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Predictors Of Sexual Assertiveness In Women: A Comparative Study Of Women During Different Life-Stages

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PREDICTORS OF SEXUAL ASSERTIVENESS IN WOMEN:
A COMPARATIVE STUDY OF WOMEN DURING DIFFERENT LIFE-STAGES

by

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This dissertation submitted by Eevett Alane Loshek in partial fulfillment of the requirements for the degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done, and it hereby approved.

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Title   Predictors of Sexual Assertiveness in Women: A Comparative Study of
             Women During Different Life-Stages

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                                        Eevett Alane Loshek
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ABSTRACT

Sexual assertiveness is a beneficial skill-set for women, which is associated with several positive sexual health outcomes. The goals of the current project were to 1) develop a comprehensive measure of sexual assertiveness that could be used for women across the adult life span, 2) to better understand the predictors of specific dimensions of sexual assertiveness, 3) to investigate differences in the dimensions of sexual assertiveness across age groups, and 4) to examine how the predictors of sexual assertiveness vary by age. In Study 1 and Study 2, a three-factor comprehensive measure of sexual assertiveness was developed. These three factors of sexual assertiveness included the ability to initiate and communicate about desired sex, the ability to refuse unwanted sex, and the ability to communicate about sexual history and risk. In Study 3, women from across the lifespan completed the new measure of sexual assertiveness, as well as several other measures believed to assess the hypothesized predictors of sexual assertiveness. These predictors included sociosexuality, gender roles, risk perception, sex education, sexual assault history, and depression. A path model was tested in which sociosexuality, gender roles, sex education, adulthood sexual assault, and depression all significantly predicted different dimensions of sexual assertiveness and the model fit the data well. Age differences in sexual assertiveness as well as its predictors were also examined. Possible explanations, strengths, weaknesses, and implications for the current findings are discussed.

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CHAPTER I

INTRODUCTION

Several different definitions of sexual assertiveness currently exist. Collectively,

however, sexual assertiveness has been defined as the ability to insist on condom use,

initiate sex with a partner, refuse unwanted sex, communicate sexual desires and

satisfaction, and/or the ability to talk about one's sexual history with a sexual partner

(Greene & Faulkner, 2005; Hurlbert, 1991; Morokoff et al., 1997; Quina et al., 2000;

Rickert et al., 2002; Yamamiya et al., 2006; Yesmont, 1992; Zamboni et al., 2000).

A woman's ability to exhibit these behaviors is associated with better sexual

health outcomes (Jacobs & Kane, 2010) and more sexual autonomy (Morokoff et al.,

1997; Stoner et al., 2008). Specifically, higher levels of sexual assertiveness are

correlated with several positive outcomes, such as more sexual activity, more orgasms

during sex, more sexual desire, more sexual satisfaction (Hurlbert, 1991), and more

consistent condom use (Noar, 2001). Sexual satisfaction is positively correlated with

more overall well-being (Davison et al., 2009). Higher sexual assertiveness is also

correlated with a reduction in negative sexual outcomes. For example, higher levels of

sexual assertiveness are associated with fewer instances of unprotected sex (Jacobs &

Kane, 2010; Morokoff et al., 2009), a lower sexual assault risk (Livingston et al., 2007), a

lower risk of sexual assault revictimization (Kearns & Calhoun, 2010; Livingston et al., 2007), a lower risk of contracting a sexually transmitted infection (Morokoff et al., 1997; Rickert et al., 2002), fewer unwanted pregnancies, less sexual coercion risk (Rickert et al., 2002; Testa & Derman, 1999), and fewer instances of risky sexual behavior (Noia & Schinke, 2007).

Sexual assertiveness is an especially important skill for women, compared to men, because women are more likely to be victims of sexual assault. Greene and Navarro (1998) found that of the women they surveyed, 21.2% reported experiencing moderate sexual abuse as an adolescent, 17.9% reported severe adolescent sexual abuse, 6.7% reported experiencing moderate sexual abuse at the time the survey was administered, and 4.8% reported experiencing severe sexual abuse at the time the survey was administered. Women who are sexually assertive and who have experienced sexual assault are less likely to feel confused about the event, less likely to experience self-blame, and less likely to report being fearful of future occurrences than women who are not sexually assertive (Slamka, 2002). Sexual assertiveness appears to play a role in how women interpret the sexual assault, perhaps fostering resilience to traumatic events.

Not only is sexual assertiveness a strong predictor of positive sexual health outcomes for women, but it also appears to be a unique predictor that is distinct from overall social assertiveness. Onuoha and Munakata (2005) assessed sexual assertiveness and social assertiveness influences on the likelihood of contracting HIV. Sexual, not

social, assertiveness was associated with a lower likelihood of contracting HIV, and this relationship was consistent across cultures (Onuoha & Munakata, 2005).

Sexual assertiveness serves as a protective factor even in the presence of other risk factors, such as alcohol intoxication. Several studies have demonstrated that women who are sexually assertive are more likely to insist on condom use than women who are not sexually assertive (e.g. Jacobs & Kane, 2010; Morokoff et al., 2009; Noar, 2001). Furthermore, women who are more sexually assertive are more likely to use condoms even when intoxicated. Although alcohol intoxication is generally negatively correlated with condom use, sexual assertiveness still predicts condom use in women regardless of intoxication level (Stoner et al., 2008).

Measuring Sexual Assertiveness

Few sexual assertiveness researchers agree on how to best define or measure sexual assertiveness. As mentioned previously, sexual assertiveness has been defined as the ability to insist on condom use, initiate sex with a partner, refuse unwanted sex, communicate sexual desires and satisfaction, and/or a person's ability to talk about his/her sexual history with a sexual partner (Greene & Faulkner, 2005; Hurlbert, 1991; Morokoff et al., 1997; Quina et al., 2000; Rickert et al., 2002; Yamamiya et al., 2006; Yesmont, 1992; Zamboni et al., 2000). The most commonly used measures of sexual assertiveness are the Sexual Assertiveness Scale (Morokoff et al., 1997), the Hurlbert Index of Sexual Assertiveness (Hurlbert, 1991), and the Assertive Sexual Communication Scale (Quina et al., 2000).

Sexual Assertiveness Scale (SAS)

Currently, the most commonly used measure of sexual assertiveness is the Sexual Assertiveness Scale (SAS) created by Morokoff et al. (1997). This measure breaks sexual assertiveness down into three distinct components: initiation of desired sex, refusal of unwanted sex, and condom insistence.

Morokoff (2000) has argued that sexual assertiveness may be difficult for some women because women who follow traditional feminine gender roles may find it difficult to initiate desired sex. Traditional feminine gender roles encourage women to remain passive and submissive to men. Traditionally feminine women who wish to initiate desired sex are expected to do so through indirect means, such as smiling, gazing into the man's eyes, or flirting, rather than directly asking the man for sex (Perper & Weis, 1987). Being direct about one's needs would require the woman to take on assertive and direct qualities which conflict with the traditionally feminine gender role. Morokoff et al. (1997) has suggested that the only way to be sexually assertive is to be capable of directly initiating sex with a partner. To measure initiation of desired sex, Morokoff et al. (1997) used six items. Two such items are "I begin sex with my partner if I want to" and "I let my partner know if I want my partner to touch my genitals."

In addition to being able to initiate desired sex, a sexually assertive woman should also be able to refuse unwanted sex (Morokoff et al., 1997). Like initiation of desired sex, refusal of unwanted sex is hindered by traditional feminine gender roles. The expectation that women should remain passive and submissive to men can make it difficult for a woman to refuse unwanted sex. In a study of heterosexual couples, 45%

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of the women sampled reported experiencing non-violent sexual coercion, such as begging or insistence from the male partner (Brousseau, Bergeron, Hebert, & McDuff, 2011). This suggests that many women may not be directly refusing sex when they do not want it. To measure refusal of unwanted sex, Morokoff et al. (1997) used six items. Two such items are "I give in and kiss if my partner pressures me, even if I already said no" and "I put my mouth on my partner's genitals if my partner wants me to, even if I don't want to."

Finally, according to Morokoff et al. (1997), insistence on condom use is a necessary component of sexual assertiveness. Condom insistence requires that a woman be an involved and assertive participant in the sexual experience, which again clashes with traditional feminine gender role expectations. In 2010, an estimated 9,500 new HIV cases in the United States were reported among women. Eighty-five percent of these cases were due to sexual contact with someone known to have HIV or at a high risk of having HIV (CDC, 2010). This suggests that women may not always be insisting on condom use with their sexual partners. To measure condom insistence, Morokoff et al. (1997) used six items. Two examples of these condom insistence items are "I have sex without a condom or latex barrier if my partner doesn't like them, even if I want to use one" and "I have sex without using a condom or latex barrier if my partner insists, even if I don't want to." One problem with the inclusion of condom use as a necessary dimension of sexual assertiveness is that it may not apply to all women under all relationship circumstances. Women in committed relationships or women who are

actively trying to conceive may not use condoms, and this decision should not

necessarily be interpreted as indicative of a lack of sexual assertiveness.

The Sexual Assertiveness Scale (SAS) contains eighteen items and three

subscales. Each subscale corresponds to the three abilities Morokoff et al. (1997)

believe necessitate a high level of sexual assertiveness: initiation of desired sex, refusal

of unwanted sex, and condom insistence. Each subscale contains six Likert-type

questions. The SAS has an overall published *Cronbach's alpha* of .82.

Hurlbert Index of Sexual Assertiveness (HISA)

Several researchers have argued that sexual communication should also be

included as a component of sexual assertiveness (Greene & Faulkner, 2005; Quina et al.,

2000; Rickert et al., 2002; Yamamiya et al., 2006; Yesmont, 1992; Zamboni et al., 2000).

Hurlbert (1991) noticed that women who communicated with their sexual partner had

more orgasms during sex and reported greater sexual satisfaction. Women who

reported feeling uncomfortable communicating with their sexual partner reported

fewer orgasms and were more likely to adhere to traditionally feminine gender roles.

According to Hurlbert (1991), the ability to communicate with one's sexual partner is a

necessary component of sexual assertiveness.

Hurlbert (1991) incorporated sexual communication into the development of the

Hurlbert Index of Sexual Assertiveness (HISA). The HISA primarily contains items

regarding sexual communication with one's romantic partner, but also includes items

concerning sexual initiation and refusal of unwanted sex. For instance, "I feel

uncomfortable talking during sex" is an example communication item and "I feel

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comfortable in initiating sex with my partner" is an example initiation item. The HISA

contains 25 Likert-type questions with a *Cronbach's alpha* of .915.

Assertive Sexual Communication Scale (ASCS)

Quina et al. (2000) also emphasized sexual communication as a necessary

component of sexual assertiveness and posited that there are two different types of

sexual communication that influence sexual assertiveness: communication about

satisfaction/sexual desires and communication about one's sexual history. The more a

woman communicates her sexual satisfaction or sexual history with her partner, the less

likely she is to have an unwanted pregnancy or contract an STI (Deiter, 1994). Several

researchers who study sexual assertiveness support the distinction between sexual

satisfaction communication (Greene & Faulkner, 2005; Hurlbert, 1991; Rickert et al.,

2002; Yamamiya et al., 2006; Zamboni et al., 2000) and sexual history communication

(Greene & Faulkner, 2005; Yesmont, 1992; Zamboni et al., 2000) as they relate to sexual

assertiveness.

To better assess both aspects of sexual communication, Quina et al. (2000)

created the Assertive Sexual Communication Scale (ASCS). The ASCS is composed of two

subscales: the sexual communication for preferences subscale (reported *Cronbach's

alpha* = .85) and the sexual communication for information subscale (reported

Cronbach's alpha = .93). "I let my partner know what I do not like in sex" is an example

item from the communication for preferences subscale and "I would ask if I want to

know if my partner ever had an HIV test" is an example item from the communication

for information subscale. These subscales contain six and five Likert-type items

respectively.

Proposed Measure of Sexual Assertiveness

The first goal of the project described here was to create a comprehensive

measure of sexual assertiveness that can be used for women across the lifespan. The

comprehensive measure of sexual assertiveness that follows was created based on four

of the five factors of sexual assertiveness discussed thus far: initiation of desired sex,

refusal of unwanted sex, sexual satisfaction communication, and sexual history

communication. Condom insistence was excluded from the measure because condom

insistence may not be relevant to women of all ages and life-stages. For example,

women who are not married but sexually active would be expected to be more likely to

use condoms than women who are married or actively trying to conceive. However, it is

not necessarily the case that a married woman who is trying to get pregnant would not

be considered sexually assertive simply because she is not using contraception. Instead,

condom and contraceptive insistence are components of sexual assertiveness that are

relevant for women during a specific life-stage or age.

Previous research on sexual assertiveness has primarily focused on female

participants (e.g. Hurtlburt, 1991; Morokoff et al., 1997). The present study was

designed to be consistent with previous research and focused exclusively on female

participants. Sexual assertiveness is likely an important construct for men as well, but

the inclusion of men was beyond the scope of the current project.

Predictors of Sexual Assertiveness

A second goal of the project described here was to better understand the predictors of sexual assertiveness, and how these predictors relate to one another. Four specific constructs were hypothesized to predict sexual assertiveness: sociosexuality, gender roles (masculinity and femininity), risk perception, and sex education.

