EFFECTIVENESS OF UNDERGRADUATE HUMAN SEXUALITY COURSES IN ENHANCING SEXUAL FUNCTIONING

By

HANNAH WARSHOWSKY

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To all women- because everyone deserves orgasm equality
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The disparity in orgasms between heterosexual men and women seems to be due to a multitude of societal issues, and thus an intervention that addresses these would likely decrease the orgasm gap. The main purpose of this study was to assess whether a Psychology of Human Sexuality course that specifically addressed these issues would be effective at increasing women’s sexual pleasure and functioning. Specifically, in a quasi-control design, this study compared university students enrolled in the aforementioned class to students enrolled in a Psychology of Personality class (i.e., quasi-experimental control condition) and a Human Sexuality and Culture class (i.e., a more general sexuality class). Participants answered pretest and posttest questions regarding their sexual practices, attitudes towards women’s genitals, cognitive distraction during sexual activity, entitlement to sexual pleasure, orgasm quality, and partner communication during sexual activity. It was found that the students in the Psychology of Human Sexuality course improved on virtually all measures of sexual functioning from pretest to post-test. Additionally, compared to the other courses, students in the Psychology of Human Sexuality showed greater posttest
scores on the majority of measures given irrespective of sexual activity. However, contrary to the hypothesis, for measures given only to sexually active women (female orgasm and female partner communication), there were no differences at posttest when comparing across the three courses. This study represents an important step toward establishing effective interventions to promote women’s sexual functioning and evaluating the efficacy of university-level human sexuality classes. Future directions are discussed.
CHAPTER 1
INTRODUCTION

The Orgasm Gap Background

The orgasm gap is the disparity between heterosexual men and women in the frequency of orgasming during partnered sexual activity. Specifically, heterosexual men are more likely to reach orgasm in partnered sexual activity than are heterosexual women (Hite, 2004). The orgasm gap also appears to be especially high in college-aged individuals. One study of university students found that 91% of males and 34% of females report always or usually experiencing an orgasm with a partner (Wade, Kremer, & Brown, 2005). Despite this gendered disparity in orgasm frequency during partnered sexual activity, both men and women have similarly high rates of orgasm during masturbation, specifically 94% for women (Hite, 2004) and 98% for men (Hite, 1981). Additionally, women are more likely to orgasm during sex with a female partner than with a male partner, while men are equally likely to orgasm during sex with a same versus opposite sex partner (Garcia, Lloyd, Wallen & Fisher, 2014). It thus appears that the gendered orgasm gap is a social rather than a biological phenomenon. Various scholars have proposed explanations for the orgasm gap, including: a) lack of knowledge of female sexual functioning (Wade, Kremer and Brown, 2005); b) sexual scripts that diminish women’s entitlement to orgasm, by prioritizing male rather than female orgasm (especially in casual relationships) and that encourage female passivity and the male provision of female orgasms; c) lack of sexual communication (Armstrong, England, & Fogarty, 2012; Salisbury & Fisher, 2014); d) cognitive distraction due to both negative body image (Meana & Nunnick, 2006; Sanchez & Kiefer, 2007) and
performance anxiety; and e) women’s genital self-consciousness (Algars, Sattila, Jern, Johansson, Westerlund & Sandnabba, 2011).

**Lack of Knowledge of Female Sexual Functioning**

As noted, one possible reason for the orgasm gap is lack of knowledge of female sexual anatomy and functioning. Direct clitoral stimulation is highly predictive of orgasms for women (Jannini, Rubio-Casillas, Whipple, Buisson, Komisaruk, & Brody, 2012) yet emerging adults seem to lack accurate information about the clitoris. In a study published by Wade, Kremer and Brown (2005), 33% of men and 25% of the women mistakenly thought that a women’s clitoris was always stimulated during intercourse and that women usually had orgasms from intercourse alone. Especially striking, for women in this study, knowledge of the clitoris was found to be related to orgasming during masturbation but not during sex with a partner. According to the authors, young heterosexual women may not understand the importance of clitoral stimulation during partnered sex and/or may lack the communication skills to tell male partners what they need to orgasm. Thus, providing clear, factual information on the importance of clitoral stimulation during partnered sex, and skills with which to discuss such stimulation with partners, would be essential to decreasing the orgasm gap.

**Sexual Scripts that Diminish Women’s Entitlement to Orgasms**

Another reason proposed by Wade and colleagues concerning why young women’s clitoral knowledge was related to orgasms during masturbation but not during sex with a male partner was that of a societal sexual script that prioritizes male, rather than female orgasm—particularly in casual sexual relationships. Although the orgasm gap exists in both committed and casual relationships (Garcia, Lloyd, Wallen & Fisher, 2014), there is a considerable amount of evidence indicating that women are more likely
to orgasm in the context of a committed rather than a casual sexual relationship (Armstrong, England, & Fogarty, 2012; Mah & Binik, 2001; Peterson & Hyde, 2010). There have been several reasons proposed for this, including that both men and women do not prioritize women’s pleasure in more casual sexual encounters, something that the results of a qualitative study with college students supports (Armstrong, England, & Fogarty, 2012). Specifically, in this qualitative study, college men expressed the belief that casual sex is mainly about their own personal pleasure, and that pleasing their casual partner is not a priority; these same men, however, reported caring about their partner’s pleasure in more committed sexual relationships (Armstrong, England, & Fogarty, 2012). The women in this same study reported not always feeling comfortable with their partners during casual sex or able to ask for their needs to be met. In short, several writers suggest that a sexual script prioritizing male orgasm, especially during casual sex, is another reason for the orgasm gap.

A related sexual script that has been implicated in the orgasm gap in both casual and relationship sex is one that encourages female passivity and male responsibility for the female orgasm (Salisbury & Fisher, 2014; Muehlenhard & Shippee, 2010). In a qualitative study, Muehlenhard and Shippee found that participants reported feeling pressure to follow a sexual script in which the female partner has an orgasm first, followed by the male partner, and then sexual activity is over. This study also found that participants endorse the idea that the male is responsible for the female partner’s orgasm, usually through penile-vaginal intercourse (Muehlenhard & Shippee, 2010). These authors also implicate this sexual script for the high percentage of faked female orgasms (i.e., approximately 64% of college women) during sexual
intercourse. In another qualitative study (Salisbury & Fisher, 2014), both male and female participants reported being concerned that it would hurt the male partner’s ego if a female did not have an intercourse-based orgasm. Both of these studies thus suggest that underlying the gendered orgasm gap is a scripted understanding that it is a man’s role to stimulate the woman to orgasm (via intercourse), and the woman’s role is to be in the mindset to receive an orgasm. These sexual scripts have been theorized to lead women to feel less entitled to orgasm than their male counterparts (Horne & Zimmer-Grenbeck, 2005).

**Lack of Sexual Communication**

An additional reason for the orgasm gap is lack of training and skills in sexual communication. As noted earlier, women may not feel comfortable asserting their sexual needs, and also may not have the skills to do so even if they do feel comfortable. Indeed, in the study by Salisbury and colleagues (2014), women assumed that asking their partner for clitoral stimulation would hurt their partner’s feelings. In actuality, however, the same study found that men are in fact turned on by the request for clitoral stimulation (Salisbury & Fisher, 2014). Curricula that encourages sexual communication and openly discusses sexual scripts and gender expectations therefore may help reduce the orgasm gap.

**Cognitive Distraction and Sexual Satisfaction**

Another gender-related issue that has been theorized to impact sexual functioning for both women and men is cognitive distraction (Meana & Nunnick, 2006). While once thought to affect only or mainly men, recent research suggests that cognitive distraction due to concerns about sexual performance (i.e., performance anxiety) decreases sexual satisfaction for both women and men (McCabe, 2005, Meena...
& Nunnick, 2006; Pujols, Meston, & Seal, 2010). As one example, a study by Meena and Nunnick (2006) found that women and men reported equal rates of performance anxiety. On the other hand, this same study reported that, as compared to men, women had both higher levels of overall cognitive distraction and also higher levels of appearance-based cognitive distraction. These findings pertaining to women's cognitive distractions regarding their bodies during sexual relations are in line with an oft-cited theoretical framework (i.e., Objectification Theory; Fredrickson & Roberts, 1997). This framework proposes that due to unrealistic images of women’s bodies in our culture and the objectification of women, women themselves come to internalize an objectified image of their own bodies. The result of this self-objectification is negative body-image, which in turn is hypothesized to result in increased self-consciousness during sexual activity and therefore less sexual satisfaction. Further supporting this theory, one study found that being focused on one’s physical appearance (e.g., thinking about how one’s body is looking) rather than immersing in the sexual encounter (i.e. mindful sex) results in diminished sexual satisfaction and decreased orgasmic capacity (Meana & Nunnick, 2006). Another study found that negative body image was predictive of sexual self-consciousness and sexual self-consciousness was in turn predictive of less sexual pleasure (Sanchez & Kiefer, 2007). Clearly, women’s orgasmic capacity might be enhanced if women were exposed to educational materials that taught practices to reduce cognitive distraction during sex (i.e. mindfulness), as well as materials promoting acceptance of their own bodies.

**Women’s Genital Self-Consciousness**

There is also evidence that women’s attitudes about their genitals may be related to the orgasm gap. One older and another more recent study both found that women’s
feelings towards their genitals is associated with sexual pleasure and enhanced orgasmic capacity with a partner (Reinholtz, & Muehlenhard, 1995; Algars, et. al., 2011). Nevertheless, another study reported no association between genital self-consciousness and sexual pleasure (Berman, L., Berman, J., Miles, Pollets, & Powell, 2003). Despite this one study, it still remains highly plausible that if women were exposed to educational material that conveyed the range of women’s genital appearance and endorsed acceptance of their own genitals, this could be related to enhancing sexual comfort and therefore orgasm frequency with partners.

