. Swearing and obscenity is more repulsive in the speech of a woman than a man. _____
20. There are some professions and types of businesses that are more suitable for men than women. _____

Gender Ratio Imbalance Beliefs Scale (GRIBBS)

Higher gender ratio beliefs indicate that a woman believes that the ratio of men to women affects her decisions related to sexual behavior. Not using condoms to maintain a relationship based on the belief that there are fewer men in the population is an example of gender ratio beliefs.

Directions: Please complete the questionnaire using the criteria below. For each of the following items, place an “X” in the box of the response which best characterizes your opinion. If you have more than one partner please answer for your primary partner, the one with whom you have the closest, most steady relationship.

- Key: 1 = Strongly Disagree
 2 = Disagree
 3 = Somewhat Agree
 4 = Agree
 5 = Strongly Agree

Item	Strongly Disagree 1	Disagree 2	Somewhat Agree 3	Agree 4	Strongly Agree 5
1. There are fewer men than women in my community.					
2. Fewer men in my community decrease my chances of dating.					
3. Fewer men in my community decrease my chances of getting married.					
4. Fewer men in my community decrease my chances of having children.					
5. Fewer men in my community decrease my chances of maintaining a steady relationship.					
6. To maintain my relationship, I do not use a condom when having oral, vaginal, or rectal sex.					
7. I allow my male partner to have sex with other female partners to maintain our relationship.					
8. I use a condom even if it causes me to lose my mate.					

Item	Strongly Disagree 1	Disagree 2	Somewhat Agree 3	Agree 4	Strongly Agree 5
9. I do not have sexual relationships when I know the man has multiple partners.					
10. There are not enough men for all women to be in a steady and exclusive relationship.					
11. Men are in demand and I will do whatever is required to keep them as my sexual partner.					
12. If I make my man use a condom, he will go to another woman who will have sex without a condom.					
13. Not having a man in my life means that I cannot have children.					
14. I do not use condoms in order to keep my male sexual partner.					
15. I always determine condom use in my relationship.					
16. To maintain my relationship, I let my partner set what is expected in our sexual relationship.					
17. To maintain my relationship, I do not question my partner about his involvement with others sexually.					
18. I do not ask my partner to be tested for sexually transmitted infections (STIs) prior to having sex with him.					
19. I believe if I ask my man to use a condom, I will lose him.					
20. I negotiate condom use with my partner.					

21. How many men to women do you think there are in your community (e.g., 1 man to every 5 women, 5 men to every 1 woman, 1 man to every 1 woman, etc)? _____

22. How many men to women do you think there are on your college campus (e.g., 1 man to every 5 women, 5 men to every 1 woman, 1 man to every 1 woman, etc)? _____

Appendix D IRB Approval

The University of Memphis Institutional Review Board, FWA00006815, has reviewed and approved your submission in accordance with all applicable statuses and regulations as well as ethical principles.

PI NAME: Robin Hardin

CO-PI:

PROJECT TITLE: Sex, Relationships, and Power Study

FACULTY ADVISOR NAME (if applicable): Idia Thurston

IRB ID: #3967

APPROVAL DATE: 12/11/2015

EXPIRATION DATE: 12/11/2016

LEVEL OF REVIEW: Expedited

Please Note: Modifications do not extend the expiration of the original approval
Approval of this project is given with the following obligations:

1. If this IRB approval has an expiration date, an approved renewal must be in effect to continue the project prior to that date. If approval is not obtained, the human consent form(s) and recruiting material(s) are no longer valid and any research activities involving human subjects must stop.
2. When the project is finished or terminated, a completion form must be completed and sent to the board.
3. No change may be made in the approved protocol without prior board approval, whether the approved protocol was reviewed at the Exempt, Expedited or Full Board level.
4. Exempt approval are considered to have no expiration date and no further review is necessary unless the protocol needs modification.

Approval of this project is given with the following special obligations:

Thank you,

James P. Whelan, Ph.D.

Institutional Review Board Chair

The University of Memphis.

Note: Review outcomes will be communicated to the email address on file. This email should be considered an official communication from the UM IRB.