In addition to better understanding the predictors of sexual assertiveness, a subgoal of the project was to also investigate the relationships among these predictors and whether some predictors mediate, or partially mediate, the relationship between the constructs of interest and sexual assertiveness. Sociosexuality, gender roles, risk perception, and sex education were all hypothesized to significantly predict sexual assertiveness. Additionally, gender roles were expected to predict sociosexuality and sex education. In particular, masculinity was expected to be positively related to sociosexuality (higher sociosexuality scores indicate an unrestricted sociosexual orientation) and sex education, and femininity was expected to be negatively related to sociosexuality. Finally, sex education was expected to significantly predict risk perception.

Sociosexuality

Sociosexual orientation, or sociosexuality, captures a person's overall attitude about having sex outside the constraints of a committed relationship. The construct captures a person's attitude toward having sex in an uncommitted relationship, a general preference for the number of sexual partners at any given time, and the degree

to which a person fantasizes about people other than their current sexual partner (Simpson & Gangestad, 1991). Respondents are generally categorized as either "restricted" or "unrestricted." Highly restricted respondents tend to indicate that they need intimacy before engaging in a sexual relationship, that they will rarely have sex with a partner on only one occasion, and that they have had few sexual relationships in the past. Conversely, unrestricted respondents indicate that they enjoy having sex without commitment, have had many sexual partners in the past, and have had sex on only one occasion with several different sexual partners (Simpson & Gangestad, 1991).

Previous research has not yet demonstrated a relationship between sociosexuality and sexual assertiveness. However, sociosexuality was expected to predict sexual assertiveness. Women with an unrestricted sociosexual orientation may be more open to new sexual experiences and be more likely to communicate with their partner about their sexual needs, compared to more restricted individuals.

Gender Roles

Gender roles are socially constructed expectations about how men and women ought to behave (Spence et al., 1975). Sexual scripts are related to gender roles, in that they are socially constructed expectations about how men and women ought to behave sexually. Men are expected to be aggressive and assertive when engaging in sexual activity, while women are expected to be passive and attentive (Greene & Faulkner, 2005). Men and women are surrounded by gender role expectations and sexual scripts. Media, such as magazines and television, portray sexual relationships that strictly follow a culture's traditional sexual scripts and gender roles (Kim & Ward, 2004).

Previous research has demonstrated that gender roles predict sexual assertiveness. Women who follow traditional gender roles are discouraged from behaving in a sexually assertive way because this violates the sexual script associated with their gender role (Hurlbert & Apt, 1994; Morokoff, 2000). Within the traditional sexual script, a woman is expected to facilitate a man's sexual needs, relieve sexual tension within the relationship, and focus on the man's pleasure, rather than her own (Morokoff, 2000; Yesmont, 1992). Women are also expected to be the sexual "gatekeeper." The traditional sexual gatekeeper is a woman who allows her husband to have sex with her, but rejects other men's sexual advances (Gavey & McPhillips, 1999; Morokoff, 2000). Because of these expectations about what constitutes feminine behavior, women who exhibit sexually assertive behaviors are perceived negatively by those who adhere to traditional gender roles because sexually assertive women violate the sexual script of passive sexual facilitator and gatekeeper (Greene & Faulkner, 2005; Morokoff, 2000).

Women who exhibit traditionally feminine gender roles are more likely to have a lower level of sexual assertiveness than women who exhibit a combination of masculine and feminine gender roles (Curtin et al., 2011). Women who do not adhere to traditional gender expectations discuss and disclose more sexual information with romantic partners (Greene & Faulkner, 2005) and are more likely to insist on condom use (Gavey & McPhillips, 1999), compared to women who closely follow feminine gender expectations. Following nontraditional gender roles not only improves a woman's sexual assertiveness, but also improves her sexual experience. For example,

women who identify as feminists report more sexual satisfaction and respond more positively to sexual stimuli than women who do not consider themselves to be feminists (Bay-Cheng & Zucker, 2007).

Risk Perception

Risk perception was also predicted to be related to levels of sexual assertiveness. Risk perception can be defined as an individual's assessment of his/her vulnerability to experience a negative outcome (Dillard et al., 2012). A person's perceived risk for a negative outcome may influence his/her prevention efforts to minimize the negative outcome (Nurius, 2000). For instance, women are more likely to experience acquaintance sexual assault than stranger sexual assault. However, women report perceiving more risk associated with stranger sexual assault than acquaintance sexual assault (Hickman & Muehlenhard, 1997; Nurius, 2000). Therefore, women take more precautions against stranger sexual assault than acquaintance sexual assault. People who perceive an event to contain lower risk than actually exists may not adequately attempt to prevent the negative outcomes associated with the event (Hickman & Muehlenhard, 1997).

Previous research has demonstrated that sexual risk perception predicts the expression of sexual assertiveness. Women generally under-evaluate their risk of contracting an STI (Roberts & Kennedy, 2006) and may thus be less likely to refuse unwanted sex. Furthermore, women who do not accurately assess the risk associated with STI contraction are less likely to use condoms than women who accurately assess their risk of contracting an STI (Noar, 2001).

Sex Education

For the purposes of this project, sex education was defined as an individual's knowledge and understanding of current contraception options and pregnancy prevention strategies. A woman's level of sex education has been shown to relate to her level of sexual assertiveness, in that more knowledge about pregnancy prevention and STI risk is associated with higher levels of sexual assertiveness (Curtin et al., 2011). Additionally, greater knowledge about HIV transmission and prevention is associated with a higher frequency of condom use and insistence (Bazargan et al., 2000; Curtin et al., 2011). Weinstein et al. (2008) reported that the college students they interviewed who had a poor understanding of contraceptives and STI and HIV transmission also demonstrated low levels of sexual assertiveness.

Control Variables

Several constructs other than sociosexuality, gender roles, risk perception, and sex education have been shown to correlate with sexual assertiveness. In particular, depression (Greene & Navarro, 1998; Mazzaferro et al., 2006) and previous sexual assault (Goldstein & Manlowe, 1997; Greene & Navarro, 1998; Katz et al., 2010; Kearns & Calhoun, 2010; Livingston et al., 2007; Stoner et al., 2008) have been shown to significantly predict sexual assertiveness. The relationship of these variables to the other predictors presented here, however, was less certain. Thus, they were included as potential exploratory or control variables.

Age and Sexual Assertiveness

Previous research on sexual assertiveness has primarily focused on young

women—in particular, college students. Very little sexual assertiveness research to date

has focused on women over the age of 50 (Jacobs & Kane, 2010). Additionally, most HIV

prevention programs that incorporate sexual assertiveness training have been

developed for young women and may not be generalizable to women over the age of 50

(Linsk, 2000), despite the fact that many women over the age of 50 are still sexually

active (Lindau et al., 2007; Paranjape et al., 2006). Thus, a third goal of the current

project was to assess sexual assertiveness across the adult life span.

Given that many older women are still sexually active, it stands to reason that

sexual assertiveness would be an important construct of interest for this demographic

group, as well as younger women.   Many sexually active older women report low levels

of sexual assertiveness (Derner, 2009; Jacobs & Kane, 2010; Neundorfer et al., 2005) and

only 13% report using condoms consistently (Paranjape et al., 2006). Women over the

age of 65 who said they did not use condoms consistently reported that they felt

condom use was unnecessary due to their age and inability to become pregnant. These

women considered condom use as only a means of preventing pregnancy and did not

seem to be concerned with preventing STI contraction (Hillman, 2007).

The fact that many older women are not concerned with STI prevention is

problematic because STI rates in this demographic are increasing. For example, rates of

new cases of HIV have increased in women over the age of 50 in the United States

(Jacobs & Kane, 2010). In 2011, approximately 47,273 people were diagnosed with HIV

in the United States (CDC, 2011). Approximately 11% of those cases were comprised of women over the age of 50 (Jacobs & Kane, 2010), with prevalence rates increasing approximately by 1% each year (Mack & Ory, 2003). A similarly increasing trend is found with rates of chlamydia, gonorrhea, syphilis, herpes, and genital warts (Bodley-Tickell et al., 2008).

A unique risk factor for contracting HIV in women over the age of 50 is that they begin to experience vaginal thinning and an increased likelihood of tearing. Vaginal thinning and tearing can increase the risk of acquiring HIV from an infected sexual partner.   Despite the increasing rates of HIV infection in women over 50, many physicians report that they neither inform their older patients about their increased risk, nor do they discuss how to prevent HIV (CDC, 2007). Because of the lack of information, women over the age of 50 generally perceive their risk of contracting HIV as lower than their actual risk (Savasta, 2004).

Although little research has been conducted on sexual assertiveness in women over the age of 50, one study did demonstrate a negative correlation between sexual assertiveness and HIV status (Jacobs & Kane, 2010). In other words, sexual assertiveness may serve as a protective factor to reduce the risk of HIV infection in older women, similar to the patterns observed for younger women.

For the current project, participants were classified in one of four different age-groups: 18-25, 26-40, 41-55, and 56-100. Sexual assertiveness was compared across age categories to determine whether sexual assertiveness differed across the adult life span. These age categories were designed to assess women from a variety of different life-

stages. For instance, it is likely that most of the women in the 56-100 age group have all gone through menopause. Menopause is a life-stage which may influence a woman's sexuality.

<div align="center">Age and the Predictors of Sexual Assertiveness</div>

The fourth and final goal of the current project was to assess if the predictors of sexual assertiveness (sociosexuality, gender roles, risk perception, and sex education) differ across the adult life span.

<div align="center">*Sociosexuality*</div>

Previous research has not demonstrated a relationship between age and sociosexual orientation. However, there are reasons to believe that sociosexuality would differ by age. Previous research has demonstrated that age is related to gender roles and that women from different generations have different expectations about what is considered appropriate for their gender (Jacobs & Tomlison, 2009). It stands to reason that generational effects will differentially predict sociosexuality as well. For instance, women who lived during less sexually restricted time periods (e.g. 1960s) may exhibit a more unrestricted sociosexual orientation. Thus, differences in sociosexuality across age groups were examined.

<div align="center">*Gender Roles*</div>

Previous research has demonstrated that gender role adherence is related to a woman's age. For example, women who are over the age of 60 are more likely to follow traditional gender roles and sexual scripts than women who are in their 20s (Stewart & Ostrove, 1998). These differences may exist due to gender role expectations during

<div align="center">16</div>

different time-periods and generations (Jacobs & Tomlison, 2009). As such, levels of

masculinity and femininity were compared across women in different age groups.

Risk Perception

Previous research has also demonstrated that age is related to sexual risk

perception. Women over the age of 60 believe they are less likely to acquire an STI than

younger women (Theall et al., 2003). Older women may simply be less informed about

sexual risk, especially if they have spent several years in a committed relationship where

risk was not an important factor to consider.

Sex Education

Levels of sex education were expected to vary by age because knowledge about

STI and pregnancy prevention changes over time. Older generations may be less familiar

with current information about sexual health and may be less informed than younger

generations about safe sexual practices (Wiley & Bortz, 1996).   Women over the age of

65 are less educated about HIV prevention and transmission than younger women

(Hillman, 2007; Savasta, 2004). As previously mentioned, even medical professionals do

little to educate their older patients. Doctors are unlikely to inform their older patients

about STI risk and STI prevention despite the growing number of older women

contracting HIV (CDC, 2011).

Hypotheses and Purpose

The first goal of the current project was to develop a comprehensive survey of

sexual assertiveness by creating items to measure initiation of desired sex, refusal of

unwanted sex, communication about one's sexual history, and sexual satisfaction

communication. Not only was this questionnaire designed to be more comprehensive than previous measures, but also the exclusion of condom insistence as a factor of sexual assertiveness makes the measure more appropriate for women of all age categories and life stages. Measuring sexual assertiveness in women of all ages is important because STI contraction and sexual assault remain a threat to women throughout their life-span (e.g. CDC, 2011).

A second goal of the project was to better understand the predictors of sexual assertiveness. In particular, the purpose was to examine whether different variables believed to be associated with sexual assertiveness—sociosexuality, gender roles, risk perception, and sex education—significantly predict specific dimensions of sexual assertiveness. Relationships among these predictors were also examined. Depression and sexual assault history were also measured as potential variables of interest. A better understanding of the constructs that predict sexual assertiveness in women is a worthwhile endeavor because mental health professionals can use that information to predict which women are likely to display low levels of sexual assertiveness and use that information to design interventions to promote higher levels of sexual assertiveness in women.

The final goal of the project was to examine how sexual assertiveness and the predictors of sexual assertiveness may differ across the lifespan. Little research has been conducted to investigate how sexual assertiveness differs across the lifespan. Additionally, understanding how the predictors of sexual assertiveness may vary by age might provide a better understanding of why sexual assertiveness varies by age, and

how interventions to increase sexual assertiveness could be developed for different age groups.

The specific hypotheses for this project were as follows:

(H1) The comprehensive measure of sexual assertiveness would yield a four-factor solution: initiation of desired sex, refusal of unwanted sex, communication about sexual history, and communication about sexual satisfaction (e.g. Morokoff et al., 1997; Quina et al., 2000).

(H2) Gender roles (e.g. Curtin et al., 2011), risk perception (Nurius, 2000), and sex education (Curtin et al., 2011) were all expected to significantly predict sexual assertiveness in women. In particular, non-traditional gender roles (such as high masculinity and low femininity), high appraisals of risk of STI contraction, and more sex education, were expected to predict a high level of sexual assertiveness in women. The current project also explored sociosexuality's relationship to sexual assertiveness, with the expectation that higher levels of sociosexuality (an unrestricted sociosexuality) would be associated with higher levels of sexual assertiveness. Additionally, these predictors were expected to uniquely predict specific dimensions of sexual assertiveness, but the relationships between individual predictors and dimensions were not specified.