**Human Sexuality Courses to Increase Sexual Functioning**

To summarize, the gendered orgasm gap seems to be due to a plethora of societally-based expectations and scripts and it thus stands to reason that an intervention that addresses these issues would decrease the orgasm gap. Of note, two studies have found undergraduate-level human sexuality class may comprise such an intervention. In one qualitative study, Henry (2013) interviewed heterosexual couples taking a human sexuality course together. Participants stated that they learned more about the female pleasure system. Several also reported learning tools to enhance their own sexual communication. One couple reported they were influenced by the class material to try new sexual positions, toys and lubricants (Henry, 2013). In another qualitative study (Askew, 2007), women enrolled in a college feminist sexuality education course reported that their desire and pleasure was normalized and that they would be more likely to assert their sexual needs and preferences. Other participants reported increased body satisfaction after the course. Although based on only two small qualitative studies, it appears that taking an undergraduate-level human sexuality class may increase women’s sexual functioning.
The Current Study

More research is needed to evaluate the efficacy of university level human sexuality classes and the potential impact these classes may have on students’ sexual functioning. Indeed, the purpose of this study was to examine changes in women’s sexual functioning based on their enrollment in a human sexuality class. Even more specifically, changes in those variables hypothesized to be related to the orgasm gap were studied, including attitudes towards women’s genitals, cognitive distractions regarding body-self-consciousness and performance anxiety during sexual encounters, and women’s feelings of entitlement to pleasure. Additionally, for sexually active women, rates of orgasm during partnered sexual activity and women’s communication during partnered sexual were examined. Based on course content focusing specifically on the variables related to the orgasm gap discussed above, hypotheses of this study were that females enrolled in the Psychology of Human Sexuality would evidence positive changes in all measured sexual functioning variables over time, and that these improvements would be greater than those evidenced by students enrolled in either the Psychology of Personality class (quasi-control condition) and those enrolled in the Human Sexuality and Culture course. Nevertheless, based on course content covering sexuality in general but not the variables related to the orgasm gap in specific, it was also hypothesized that students enrolled in Human Sexuality and Culture will evidence some changes in sexual functioning over time, and that these changes will be greater than for those enrolled in the Psychology of Personality course.
CHAPTER 2
METHOD

Participants

Participants were 270 female students enrolled in the University of Florida’s
Psychology of Human Sexuality, Human Sexuality and Culture and Psychology of
Personality Fall 2016 classes. Seventy-nine were enrolled in Psychology of Human
Sexuality class, 66 in the Psychology of Personality class, and 125 in the Human
Sexuality and Culture class. Additionally, insofar as sexually active students, there
were 66 from the Psychology of Human Sexuality, 48 from the Psychology of
Personality, and 102 from the Human Sexuality and Culture class. Ages ranged from
17 to 30 (M = 19.08, SD = 1.439). There were 126 first years (46.9%), 58 sophomores
(21.2%), 36 juniors (13.2%), 47 seniors (17.2%), and four fifth years (1.5%). The
majority of the participants identified as women (97.8%), and six students identified as
trans or selected “other.” In regards to sexual orientation, students identified as follows:
203 exclusively heterosexual students (75.1%); 47 mostly heterosexual (17.2%); eight
bisexual (2.9%); four mostly lesbian or gay (1.5%); six exclusively lesbian or gay (2.2%);
and three students who identified as “other” (1.1%). As far as race and ethnicity,
students identified as follows: 14 African/ African American/ Black students (5.1%); two
Arab/Middle Eastern students (0.7%); 45 Hispanic/Latin American students (16.4%); 22
Asian American/ Pacific Islander Students (8.14%), 161 White/European American/
Caucasian (59.7%), 15 Biracial/Multiracial (5.5), and 10 students who identified as
“other” (3.7%). In regards to social class, students identified as follows: 12 Lower Class
(4.4%); 43 Working Class (15.8%), 119 Middle Class (43.6%), 84 Upper Middle Class
(30.8%), and 12 Upper class (4.4%). Finally, students identified their religion as follows:
159 Christian (59.0%); 13 Jewish (4.8%); three Muslim (1.1%); four Buddhist (1.5%); four Hindu (1.5%), 12 Atheist (4.4%); and 25 Agnostic (9.2%); additionally, nine students identified as having no religion (10.6%), 13 students identified as “other” religion (4.8%), and nine students identified with more than one religion (3.3%).

Measures

Demographic Questionnaire

Participants completed a 12-item demographic measure. The demographic questionnaire included: age, sex, gender identity, race/ethnicity, sexual orientation, education level, current social class, family social class, and religion. Participants also could choose “other” to describe their own identity for any of the demographic questions. See Appendix A for a copy of the demographic questionnaire.

Sexual Practices Questionnaire

This author-constructed questionnaire assessed whether the participants were sexually active (i.e., in order to categorize students for analyses regarding changes related to partnered sex). This questionnaire also included a number of other questions (e.g., if participants have masturbated, used a sex toy, etc.). See Appendix B for a copy of this questionnaire.

Attitudes Towards Women’s Genitals

The Attitudes Towards Women’s Genitals scale (ATWGS) assessed how participants view women’s genitals (Herbenick, 2009). The measure has 10 items. On each item, participants indicated their agreement or disagreement using a 4-point Likert scale (1 = strongly disagree, 4= strongly agree). Four items are reversed scored, and scores can range from 10 to 40, with higher scores reflecting more positive attitudes.
towards female genitalia. An example item is “I feel positively towards women’s genitals.” An example reversed-scored item is “Women’s genitals are ugly”.

The ATWGS was created in multiple stages. First, based on both data collected with 370 participants over nine studies, as well as the current literature on female genitalia, the author found 14 themes related to views of female genitalia. The author and a team of experts from gender studies, medicine, and psychology used these 14 themes to develop a 101-item questionnaire. Six hundred and four undergraduate students (362 women, 242 men) took the questionnaire. Researchers used reliability analysis to reduce the scale to 10 items. For women the internal consistency of the final 10-item scale was .86; for men it was .82 and for both men and women the internal consistency was .86. The two-week test-retest correlation was $r = .93$ ($p < .001$). The measure was also found to correlate ($r = .43$, $p < .001$) with the Sexual Opinion Survey (Fisher, 1998), suggesting convergent validity. Additionally, the scale was found to have some predictive ability, in that women with higher scores were found to be more likely to have looked at their genitals three or more times, received oral sex three or more times, and to have visited the gynecologist. Men who performed oral sex three or more times also had higher scores on the measure. Of interest, in the development of this instrument, men scored significantly higher than women on this measure (men = 29.77 and women = 26.48, $p < .001$). See Appendix C for a copy of this measure.

**Cognitive Distraction During Sexual Activity**

The Cognitive Distraction During Sexual Activity Scale (CDDSAS; Dove & Wiederman, 2000) assessed participants’ perceived distraction during sexual intimacy. The measure contains 20 likert-type items. Half of the items assess
performance-based cognitive distraction and the other half assess appearance-based
cognitive distraction. These two factors are highly related \((r = .83)\) and are not used as
subscales. An example appearance-based distraction item is “During sexual activity, I
worry the whole time that my partner will get turned off by seeing my body without
clothes.” An example performance-based distraction item is “Overall, during sexual
activity, I am distracted by thoughts about my sexual performance.” On each item,
participants indicate their agreement or disagreement using a 6-point Likert scale \((1 =
strongly disagree, 6 = strongly agree)\). Because the scale items are written so that only
those who have had or are currently having sexual relations can complete it, for this
study, parenthetical modifiers were added so that those who were not sexually active
could also complete the scale \(i.e., \) Overall, during sexual activity, I am \[or would be\]
distracted by thoughts about my sexual performance.”). Scores may range from 20 to
120 with higher scores indicating less cognitive distraction. The internal consistency for
this scale was .95. See Appendix D for a copy of this measure.

**Female Sexual Subjectivity**

Feeling entitled to pleasure, as well as sexual self-reflection and feelings of
efficacy in achieving sexual pleasure, were assessed with the Female Sexual
Subjectivity Inventory \(i.e., \) Horne and Zimmer-Gembeck, 2006). The measure contains 20
items across four subscales. The subscales are: a) body self-esteem; b) entitlement to
pleasure from self; c) entitlement to pleasure from a partner; d) feelings of efficacy in
achieving sexual pleasure; e) and sexual self-reflection. Due to a more specific body-
image measure being used in this study, the body self-esteem subscale was not
analyzed in this study, and because of this, neither was the total score. All items are
responded to on a Likert-type scale ranging from one (not at all true for me) to five (very true for me). Scores are calculated by totaling the items in that subscale, and for all, higher scores reflect more positivity. An example from the entitlement of pleasure from self subscale is “It is okay for me to meet my own sexual needs through self-masturbation.” A sample item from the entitlement of pleasure from a partner is “I would expect a sexual partner to be responsive to my sexual needs and feelings.” An example item from the feelings of efficacy in achieving sexual pleasure subscale is “I would not hesitate to ask for what I want sexually from a romantic partner.” Finally, an example from the sexual self-reflection subscale is “I spend time thinking and reflecting about my sexual experiences.”

The Female Sexuality Subjectivity Inventory (FSSI) was validated across three samples of Australian women and teens, ranging in age from 16 to 22. Across these three samples, the internal consistency for the subscales ranged from .77 to .87. Higher scores on this measure are associated with more general well-being, higher self-esteem, more sexual awareness, and safer sex practices. Higher scores on this measure are also inversely related to sexist beliefs. A copy of this measure can be found in Appendix E.

**Female Orgasm**

The Female Orgasm Scale (FOS; McIntyre-Smith, & Fisher, 2010) assessed women’s sexual pleasure with a partner. There are seven items, five items assessing the frequency of orgasm during different sexual activities with a partner and two items assessing the overall satisfaction of orgasms with a partner. An example item from the first section of the scale is “How often do you have an orgasm from oral stimulation of
your genital/clitoris by a partner?” An example item from the overall satisfaction section is “How satisfied…unsatisfied are you with the number of orgasms that you have during sexual activity with a partner? There is also an “NA” option for women who do not partake in a particular sexual activity with a partner and this response is coded as zero. The first five items on the scale are scored on an 11-point scale and the last two items are scored on a seven-point scale (1 = very unsatisfied; 7 = very satisfied). The total of the first five items are then multiplied by seven and the total of items six and seven are multiplied by 10. The scale yields only a total score, which can range from zero to 560, with higher scores indicating both more general satisfaction with orgasms and more orgasm frequency when having sexual relations with a partner.

This scale was developed across three studies, examining both the internal consistency and factor structure of the scale. The final scale yielded an internal consistency of .86 and a four-week test-retest reliability of $r = .82$. This scale also correlated at $r = .71$ with the Orgasm subscale of the Female Sexual Function Inventory measure, thereby providing support for convergent validity (Rosen, Brown, Heinman, Leiblum, Meston, Shabsign, et al., 2000). A copy of this measure can be found in Appendix F. Only women who indicated that they have ever had sexual relations involving genital contact completed this measure.

**Female Partner Communication During Sexual Activity**

Sexual communication during sexual activity was assessed using the Female Partner Communication During Sexual Activity Scale (FPC; McIntyre-Smith & Fisher, 2010). This scale measures how easily and frequently female participants communicate sexually with their partners. The first three items measure ease of sexual communication and are responded to on a seven-point Likert scale (1 = very difficult; 7 =
very easy). An example item is “Asking my partner to stimulate me to orgasm (i.e., by massaging my genitals/clitoris) when I have intercourse with my partner would be.” The next three items measure the frequency that participants use different verbal and nonverbal communication techniques. These items are scored on a six-point scale (0% of the time = 0, 1% to 25% of the time = 1, 26% to 50% of the time = 2, 51% to 75% of the time = 3, 76% to 99% of the time, = 4 and 100% of the time = 5). An example item for this scale is “When having sex with a partner, how often do you show your partner what feels good?” When scoring, the first three items are totaled and then multiplied by five and items four through six are totaled and then multiplied by seven. The scale yields only total scores, which range from 15 to 210, with higher scores indicating more ease and frequency of sexual communication with a partner.