Relationships among predictors were also explored. Gender roles were expected to significantly predict sociosexuality and sex education. In particular, masculinity was expected to be positively related to sociosexuality (an unrestricted sociosexuality) and

sex education, and femininity was expected to be negatively related to sociosexuality.

Finally, sex education was expected to significantly predict risk perception (see Figure 1).
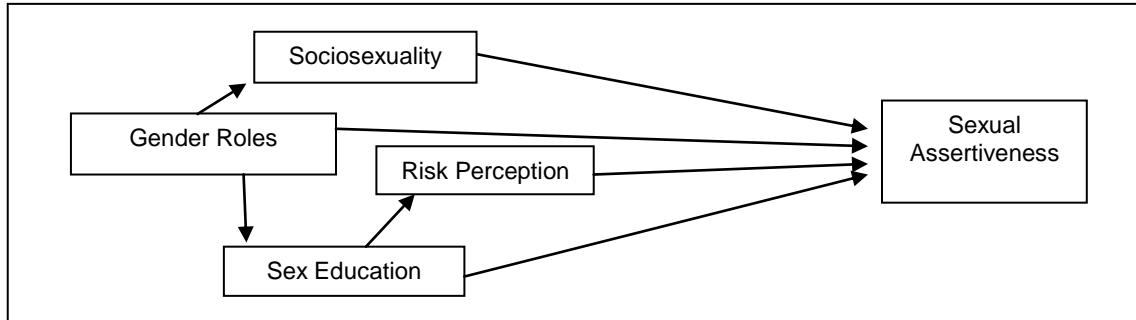
Figure 1: Hypothesized Relationships among Predictors of Sexual Assertiveness. Sociosexuality, gender roles, risk perception, and sex education were all hypothesized to predict sexual assertiveness. Also, gender roles were expected to predict sociosexuality and sex education. Sex education was hypothesized to predict risk perception.

(H3) Sexual assertiveness was predicted to differ by age. Specifically, women aged 56-100 were predicted to have lower levels of sexual assertiveness than women in the younger age groups (Jacobs & Kane, 2010).

(H4) The predictors of sexual assertiveness were also expected to differ by age. In particular, some research has suggested that women aged 56-100 follow more traditional gender roles (score high on femininity and low on masculinity; Stewart & Ostrove, 1998) than younger age groups. Older women have also been shown to underestimate their risk of becoming infected with an STI (Theall et al., 2003) and have been exposed to less sex education (Hillman, 2007; Savasta, 2004; Wiley & Bortz, 1996) than women aged 18-25.

Study 1 and study 2's main purpose was to explore and verify the factor structure of sexual assertiveness. To accomplish this, an exploratory factor analysis is

conducted in study 1 and a second exploratory factor analysis and confirmatory factor

analysis is conducted in study 2. Study 3's purpose was to determine the predictors of

sexual assertiveness, measure how sexual assertiveness differs by age, and how the

predictors of sexual assertiveness differ by age. To accomplish this, correlations, a path

analysis, and a series of ANOVAs were conducted in study 3. Study 1 and 2 evaluated

hypothesis 1, while study 3 evaluated hypotheses 2, 3, and 4.

CHAPTER II

STUDY 1: DEVELOPMENT OF THE SEXUAL ASSERTIVENESS QUESTIONNAIRE FOR WOMEN

To create a more comprehensive measure of sexual assertiveness, a list of items was generated based on previous measures of sexual assertiveness. An exploratory factor analysis was conducted based on these items to determine the number of dimensions of sexual assertiveness. Sexual assertiveness was predicted to be a multidimensional construct composed of four distinct factors: initiation of desired sex, refusal of unwanted sex, sexual satisfaction communication, and sexual history communication.

Participants

Two-hundred nine female college students who reported being sexually active participated in the study. Items in this study asked participants to recall sexual events and how they behaved as a result of those sexual events. Due to the nature of these questions, it was imperative that participants experienced sexual activity prior to answering the questionnaire. Therefore, participants who reported that they had never been sexually active were excluded from data analysis. "Sexual activity" was not defined by the researchers. This allowed the participants to decide for themselves whether they had ever been sexually active. "Sexually active" may mean different

activities to different people and we did not want to restrict participants into thinking

sexual activity meant heterosexual intercourse.

All participants were from the University of North Dakota and participated in

exchange for course credit. Nine participants were excluded from data analysis because

they did not answer all of the sexual assertiveness questions. Because of this, the

analysis was based on a sample of 200 participants. Participant's ages ranged from 18

to 48 years old (M = 28.43, SD = 3.62). Participants reported their ethnicity with 91.4%

of the sample self-identifying as Caucasian, 3.3% as Native American, 1.9% as Asian,

1.4% as Hispanic, 0.5% as African American, and 1.5% as "Other Ethnicity."

<div align="center">Item Creation</div>

All items in the proposed measure were derived from the SAS (Morokoff et al.,

1997), the HISA (Hurlbert, 1991), and the ASCS (Quina et al., 2000). Each of these

measures specifies the factor associated which each item. Therefore, items were drawn

from each of the above listed measures to represent all four hypothesized factors.

Some of the items were kept exactly as they appeared in the original sources, while

other items were modified to better assess the constructs of interest. The proposed

measure contained six items to represent initiation of desired sex, six items to represent

refusal of unwanted sex, six items to represent sexual satisfaction communication, and

six items to represent sexual history communication, for a grand total of 24 items. Four

items from the HISA and two items from the SAS comprised the initiation of desired sex

subscale. Three items from the HISA and three items from the SAS comprised the

refusal of unwanted sex subscale. Five items from the HISA and one item from the ASCS

<div align="center">23</div>

comprised the satisfaction communication subscale. And, three items from the HISA

and three items from the ASCS comprised the sexual history subscale (see Appendix A

for the proposed measure).

Survey Process

Prior to completing the proposed measure, participants were presented with a

cover letter which served as the informed consent. This cover letter informed

participants that they would be answering questions about their sexuality and that they

could withdraw from completing the survey at any time. It also provided the

researcher's contact information in case the participant had further questions regarding

the study (see Appendix B for a copy of the cover letter).

After completing the sexual assertiveness measure, the participant's data were

securely and anonymously stored on Sona-System. Researchers can download data at

any time and save it in multiple secure locations. Identifying participant information

was replaced automatically by Sona-System with I.D. codes. No one, including the

researcher, was able to tie specific participants with the data they produced.

Results

To determine if sexual assertiveness is composed of four factors (hypothesis 1),

an exploratory factor analysis was performed. Principal factor extraction with promax

rotation was used via the Principal Axis Factoring option in PASW Statistics Version 19.0.

Promax is an oblique rotation option, chosen because a correlation was expected to

exist between factors if a multi-factor solution was obtained. The number of factors to

retain and rotate was determined by three criteria: the a priori hypothesis that the data

set would yield at least three factors, evaluation of the scree plot, and the

interpretability of the factor solution (Tabachnick & Fidell, 2007).

The scree plot was consistent with a multidimensional hypothesis and seemed to

indicate a three-factor solution. Thus, three factors were extracted. These three factors

accounted for 45.19% of the variance.

Hypothesis 1 was not supported. The exploratory factor analysis yielded a three

factor solution instead of a four factor solution. All of the items intended to comprise

the initiation of desired sex and the sexual satisfaction communication factors loaded

together to form a factor that could be described as the ability to initiate and

communicate about desired sex (Initiation). Additionally, two items that were intended

to measure the ability to communicate about sexual history also loaded onto the

Initiation factor. All six of the items intended to measure the ability to refuse unwanted

sex loaded onto to the same factor (Refusal). Finally, three of the items intended to

measure the ability to communicate about sexual history communication loaded

together on a third factor (History). The factor loadings and communalities for each

item are displayed in Table 1.

Table 1: Study 1 Exploratory Factor Analysis Loadings and Communalities

	Factor Loadings			h^2
	1	2	3	
1. I let my partner know what I do not like in sex.	**.598**	-.112	.037	.436
2. I feel uncomfortable telling my partner what feels good during sex.	**-.704**	.062	.194	.414
3. I feel comfortable telling my partner how to touch me.	**.653**	.122	.002	.396
4. When a technique does not feel good, I tell my partner.	**.444**	-.180	.153	.386

	Factor Loadings			h^2
	1	2	3	
5. I feel uncomfortable talking during sex.	**-.500**	.097	.228	.209
6. I think I am open with my partner about my sexual needs.	**.801**	.016	.018	.650
7. I feel comfortable in initiating sex with my partner.	**.649**	.018	.091	.483
8. I let my partner know if I want to have sex.	**.666**	.045	.202	.603
9. I feel that I am shy when it comes to sex.	**-.688**	.060	.177	.400
10. I approach my partner for sex when I desire it.	**.624**	.055	.177	.513
11. I begin sex with my partner if I want to.	**.626**	.136	.127	.448
12. I am reluctant to describe myself as a sexual person.	-.323	.050	.074	.095
13. I refuse to have sex if I don't want to, even if my partner insists.	-.046	**-.566**	.140	.367
14. It is hard for me to say no even when I do not want sex.	-.007	**.808**	-.007	.660
15. I find myself having sex when I do not really want it.	-.009	**.744**	-.150	.648
16. I find myself doing sexual things that I do not like.	-.228	**.528**	-.017	.410
17. I give in and kiss if my partner pressures me, even if I already said no.	-.080	**.460**	.066	.220
18. I have sex if my partner wants me to, even if I don't want to.	.072	**.815**	.108	.604
19. I would ask my partner about the AIDs risk of his or her past partners if I want to know.	-.076	-.088	**.706**	.489
20. It is easy for me to discuss sex with my partner.	**.737**	.050	.130	.637
21. I would ask if I want to know if my partner ever had a sexually transmitted infection.	-.097	-.121	**.812**	.653
22. I try to avoid discussing the subject of sex.	**-.673**	.022	.120	.391
23. I feel uncomfortable talking to my friends about sex.	-.272	.082	.109	.070
24. I would ask if I want to know if my partner ever had sex with someone who shoots drugs with needles.	-.089	.110	**.880**	.663

Factor Loadings and Communalities (h^2) based on Principal Factors Extraction and Promax Rotation Note: Factor loadings > .4 are indicated by bold typeface.

Discussion

The measure described here was predicted to yield four factors: initiation of desired sex, refusal of unwanted sex, sexual satisfaction communication, and sexual history communication. However, results from the exploratory factor analysis indicated that a three-factor solution was more appropriate. These three factors can be described as the ability to initiate and communicate about desired sex (Initiation), the ability to refuse unwanted sex (Refusal), and the ability to communicate about sexual history and risk communication (Risk). This new measure was tentatively named the Sexual Assertiveness Questionnaire (SAQ).

CHAPTER III

STUDY 2: VERIFICATION OF THE FACTOR STRUCTURE OF THE SEXUAL ASSERTIVENESS
QUESTIONNAIRE

The results of the previous exploratory factor analysis were interpreted and

discussed with an expert panel and the sexual assertiveness measure was revised.

Items 14, 16, and 21 were removed for clarity reasons and items 6, 7, 9, 13, 19, 22, and

24 were revised for clarity reasons. Finally, 13 additional items were added to the

measure because only 3 items loaded onto the history communication factor and the

expert panel thought additional questions would capture each factor more efficiently

than the current items did. The revised measure can be located in Appendix C.

Following these revisions, data were collected based on a new sample and the

data file was split to conduct a second exploratory factor analysis and a confirmatory

factor analysis. The goal of the exploratory factor analysis was to make any necessary

deletions to the item pool and the goal of the confirmatory factor analysis was to

further verify the three-factor solution.

Participants

Five hundred sixteen female college students at the University of North Dakota

participated in exchange for course credit. Participant ages ranged from 18 years to 49

years old (M= 20.22, SD= 3.45). Participants self-reported their ethnicity, with 84.9% of

the sample self-identifying as Caucasian, 2.3% as Native American, 1.2% as Asian, 1.0% as Hispanic, 1.0% as African American, and 0.8% as "Other Ethnicity." Due to the nature of the questions, participants who reported that they had never been sexually active were excluded from the sample and the analyses that follow were based on 485 women.

Survey Process

The survey process was similar to that of Study 1. Participants were presented with the same cover letter that was used in Study 1, which served as the informed consent. All demographic data and responses to the sexual assertiveness items were securely and anonymously stored on Sona-Systems.

Results

To verify the three factor solution from study 1 (hypothesis 1), a second exploratory factor analysis and a confirmatory factor analysis was performed. The data were randomly split into two separate files in order to complete an exploratory factor analysis and a subsequent confirmatory factor analysis. In this way, problematic items were omitted during the exploratory factor analysis phase prior to conducting the confirmatory factor analysis. The exploratory factor analysis was based on data from a sample of 239 participants and the confirmatory factor analysis was based on data from 233 participants. Participants who did not answer all of the sexual assertiveness questions were excluded from data analysis. Reverse-coded items were recoded prior to data analysis.

Exploratory Factor Analysis

For the exploratory factor analysis, principal factor extraction with promax

rotation was used. Promax rotation was used through the Principal Axis Factoring

option in PASW Statistics Version 20.0 and a three-factor extraction was indicated. The

factor loadings were examined to identify problematic items (i.e. items that did not load

on any of the factors or cross-loaded on factors). Consequently, items 1, 5, 10, 12, 13,

and 19 (from Appendix C) were deleted. The exploratory factor analysis was conducted

on the final 18 items presented in Appendix D and the three-factor solution accounted

for 54.29% of the variance. Table 2 contains the factor loadings and communalities

obtained for these items based on this final analysis. The *Cronbach's alpha* for the

subscales were .79 for the Initiation subscale, .78 for the Refusal subscale, and .81 for

the History subscale. The correlations among the subscales were as follows: r = .531 for

the correlation between Initiation and History, r = .249 for the correlation between

Initiation and Refusal, and r = .356 the correlation between History and Refusal.

Table 2: Study 2 Exploratory Factor Analysis Loadings and Communalities

	Factor Loadings			h^2
	Initiation	History	Refusal	
1. I feel uncomfortable telling my partner what feels good.	**.429**	.000	.064	.202
2. I feel uncomfortable talking during sex.	**.494**	-.116	.228	.286
3. I am open with my partner about my sexual needs.	**.825**	-.012	.092	.716
4. I let my partner know if I want to have sex.	**.770**	.016	-.084	.579
5. I feel shy when it comes to sex.	**.526**	-.121	.103	.253
6. I approach my partner for sex when I desire it.	**.725**	.076	-.176	.549
7. I begin sex with my partner if I want to.	**.636**	.058	-.138	.416
8. It is easy for me to discuss sex with my partner.	**.722**	.040	.059	.579
9. I refuse to have sex if I don't want to.	.022	.109	**.518**	.328

Table 2: Cont.

	Factor Loadings			h^2
	Initiation	History	Refusal	
10. I find myself having sex when I do not really want it.	.056	.008	**.660**	.416
11. I give in and kiss if my partner wants me to, even if I already said no.	-.034	.095	**.590**	.385
12. I have sex if my partner wants me to, even if I don't want to.	-.081	-.104	**.772**	.533
13. It is easy for me to say no if I don't want to have sex.	.113	.063	**.569**	.406
14. I would ask my partner about his or her risk of HIV.	-.053	**.654**	.157	.487
15. I would ask if he or she has had sex with someone who shoots drugs with needles.	-.072	**.647**	.017	.381
16. I ask my partner if he or she has practiced safe sex with other partners.	-.021	**.836**	-.048	.656
17. I ask my partners about their sexual history.	.156	**.493**	.008	.353
18. I ask my partner whether they have ever had a sexually transmitted infection/disease.	.022	**.810**	.007	.679

Factor loadings and communalities (h^2) based on items in Appendix D, using Principal Factors Extraction with Promax Rotation. Note: Factor loadings >.4 are indicated by bold typeface.

Confirmatory Factor Analysis

A confirmatory factor analysis was conducted on the final 18 items using Mplus 6.0 structural equation modeling software (Muthen & Muthen, 2010). MLR estimation was used to perform the analysis because the response distributions for some items were skewed. MLR estimation uses maximum likelihood estimates which are robust to non-normality and non-independence of observations (Muthen & Muthen, 2010).

Multiple fit indices were inspected to assess model fit. These fit indices included the chi-square test of model fit (recommended $x^2 \le 0.01$: Hu & Bentler, 1999; Yu, 2002), root mean square error of approximation (recommended RSMEA ≤ 0.05: Hu & Bentler,

1999; Rigdon, 1996; Yu, 2002), and standardized root mean square residual

(recommended SRMR ≤ 0.07: Hu & Bentler, 1999). For models based on small samples

(approximately 75 to 200 cases), the chi-square test of model fit is considered a

reasonable measure of model fit. The current analysis was based on sample of 233

participants; therefore, the chi-square test of model fit was consulted but still

interpreted with caution.

The final item list is included in Appendix D. Items 1-8 were specified to load on

the Initiation factor, items 9-13 were specified to load on the Refusal factor, and 14-18

were specified to load on the History factor. The factor loadings are presented in Table

3. All of the factors were moderately correlated with one another: $r = .438$ ($SE = .078$) p

$< .001$ for Initiation and Refusal, $r = .548$ ($SE = .072$) $p < .001$ for Initiation and History,

and $r = .503$ ($SE = .072$) $p < .001$ for Refusal and History. Fit indices indicate adequate

model fit: x^2 (132) = 211.71, $p < .001$; CFI = 0.92; RMSEA = 0.05; SMSR = 0.06.

Table 3: Study 2 Confirmatory Factor Analysis Standardized and Unstandardized
Loadings for a Three-Factor Model

Item	Unstandardized (S.E.)			Standardized (S.E.)		
	Initiation	Refusal	History	Initiation	Refusal	History
1	1.00 (--)			0.62		
				(0.07)		
2	0.75			0.42		
	(0.11)			(0.07)		
3	1.19			0.73		
	(0.14)			(0.06)		
4	0.76			0.63		
	(0.15)			(0.06)		
5	0.97			0.55		
	(0.13)			(0.07)		
6	0.85			0.62		
	(0.19)			(0.07)		

Table 3: Cont.

Item	Unstandardized (S.E.)			Standardized (S.E.)		
	Initiation	Refusal	History	Initiation	Refusal	History
7	0.81			0.57		
	(0.14)			(0.06)		
8	0.89			0.62		
	(0.14)			(0.05)		
9		1.00 (--)			0.62	
					(0.07)	
10		1.15			0.74	
		(0.14)			(0.04)	
11		1.00			0.59	
		(0.14)			(0.06)	
12		1.20			0.73	
		(0.16)			(0.04)	
13		1.00			0.62	
		(0.11)			(0.06)	
14			1.00 (--)			0.67
						(0.05)
15			1.14			0.66
			(0.13)			(0.06)
16			1.11			0.74
			(0.13)			(0.05)
17			0.91			0.65
			(0.11)			(0.05)
18			0.92			0.63
			(0.13)			(0.07)

Unstandardized Loadings (Standard Errors) and Standardized Loadings for a Three-Factor Confirmatory Model Based on Items in Appendix D.

Discussion

After the initial exploratory factor analysis from Study 1 was completed, items were modified, deleted, or added to the SAQ to better capture each of the proposed factors of sexual assertiveness. Subsequently, a second exploratory factor analysis and a confirmatory factor analysis were performed on the modified survey in Study 2. The exploratory factor analysis revealed that six items did not load on any factor and were therefore deleted. The final scale contains eighteen items that each loaded on one of

three factors: Initiation, Refusal, or History. Taken together, the results of Study 1 and

Study 2 indicate that sexual assertiveness, as conceptualized in the current study, is best

understood as a three-factor construct.

CHAPTER IV

STUDY 3: PREDICTORS OF SEXUAL ASSERTIVENESS AND DIFFERENCES BY AGE

The goal of study 3 was to collect data from diverse sample of women across the

lifespan in order to 1) develop a comprehensive model of the predictors of sexual

assertiveness, 2) examine how sexual assertiveness differs by age, and 3) examine how

the predictors of sexual assertiveness vary by age. Structural equation modeling was

used to explore the predictors of sexual assertiveness, as well as to explore the

relationships among these predictors. Analysis of variance was used to analyze

differences in sexual assertiveness and its predictors across age groups.

Participants

Data were collected from 1,153 participants. However, despite requesting data

from women only, some of the participants indicated that they were male. After

deleting male participants, data from 1,130 female participants remained. Many of

these participants submitted surveys that included large sections of missing data.

Participants with large amounts of missing data were deleted (e.g. if someone

responded to the sexual assertiveness questionnaire, but did not respond to the

sociosexuality questionnaire, her data were deleted). The analyses that follow were

performed on the resulting 1,052 participant responses. Table 4 shows the average age

of participants in each age category; Table 5 shows the self-reported ethnicity for each

age category, and Table 6 displays participant sexual orientation by age category.

Table 4: Study 3 Average Age of Participants by Age Group

Age group	Age		
	M	*SD*	*N*
18-25	22.32	2.06	252
26-40	31.31	4.00	305
41-55	47.08	4.51	297
56-100	59.76	4.27	196
Total			1050

Table 5: Study 3 Ethnicity Frequencies of Participants by Age Group

Age group	Ethnicity Frequencies						
	African American	Caucasian	Hispanic	Native American	Asian	Other	Total
18-25	24 (9.5%)	169 (67.1%)	16 (6.3%)	3 (1.2%)	19 (7.5%)	20 (7.9%)	252 (100%)
26-40	23 (7.5%)	239 (78.4%)	11 (3.6%)	2 (0.7%)	9 (3%)	21 (6.9%)	305 (100%)
41-55	25 (8.4%)	227 (76.4%)	11 (3.7%)	3 (1%)	11 (3.7%)	19 (6.4%)	297 (100%)
56-100	18 (9.2%)	148 (75.5%)	11 (5.6%)	3 (1.5%)	9 (4.6%)	7 (3.6%)	196 (100%)
Total	90 (8.6%)	783 (74.6%)	49 (4.7%)	11 (1.0%)	48 (4.6%)	67 (6.4%)	1050 (100%)

Percentages in parentheses represent the percent of participants in a particular age
group which comprise the corresponding ethnicity.

Table 6: Study 3 Sexual Orientation Frequencies of Participants by Age Group

Age group	Sexual Orientation Frequencies					
	Straight/ Heterosexual	Gay/ Lesbian/ Homosexual	Bisexual	Something else	Do not know	Total
18-25	179 (71%)	10 (4%)	45 (17.9%)	13 (35.2%)	4 (1.6%)	252 (100%)
26-40	238 (78%)	11 (3.6%)	51 (16.7%)	3 (1%)	2 (0.7%)	305 (100%)
41-55	254 (85.5%)	10 (3.4%)	29 (9.8%)	0 (0%)	2 (0.7%)	297 (100%)

Table 6: Cont

| Age group | Sexual Orientation Frequencies | | | | | |
	Straight/ Heterosexual	Gay/ Lesbian/ Homosexual	Bisexual	Something else	Do not know	Total
56-100	179 (90.8%)	6 (3.1%)	11 (5.6%)	1 (0.5%)	0 (0%)	196 (100%)
Total	850 (81.0%)	37 (3.5%)	136 (13.0%)	17 (1.6%)	8 (0.8%)	1050 (100%)

Percentages in parentheses represent the percent of participants in a particular age group which comprise the corresponding sexual orientation.

Participants recruited via Amazon Mechanical Turk. Generally, participants recruited from Amazon Turk are on average older (M = 32.8, SD = 11.5) than participants drawn from other Internet samples (M = 24.3, SD = 10; Buhrmester et al., 2011). Samples drawn from Amazon Mechanical Turk are also more representative of the United State's population than traditional samples drawn from universities (Paolacci et al., 2010). Amazon Mechanical Turk is a web based survey site which offers participants credit toward an Amazon.com purchase for the completion of a survey. Researchers and organizations can post their surveys on this website. Researchers who post surveys are required to pay Amazon Mechanical Turk a fee for using the website and they are required to cover the cost of the Amazon.com purchasing credit each participant receives.

Measures

The variables of interest were age, sociosexuality, gender roles, sexual risk perception, sex education, sexual assertiveness, depression, and sexual abuse history.

Age

Age was assessed in the demographic questionnaire as a free-response question. Based on their responses, participants were grouped in one of four categories: 18-25, 26-40, 41-55, or 56-100. The demographic questionnaire is located in Appendix F.

Sexual Assertiveness Questionnaire (SAQ)

Sexual assertiveness was measured using the *Sexual Assertiveness Questionnaire* (SAQ) that was created in Study 1 and Study 2. The SAQ consists of three factors: Initiation (SAQI; the ability to initiate and communicate about desired sex), Refusal (SAQR; the ability to refuse unwanted sex), and History (SAQH; the ability to communicate about sexual history and risk). The SAQ is located in Appendix D.

Sociosexuality (SOI)

Sociosexuality was measured with the *Sociosexual Orientation Inventory* (SOI). All seven multiple choice and 9-point Likert-type items were used. The average published *Cronbach alpha* for this measure is .75 (Simpson & Gangestad, 1991). The SOI is located in Appendix G.

Gender Roles (PAQ)

Gender roles were measured using the *Personal Attributes Questionnaire* (PAQ). All 24 6-point Likert-type items were used. The PAQ consists of two subscales: a feminine (PAQfem) and a masculine (PAQmas) subscale. The feminine subscale consists of eight items and the masculine subscale also consists of eight items. The eight remaining items are not used for data analysis. The average published *Cronbach alpha* is .94 for women (Spence et al., 1975). The PAQ is located in Appendix H.

Sexual Risk Perception (Risk)

Sexual risk perception was measured using a modified version of the *Future Health Expectations* subscale of the *Grand Cities Healthy Aging Study: Interview 2010.* Participants were asked seven 5-point Likert-type and two fill-in-the-blank risk perception questions regarding sexual health and STI contraction. Because the *Grand Cities Healthy Aging Study: Interview 2010* focused on likelihood of suffering from a stroke, the questions were altered to involve risk associated with STI contraction. For example, the third item is as follows: "My chances of contracting a sexually transmitted infection in the future are:" and the response options range from "1 not at all strong" to "5 very strong."   The items originate from several different sources with published *Cronbach's alphas* ranging from .73-.95 (Milne et al., 2002; Plotnikoff & Higginbotham, 1995). Two of the items measure perceived seriousness of contracting an STI (Plotnikoff & Higginbotham, 1995), two of the items measure perceived vulnerability to contracting an STI, and one item measures an individual's fear of contracting an STI (Milne et al., 2002). For the purposes of the current study, only the perceived vulnerability items were used in data analysis. The Risk is located in Appendix I.

Depression (Dep)

Depression was measured using the short form of the *Center for Epidemiologic Studies Depression Symptoms Index* (Dep). The scale has ten Likert-type items and a published *Cronbach's alpha* of .87 (Kohout et al., 1993). The Dep is located in Appendix J.