In developing this scale, the authors gave it to three groups of female undergraduate students. Participants’ ages ranged from 17 – 49 (M = 18.83 – 19.24, SD = 2.67 to 3.38). The overall scale yielded an internal consistency of α = .83 and the item-to-total correlations across all three studies ranged from r = .54 - .63. The four-week test-retest reliability was r = .72. This scale also correlated with the Female Sexual Function Inventory r = .30 - .37, suggesting convergent validity. A copy of this measure can be found in Appendix G. Only women who indicated that they have ever had sexual relations involving genital contact completed this measure.

**Procedure**

Students enrolled in the UF *Psychology of Human Sexuality* (intervention condition, *Human Sexuality and Culture* (additional intervention condition) and *Psychology of Personality* (quasi-control condition) were eligible to participate in the
study. Participants from all classes received extra credit for participation and non-participants were offered a substitute activity for an equal amount of extra credit.

Immediately after the first day of class, students were sent an email inviting them to participate in the study that contained a link to the Qualtrics based survey. This email also explained the extra credit was being allotted for survey participation, as well as the alternative assignment for extra credit. After drop/add, this same email was re-sent, so that all students had an opportunity to participate. Nevertheless, the time-frame to participate for those choosing to participate after drop-add was shorter, in that all pretest questionnaires had to be completed before the second class of the intervention course.

The Qualtrics survey first asked students to provide their informed consent. Next, participants were directed to create a unique identifier code so that their pretest data could be connected to their posttest data. Subsequently, participants filled out the Demographic Questionnaire, Sexual Practices Questionnaire, Attitudes Towards Women’s Genitals Scale, Cognitive Distraction During Sexual Activity Scale, and the Female Sexual Subjectivity Inventory. Female participants who indicated that they engaged in sexual activity involving genital contact with a partner also completed the Female Orgasm Scale and the Female Partner’s Communication During Sexual Activity Scale. After completing all measures, participants were re-directed to a separate ID survey to track their completion for extra credit; the ID survey was not be connected to survey responses; therefore, all data provided was anonymous.

Immediately following each course’s last in-person class, participants were sent an email to take the post-test survey on Qualtrics. Once participants accessed the Qualtrics link they were able to re-enter their unique identifier code and complete
posttest measures (identical to the pre-test measures). After completing all measures, participants were re-directed to a separate ID survey to track their completion for extra credit. Only those students completing both the pre- and posttest measures were given extra credit.

After completing both the final survey and the final identifier survey, participants were debriefed and offered further readings recommendations for sexual communication and functioning (e.g., satisfaction, orgasm). Finally, instructors were provided with a list of names for the allotting of extra credit.

Experimental Conditions

Psychology of Human Sexuality Class

This course explores contemporary research on sexuality related issues, and is taught from an applied psychology perspective. Lectures and readings explain the anatomy and sexual response of men and women to provide the foundation for learning about sexually related problems and their treatment. Focusing on sexuality in the U.S., the class material includes major topics’ such as “(1) sexual desire and sexual responses, (2) sexual practices, (4) sexual issues & problems, (4) sexual violence, and (5) sex therapy.” The professor also teaches a unit on sexual communication. Several lectures also focus on normalizing the variety of genital appearances and body types. In general, the class material is framed as sex-positive and teaches that sexuality and pleasure are important for everyone, particularly groups who have told by society that their pleasure is unimportant or secondary to others (i.e., women, individuals with disabilities, LGBTQ people, older adults, and racial/ethnic minorities). Additionally, research on the orgasm gap between heterosexual men and women is
presented in the class during lecture, class readings, and through open discussion. A link to a copy of the syllabus from Fall 2016 is in Appendix H.

**Human Sexuality and Culture Class.**

This class is taught through the Anthropology department. As stated in the syllabus:

This course examines human sexuality from an anthropological point of view. The hallmark of anthropology is its emphasis on both the biological and cultural dimensions of what it means to be human. That perspective enriches our understanding of human sexuality because it encourages us to examine a wide range of human sexual experiences across cultures and over the evolutionary history of our species. We will apply this holistic perspective to the genetic, physiological, psychological, social, and cultural dimensions of human sexuality.

This course includes information on male/female anatomy and arousal, sexual pleasure, cultural influences on sexuality, and sexual orientation. Unlike the intervention condition, this course is not taught from an applied psychology perspective and provides relatively no instruction on sex therapy and sexual communication. A link to a copy of the syllabus from Fall 2016 is in Appendix H.

**Psychology of Personality Class**

The current study will evaluate the Psychology of Personality class as a control to the Psychology of Human Sexuality class. As stated in the syllabus, this class pertains to:

The scientific study of the psychological forces that make people uniquely themselves. It is a broad sub-discipline that involves various topics including: the importance of the unconscious, the role of the self, nomothetic versus idiographic approaches, gender differences, the power of the situation, and cultural influences.
This course briefly covers socialization and gender differences; however, there is no formal instruction on sexuality or sexual communication. A link to a copy of the syllabus from Fall 2016 is in Appendix H.
CHAPTER 3
RESULTS

Preliminary Analyses

The data were screened in order to assess for missing data, outliers, and assumptions of normality. Assumptions of normality were met and there was no missing data. One outlier was found on the ATWGS pretest scale and one outlier was found on the FSSI Entitlement to Pleasure from Partner subscale. The data were examined with and without outliers and results were the same, and thus outliers were retained in the data set. Analyses were also conducted to examine differences in demographic and pretest outcome variables for students who only took the pretest compared to students who completed both the pretest and the post-test; no differences were found.

Analyses were also conducted to examine differences between the students enrolled in the three classes in terms of demographic variables and outcome variables at pretest. Regarding demographic differences, analyses of variance (ANOVAs) revealed that students in the *Psychology of Human Sexuality* class were on average older (M = 20.29) compared to the *Human Sexuality and Culture* class (M = 18.74) and the *Psychology of Personality Psychology* class (M = 18.73), F(2, 270) = 47.469, p < .001. Related, there was a statistically significant association between class enrollment and year in college as assessed by Fisher's exact test, p <.01. In the *Psychology of Human Sexuality* class there were five first years (6.3%), 15 sophomores (19%), 23 juniors (29.1%), 34 seniors (43%), and two fifth years (2.5%). In the *Psychology of Personality* class there were 45 first years (69.1%), seven sophomores (10.3%), five juniors (7.4%), eight seniors (11.8%), and one fifth year (1.5%). In the *Human Sexuality*
and Culture class, there were 75 first years (60.3%), 36 sophomores (28.6%), eight juniors (6.3%), five seniors (4%), and one fifth year (0.8%). Additionally there was a statistically significant association between class enrollment and sexual orientation as assessed by Fisher’s exact test, \( p < 0.01 \). Specifically, there were more individuals who identified as non-exclusively heterosexual in the Psychology of Human Sexuality course than in the other two classes. In the Psychology of Human Sexuality, students identified as follows: 46 exclusively heterosexual; (58.2%); 23 mostly heterosexual (29.1%); four bisexual (5.1%), two mostly lesbian or gay (2.5%); three exclusively lesbian or gay (3.8%); and one student who identified as “other” (1.3%). In the Psychology of Personality class students identified as follows: 50 exclusively heterosexual (76.5%); 10 mostly heterosexual (14.7%); two bisexual (2.9%); zero mostly lesbian or gay (0%); two exclusively lesbian or gay (2.9%); and two students who identified as “other” (2.9%). In the Human Sexuality and Culture class students identified as follows: 107 exclusively heterosexual (84.9%); 14 mostly heterosexual (11.1%); two bisexual (1.6%); two mostly lesbian or gay (1.6%); and one exclusively lesbian or gay (0.8%), and zero students identified as “other.” No other pretest differences among the three classes in terms of any other demographic variables were found.

Finally, ANOVAs were conducted to examine differences in pretest scores on the three scales (ATWGS, CDDAS, FSSI) completed by all women in the study, regardless of if they were sexually active or not (defined as answering yes to question two on the author-constructed sexual practices questionnaire); no differences were found. Similarly, ANOVAs revealed no differences in pretest scores on the two scales completed only by sexually active women (FOS and FPC).
**Intervention Effectiveness**

Because tests of significance can confound significant differences with the size of the sample (Turner & Bernard, 2006), recent recommendations are to present results of intervention studies in terms of effect sizes with confidence limits (Cumming, 2012; Kline, 2013). Indeed, compared to inferential statistics, standardized effect sizes with confidence limits: a) more directly answer questions about intervention effects; b) provide information about what is likely to happen on replication of an experiment; c) facilitate comparison; d) can be used in meta-analyses; e) tend to be intuitively more understandable; and f) provide information on practical significance (Cumming, 2012; Kline, 2013).

Effect sizes represent a simple way of quantifying the size of the difference between two groups, and thus for interventions studies can be defined as “. . . a standardized, scale-free measure of the relative size of the effect of an intervention” (Turner & Bernard, 2006, p.42). Nevertheless, the effect size is still an estimate of an intervention’s effect in the population from which the sample is drawn and thus an effect calculated from a large sample may be more accurate than one calculated from a small sample. Thus, to “disentangle effect size and sample size” (Turner & Bernard, 2006, p. 44), confidence intervals for effect sizes can be used, as they represent the likely range of the true population mean effect size. If a 95% confidence interval does not include zero, the observed effect size can be concluded to not have been obtained by chance (Lakens, 2013; Turner & Bernard, 2006). Therefore, we present the data with Hedges $g$ effect sizes and confidence limits. Hedge’s $g$ effect size was chosen due to it being less affected by sample size than the more commonly known Cohen’s $d$, as well as being the effect size recommended for use in meta-analyses (Turner & Bernard, 2006).
Specifically, as recommended by Lipsey et al. (2012), to examine the effect of the interventions on the outcomes, we employ both within-group pretest to posttest effect sizes and between-group posttest effect sizes. As recommended by Lakens (2013), for within group effect sizes, we utilize Hedges’ $g_{av}$ (correlation between pretest and posttest accounted for and denominator is average standard deviation) and for between group effect sizes, we utilize Hedges’ $g_s$ (denominator is pooled standard deviation). Hedge’s $g$ effect sizes can be interpreted with Cohen’s (1988) rule of thumb: .20 and above = small, .50 - .79 = medium, .80 and above = large, and we do so in the data presented below. Finally, we also report common language effect sizes, a percentage expressing “… the probability that a person from one group will have a higher observed measurement than a randomly sampled person from the other group” (Lakens, 2013, p. 4).

Table 1 presents the means, standard deviations, and within group pretest to posttest effect sizes with confidence limits for the three groups (i.e., classes) for the measures given to all students, regardless of if they reported being sexually active or not. Table 2 presents this same data for the measures given to only sexually active students. To further facilitate group comparisons, these tables include notations indicating if the magnitude (i.e., no effect, small effect, medium effect, or large effect, using Cohen’s, 1988 conventions) of each of the two sexuality-focused courses (Psychology of Human Sexuality and Human Sexuality and Culture) pretest to posttest effect size is greater than non-sexuality focused course (Psychology of Personality), and if one sexuality-focused courses effect size is larger than the other. All tables also present common language effect sizes.
As depicted in Table 3-1, results indicated that all students enrolled in *Psychology of Human Sexuality* evidenced increases in mean scores from pretest to posttest with a small effect size for all outcome variables except the FSSI Entitlement to Pleasure from a Partner subscale. On the ATWGS, in the *Psychology of Human Sexuality* class, scores increased from 30.15 at pretest to 32.30 at posttest, and the Hedges’ $g_{av}$ was 0.39 (small). On the CDDSAS, scores increased from 80.91 at pretest to 85.61 at posttest and the Hedges’ $g_{av}$ was 0.21 (small). On the FSSI Entitlement to Pleasure from Self subscale, scores increased from 11.24 at pretest to 12.73 at posttest, and the Hedges’ $g_{av}$ was 0.49 (small). On the FSSI Efficacy in Achieving Pleasure subscale, scores increased from 9.95 at pretest to 11.19 at posttest, and the Hedges’ $g_{av}$ was 0.45 (small). Likewise, on the FSSI Sexual Self-Reflection subscale, scores increased from 17.95 at pretest to 19.05 at posttest, and the Hedges’ $g_{av}$ was 0.22 (small). Furthermore, the common language effect sizes revealed the following percent likelihood that students in the *Psychology of Human Sexuality* class would have higher scores at posttest than at pretest: 74% (ATWGS), 62% (CDDAS), 73% (FSSI Self-Pleasure), 65% (FSSI Self-Efficacy), 61% (FSSI Self-Reflection). In short, students in *Psychology of Human Sexuality* improved their sexual functioning across the course on all but one dependent variable. Conversely, students enrolled in *Human Sexuality and Culture*, evidenced fewer increases in scores from pretest to posttest; only one item showed a small effect size. The FSSI Efficacy in Achieving Pleasure revealed an increased from 9.91 at pretest to 10.54 at posttest, with a Hedges’ $g_{av}$ of 0.21 (small), and a common language effect size of 59%. Similarly, students enrolled in *Psychology of Personality* evidenced only one pretest to posttest effect: on the FSSI Entitlement to
Pleasure from Self subscale, scores increased from 10.10 at pretest to 10.99 at posttest, with a Hedges’ $g_{av}$ of 0.28 (small) and a common language effect size of 68%.

As depicted in Table 3-2, results indicated that sexually active women enrolled in Psychology of Human Sexuality evidenced increases in mean scores from pretest to posttest with a small effect for both the FOS and FPC. On the FOS, in the Psychology of Human Sexuality class, scores increased from 238.77 at pretest to 269.42 at posttest and the Hedges’ $g_s$ was 0.28 (small). On the FPC scale, scores increased from 138.97 at pretest to 152.94 at posttest, and the Hedges’ $g_s$ was 0.32 (small). Furthermore, the common language effect sizes revealed the following percent likelihood that students in the Psychology of Human Sexuality class would have higher scores at posttest was: 61% for FOS and 59% for FPC. As also revealed in Table 2, the sexually active women enrolled in Human Sexuality and Culture also evidenced a small effect on the FOS (although not on the FPC). Among those enrolled in Human Sexuality and Culture, scores increased from 137.15 at pretest to 139.64 at posttest, the Hedges’ $g_s$ was 0.22 (small), and the common language effect size was 58%. Conversely, sexually active women enrolled in Psychology of Personality Psychology evidenced no pretest to posttest changes on either the FOS or the FPC.

Table 3-3 between group posttest effect sizes and confidence intervals for the measures given to all students, regardless of if they reported being sexually active or not. Table 3-4 presents this same data for the measures given to only sexually active students. As depicted in Table 3-3, there were medium between group posttest effect sizes between all students enrolled in the Psychology of Human Sexuality and the Psychology of Personality class for scores on the ATWGS (Hedges’ $g_{av} = 0.64$), the
FSSI Entitlement to Pleasure from Self subscale (Hedges’ $g_{av} = 0.63$), the FSSI Entitlement to Pleasure from Partner subscale (Hedges’ $g_{av} = 0.50$), and the FSSI Sexual Self-Reflection subscale (Hedges’ $g_{av} = 0.67$). Additionally, when comparing students enrolled in these two classes, there were small between group posttest effect sizes for the CDDSAS (Hedges’ $g_{av} = 0.39$) and FSSI Efficacy in Achieving Pleasure (Hedges’ $g_{av} = 0.48$). Common language effect sizes for all variables ranges from .61 -.68, indicating that as compared to the Psychology of Personality class, students in Psychology of Human Sexuality had at least a 60% likelihood of higher posttest scores on all measures. Conversely, when comparing all students enrolled in the Psychology of Personality class versus Human Sexuality and Culture class, no differences were found (i.e., all between group effect sizes were less than .2 or had confidence limits indicating the effects were likely by chance). When comparing all students enrolled in the Psychology of Human Sexuality class to the Human Sexuality and Culture class, medium posttest effect sizes were found for ATWGS (Hedges’ $g_{av} = 0.61$), FSSI Entitlement to Pleasure from Self (Hedges’ $g_{av} = 0.61$), and FSSI Entitlement to Pleasure from Partner (Hedges’ $g_{av} = 0.52$), and a small effect sizes was found for the FSSI Sexual Self-Reflection scale (Hedges’ $g_{av} = 0.37$). Common language effect sizes for ranged from .60 -.64, indicating that as compared to the Human Sexuality and Culture class, students in Psychology of Human Sexuality had at least a 60% likelihood of higher posttest scores on the aforementioned measures.

As depicted in Table 3-4, no differences not obtained by chance were found when comparing posttest means across classes for only sexually active women on either the FOS or the FPC.
Table 3-1. Within Group Pretest to Posttest Effect Sizes by Intervention Arm for All Female Participants

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretest M</th>
<th>Pretest SD</th>
<th>Posttest M</th>
<th>Posttest SD</th>
<th>Hedges’ $g_{av}$</th>
<th>[95% CI]</th>
<th>Common Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATWG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHS</td>
<td>30.15</td>
<td>4.14</td>
<td>32.30</td>
<td>5.04</td>
<td>0.39**</td>
<td>[1.41, 2.88]</td>
<td>0.74</td>
</tr>
<tr>
<td>PPP</td>
<td>28.72</td>
<td>4.32</td>
<td>29.00</td>
<td>5.31</td>
<td>0.10</td>
<td>[-0.80, 1.37]</td>
<td>0.53</td>
</tr>
<tr>
<td>HSC</td>
<td>29.14</td>
<td>4.57</td>
<td>29.53</td>
<td>4.15</td>
<td>0.10</td>
<td>[-0.23, 1.00]</td>
<td>0.54</td>
</tr>
<tr>
<td>CDDAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHS</td>
<td>80.91</td>
<td>23.10</td>
<td>85.61</td>
<td>21.22</td>
<td>0.21**</td>
<td>[1.39, 8.00]</td>
<td>0.62</td>
</tr>
<tr>
<td>PPP</td>
<td>77.85</td>
<td>26.34</td>
<td>76.32</td>
<td>26.16</td>
<td>0.06</td>
<td>[-2.68, -5.74]</td>
<td>0.54</td>
</tr>
<tr>
<td>HSC</td>
<td>82.57</td>
<td>24.30</td>
<td>83.03</td>
<td>24.30</td>
<td>0.02</td>
<td>[-2.52, 3.43]</td>
<td>0.51</td>
</tr>
<tr>
<td>Self-Pleasure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHS</td>
<td>11.24</td>
<td>3.44</td>
<td>12.73</td>
<td>2.52</td>
<td>0.49*</td>
<td>[0.93, 2.03]</td>
<td>0.73</td>
</tr>
<tr>
<td>PPP</td>
<td>10.10</td>
<td>3.17</td>
<td>10.99</td>
<td>3.03</td>
<td>0.28^</td>
<td>[0.43, 1.34]</td>
<td>0.68</td>
</tr>
<tr>
<td>HSC</td>
<td>10.25</td>
<td>3.54</td>
<td>10.89</td>
<td>3.28</td>
<td>0.19</td>
<td>[0.24, 1.03]</td>
<td>0.61</td>
</tr>
<tr>
<td>Partner-Pleasure</td>
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<tr>
<td>PHS</td>
<td>16.90</td>
<td>3.02</td>
<td>17.42</td>
<td>2.58</td>
<td>0.18</td>
<td>[-0.13, 1.16]</td>
<td>0.57</td>
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<tr>
<td>PPP</td>
<td>16.04</td>
<td>3.41</td>
<td>16.12</td>
<td>2.70</td>
<td>0.02</td>
<td>[-0.58, 0.73]</td>
<td>0.51</td>
</tr>
<tr>
<td>HSC</td>
<td>16.35</td>
<td>3.15</td>
<td>15.99</td>
<td>2.85</td>
<td>0.12</td>
<td>[-0.14, 0.86]</td>
<td>0.55</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHS</td>
<td>9.95</td>
<td>2.96</td>
<td>11.19</td>
<td>2.61</td>
<td>0.45*</td>
<td>[1.37, 2.83]</td>
<td>0.65</td>
</tr>
<tr>
<td>PPP</td>
<td>9.44</td>
<td>3.48</td>
<td>9.85</td>
<td>2.99</td>
<td>0.13</td>
<td>[-0.20, 1.02]</td>
<td>0.57</td>
</tr>
<tr>
<td>HSC</td>
<td>9.91</td>
<td>3.11</td>
<td>10.54</td>
<td>2.96</td>
<td>0.21^</td>
<td>[0.15, 1.12]</td>
<td>0.59</td>
</tr>
</tbody>
</table>
Table 3-1. Continued

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Effect Sizes</th>
<th>Common Language</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Self-Reflection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHS</td>
<td>17.95</td>
<td>5.54</td>
<td>19.05</td>
<td>4.21</td>
</tr>
<tr>
<td>PPP</td>
<td>16.95</td>
<td>5.02</td>
<td>16.09</td>
<td>4.66</td>
</tr>
<tr>
<td>HSC</td>
<td>16.81</td>
<td>4.60</td>
<td>17.42</td>
<td>4.52</td>
</tr>
</tbody>
</table>

Note. PHS = Psychology of Human Sexuality class (N = 79); PPP = Psychology of Personality Psychology class (N = 66); HSC= Human Sexuality and Culture class (N = 125). Using Cohen’s (1988) conventions of small = .20, medium = .50, large = .80 and above, the symbol * indicates magnitude of pretest to posttest effect size is greater for PHS than the quasi-control class PPP. The symbol ^ indicates magnitude is greater for PHS class than the HSC class. The symbol * indicates that the magnitude of the quasi-control PPP class is greater than the HSC class. ATWG = Attitudes Towards Women’s Genital Scale (range 10-40); CDDSAS = Cognitive Distraction During Sexual Activity Scale (range 20-120). Self-Pleasure = Female Sexual Subjectivity Inventory (FSSI)-entitlement of pleasure to self subscale (range 3-15); Partner Pleasure = FSSI-entitlement to pleasure from a partner subscale (range 4-20). Self-efficacy = FSSI - self-efficacy in achieving sexual pleasure subscale (range 3-15). And Self Reflection= FSSI - sexual self-reflection subscale (range 5-25). For all measures, higher scores indicate higher levels of aspects of sexual functioning.
Table 3-2. Within Group Pretest to Posttest Effect Sizes by Intervention Arm for Sexually Active Female Students