Sexual Abuse History (ASA/CSA)

Abuse history was assessed by measuring both childhood sexual assault and adulthood

sexual assault. Childhood sexual assault was measured using the *Early Sexual*

Experiences Checklist (CSA) and adulthood sexual assault was measured using the

Modified Sexual Experiences Survey (ASA). The *Early Sexual Experiences Checklist* is

composed of ten Likert-type and checklist items and has a published *Cohen's kappa* of

.92 (Miller & Johnson, 1997). The *Modified Sexual Experiences Survey* is composed of

eleven yes/no-type items and has a published *Cronbach's alpha* of .73 (Testa et al.,

2004). The CSA and ASA are located in Appendix K and L respectively.

Sex Education (SexEd)

Sex education was measured using *The Fog Zone*, a survey developed by the

Guttmacher Institute and the National Campaign to Prevent Teen and Unplanned

Pregnancy. Ten items were selected from *The Fog Zone* and used in the present study.

Nine of the items were true/false-type questions and the final item was a multiple-

choice question with two answer choices. For example, the first item is as follows: "It is

ok to use the same condom more than once. True or false?" The SexEd is located in

Appendix M.

Procedure

In the current study, participants were recruited via Amazon Mechanical Turk.

The total questionnaire took approximately 40 minutes to complete. Once the study

was complete, participants received $0.40 towards an Amazon.com purchase.

Buhrmester et al. (2011) demonstrated that paying participants $0.10 per ten minutes

of work completed on Amazon Mechanical Turk yields quality results. A $0.40 compensation is typical for studies taking approximately 40 minutes on Amazon Mechanical Turk (Buhrmester et al., 2011).

In addition to paying participants $0.40, fees were paid directly to Amazon Mechanical Turk for using their website. An additional four cents was paid to Amazon Mechanical Turk for every participant recruited. An initial sum of money was deposited into an account with Amazon and funds were drawn from that account over time to pay participants and fees. A grand total of $510.00 was used for the completion of the current study.

Prior to survey completion, participants were given a cover letter which served as an informed consent. This cover letter informed participants that they would be answering questions about their sexuality and that they could withdraw from completing the survey at any time. It also provided the researcher's contact information in case the participant had further questions regarding the study (see Appendix E for a copy of the cover letter).

After accessing Amazon Mechanical Turk and agreeing to participate in the current study, participants were redirected to Qualtrics to complete the questionnaire. Qualtrics is a survey website used for survey creation, survey distribution, data collection, and data storage. Qualtrics replaced identifying participant information automatically with random identification codes. No one, including the researcher, was able to connect specific participants to the data they provided. After survey completion, participants were directed back to Amazon Mechanical Turk to receive compensation.

Results

Descriptive Statistics

To determine the predictors of sexual assertiveness, how sexual assertiveness

differs by age, and how the predictors differ by age (hypotheses 2, 3, and 4),

correlations, a path analysis, and several ANOVAs were performed. Table 7 contains the

response options and observed mean, standard deviation, range*, and Cronbach's alpha*

for each measure.

Table 7: Study 3 Descriptive Statistics of Measures Used

Scale	Response Options	Range	*M*	*SD*	α
Sexual Assertiveness Questionnaire (SAQ)	1 Low Sexual Assertiveness – 7 High Sexual Assertiveness	5.94	5.22	1.06	0.878
SAQ: History/Risk (SAQH)	1 Low History/Risk Communication – 7 High History/Risk Communication	6.00	5.43	1.59	0.881
SAQ: Refusal (SAQR)	1 Low Refusal of Unwanted Sex – 7 High Refusal of Unwanted Sex	6.00	4.90	1.38	0.792
SAQ: Initiation/Satisfaction (SAQI)	1 Low Initiation/Satisfaction Communication – 7 High Initiation/Satisfaction Communication	6.00	5.28	1.29	0.862
Personal Attributes Questionnaire (PAQ)		--	--	--	0.782
PAQ: Femininity (PAQfem)	0 Low Femininity – 4 High Femininity	4.00	2.89	0.64	0.809
PAQ: Masculinity (PAQmas)	0 Low Masculinity – 4 High Masculinity	3.88	2.33	0.69	0.777
Sociosexual Orienation Inventory (SOI)	Z-Scores	3.78	--	0.65	0.774
Fog Zone (SexEd)	0 Low Sexual Contraceptive Knowledge – 10 High Contraceptive Knowledge	0.90	0.82	0.12	0.532

Table 7: Cont.

Scale	Response Options	Range	*M*	*SD*	α
Grand Cities Healthy Aging Study: Interview 2010 - Vulnerability (Risk)	1 Low Perceived Vulnerability – 7 High Perceived Vulnerability	4.00	2.58	0.87	0.484
Center for Epidemiologic Studies Depression Symptoms Index (Dep)	1 Low Depression – 7 High Depression	6.00	3.40	1.37	0.903
Modified Sexual Experiences Survey (ASA)	0 Low Levels Adult Sexual Assault – 1 High Levels Adult Sexual Assault	1.00	0.22	0.26	0.862
Early Sexual Experiences Checklist (CSA)	0 No Incidents of Child Sexual Assault – 10 Many Incidents of Child Sexual Assault	10.00	1.76	2.46	0.851

Response options, observed range, mean, standard deviation*,* and *Cronbach's alpha* for each measure used. Subscales are represented by indented titles.

Correlations

Table 8 presents the correlations between variables. Because the correlations were based on a large sample, the significance values were interpreted with caution. Correlations among variables of .20 or higher were retained for further analysis.

Path Analysis

The path model was developed using Mplus 6.0 Structural Equation Modeling Software (Muthen & Muthen, 2010). Maximum likelihood estimation with robust standard errors (MLR) was employed as the estimation method. MLR computes estimates with standard errors and chi-square test statistics that are robust to non-normality.

Model fit was evaluated using multiple fit criteria, including χ^2 test of model fit ($\chi^2 \leq 0.01$: Hu & Bentler, 1999; Yu, 2002), Comparative Fit Index (CFI ≥ 0.95: Hu & Bentler, 1999; Rigdon, 1996; Yu, 2002), root mean square error of approximation

(RSMEA ≤ 0.05: Hu & Bentler, 1999; Rigdon, 1996; Yu, 2002), and standardized root

mean square residual (SRMR ≤ 0.07: Hu & Bentler, 1999). For models based on large

samples (>200), the chi-square value is almost always statistically significant, so this

value was interpreted with caution.

Table 8: Study 3 Correlations among Variables

	Age	SAQ	SAQI	SAQR	SAQH	PAQFem	PAQMas	Risk	SOI	CSA	ASA	Dep	SexEd
Age	1 (--)	.00 (.994)	.00 (.971)	.02 (.586)	-.02 (.571)	.05 (.131)	.10 (.001)	-.01 (.869)	-.00 (.886)	-.01 (.787)	-.00 (.958)	-.08 (.010)	-.08 (.015)
SAQ		1 (--)	**.84 (<.001)**	**.67 (<.001)**	**.72 (<.001)**	**.21 (<.001)**	**.33 (<.001)**	**-.51 (<.001)**	.01 (.834)	-.01 (.652)	-.17 (<.001)	**-.31 (<.001)**	.16 (<.001)
SAQI			1 (--)	**.38 (<.001)**	**.39 (<.001)**	.19 (<.001)	**.35 (<.001)**	-.08 (.007)	.08 (.011)	.03 (.293)	-.10 (.002)	**-.35 (<.001)**	.12 (<.001)
SAQR				1 (--)	**.25 (<.001)**	.09 (.003)	**.22 (<.001)**	-.14 (<.001)	-.05 (.100)	-.17 (<.001)	**-.31 (<.001)**	**-.25 (<.001)**	.07 (.027)
SAQH					1 (--)	.18 (<.001)	.14 (<.001)	-.13 (<.001)	-.04 (.194)	.07 (.017)	-.00 (.953)	-.06 (.05)	.16 (<.001)
PAQ Fem						1 (--)	.16 (<.001)	**-.20 (<.001)**	**-.20 (<.001)**	.02 (.494)	.00 (.977)	-.10 (.002)	.15 (<.001)
PAQ Mas							1 (--)	-.08 (.008)	.11 (<.001)	-.02 (.559)	-.12 (<.001)	**-.52 (<.001)**	-.03 (.322)
Risk								1 (--)	**.25 (<.001)**	.06 (.053)	.14 (<.001)	.10 (.001)	**-.20 (<.001)**
SOI									1 (--)	.18 (<.001)	.17 (<.001)	.03 (.398)	-.02 (.488)
CSA										1 (--)	**.52 (<.001)**	.11 (.001)	.00 (.908)
ASA											1 (--)	**.24 (<.001)**	-.07 (.028)
Dep												1 (--)	.02 (.617)
SexEd													1 (--)

Table contains *Pearson r* -values with significance levels in parentheses. Correlations in bold type-face are greater than .20 and were therefore used for subsequent data analysis.

Because childhood sexual abuse and risk vulnerability were not significantly

correlated with any of the *specific* dimensions of sexual assertiveness, they were not

retained for further analysis. The path model in Figure 2 was developed based on the

correlations among variables, the a priori predictions about relationships among

variables, and suggested modification indices. This model provided a very good fit to

the data: χ^2 (12) = 50.24, p < .001; CFI = .962; RMSEA = .058; and SMSR = .034. The R^2

values for the sexual assertiveness factors were as follows: .210 for SAQ-I, p < .001; .143

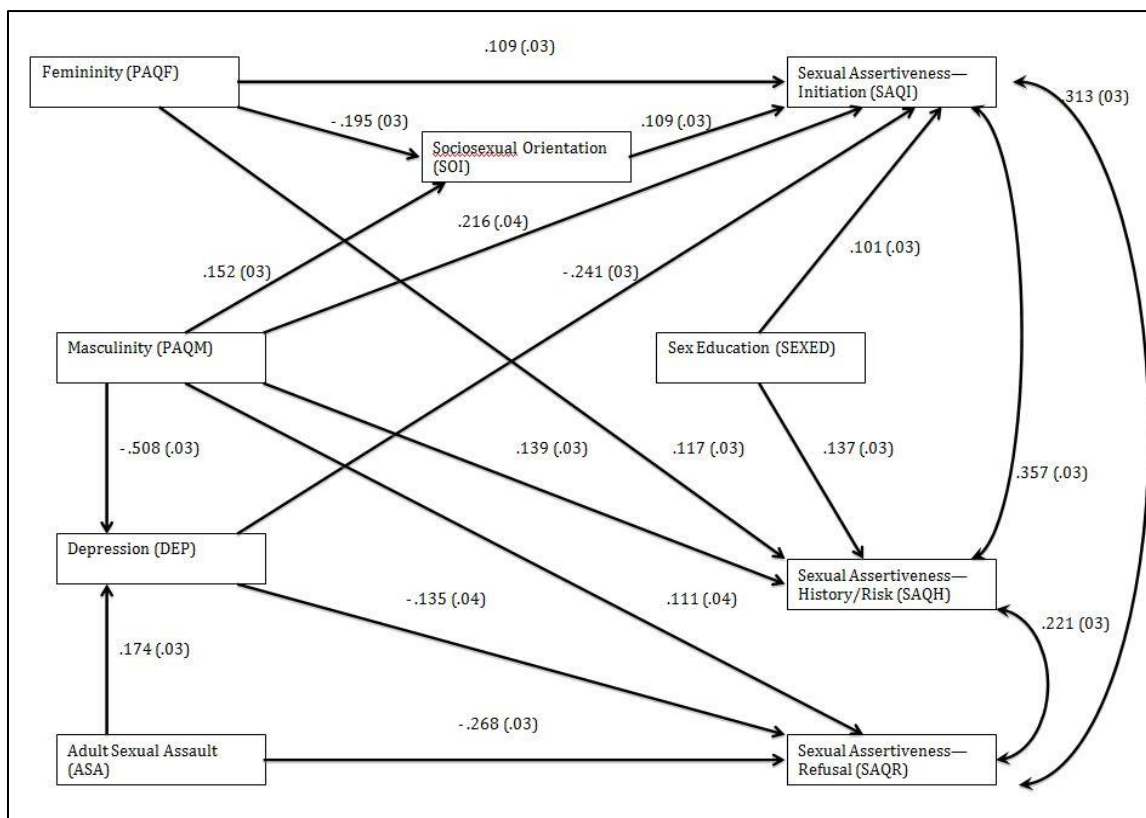for SAQ-R, p < .001; and .060 for SAQ-H, p < .001.

Figure 2: Final Path Model. Standardized coefficients are included for each path and standardized standard error values appear in parentheses. All path coefficients were significant at p < .001, with the exception of the path PAQ-M to SAQ-R, which was significant at p = .002.

Analysis of Variance

In order to examine whether sexual assertiveness differed by age and whether

the predictors in the final path model differed by age, a series of one-way ANOVAs were

conducted using SPSS Version 20. Age was entered as a factor and the dependent

variables were as follows: SAQ, SAQI, SAQR, SAQH, SexEd, SOI, PAQfem, PAQmas, Dep,

and ASA.

SAQ

A one-way ANOVA was conducted with age as the factor and SAQ as the

outcome and it yielded a significant effect for age, $F(3, 1044) = 4.183$, $p = .006$. Post hoc

analyses were conducted using the Bonferonni test and the results of these comparisons

are presented in Table 9. There was a marginally significant difference between ages

26-40 and 41-55, and a significant difference between ages 26-40 and 56-100. No other

significant differences were detected.

Table 9: Study 3 Pairwise Differences for SAQ by Age

Comparison				
Outcome 1	Outcome 2	Mean Difference	Std. Error	*p*-value
18-25	26-40	-0.044	0.090	1.00
	41-55	0.174	0.090	.324
	56-100	0.240	0.100	.101
26-40	41-55	0.218*	0.086*	.068*
	56-100	**0.285**	**0.097**	**.020**
41-55	56-100	0.066	0.097	1.00

Significant differences are indicated by bold type-face and marginally significant
differences are asterisked.

SAQI

A one-way ANOVA was conducted with age as the factor and SAQI as the outcome. The results of the omnibus ANOVA were significant, $F(3, 1044) = 2.693$, $p = .045$. Post hoc analyses with the Bonferonni test are presented in Table 10. A marginally significant difference was detected between ages 26-40 and 41-55, but no other differences reached significance.

Table 10: Study 3 Pairwise Differences for SAQI by Age

Comparison				
Outcome 1	Outcome 2	Mean Difference	Std. Error	*p*-value
18-25	26-40	-0.096	0.110	1.00
	41-55	0.165	0.110	.809
	56-100	0.161	0.123	1.00
26-40	41-55	0.261*	0.105*	.080*
	56-100	0.256	0.118	.180
41-55	56-100	-0.004	0.119	1.00

Significant differences are indicated by bold type-face and marginally significant differences are asterisked.

SAQR

The omnibus one-way ANOVA using age as the factor and SAQR as the outcome yielded no significant differences, $F(3, 1045) = 0.540$, $p = .655$.

SAQH

A one-way ANOVA was conducted with age as the factor and SAQH as the outcome variable. The results of the omnibus ANOVA were significant, $F(3, 1045) = 8.534$, $p < .001$. Post hoc analyses with the Bonferroni test are presented in Table 11. A significant difference was detected between ages 18-25 and 56-100, ages 26-40 and 56-100, and ages 26-40 and 41-55.

Table 11: Study 3 Pairwise Differences for SAQH by Age

Comparison		Mean Difference	Std. Error	p-value
Outcome 1	Outcome 2			
18-25	26-40	-0.124	0.134	1.00
	41-55	0.236	0.135	.484
	56-100	**0.561**	**0.150**	**.001**
26-40	41-55	**0.359**	**0.128**	**.031**
	56-100	**0.685**	**0.144**	**<.001**
41-55	56-100	0.325	0.145	.150

Significant differences are indicated by bold type-face and marginally significant differences are asterisked.

SexEd

A one-way ANOVA was conducted with age as the factor and SexEd as the outcome. The results of the omnibus ANOVA were significant, $F(3, 954) = 8.310$, $p < .001$. Post hoc analyses with the Bonferroni test are presented in Table 12. Post hoc tests revealed significant differences between the ages 18-25 and 26-40, ages 26-40 and 41-55, and ages 26-40 and 56-100.

Table 12: Study 3 Pairwise Differences for SexEd by Age

Comparison		Mean Difference	Std. Error	p-value
Outcome 1	Outcome 2			
18-25	26-40	**-0.032**	**0.010**	**.009**
	41-55	0.011	0.010	1.00
	56-100	0.011	0.012	1.00
26-40	41-55	**0.043**	**0.010**	**<.001**
	56-100	**0.043**	**0.011**	**.001**
41-55	56-100	-0.000	0.011	1.00

Significant differences are indicated by bold type-face and marginally significant differences are asterisked.

SOI

The omnibus one-way ANOVA using age as the factor and SOI as the outcome yielded only marginally significant differences, $F(3, 1048) = 2.322$, $p = .074$. Post hoc analyses with the Bonferroni test are presented in Table 13. Post hoc tests revealed only a marginally significant difference between the ages 18-25 and 41-55.

Table 13: Study 3 Pairwise Differences for SOI by Age

Comparison		Mean Difference	Std. Error	p-value
Outcome 1	Outcome 2			
18-25	26-40	0.086	0.055	.719
	41-55	0.134*	0.056*	.097*
	56-100	0.131	0.062	.208
26-40	41-55	0.048	0.053	1.00
	56-100	0.045	0.059	1.00
41-55	56-100	-0.003	0.060	1.00

Significant differences are indicated by bold type-face and marginally significant differences are asterisked.

PAQfem

The omnibus one-way ANOVA using age as the factor and PAQfem as the outcome yielded no significant differences, $F(3, 1048) = 1.867$, $p = .133$.

PAQmas

A one-way ANOVA was conducted with age as the factor and PAQmas as the outcome. The omnibus ANOVA was significant, $F(3, 1047) = 6.901$, $p < .001$. Post hoc analyses with the Bonferroni test are presented in Table 14. Post hoc analyses revealed significant differences between ages 18-25 and 41-55, ages 18-25 and 56-100, and ages 26-40 and 56-100.

Table 14: Study 3 Pairwise Differences for PAQmas by Age

Comparison				
Outcome 1	Outcome 2	Mean Difference	Std. Error	p-value
18-25	26-40	-0.093	0.058	.649
	41-55	**-0.164**	**0.058**	**.031**
	56-100	**-0.284**	**0.065**	**<.001**
26-40	41-55	-0.071	0.056	1.00
	56-100	**-0.191**	**0.063**	**.014**
41-55	56-100	-0.120	0.063	.337

Significant differences are indicated by bold type-face and marginally significant differences are asterisked.

Dep

A one-way ANOVA was conducted with age as the factor and Dep as the outcome variable. The omnibus ANOVA was significant, $F(3, 1048) = 12.651$, $p < .001$. Post hoc analyses with the Bonferroni test are presented in Table 15. Post hoc tests detected significant differences between ages 18-25 and 56-100, ages 26-40 and 56-100, and 41-55 and 56-100.

Table 15: Study 3 Pairwise Differences for Dep by Age

Comparison				
Outcome 1	Outcome 2	Mean Difference	Std. Error	p-value
18-25	26-40	0.081	0.115	1.00
	41-55	0.170	0.116	.854
	56-100	**0.729**	**0.129**	**<.001**
26-40	41-55	0.090	0.110	1.00
	56-100	**0.649**	**0.124**	**<.001**
41-55	56-100	**0.559**	**0.125**	**<.001**

Significant differences are indicated by bold type-face and marginally significant differences are asterisked.

ASA

The omnibus one-way ANOVA using age as the factor and ASA as the outcome yielded no significant differences, $F(3, 1048) = 1.667$, $p = .172$.

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Discussion

Greater perceived risk vulnerability of STI contraction, greater knowledge about contraceptives (sex education), non-traditional gender roles (reporting high femininity and low masculinity), and an unrestricted sociosexual orientation were all hypothesized to predict higher levels of sexual assertiveness. Instead, only sex education, gender roles, and sociosexuality significantly predicted sexual assertiveness. Although risk perception was correlated with other predictors in the model, it did not correlate with any of the dimensions of sexual assertiveness and was therefore excluded from further analysis.

Originally, depression and adulthood sexual assault were included as exploratory variables. After examining the correlations, it was clear that both variables were important additions to the overall model. Higher levels of adult sexual assault were related to higher levels of depression and a decreased ability to refuse unwanted sex. Higher levels of depression were predicted by adult sexual assault and lower masculinity. Furthermore, depression was associated with a decreased ability to initiate and communicate about desired sex, and a decreased ability to refuse unwanted sex.

As predicted, higher levels of masculinity were related to higher levels of each sexual assertiveness dimension (initiation and communication of desired sex, refusal of unwanted sex, and communication of sexual history). However, contrary to the hypothesis, higher levels of femininity were related to an increased ability to initiate and communicate about desired sex and an increased ability to communicate about one's sexual history. Masculinity and femininity were also significantly related to

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sociosexuality. Women who reported more masculine traits reported a less restricted sociosexual orientation, whereas women who endorsed more feminine traits reported a more restricted sociosexual orientation.

Contrary to the hypothesis, gender roles were not related to sex education. However, sex education did significantly predict an increased ability to initiate and communicate about desired sex and an increased ability to communicate about one's sexual history.

It was predicted that sexual assertiveness would differ by age. As hypothesized, younger age groups tended to report higher levels of sexual assertiveness overall. With regard to the specific dimensions of sexual assertiveness, communication about one's sexual history significantly differed across age. Women aged 18-25 were more likely to communicate one's sexual history with a romantic partner than women aged 56-100. Similarly, women aged 26-40 were more likely to communicate their sexual history than women aged 56-100 and women aged 26-40 were more likely to communicate their sexual history than women aged 41-55. In all three comparisons, the younger age group had higher levels of sexual history communication. The dimensions of initiation and communication of desired sex and refusal of unwanted sex did not differ based on age.

It was hypothesized that each predictor (sociosexuality, gender roles, risk perception, and sex education) would differ by age. Risk perception was not assessed because it was not included in the final path model. Because depression and sexual assault in adulthood were included in the final path model, both variables were analyzed for age differences. Sex education, masculinity, and depression all differed by

age. Sociosexuality, femininity, and adulthood sexual assault did not significantly differ by age.

Knowledge about contraception (sex education) also significantly differed by age. Women between the ages of 26 and 40 scored significantly higher than any other age group (18-25, 41-55, and 56-100) on sex education. Additionally, masculinity significantly increased with age. Women aged 56-100 reported significantly higher levels of masculinity than women aged 26-40 and women aged 18-25. Women aged 41-55 reported significantly higher levels of masculinity than women aged 18-25. Finally, depression decreases between the ages of 56 and 100. Women aged 56-100 reported significantly lower levels of depression than any other age group.

CHAPTER V

GENERAL DISCUSSION

It was hypothesized that sexual assertiveness would be best captured by four factors: initiation of desired sex, refusal of unwanted sex, communication about sexual history, and communication about sexual satisfaction. However, a three-factor solution emerged from the initial exploratory factor analysis. A second exploratory factor analysis and confirmatory factor analysis confirmed a three-factor solution: the ability to initiate and communicate about desired sex (Intitiation; SAQI), the ability to refuse unwanted sex (Refusal; SAQR), and the ability to communicate about sexual history and risk (History; SAQH).

It was hypothesized that greater perceived risk-vulnerability of STI contraction, more sex education, lower levels of femininity, and higher levels of masculinity, and an unrestricted sociosexual orientation would all predict higher levels of sexual assertiveness. Instead, only sex eduation, femininity, masculinity, and sociosexuality were related to the different dimensions of sexual assertiveness. Although risk perception was correlated with other predictors, it was not significantly correlated with any of the specific dimensions of sexual assertiveness.

Depression and sexual assault history were included as exploratory variables and were included as an important part of the final model. After examining the correlations,

these variables were included as part of the path model and served as important predictors because both variables predicted at least one of the specific dimensions of sexual assertiveness and were also related to the other predictors.

As hypothesized, higher levels of masculinity were associated with higher levels of sexual assertiveness. In fact, masculinity was a significant predictor for all three factors of sexual assertiveness: Initiation, Refusal, and History. Surprisingly, higher levels of femininity were associated with the ability to initiate and communicate about desired sex, as well as the ability to communicate about sexual history and risk. However, femininity was not significantly related to the ability to refuse unwanted sex. Previous research has demonstrated that women who do not adhere to traditional gender expectations are more likely to discuss and disclose sexual information with romantic partners (Greene & Faulkner, 2005) and are more likely to insist on condom use (Gavey & McPhillips, 1999). In other words, previous research supports the finding that masculine women are more likely to exhibit sexually assertive behaviors. However, previous research has not been consistent with the finding that higher levels of femininity are associated with higher levels of initiation and communication of desired sex as well as communication about sexual history and risk. Women who exhibit traditionally feminine gender roles have typically been more likely to have lower levels of sexual assertiveness than women who exhibit a combination of masculine and feminine gender roles (Curtin et al., 2011). One possibility for the positive relationship between femininity and sexual assertiveness is that some of the women who scored high on femininity also scored high on masculinity. This explanation is unlikely, however,

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because the correlation between these two variables was relatively low. A second possibility is that the measurement of femininity in this study did not necessarily capture an adherence to traditional gender roles. The Personal Attributes Questionnaire (Spence et al., 1975) focuses on general personality traits rather than belief systems. A woman could express feminine traits but not necessarily endorse traditional gender roles in relationships. Perhaps a measure such as the Ambivalent Sexism Inventory (Glick & Fiske, 1996) or the Attitudes Toward Women Scale (Spence & Helmreich, 1972) would better capture adherence to traditional gender roles.

Masculinity was also associated with higher levels of sociosexuality, whereas higher levels of femininity were associated with lower levels of sociosexuality. That is to say, masculine traits were associated with a less restricted sociosexual orientation and feminine traits were associated with a more restricted sociosexual orientation. Previous research is consistent with this finding. Men are more likely to exhibit an unrestricted sociosexual orientation than women (Oliver & Hyde, 1993; Yesmont, 1992) and women are more likely to exhibit caution when engaging in sex with multiple partners and to remain monogamous than men (Yesmont, 1992).

Higher levels of masculinity were also associated with lower levels of depression. In other words, women with who endorsed more masculine traits reported lower levels of depressive symptoms. A history of sexual assault as an adult was also related to depression. Women who reported a history of sexual assault also reported more depressive symptoms. Previous research supports the finding that women who have traits that are traditionally regarded as masculine are less likely to develop depression

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than women who do not have these traits (Sanfilipo, 1994). Previous research also supports the finding that women who survive sexual assault are likely to experience PTSD and depression symptoms following the event (Au et al., 2013).