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Effect Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>FOS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHS</td>
<td>238.77</td>
<td>108.43</td>
<td>269.42</td>
</tr>
<tr>
<td>PPP</td>
<td>213.65</td>
<td>119.19</td>
<td>227.48</td>
</tr>
<tr>
<td>HSC</td>
<td>227.68</td>
<td>111.80</td>
<td>253.60</td>
</tr>
<tr>
<td>FPC</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>PHS</td>
<td>138.97</td>
<td>44.66</td>
<td>152.94</td>
</tr>
<tr>
<td>PPP</td>
<td>131.00</td>
<td>49.55</td>
<td>136.61</td>
</tr>
<tr>
<td>HSC</td>
<td>137.15</td>
<td>49.45</td>
<td>139.64</td>
</tr>
</tbody>
</table>

Note. PHS = Psychology of Human Sexuality class (N = 66); PPP = Psychology of Personality Psychology class (N = 48); HSC= Human Sexuality and Culture class (N = 102). Using Cohen’s (1988) conventions of small = .20, medium = .50, large = .80 and above, the symbol * indicates magnitude of pretest to posttest effect size is greater for PHS than the quasi-control class PPP. The symbol ^+ indicates magnitude is greater for PHS class than the HSC class. FOS = Female Orgasm Scale (range 0- 560) and FPC = Female Communication During Sexual Activity (range 15- 210). For all measures, higher scores indicate higher levels of aspects of sexual functioning.
Table 3.3: Between Group Posttest Effect Sizes and Confidence Intervals for All Female Students

<table>
<thead>
<tr>
<th>Measure</th>
<th>PHS vs. PPP</th>
<th>HSC vs. PPP</th>
<th>PHS VS. HSC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hedges’ $g_s$</td>
<td>[95% CI]</td>
<td>Hedges’ $g_s$</td>
</tr>
<tr>
<td>ATWG</td>
<td>0.64*</td>
<td>[1.59, 5.01]</td>
<td>0.11</td>
</tr>
<tr>
<td>CDSAS</td>
<td>0.39*</td>
<td>[1.37, 17.22]</td>
<td>0.27</td>
</tr>
<tr>
<td>Self-Pleasure</td>
<td>0.63*</td>
<td>[0.82, 2.67]</td>
<td>0.03</td>
</tr>
<tr>
<td>Partner-Pleasure</td>
<td>0.50*</td>
<td>[0.42, 2.17]</td>
<td>0.05</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>0.48*</td>
<td>[0.41, 2.28]</td>
<td>0.23</td>
</tr>
<tr>
<td>Self-Reflection</td>
<td>0.67*</td>
<td>[1.49, 4.43]</td>
<td>0.29</td>
</tr>
</tbody>
</table>

Note. PHS = Psychology of Human Sexuality class (N = 79); PPP = Psychology of Personality Psychology class (N = 66); HSC= Human Sexuality and Culture class (N = 125). Using Cohen’s (1988) conventions of small = .20, medium = .50, large = .80 and above, the symbol * indicates that the magnitude of the posttest effect size is greater for PHS than the other two classes. ATWG = Attitudes Towards Women’s Genital Scale (range 10-40); CDDSAS = Cognitive Distraction During Sexual Activity Scale (range 20-120). Self- Pleasure = Female Sexual Subjectivity Inventory- entitlement of pleasure to self subscale (range 3-15); Partner Pleasure = Female Sexual Subjectivity Inventory- entitlement to pleasure from a partner subscale (range 4-20). Self-efficacy = Female Sexual Subjectivity Inventory- self-efficacy in achieving sexual pleasure subscale (range 3-15). And SSR = Female Sexual Subjectivity Inventory sexual self-reflection subscale (range 5-25). For all measures, higher scores indicate higher levels of aspects of sexual functioning.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Hedges' $g_s$</th>
<th>[95% CI]</th>
<th>Common Language</th>
<th>Hedges' $g_s$</th>
<th>[95% CI]</th>
<th>Common Language</th>
<th>Hedges' $g_s$</th>
<th>[95% CI]</th>
<th>Common Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOS</td>
<td>0.37</td>
<td>[-1.85, 85.74]</td>
<td>0.60</td>
<td>0.21</td>
<td>[-69.23, 16.12]</td>
<td>0.56</td>
<td>0.14</td>
<td>[-19.32, 50.97]</td>
<td>0.54</td>
</tr>
<tr>
<td>FPC</td>
<td>0.37</td>
<td>[-0.56, 33.22]</td>
<td>0.60</td>
<td>0.07</td>
<td>[-19.17, 13.11]</td>
<td>0.52</td>
<td>0.30</td>
<td>[-0.16, 26.76]</td>
<td>0.58</td>
</tr>
</tbody>
</table>

*Note. PHS = Psychology of Human Sexuality class (N = 66); PPP = Psychology of Personality Psychology class (N = 48); HSC = Human Sexuality and Culture class (N = 102). Using Cohen’s (1988) conventions of small = .20, medium = .50, large = .80 and above. FOS = Female Orgasm Scale (range 0-560) and FPC = Female Communication During Sexual Activity (range 15-210). For all measures, higher scores indicate higher levels of aspects of sexual functioning.*
CHAPTER 4
DISCUSSION

Summary of Results

The literature is clear in documenting that human sexuality classes increase sexual knowledge and change attitudes regarding sex (Henry, 2012), but this is the first quantitative study we could locate on the impact that these courses may have on sexual functioning. Due to course content (i.e., the Psychology of Human Sexuality class is taught from an applied psychology perspective and explicitly teaches about the orgasm gap, whereas Human Sexuality and Culture teaches about sexuality in general and does not specifically target the orgasm gap), we hypothesized that students enrolled in the former class would evidence changes on all sexual functioning variables over time and that students enrolled the latter class would show improvements only on some variables over time. Almost totally supporting this hypothesis, students in the Psychology of Human Sexuality class improved on all but one measure of sexual functioning (i.e., all measures except for the FSSI Entitlement to Pleasure from a Partner subscale) from pretest to posttest. Even more specifically, all students enrolled in this class evidenced changes over time in Attitudes Towards Women’s Genitals, Cognitive Distraction During Sexual Activity, Entitlement to Pleasure from Self, Efficacy in Achieving Sexual Pleasure, and Sexual Self-Reflection, and sexually active students enrolled in this class evidenced changes over time on the Female Orgasm Scale and Female Partner Communication Scale. All students enrolled in Human Sexuality and Culture, on the other hand, improved over time on the FSSI Efficacy in Achieving Pleasure Scale, and sexually active students enrolled in this class improved over time in the Female Orgasm Scale. Interestingly, and not anticipated in our hypotheses, all
students enrolled in Psychology of Personality evidenced improvement over time on the FSSI Entitlement to Pleasure from Self Scale. This latter finding is a bit confusing, and it may be that college students simply become more comfortable with the idea of self-pleasure as they progress through college rather than because of class content. On the other hand, the results pertaining to the two human sexuality classes lead to the conclusion that such classes improve sexual functioning and that course content purposefully and specifically addressing the orgasm gap and variable underlying this gap lead to more widespread and more encompassing changes in female sexual functioning over time.

Despite these rather straightforward and generally anticipated findings, results regarding class differences at post-test are a bit more difficult to interpret. Specifically, when making comparisons across courses with respect to posttest scores, all women enrolled in the Psychology of Human Sexuality class had higher scores at posttest than those enrolled in the Psychology of Personality class on all measures (i.e., Attitudes Towards Women’s Genitals, Cognitive Distraction During Sexual Activity, Entitlement to Pleasure from Self, Entitlement to Pleasure from a Partner, Efficacy in Achieving Sexual Pleasure, and Sexual Self-Reflection). Conversely, when comparing only sexually active women in terms of scores on the Female Orgasm Scale (FOS) and the Female Partner Communication Scale (FPCS), there were no differences between those enrolled in these two classes at posttest. Likewise, when comparing posttest scores between all women enrolled in Psychology of Human Sexuality to those enrolled in Human Sexuality and Culture, the former had higher posttest scores on four of the six measures (Attitudes Towards Women’s Genitals, Entitlement to Pleasure from Self,
Entitlement to Pleasure from a Partner, and Sexual Self-Reflection), but again there were no differences when comparing only sexually active women in terms of scores on the Female Orgasm Scale and the Female Partner Communication Scale. Finally, there were no posttest differences on any variables (i.e., the six given to all women and the two given to sexually active women) when comparing those enrolled in *Human Sexuality and Culture* and those enrolled in *Psychology of Personality*. In other words, basically in line with the within class changes described above, when examining posttest changes in measures of sexual functioning not dependent on actually being engaged in sexual activity, *Psychology of Human Sexuality* outperformed both *Human Sexuality and Culture* and *Psychology of Personality*, but *Human Sexuality and Culture* did not outperform *Psychology of Personality*. Still, what is most perplexing in terms of these results is that there were no differences at posttest across the three class conditions on the measures that included sexually active women only: the Female Orgasm Scale and Female Partner Communication During Sexual Activity Scale.

It thus appears that improving actual partnered sexual activities above and beyond that which might naturally occur over time may be difficult to accomplish via a university class. Indeed, adding weight to this notion is the finding that the FSSI Entitlement to Pleasure from Partner subscale was the only measure that did not show increases in scores from pretest to posttest for the *Psychology of Human Sexuality* class. It seems, then, that even a course targeted at enhancing female pleasure—both alone and with a partner—is not a potent enough intervention to outperform changes that may simply be the result of time and experience. Nevertheless, in considering these results, it may be significant to note that the unit on partner sexual communication
in this course occurred on the last day of class, and hence within one day to one week of when the posttest measures were taken. It is possible that a follow-up study would reveal changes over time with respect to these partner-focused behaviors and attitudes. Future studies should examine this possibility, as well as examine other interventions (e.g., workshops, books) specifically geared to enhancing entitlement to and actual female pleasure in partnered sexual encounters.

**Future Directions**

Future directions of this study include replicating it with different professors and at different universities. Specifically, since the content of the *Psychology of Human Sexuality* class did improve many key aspects of sexual functioning among women, it would be helpful to see if another professor using the same curricula at the same university would have similar success. This would help disentangle whether the success of the intervention was related to the curricula alone or something specific about the instructor. Likewise, the curriculum and study could be extended to other universities to see if the curricula from the UF’s *Psychology of Human Sexuality* would improve sexual functioning from participants at different universities with a different demographic composition. Furthermore, if similar studies were employed in an array of university human sexuality classes all over the country, this could help pinpoint which curriculum is best for enhancing women’s attitudes and behaviors regarding their own pleasure, in both solo and partnered sexual contexts.

Along with replicating and extending the study to other professors, courses, and universities, it is of utmost importance to note that the orgasm gap does not apply only to university women (Garcia, Lloyd, Wallen, & Fisher, 2014). While the interventions
used in the *Psychology of Human Sexuality* class resulted in improved sexual functioning among the female students enrolled, it would be both beneficial and important to offer this class to a diverse sample of community women and to study the effects.

**Limitations**

Despite these potentially useful future directions, the current study also suffers from methodological limitations. For example, the *Psychology of Personality* class utilized in this study was only a quasi-control condition and not a true control condition. As described by Shadish, Cook, and Campbell (2002) quasi-experimental studies generally have less outside variables controlled for as compared to a true experiment in which participants are randomly assigned a condition. In this case, there are likely differences between students who self-select a class about sexuality (intervention) versus a class about personality (quasi-control condition). Nevertheless, it may be impossible to correct this bias in additional research since students cannot be randomly assigned to course. Along similar lines, another methodical shortcoming is the known volunteer bias for college students in sexuality research (Wiederman, 1999). Specifically those who chose to participate are generally more comfortable with sexuality topics and have better sexual self-esteem, and this could have been true for those students who volunteered from all three classes. It is thus unclear how the results would have been if all students in all three classes were required to participate in this research.

Another potential limitation is that there may be unstudied variables that may account for increases in sexual functioning either unmeasured or unrelated to the interventions from the two sexuality classes themselves. As one example, perhaps
those students who discussed the sexuality course content with peers (either those also enrolled in the class or those not enrolled in the class) were those who evidenced the most change, but the degree of such out-of-class processing was not measured in this study. Similarly, other activities or events in one’s college life that were not measured (e.g., content from unrelated courses and campus activities) may have influenced the results. Likewise, a sexual experience itself (positive or negative) that occurred during the semester in which the study took place could have influenced the results.

Implications

Despite these shortcomings, the sex-positive implications of this study are undeniable. While there are several studies demonstrating that human sexuality classes effectively increase sexual knowledge and change attitudes (Henry, 2012), this is the first quantitative study to assess the impact such courses may have on sexual functioning. This study demonstrated that such courses enhance sexual functioning and that those taught from an applied psychology focus with specific content on the orgasm gap may be particularly effective. It is hoped that this study spurs additional research into interventions and methods to close the orgasm gap and increase female sexual pleasure.
APPENDIX A
DEMOGRAPHIC QUESTIONNAIRE

Please tell us a little about yourself.

Note: For each of the questions below, we have tried to provide a number of category options. However, we recognize that these categories will not capture everyone’s identities or characteristics. Therefore, for each question, we have also included an “other” option for you to use your own words to describe your identity if the categories provided do not capture your identity.

1. What is your age? ________

2. What was your assigned sex at birth?
   - Male
   - Female
   - Intersex
   - Other (please describe) ______________

3. How would you identify your gender? You may select more than one option.
   - Man
   - Woman
   - Transgender/Transsexual
   - Other (please describe): ______________

4. How would you describe your race/ethnicity? Please select the one best descriptor, or use the “Biracial/Multiracial” option to specify further.
   - African/African American/Black
   - American Indian/Native American
   - Arab American/Middle Eastern
   - Asian/Asian American
   - Hispanic/Latinx American
   - Asian American/Pacific Islander
   - White/European American/Caucasian
   - Biracial/Multiracial (please specify): ___________________________
   - Other (please specify): ___________________________

5. How would you identify your sexual orientation? Please check the one best descriptor.
   - Exclusively Heterosexual
   - Mostly Heterosexual
   - Bisexual
   - Mostly lesbian or gay
   - Exclusively lesbian or gay
• Asexual
• Other (please describe): ________________

6. What year are you in college?
• Freshman
• Sophomore
• Junior
• Senior
• Fifth year
• Other: ____________________

7. How would you identify your current social class? Please select the one best descriptor.
• Lower class
• Working class
• Middle class
• Upper middle class
• Upper class
• Other (please describe): ________________

8. How would you identify your family’s social class as you were growing up? Please select the one best descriptor.
• Lower class
• Working class
• Middle class
• Upper middle class
• Upper class
• Other (please describe): ________________

9. How would you describe your religion?
• Judaism
• Christianity
• Islam
• Buddhism
• Hinduism
• Chinese Folk
• Tribal Religions
• Atheism
• Agnosticism
• None
• Other

If you indicated "other" in the question above, please indicate your religion below.

____________________________________  ____________________
APPENDIX B
SEXUAL PRACTICE QUESTIONNAIRE

1. How would you describe your current relationship status?
   - Not dating, seeing, talking to, or involved with anyone currently
   - Casually dating, seeing, talking to, or involved with one or more people
   - Dating, seeing, talking to, or involved with one person exclusively
   How long have you been in your current relationship? ___________________
   - In a committed relationship
   How long have you been in your current relationship? ___________________

2. Have you ever engaged in sexual activity with a partner? Sexual activity is defined as anything you find arousing, excluding kissing but including (but not limited to) providing manual stimulation to a partner, receiving manual stimulation from a partner, providing oral stimulation (or oral sex) to a partner, receiving oral stimulation (or oral sex) from a partner, vaginal intercourse, and/or anal intercourse?
   - Yes
   - No

3. In the past month, have you engaged in sexual activity with a partner? Sexual activity is defined as anything you find arousing, excluding kissing but including (but not limited to) foreplay, providing manual stimulation to a partner, receiving manual stimulation from a partner, providing oral stimulation (or oral sex) to a partner, receiving oral stimulation (or oral sex) from a partner, vaginal intercourse, and/or anal intercourse?
   - Yes
   - No

4. Have you ever engaged in solo masturbation or self-stimulation? This would include any masturbation or self-stimulation that you engaged in without a partner.
   - Yes
   - No

5. In the past month, have you engaged in solo masturbation or self-stimulation? This would include any masturbation or self-stimulation that you engaged in without a partner.
   - Yes
   - No

6. Have you ever used any sex toys with a partner?
   - Yes
   - No

7. Have you past month used any sex toys with a partner?
   - Yes
8. Have you ever used any sex toys by yourself?
   - Yes
   - No

9. In the past month, have you used any sex toys by yourself?
   - Yes
   - No

10. Have you ever had an orgasm?
    - Yes
    - No
    - Not sure
APPENDIX C
ATTITUDES TOWARDS WOMEN’S GENITALS SCALE

The following items are about people’s feelings and beliefs related to women’s genitals (both the vulva and the vagina). The word vulva refers to a woman’s external genitals (the parts that one can see from the outside such as the clitoris, pubic mound and vaginal lips). The word vagina refers to the inside part, also called the birth canal.

Please mark the box to indicate how strongly you agree or disagree with each statement.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Women’s genitals are beautiful.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Women should feel proud of their genitals.</td>
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<td></td>
<td></td>
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<tr>
<td>3. Women’s genitals smell bad.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. I wish more people would appreciate the beauty of women’s genitals.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. In general, women’s genitals probably taste disgusting.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Women’s genitals are ugly.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7. I wish our society was more open about women’s genitals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Women’s genitals are dirty.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I feel positively toward women’s genitals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I can see how some people would think women’s genitals feel good to touch.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D
COGNITIVE DISTRACTION DURING SEXUAL ACTIVITY SCALE

Please use the following scale to indicate how often you agree with each statement or how often you think it would be true for you. The term partner refers to someone with whom you are or would be romantic or sexually intimate. Sexual activity refers to mutual stimulation of genitals, oral sex, or sexual intercourse (penis in vagina or anal sex).

1 Always 2 Usually 3 Often 4 Sometimes 5 Rarely 6 Never

1. During sexual activity, I am (would be) worried about how my body looks to my partner.
2. While engaged in sexual activity, I (would) worry that my partner is not enjoying the way I am touching their body.
3. During sexual activity, I (would) worry the whole time that my partner will get turned off by seeing my body without clothes.
4. It is (would be) difficult not to think about whether my movements during sexual activity are pleasing to my partner.
5. I (would) can only quit worrying about how my body looks to my partner if it is dark during sexual activity.
6. I am (would be) usually worried about my partner’s satisfaction with my actions while engaged in sexual activity.
7. During sexual activity, it is (would be) difficult not to think about how unattractive my body is.
8. I (would) often worry about the way I am behaving toward my partner during sexual activity.
9. It is (would be) difficult to enjoy sex because of my concerns over how appealing my body is to my partner.
10. During sexual interactions, I am (would be) concerned that my level of activity is not satisfying my partner.
11. While nude in front of a partner, I (wouldn’t) can’t help but think about how unattractive my body is.
12. While engaged in sexual activity with a partner, I (would) think too much about the way I am moving.
13. During sexual activity, I am (would be) distracted by thoughts about how I look to my
partner.

14. Thoughts about whether my actions are satisfying my partner (would) distract me during sexual activity.

15. If the lights are on during sexual activity, I (would) worry too much about how appealing my body is to my partner.

16. During sexual activity, I (would) think too much about whether my partner is happy with the way I am touching their body.

17. During sexual activity, I can (would) focus on my pleasure much more if I am in a position such that my partner cannot see my body.

18. While engaged in sexual activity, I am (would be) distracted by thoughts regarding what my partner thinks about my behavior.

19. I can (would) only quit worrying about how my body looks to my partner if there are covers over my body during sexual activity.

20. Overall, during sexual activity, I am (would be) distracted by thoughts about my sexual performance.
Please indicate how true of you each item is using the scale below.

1  2  3  4  5
Not at all true of me  Very true of me

1. It is okay for me to meet my own sexual needs through self-masturbation.
2. If a partner were to ignore my sexual needs and desires, I’d feel hurt.
3. I would not hesitate to ask for what I want sexually from a romantic partner.
4. I spend time thinking and reflecting about my sexual experiences.
5. I believe self-masturbating can be an exciting experience.
6. It would bother me if a sexual partner neglected my sexual needs and desires.
7. I am able to ask a partner to provide the sexual stimulation I need.
8. I rarely think about the sexual aspects of my life.*
9. I believe self-masturbation is wrong.*
10. I would expect a sexual partner to be responsive to my sexual needs and feelings.
11. If I were to have sex with someone, I’d show my partner what I want.
12. I think about my sexuality.
13. I think it is important for a sexual partner to consider my sexual pleasure.
14. I don’t think about my sexuality very much.*
15. My sexual behavior and experiences are not something I spend time thinking about.*

*Indicates reversed items

Subscales:
Items 1, 5, & 9: Sense of entitlement to sexual pleasure from self
Items 2, 6, 10, & 13: Sense of entitlement to sexual pleasure from partner
Items 3, 7, & 11: Self-efficacy in achieving sexual pleasure
Items 4, 8, 12, 14 & 15: Sexual self-reflection
APPENDIX F
FEMALE ORGASM SCALE

Instructions: The following questions ask about your sexual experiences (such as sexual activities with a partner). You are asked to rate each item on the scale provided. Please check off one box per item to indicate your response.

1. How often do you have an orgasm from vaginal penetration only (no direct clitoral stimulation) during intercourse with a partner?

   Please indicate what percentage of the time:
   □ 0%  □ 10%  □ 20%  □ 30%  □ 40%  □ 50%  □ 60%  □ 70%  □ 80%  □ 90%  □ 100%

   OR □ Does not apply to me
   (i.e., I do not have sexual interactions involving vaginal penetration only during intercourse with a partner)

2. How often do you have an orgasm from intercourse with a partner that includes both vaginal and direct clitoral stimulation?