Depression negatively predicted both the Initiation factor of sexual assertiveness and the Refusal factor, but not the History factor. More specifically, depressed women tended to report less ability to initiate and communicate about desired sex and less ability to refuse unwanted sex. Previous research supports the finding that depressed symptoms are related to sexual assertiveness. Greene and Navarro (1998) observed that women experiencing depressive symptoms were less likely to engage in sexually protective behaviors (similar to those measured by the Refusal factor developed here). Additionally, previous research suggests that women experiencing depression also tend to report lower levels of sexual satisfaction (Peleg-Sagy & Shahar, 2012). While "sexual satisfaction" may not be synonymous with the Initiation factor of the measure developed here, it is reasonable to assume that women who are better able to initiate and communicate about desired sex are more sexually satisfied.

A history of adult sexual assault was negatively related to the ability to refuse unwanted sex. Previous research is consistent with this finding. Women who are survivors of sexual assault have been found to be less likely to engage in sexual refusal behaviors than women who have not been sexually assaulted (Katz et al., 2010; Livingston et al., 2007).

Finally, more knowledge about sex education was related to higher scores on the Initiation and History subscales. That is to say, women who were more knowledgeable

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about contraceptive use reported a greater ability to initiate and communicate about desired sex as well and were more likely to indicate a willingness to communicate about sexual history and risk. While previous research suggests that a woman's level of sex education is positively related to her insistence of condom use (e.g. Curtin et al., 2011; Bazargan et al., 2000), no previous research to date has demonstrated a relationship between sex education and the Initiation and History dimensions presented here.

It was hypothesized that levels of sexual assertiveness would differ by age. Consistent with this hypothesis, women who were between the ages of 26 and 40 tended to report higher levels of overall sexual assertiveness (for the total scale) than women who were between the ages of 56 and 100, a finding that is consistent with previous research. Many sexually active women over the age of 60 report low levels of sexual assertiveness (Jacobs & Kane, 2010).

There was a significant difference across age groups for the History factor, and a marginally significant difference for the Initiation factor. However, no significant differences were detected for the Refusal factor. Women between the ages of 18 and 25 reported that they were more likely to communicate about their sexual history and risk with a romantic partner than women between the ages of 56 and 100. A similar pattern emerged for women between the ages of 26 and 40 compared to women between the ages of 56 and 100 and for women between the ages of 26 and 40 compared to women between the ages of 41 to 55. In all three comparisons, the younger age group reported higher levels of sexual history communication than the older age group. Although previous research has not focused on age differences with

regards to communication about sexual history and risk, this finding is consistent with the finding that women in older age groups generally report lower levels of sexual assertiveness than younger age groups.

It was also hypothesized that each predictor of sexual assertiveness (sociosexuality, masculinity, femininity, sexual education, and risk perception) would differ by age. Sexual education and masculinity significantly differed by age, differences in sociosexuality were only marginally significant across age groups, and significant differences in femininity did not emerge by age. Because depression and adult sexual assault history were included as part of the final path model, age differences for these variables were examined. Significant differences in depression were observed across age groups, but age differences were not observed for adult sexual assault history.

Women between the ages of 26 and 40 scored higher on contraceptive knowledge than any other age group (18-25, 41-55, and 56-100). Previous research supports the finding that older generations know less about contraception and safe sex practices than younger generations. Older generations (such as women aged 56-100) may not be familiar with new information and are not as familiar with safe sex methods as younger generations (Wiley & Bortz, 1996).   Women aged 56-100 know less about HIV prevention and transmission than younger women (Hillman, 2007; Savasta, 2004). This research explains why the 41-55 and 56-100 age groups scored lower on sex education, but does not explain why the 18-25 year old women scored lower than the 26-40 year old women. One possibility is that sex education programs targeted toward adolescents have changed over time. For instance, funding for abstinence-only sex

education programs for adolescents rose exponentially after 1996, and with greater

funding, these programs became far more common (Finer, 2007). Students who receive

abstinence-only education courses do not typically learn about contraceptive options or

STI prevention (Boonstra, 2007). The rise in abstinence-only education courses after

1996 may offer an explanation as to why the 18-25 year old women scored significantly

lower than the 26-40 year old women on sex education in the current study. It is

possible that the 18-25 year old women were more likely to have been exposed to

abstinence-only sex education programs than women in the 26-40 age category.

Age differences in masculinity, but not femininity, were observed. Masculinity

increased with age, with each older age category reporting higher levels of masculinity

that the younger age groups. Women between the ages of 26 and 40 reported higher

levels of masculinity than women 18-25, women 41-55 reported higher levels than

women 26-40, and women 56-100 reported higher levels than women 41-55. While no

age group significantly differed in masculinity with an adjacent age group, each age

group significantly differed from all other age categories. This finding is not necessarily

consistent with previous research, which has suggested that women over the age of 60

are more likely to follow traditional gender roles and sexual scripts than younger

women (Stewart & Ostrove, 1998). Again, this finding may be a function of the way that

masculinity was measured in the current study—with an endorsement of personality

traits rather than assessment of beliefs about how men and women should behave.

Women between the ages of 56 and 100 reported significantly lower levels of

depression than any other age group of women, a finding that is consistent with other

research. Previous research has indicated that after controlling for physical ability, socioeconomic status, cognitive impairment, and social support, women over the age of 65 are less likely to report depressive symptoms than women younger than 65 (Blazer, Burchett, Service, & George, 1991).

There were several strengths of the current project. First, a measure of sexual assertiveness was developed that is more comprehensive than previously developed measures. Additionally, the measure is more applicable to women of all ages because condom insistence was not included as a factor. The current project also explored the predictors of sexual assertiveness. Although some of these variables have been included in previous research on sexual assertiveness, there has been very little focus on how these predictors relate to specific dimensions of sexual assertiveness, as well as how these predictors relate to one another. Finally, the model that was developed and the subsequent analyses of differences across age groups was an important addition to the literature. For the most part, previous research on sexual assertiveness has overlooked older women. The current project compared sexual assertiveness and the predictors of sexual assertiveness across age categories, which provides a starting point to understand sexual assertiveness across the adult life span.

One important limitation of the current study is that women were split into comparison groups based on age rather than life stage. For instance, a willingness to communicate about sexual history may be more important for a single woman compared to a woman who has been in a committed relationship for several years, regardless of the woman's current age. Future research should focus on understanding how cohort effects

for sexual assertiveness interact with a woman's current relationship and reproductive status.

Data from the current project also indicated that sexual risk perception did not predict sexual assertiveness, even though previous research has suggested that women who do not accurately assess the risk associated with STI contraction are less likely to engage in sexually assertive behaviors (Noar, 2001). Risk perception was, however, correlated with some of the other predictors of interest. One possibility is that that risk perception may be an important predictor of appropriate contraceptive use, but this was not included as a part of the definition sexual assertiveness in this particular project.

Despite the positive impacts sexual assertiveness has on women's sexual health, many women still report an unwillingness or inability to behave in a sexually assertive way. Rickert, Sanghvi, and Wiemann (2002) state that 20% of the women they interviewed felt that they did not have the right to refuse unwanted sex, to ask a partner about his/her sexually transmitted infection (STI) risk, or to inform their partner that he/she was being too rough during intercourse. Due to the well-documented relationship between sexual assertiveness and positive sexual health outcomes, women who report low levels of sexual assertiveness may benefit from sexual assertiveness training. Future research programs should focus on the development of sexual assertiveness training programs, with a special emphasis on how different programs may be best designed for women in different age cohorts or life circumstances.

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APPENDICES

Appendix A
Proposed Measure of Sexual Assertiveness

Questions 1-6 comprise the sexual satisfaction communication subscale, 7-12 comprise the initiation of desired sex subscale, 13-18 comprise the refusal of unwanted sex subscale, and 19-24 comprise the sexual history communication subscale.

1. I let my partner know what I do not like in sex.
2. I feel uncomfortable telling my partner what feels good.
3. I feel comfortable telling my partner how to touch me.
4. When a technique does not feel good, I tell my partner.
5. I feel uncomfortable talking during sex.
6. I think I am open with my partner about my sexual needs.
7. I feel comfortable in initiating sex with my partner.
8. I let my partner know if I want to have sex.
9. I feel that I am shy when it comes to sex.
10. I approach my partner for sex when I desire it.
11. I begin sex with my partner if I want to.
12. I am reluctant to describe myself as a sexual person.
13. I refuse to have sex if I don't want to, even if my partner insists.
14. It is hard for me to say no even when I do not want sex.
15. I find myself having sex when I do not really want it.
16. I find myself doing sexual things that I do not like.
17. I give in and kiss if my partner pressures me, even if I already said no.
18. I have sex if my partner wants me to, even if I don't want to.
19. I would ask my partner about the AIDS risk of his or her past partners, if I want to know.
20. It is easy for me to discuss sex with my partner.
21. I would ask if I want to know if my partner ever had a sexually transmitted infection.
22. I try to avoid discussing the subject of sex.
23. I feel uncomfortable talking to my friends about sex.
24. I would ask if I want to know if my partner ever had sex with someone who shoots drugs with needles.

Appendix B
Exploratory Factor Analysis Cover Letter

Dear Participant:

I am a graduate student of psychology at the University of North Dakota.

I am conducting a research study to assess sexuality in college students. In this study, you will answer some questionnaires about sexuality. You will also fill out some information about your own personality and beliefs. Your participation is voluntary, and you may skip questions if you wish. If you feel uncomfortable, you can choose to not participate in the study.

The results of this study may be used in reports, presentations, or publications but your name will not be known and results will only be presented in aggregate form.

If you have any questions concerning this research, please contact me at eevett.loshek@my.und.edu or (701) 741-6692. If you have been made uncomfortable or upset by any of the questions presented here, you may contact myself, the Psychological Services Center at (701) 777-3691, or the UND Counseling Center at (701) 777-2127.

If you have questions regarding your rights as a research subject, or if you have any concerns or complaints about the research, you may contact the University of North Dakota Institutional Review Board at (701) 777-4279. Please call this number if you cannot reach research staff, or you wish to talk with someone else.

Completion of the questionnaire that follows will be considered your consent to participate.

Sincerely,

Eevett Loshek

Appendix C
Revised Measure of Sexual Assertiveness

1. I let my partner know what I do not like in sex.
2. I feel uncomfortable telling my partner what feels good during sex.
3. I feel comfortable telling my partner how to touch me.
4. When a technique does not feel good, I tell my partner.
5. I feel uncomfortable talking during sex.
6. I am open with my partner about my sexual needs.
7. I feel comfortable initiating sex with my partner.
8. I let my partner know if I want to have sex.
9. I feel shy when it comes to sex.
10. I approach my partner for sex when I desire it.
11. I begin sex with my partner if I want to.
12. I am reluctant to describe myself as a sexual person.
13. I refuse to have sex if I don't want to.
14. I find myself having sex when I do not really want it.
15. I give in and kiss if my partner pressures me, even if I already said no.
16. I have sex if my partner wants me to, even if I don't want to.
17. I would ask my partner about his or her risk of HIV.
18. It is easy for me to discuss sex with my partner.
19. I try to avoid discussing sex.
20. I feel uncomfortable talking to my friends about sex.
21. I would ask my partner if he or she has had sex with someone who shoots drugs with needles.
22. It is easy for me to say no if I don't want to have sex.
23. I ask my partner if he or she has been tested for sexually transmitted infections/diseases.
24. I ask my partner if he or she has practiced safe sex with other partners.
25. I ask my partners about their sexual history.
26. I am willing to share information about my sexual history with sexual partners.
27. I ask my partner whether they have ever had a sexually transmitted infection/disease.
28. I am comfortable taking measures to prevent STIs.
29. I have refused sex because my partner refused to use contraception.
30. I insist that my partner comply with my wishes regarding contraception.
31. I won't have sex with a partner who won't respect my wishes about safe sex.
32. I am not assertive about contraception.
33. I have always insisted on condoms with new partners.

34. In the past, I have wanted to use a condom but my partner did not, and I gave in.

Appendix D
Final Measure of Sexual Assertiveness

Items 1-8 comprise the initiation of desired sex and sexual satisfaction communication subscale. Items 9-13 comprise the refusal of unwanted sex subscale. Items 14-18 comprise the sexual history communication subscale.

1. I feel uncomfortable telling my partner what feels good in sex. (R)
2. I feel uncomfortable talking during sex. (R)
3. I am open with my partner about my sexual needs.
4. I let my partner know if I want to have sex.
5. I feel shy when it comes to sex. (R)
6. I approach my partner for sex when I desire it.
7. I begin sex with my partner if I want to.
8. It is easy for me to discuss sex with my partner.
9. I refuse to have sex if I don't want to.
10. I find myself having sex when I do not really want it. (R)
11. I give in and kiss if my partner pressures me, even if I already said no. (R)
12. I have sex if my partner wants me to, even if I don't want to. (R)
13. It is easy for me to say no if I don't want to have sex.
14. I would ask my partner about his or her risk of HIV.
15. I would ask my partner if he or she has had sex with someone who shoots drugs with needles.
16. I ask my partner if he or she has practiced safe sex with other partners.
17. I ask my partners about their sexual history.
18. I ask my partner whether they have ever had a sexually transmitted infection/disease.

Path Analysis Cover Letter

Dear Participant:

I am a graduate student of psychology at the University of North Dakota.

I am conducting a research study to assess sexuality in women during various life stages. In this study, you will answer some questionnaires about sexuality. You will fill out a survey about sociosexuality, gender roles, risk perception, sex education, depression, sexual assertiveness, and abuse history. You will also fill out some information about your own personality and beliefs. Your participation is voluntary, and you may skip questions if you wish. If you feel uncomfortable, you can choose to not participate in the study.