   Please indicate what percentage of the time:
   □ 0%  □ 10%  □ 20%  □ 30%  □ 40%  □ 50%  □ 60%  □ 70%  □ 80%  □ 90%  □ 100%

   OR □ Does not apply to me
   (i.e., I do not have sexual interactions involving vaginal penetration and simultaneous clitoral stimulation)

3. How often do you have an orgasm from hand/manual stimulation of your genitals/clitoris by a partner?

   Please indicate what percentage of the time:
   □ 0%  □ 10%  □ 20%  □ 30%  □ 40%  □ 50%  □ 60%  □ 70%  □ 80%  □ 90%  □ 100%

   OR □ Does not apply to me
   (i.e., I do not have sexual interactions involving manual stimulation of the genitals/clitoris with a partner)

4. How often do you have an orgasm when you yourself manipulate or rub your own genitals/clitoris when you are with a partner?
Please indicate what percentage of the time:

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

OR □ Does not apply to me
(i.e., I do not have sexual interactions where I self-manipulate my own genitals clitoris when I am with a partner)

5. How often do you have an orgasm from ORAL stimulation of your genital/clitoris by a partner?

Please indicate what percentage of the time:

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

OR □ Does not apply to me
(i.e., I do not have sexual interactions involving oral stimulation of the genitals/clitoris with a partner)

6. In general, how satisfied... unsatisfied do you feel with the number of orgasms that you have during sexual activity with a partner?

□ □ □ □ □ □ □ □ □ □ □
Very Moderately Slightly Neither Satisfied Slightly Moderately Very Satisfied Satisfied Satisfied nor Unsatisfied Unsatisfied Unsatisfied Unsatisfied

7. In general, how satisfied... unsatisfied do you feel with the quality or experience of orgasms that you have during sexual activity with a partner?

□ □ □ □ □ □ □ □ □ □ □
Very Moderately Slightly Neither Satisfied Slightly Moderately Very Satisfied Satisfied Satisfied nor Unsatisfied Unsatisfied Unsatisfied Unsatisfied Unsatisfied
APPENDIX G
FEMALE PARTNER’S COMMUNICATION DURING SEXUAL ACTIVITY SCALE

Instructions: The following questions ask about your thoughts and feelings concerning sexual activities with a partner and your sexual experiences. You are asked to rate each item on the scale provided. Please check off one box per item to indicate your response.

1. Telling my partner what to do to stimulate me during intercourse would be:
   - Very
   - Moderately
   - Slightly
   - Neither
   - Easy
   - Slightly
   - Moderately
   - Very
   - Difficult
   - Difficult
   - Difficult
   - nor Difficult
   - Easy
   - Easy
   - Easy

2. Showing my partner what to do to stimulate me during intercourse would be:
   - Very
   - Moderately
   - Slightly
   - Neither
   - Easy
   - Slightly
   - Moderately
   - Very
   - Difficult
   - Difficult
   - Difficult
   - nor Difficult
   - Easy
   - Easy
   - Easy

3. Asking my partner to stimulate me to orgasm (i.e., by massaging my genitals/clitoris) when I have intercourse with my partner would be:
   - Very
   - Moderately
   - Slightly
   - Neither
   - Easy
   - Slightly
   - Moderately
   - Very
   - Difficult
   - Difficult
   - Difficult
   - nor Difficult
   - Easy
   - Easy
   - Easy

4. When having sex with a partner, how often do you tell your partner what feels good?
   a. 0% of the time
   b. 1-25% of the time
   c. 26-50% of the time
   d. 51-75% of the time
   e. 76-99% of the time
   f. 100% of the time

5. When having sex with a partner, how often do you show your partner what feels good?
   a. 0% of the time
   b. 1-25% of the time
   c. 26-50% of the time
   d. 51-75% of the time
   e. 76-99% of the time
   f. 100% of the time
6. When having sex with a partner, how often do you ask your partner to stimulate your clitoris to orgasm?
   a. 0% of the time
   b. 1-25% of the time
   c. 26-50% of the time
   d. 51-75% of the time
   e. 76-99% of the time
   f. 100% of the time
Near the bottom of the page, there are several links to class syllabi. These links are:

- Human Sexuality and Culture: [link](http://sites.clas.ufl.edu/anthro/files/SYLLABUSANT2301AU16.pdf)
Dear Students,

I have agreed to allow a doctoral student, Hannah Warshowsky, to seek your enrollment in a study for extra credit. This extra credit will be for 1% of your grade (so, XX points). Below is a note from Hannah explaining this study and how it works.

**Signature of Instructor**

********

Hello,

I would like to invite you to participate in a research study. Specifically, completing participation in this study will provide extra credit points worth 1% of your grade.

The purpose of the study is to examine the changes in students’ sexual attitudes and sexual functioning after completing one of three classes at UF: Psychology of Human Sexuality, Human Sexuality and Culture class, and Psychology of Personality. This study has been approved by the University of Florida Institutional Review Board (UFIRB201600669).

Taking part in this study requires you filling out two sets of questionnaires--one at the start of the semester and one at the close of the semester. Each time, filling these out will take about 15 to 30 minutes. Extra credit for participating in this study will only be given to those who fill out both sets of questionnaires.

Also, as explained in detail on the informed consent, your instructor will have no access to your responses, but will only know that you responded in order to allot you the extra credit points. Likewise, as also detailed on this same informed consent, all of the answers you provide will be anonymous, as there will be no file linking your identity to your responses. The answers you provide to both surveys will be linked only by a unique identifier that you create at the start of the study.

If you want to enroll in this study, you must complete the first set of questionnaires by **Tuesday, August 30th at 3pm**. If you do not complete the first set of questionnaires by this time, you will not be able to enroll subsequently (i.e., the survey will be closed and you will be unable to receive extra credit for participating in this study).

To enroll in this study, you must have internet access and be at least 18 years of age. If you do not meet these criteria, or if you simply do not want to participate, you can complete another extra credit assignment for the exact same number participation points. Specifically, attached you will find a research article on Big 5 Personality Traits and Sexuality Traits. To obtain the extra credit you would need to read this article and
provide your instructor a one-two page double spaced summary of the article, divided into the following five sections: Rationale for the Study, Method of The Study, Findings of the Study, Conclusions of the Study. This would need to be handed in by **September 6th at noon**. Please contact your instructor to determine how he or she wants this paper to be turned in (e.g., over email, on course site for the class, etc.). Also please note that if you participate in this study by filling out the first set of questionnaires but decide not to fill out the second set of questionnaires, you will be given another opportunity to summarize another article for extra credit. In other words, for extra credit you need to either: 1) fill out both sets of questionnaires, given at the start and end of the semester; 2) complete the extra credit assignment provided here; or 3) complete the first set of questionnaires and then later, complete a shorter extra credit assignment (i.e., a review of a shorter paper) in lieu of filling out the second set of questionnaires.

If you have any questions that you need addressed to help you decide whether or not to participate, please contact Hannah Warshowsky. You can reach her at hwarsh@ufl.edu or 321-848-2602.

**To begin the study, please click on the link below.** This link will direct you to the informed consent for this study. If you agree to participate after reading the informed consent, you will then be asked to answer the initial set of questionnaires. When you finish the questionnaires, you will be redirected to a second, separate Qualtrics survey where you will provide your name, and UF email address. It is VERY important that you complete this second survey as it is our only way to track your participation in the study and to therefore tell your instructor that you have participated in the study for extra credit.

**QUESTIONNAIRE LINK**
Dear Students,

I have agreed to allow a doctoral student, Hannah Warshowsky, to seek your enrollment in a study for extra credit. This extra credit will be for 1% of your grade (so, XX points). Since you just added this class, you will have less time to complete this set of questionnaires than your other classmates. To receive extra credit for participating in this study you must fill out this set of questionnaires by **Tuesday, August 30th at 3pm**.

Below is a note from Hannah explaining this study and how it works.

**Signature of Instructor**

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Hello,

I would like to invite you to participate in a research study. Specifically, completing participation in this study will provide extra credit points worth 1% of your grade.

The purpose of the study is to examine the changes in students' sexual attitudes and sexual functioning after completing one of three classes at UF: Psychology of Human Sexuality, Human Sexuality and Culture class, and Psychology of Personality. This study has been approved by the University of Florida Institutional Review Board (UFIRB201600669).

Taking part in this study requires you filling out two sets of questionnaires--one at the start of the semester and one at the close of the semester. Each time, filling these out will take about 15 to 30 minutes. Extra credit for participating in this study will only be given to those who fill out both sets of questionnaires.

Also, as explained in detail on the informed consent, your instructor will have no access to your responses, but will only know that you responded in order to allot you the extra credit points. Likewise, as also detailed on this same informed consent, all of the answers you provide will be anonymous, as there will be no file linking your identity to your responses. The answers you provide to both surveys will be linked only by a unique identifier that you create at the start of the study.

If you want to enroll in this study, you must complete the first set of questionnaires by **Tuesday, August 30th at 3pm**. If you do not complete the first set of questionnaires by this time, you will not be able to enroll subsequently (i.e., the survey will be closed and you will be unable to receive extra credit for participating in this study).

To enroll in this study, you must have internet access and be at least 18 years of age. If you do not meet these criteria, or if you simply do not want to participate, you can
complete another extra credit assignment for the exact same number participation points. Specifically, attached you will find a research article on Big 5 Personality Traits and Sexuality Traits. To obtain the extra credit you would need to read this article and provide your instructor a one-two page double spaced summary of the article, divided into the following five sections: Rationale for the Study, Method of The Study, Findings of the Study, Conclusions of the Study. This would need to be handed in by September 6th at noon. Please contact your instructor to determine how he or she wants this paper to be turned in (e.g., over email, on course site for the class, etc.). Also please note that if you participate in this study by filling out the first set of questionnaires but decide not to fill out the second set of questionnaires, you will be given another opportunity to summarize another article for extra credit. In other words, for extra credit you need to either: 1) fill out both sets of questionnaires, given at the start and end of the semester; 2) complete the extra credit assignment provided here; or 3) complete the first set of questionnaires and then later, complete a shorter extra credit assignment (i.e., a review of a shorter paper) in lieu of filling out the second set of questionnaires.

If you have any questions that you need addressed to help you decide whether or not to participate, please contact Hannah Warshowsky. You can reach her at XXXXX.

**To begin the study, please click on the link below.** This link will direct you to the informed consent for this study. If you agree to participate after reading the informed consent, you will then be asked to answer the initial set of questionnaires. When you finish the questionnaires, you will be redirected to a second, separate Qualtrics survey where you will provide your name, and UF email address. It is VERY important that you complete this second survey as it is our only way to track your participation in the study and to therefore tell your instructor that you have participated in the study for extra credit.

**QUESTIONNAIRE LINK**
Protocol Title: Effectiveness of Undergraduate Courses in Enhancing Sexual Functioning

Please read this consent document carefully before you decide to participate in this study.

You are invited to participate in a research study that will assess whether enrollment in a UF Class results in changes in sexual attitudes and functioning. Before you agree to take part, please read this carefully and make sure you understand what is involved in participating in the study.

Nature and Purpose of Study:
The main purpose of this study is to assess changes in students sexual functioning and attitudes across the course of a semester at UF. Results may contribute to the development of interventions for enhancing sexual functioning. You are being asked to take part in this study because you are enrolled in one of three courses whose instructors have agreed to allow participation to count towards extra credit: Psychology of Human Sexuality, Human Sexuality and Culture, and Psychology of Personality.

What you will be asked to do in this study:
If you agree to this informed consent, you will fill out two sets of questionnaires, one at the start and one at the end of the semester. Both questionnaires will include questions on your demographic characteristics, your sexual practices (e.g. masturbation, orgasm frequency), your feelings about your body, your sexual communication, and other aspects of your sexual functioning. Some of these questions may be rather personal. The first set of questionnaires, found at the end of this informed consent, must be completed by 3:00 p.m. on August 30th. The second set will be emailed to you after your last class and must be completed by December 12th at 12pm. Again, you must complete both sets to obtain the extra credit.

Time Required:
Participants can expect to spend up to 30 minutes completing each set of two questionnaires.

Expected Benefits:
By taking part in the study, you will be helping the researchers assess sexual functioning of students and changes in such functioning, as they vary depending on course enrollment. You also may gain insight about yourself by reflecting on your sexual functioning while answering the survey questionnaires. It is also possible that you will not benefit from participating in this study.

Possible Risks:
The overall expected risk is minimal. You may be uncomfortable answering questions
about your personal sexual beliefs and behaviors.

There is also a risk that by reading and answering these surveys you may become aware or reminded of distress related to your body or sexuality (e.g., possibly due to negative body image, past negative sexual experiences, or discomfort with your sexual orientation etc.).

If you become distressed while completing the study and need to talk to someone, you can contact the University of Florida Counseling and Wellness Center, (352) 392-1575 if you are a university student.

If you experience any problems as a direct result of being in the study or have questions about research participants’ rights, please contact the UF Institutional Review Board at (352) 392-0433.

Voluntary participation:
Your participation in this study is completely voluntary. There is no penalty for not participating. Additionally, if you begin participating and change your mind, you may withdraw your consent at any time. Again, however, you will only receive extra credit by completing the entire study (i.e., two sets of questionnaires, at start and end of the semester). However, if you do not choose to participate in the study at the start of the semester or if you stop participating after the first set of questionnaires, you may complete one of two alternative extra credit projects, as described in the email from the researcher.

Right to Refuse or Withdraw from the Study:
Participation is purely voluntary. You have the right to refuse to take part in this study or to withdraw from the study (i.e. stop responding to the email surveys) at any time.

If you withdraw because of one of the risks outlined above and want to seek counseling and if you are a University of Florida student, you can seek free services and referrals from the University of Florida Counseling and Wellness Center, (352) 392-1575.

Confidentiality:
Participation is confidential and we will not reveal to anyone that you are participating in this study (e.g., employers, family members, spouse, children). However, as with any study, your participation may be somehow inadvertently revealed (e.g., someone sees the email surveys), and you may experience some discomfort as a result.

You will also be asked to create a unique identifier for this study which will be used to connect the data you provide at the two points in time. Your unique identifier code will not be linked to your personal information, including your name or email. Therefore, there will be no file that contains both your personal information and your answers to the questionnaires. Thus, the data you provide is completely anonymous.

You will be asked, however, to provide your contact information (name and UF email)
on a separate survey that is not linked to your survey responses. This information will
only be used in order to track your participation and provide your name to your
instructor for the purposes of allocating extra credit points at the end of the
semester/close of the study.

The surveys you will complete are hosted on Qualtrics
(http://www.qualtrics.com/privacy-statement). There is a minimal risk that security of the
data you provide in these online surveys may be breached, but since (1) no identifying
information will be collected directly with your survey responses, (2) the online host
uses several layers of encryption and firewalls (specifically, transport layer security, TLS
and encryption, HTTPS), (3) your data will be removed from the server soon after you
complete the study, it is unlikely that a security breach of the online data will result in
any adverse consequence for you.

Your responses will be used for research purposes only. Study findings will be based on
aggregate group data only. You will not be identifiable in any publication or
presentation, which may arise from this research. The researchers will never reveal the
identity of anyone who participated in this study.

Compensation:
You will not be receiving monetary compensation for this study. However, you will
receive extra credit from your instructor. This extra credit will be worth 1% of your
grade.

Whom to contact if you have questions about the study:
Hannah Warshowsky
Counseling Psychology Graduate Student
University of Florida
XXXXXXXXXXXX

Dr. Laurie Mintz
Professor of Psychology
University of Florida
XXXXXXXXXXXX

I, Laurie Mintz, am the instructor of one of the courses Hannah Warshowsky is
evaluating and her thesis supervisor. However, I will not be involved in the data
collection or analysis and will not know which students are participating or their replies.
This study may enhance the course in the future, but will not affect the currently enrolled
students.

Whom to contact about your rights as a research participant in the study:
IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250
(352) 392-0433.
Agreement:
I have read the procedure described above, and I am at least 18 years old. By clicking “Agree” below, I voluntarily agree to participate in this study.
APPENDIX L
INSTRUCTIONS FOR IDENTIFYING CODE IN EACH SURVEY

The researchers need a way to connect the answers you provide to each of the two surveys to one another. Thus, it is very, very important that you fill the following out carefully.

First letter of mother's first name. ____ (For example if your mother’s name is Roberta, you would put R. If your mother has a proper name (e.g., Elizabeth) that is different than the nickname she commonly goes or went by (e.g., Lizzy) use her nickname (e.g., put an L here).

The number of the day you were born. ____ (For example if you were born on July 25, 1960, you would put 25 and if you were born on March 3, you would put 03.)

First letter of your father's first name. ____ (For example if you father’s name is Alvin, you would put an A. If your father has a proper name (e.g., Robert) that is different than the nickname he commonly goes or went by (e.g., Bob) use his nickname (e.g., put a B here).

For example, if your mother's name is Roberta, you are born on July 25th, and your father's name is Alvin your ID would be R25A.
APPENDIX M
CONSENSUAL SEXUALITY AGREEMENT

The remainder of this survey asks you questions about your sexual attitudes, behaviors and experiences. For all questions, please answer only for consensual sexual experiences, with consent defined as an encounter where both people wanted to engage in sexual activity.
APPENDIX N
INSTRUCTIONS TO LINK SURVEY QUESTIONNAIRES AND ID SURVEY

Thank you for completing these questionnaires. We now need to collect your name and email address. It is very important that you follow the link below to provide this information. Your instructor will need this information to award you extra credit points. Please note that the identifying information you provide will not be linked with the survey responses you just provided. Thank you!

**Insert link to ID Survey**

**ID survey:**
Name:
University of Florida Email address: ________@ufl.edu
Thank you for participating in this study and completing the initial questionnaires.

As explained in the consent, we will be sending you posttest questionnaires at the end of the semester. We appreciate your participation! Thanks again!

Sincerely,

Hannah Warshowsky
Primary Investigator
Note to IRB: All three instructors will send this out, and will fill in the XX and their signature below based on their particular course.

Dear Students,

As you likely recall, I have agreed to allow a doctoral student, Hannah Warshowsky, to seek your enrollment in a study for extra credit. This extra credit will be for 1% of your grade (so, XX points). Some of you already took the first part of this study, and some of you may have elected to not do so and completed an alternative extra credit assignment.

If you filled out the first set of questionnaires, fill this second set out to receive extra credit. Alternatively, if you completed the first set of questionnaires but felt uncomfortable and do not want to complete the second set, read below for another option to receive the full extra credit.

To receive the extra credit, you must fill out this new set of questionnaires or complete the described extra credit assignment by December 12th at 12pm.

Signature of Instructor
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Hello,

As you may recall, earlier in the semester you had the option of enrolling in a study which requires you to fill out two sets of questionnaires, one at the start of the semester and one at this point at the end of the semester. Indeed, it is now time to take the second and final set of questionnaires. As a reminder, this study has been approved by the University of Florida Institutional Review Board (UFIRB#).

Filling out this final set of questionnaires will take about 15 to 30 minutes. Once you complete this set and fill out the separate ID survey, your instructor will be notified that you completed the study and will allot you the extra credit points (i.e., 1% of your grade). You can only receive extra credit if you fill out both sets of questionnaires. To receive extra credit, you MUST complete the questionnaires and the separate ID survey by Monday, December 12th at 12pm. If you do not complete the questionnaires by this time the survey will be closed and you will be unable to receive extra credit for your participation.

However, if you filled out the first set of questionnaires but felt uncomfortable and don’t want to fill out the second set, you can complete another short project instead.
Specifically, attached you will find a research article on Personality and Sexual Risk Taking. To obtain extra credit, please provide your instructor a one page double spaced summary describing the conclusions of the study in your own words. This would need to be handed in by **Monday, December 12th at 12pm**. Please contact your instructor to determine how he or she wants this paper to be turned in (e.g., over email, on course site for the class, etc.). Please note that you can only get extra credit by completing this short paper if you already filled out the first set of questionnaires but now want to withdraw from the study. Credit will not be allotted solely for completing this paper.

**To complete the questionnaires, please click on the link given at the end of this email.** This link will direct you to the informed consent for this study which is re-attached as a courtesy reminder. Following the informed consent, you will be taken to a survey to provide a unique identifier code. You will then be taken to the final set of questionnaires. Upon completing these, you will be redirected to a second, separate Qualtrics survey where you will provide your name, and UF email address. It is VERY important that you complete this second survey as it is our only way to track your participation in the study and to therefore tell your instructor that you have participated in the study for extra credit.

**Here is the link for the study:** [QUESTIONNAIRE LINK](#)
Thank you for participating in this study. We hope you have enjoyed participating in this study and filling out these questionnaires.

The purpose of this study was to see whether undergraduate students in the Psychology of Human Sexuality class showed increased sexual functioning after the end of the course. Students in both Human Sexuality and Culture and the Psychology of Personality were included in this study as a comparison, or a control group, to see if students’ sexual functioning was in fact due to this specific human sexuality classes or perhaps due to other factors.

Research supports that taking a class on human sexuality can change people’s attitudes about sexuality, but little is known as to whether human sexuality classes improve sexual functioning. This study will hopefully provide information on the efficacy of human sexuality classes for promoting increased sexual pleasure and functioning.

If, as a result of this study you become distressed, please note that as a University of Florida student, you can seek services and referrals from the University of Florida Counseling and Wellness Center, (352) 392-1575.

If you have any questions, please don’t hesitate to contact us at XXXXX or XXXXX. Again, thank you for your participation!

Sincerely,

Hannah Warshowsky,
Principal Investigator
LIST OF REFERENCES


BIOGRAPHICAL SKETCH

Hannah Warshowsky is a graduate student in the Counseling Psychology program at the University of Florida. She continued to pursue her PhD after receiving her master's degree. Her research focuses on methods to increase female sexual functioning. She is also interested in developing and testing novel interventions to improve welfare for marginalized communities of people.