The results of this study may be used in reports, presentations, or publications but your name will not be known and results will only be presented in aggregate form.

If you have any questions concerning this research, please contact me at eevett.loshek@my.und.edu. If you have been made uncomfortable or upset by any of the questions presented here, you may contact myself, a Psychiatrist at http://www.healthgrades.com/psychiatry-directory, or a hotline at 1-800-273-8255.

If you have questions regarding your rights as a research subject, or if you have any concerns or complaints about the research, you may contact the University of North Dakota Institutional Review Board at (701) 777-4279. Please call this number if you cannot reach research staff, or you wish to talk with someone else.

Completion of the questionnaire that follows will be considered your consent to participate.

Sincerely,

Eevett Loshek, M.A.

Appendix F
Demographics

Sex (circle one): male female   **Age:** _____

Today's date: _____   **Year of birth:** _____

Height (feet and inches): _____   **Weight** (pounds): _____

Ethnicity (check all that apply):   ____ African-American
                                          ____ Caucasian
                                          ____ Hispanic
                                          ____ Native American
                                          ____ Asian
                                          ____ other

_____

Are you adopted? ____ yes   ____ no
If you are adopted, please answer all questions regarding your parents in terms
of your <u>adoptive</u> parents.

Were your parents ever divorced from each other? ____ yes ____no
If so, at what age were you when your parents got divorced? _____ years

Number of years of education of (check one in each column):
      yourself   your father your mother
1)   ____   ____   ____   less than 8th grade
2)   ____   ____   ____   some high school
3)   ____   ____   ____   high school graduate
4)   ____   ____   ____   some college or technical schooling
5)   ____   ____   ____   college graduate
6)   ____   ____   ____   some post-graduate education
7)   ____   ____   ____   post-graduate degree

**Occupation of (check one in each column; if retired, indicate the most recent
occupation):**
      yourself   father   mother
1)   ____   ____   ____   unemployed/retired
2)   ____   ____   ____   unskilled worker (laborer, service worker)
3)   ____   ____   ____   clerical, semiskilled worker
4)   ____   ____   ____   small business owner or manager
5)   ____   ____   ____   skilled worker (craftsperson, machine
operator)
6)   ____   ____   ____   corporate manager, government administrator
7)   ____   ____   ____   professional (doctor, engineer, teacher, etc.

What was your **family's yearly income** during most of the time you were growing up? (circle one)

0-$12,000 $13,000-$25,000 $26,000-$40,000 $41,000-$60,000 $60,000+

What is your **political affiliation**? (circle one)

      Democrat   Republican   Independent   None   Other
_____

What is your sexual orientation?

      Straight/heterosexual
      Gay/Lesbian
      Bisexual
      Something else
      Do not know

Have you ever had a sexual experience with someone of the same gender?

      Yes
      No

What is your current **relationship status**? (circle one)

      Single, not dating
      Single, dating
      In a Relationship
      Cohabitating (living together)
      Married (or equivalent)
      Divorced/Separated
      Widowed
      Other _____

How many hours per week are you **employed** (write "0" if unemployed)?

_____

While growing up did any of these things ever happen to you?

      Were hit or spanked by an adult
      Were physically abused
      Were verbally abused
      Witnessed frequent fights between adults

1. Which category do you feel most closely represents your current life stage?
  1) ____ Living independently and not in a committed relationship
  2) ____ In a committed relationship and not interested in having kids
  3) ____ Trying to conceive
  4) ____ Done having children
  5) ____ Done with menopause

2. How often did you attend **religious services** in the past year? (check one)
  1) ____ every week   3) ____ less than once a month
  2) ____ at least once a month   4) ____ not at all in the past year

3. **What is your religious affiliation?** (check one)
  1) ____ Roman Catholic

2) ____ Protestant (allowed to drink alcohol)
3) ____ Protestant (not allowed to drink alcohol)
4) ____ other "Christian" (please specify) _____
5) ____ Jewish
6) ____ Latter Day Saints (Mormon)
7) ____ other (please specify) _____
8) ____ atheist (do not believe there is a god)
9) ____ agnostic (unsure if there is a god)

Are you sexually active?

    Yes
    No

Sociosexual Orientation Inventory (Simpson & Gangestad, 1991)

Please answer the following questions honestly, circling the appropriate number for each item.

1) With how many partners have you had sex (sexual intercourse) within the last year?

    0 = None   5 = Eleven to fifteen
    1 = One   6 = Sixteen to twenty
    2 = Two   7 = Twenty-one to twenty-five
    3 = Three to five   8 = Twenty-six or more
    4 = Six to ten

2) How many different partners do you foresee yourself having sex with during the   next five years?

    0 = None   5 = Eleven to fifteen
    1 = One   6 = Sixteen to twenty
    2 = Two   7 = Twenty-one to twenty-five
    3 = Three to five   8 = Twenty-six or more
    4 = Six to ten

3) With how many different partners have you had sex on **<u>one and only one</u>** occasion?

    0 = None   5 = Eleven to fifteen
    1 = One   6 = Sixteen to twenty
    2 = Two   7 = Twenty-one to twenty-five
    3 = Three to five   8 = Twenty-six or more
    4 = Six to ten

4) How often do you fantasize about having sex with someone other than your current dating partner?

    1 = Never   5 = Once a week
    2 = Once every 2 or 3 months 6 = A few times each week
    3 = Once a month   7 = Nearly every day
    4 = Once every 2 weeks   8 = At least once a day

5) Sex without love is OK.

    1--------2--------3--------4--------5--------6--------7--------8--------9
  I strongly   I strongly
  disagree   agree

6) I can imagine myself being comfortable and enjoying "casual" sex with different   partners.

    1--------2--------3--------4--------5--------6--------7--------8--------9
  I strongly   I strongly
  disagree   agree

7) I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex

with   him or her.
```
     1--------2--------3--------4--------5--------6--------7--------8--------9
  I strongly                                                         I
strongly
   disagree
agree
```

Appendix H
Personal Attributes Questionnaire (Spence et al., 1975)

The items below inquire about what kind of a person you think you are. Each
item consists of a <u>pair</u> of characteristics, with the letters A-E in between.
For example:

    Not at all artistic A B C D E Very artistic

      Each pair describes contradictory characteristics–that is, you cannot be
both at the same time, such as very artistic and not at all artistic. The
letters form a scale between the two extremes. You are to choose a letter
which describes where <u>you</u> fall on the scale. For example, if you think you
have no artistic ability, you would circle A, if you think you are pretty good,
you might choose D, while if you are only medium, you might choose C, and so
forth.

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 1) Not at all aggressive        A   B   C   D   E    Very aggressive
 2) Not at all independent       A   B   C   D   E   Very independent
 3) Not at all emotional         A   B   C   D   E   Very emotional
 4) Very submissive              A   B   C   D   E   Very dominant
 5) Not at all excitable in a                        Very excitable in a
    MAJOR crisis                 A   B   C   D   E   MAJOR crisis
 6) Very passive                 A   B   C   D   E   Very active
 7) Not at all able to devote                        Able to devote self
    self completely to others    A   B   C   D   E   completely to others
 8) Very rough                   A   B   C   D   E   Very gentle
 9) Not at all helpful to others A   B   C   D   E   Very helpful to others
10) Not at all competitive       A   B   C   D   E   Very competitive
11) Very home oriented           A   B   C   D   E   Very worldly
12) Not at all kind              A   B   C   D   E   Very kind
13) Indifferent to others'                           Highly needful of others'
    approval                     A   B   C   D   E   approval
14) Feelings not easily hurt     A   B   C   D   E   Feelings easily hurt
15) Not at all aware of others'                      Very aware of others'
    feelings                     A   B   C   D   E   feelings
16) Can make decisions easily    A   B   C   D   E   Has difficulty making
decisions
17) Gives up very easily         A   B   C   D   E   Never gives up easily
18) Never cries                  A   B   C   D   E   Cries very easily
19) Not at all self-confident    A   B   C   D   E   Very self-confident
20) Feels very inferior          A   B   C   D   E   Feels very superior
21) Not at all understanding of                      Very understanding of
    others                       A   B   C   D   E   others
22) Very cold in relations with                      Very warm in relations
with
    others                       A   B   C   D   E   others
23) Very little need for                             Very strong need for
    security                     A   B   C   D   E   security
24) Goes to pieces under                             Stands up well under
    pressure                     A   B   C   D   E   pressure
```

Appendix I
Sexual Risk Perception

Questions 4 and 6 represent the vulnerability subscale, question 5 comprises the fear subscale, and questions 7 and 8 comprise the seriousness subscale.

1. Are you currently sexually active?
2. How likely is it that you will contract a sexually transmitted infection (STI)?
3. How likely is it that someone your age and gender will contract a sexually transmitted infection (STI)?
4. My chances of contracting a sexually transmitted infection (STI) in the future are:
5. The thought of contracting a sexually transmitted infection (STI) makes me feel:
6. I am unlikely to contract a sexually transmitted infection (STI) in the future:
7. How serious of a health problem is a sexually transmitted infection (STI)?
8. How much will a sexually transmitted infection (STI) interfere with someone leading a normal life?
9. Have you ever contracted a sexually transmitted infection (STI)?

Appendix J

CES-D (Kohout et al., 1993)

1. I feel depressed.
2. I feel everything I do is an effort.
3. My sleep is restless.
4. I am happy.
5. I feel lonely.
6. People are unfriendly.
7. I enjoy life.
8. I feel sad.
9. I feel that people dislike me.
10. I cannot get "going."

Early Sexual Experiences Checklist (Miller & Johnson, 1997)

1. When you were under the age of sixteen, did any of these incidents ever happen to you when you did not want them to?
    Please check those that occurred:
    ___ Another person showed his or her sex organs to you.
    ___ You showed your sex organs to another person at his or her request.
    ___ Someone touched or fondled your sexual organs.
    ___ You touched or fondled another person's sex organs at his or her request.
    ___ Another person had sexual intercourse with you.
    ___ Another person performed oral sex on you.
    ___ You performed oral sex on another person.
    ___ Someone told you to engage in sexual activity so that he or she could watch.
    ___ You engaged in anal sex with another person.
    ___ Other (please specify) _____
    ___ None of these events ever occurred.

If any of these events ever happened to you, please answer the following questions by thinking about the one behavior that bothered you the most.

2. How old were you when it happened? _____
3. Approximately how old was the other person involved? ____
4. Who was the other person involved?
    a. Relative
    b. Friend or acquaintance
    c. Stranger
5. If the other person was a relative, how were they related to you? (i.e., cousin, father, sister, etc.)____
6. How many times did this behavior occur?
    a. Just once
    b. Twice
    c. 3 or 4 times
    d. 5 times or more
7. Over how long a period did this behavior occur?
    a. Just once
    b. A month or less
    c. Several months
    d. A year or more
8. How much did the experience bother you at the time?
    1--------2--------3--------4--------5--------6--------7--------8--------9
    Not at all   Moderately   Extremely

9. How much does the experience bother you now?

    1--------2--------3--------4--------5--------6--------7--------8--------9
    Not at all   Moderately   Extremely

10. What kind of psychological pressure or physical force did the person use, if any? Please check all that apply
    ___ They tried to talk you into it

___ They scared you because they were bigger or stronger
___ They said they would hurt you
___ They bribed you
___ They pushed, hit, or physically restrained you
___ You were afraid they wouldn't like or love you
___ They physically harmed or injured you
___ They threatened you with a weapon
___ They drugged you or got you drunk
___ Other (please specify) _____
___ None of these occurred

Appendix L
Modified Sexual Experiences Survey (Testa et al., 2004)

1. Have you ever been fondled, kissed, or touched sexually when you didn't want to because you were overwhelmed by a man's continual arguments and pressure?
2. Have you ever been fondled, kissed, or touched sexually when you didn't want to because a man used his position of authority (boss, teacher, camp counselor, supervisor) to make you?
3. Have you ever been fondled, kissed, or touched sexually when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you?
4. Have you given in to sexual intercourse when you didn't want to because you were overwhelmed by a man's continual arguments and pressure?
5. Have you had sexual intercourse when you didn't want to because a man used his position of authority (boss, teacher, camp counselor, supervisor) to make you?
6. Have you had a man attempt to insert his penis (but intercourse did not occur) when you didn't want him to by threatening or using some degree of force (twisting your arm, holding you down, etc.)?
7. Have you had a man attempt to insert his penis (but intercourse did not occur) when you didn't want him to by getting you intoxicated on alcohol or drugs without your knowledge or consent?
8. Have you ever had sexual intercourse when you didn't want to because a man made you intoxicated by giving you alcohol or drugs without your knowledge or consent?
9. Have you ever been in a situation in which you were incapacitated due to alcohol or drugs (that is, passed out or unaware of what was happening) and were not able to prevent unwanted sexual intercourse from taking place?
10. Have you had sexual intercourse when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you?
11. Have you had sex acts (anal or oral intercourse or penetration by objects other than the penis) when you didn't want to because a man threatened or used some degree of physical force (twisting your arm, holding you down, etc.) to make you?

Appendix M
The Fog Zone

1. Have you ever had a class on sex education?
    Yes/No/Don't know
2. If you did have a class on sex education, how many years ago did that class occur? _____
3. It is ok to use the same condom more than once. T/F/dk
4. When putting on a condom, it is important to leave space at the tip. T/F/dk
5. It is ok to use petroleum jelly or Vaseline as a lubricant when using latex condoms. T/F/dk
6. Birth control pills are effective even if a woman misses taking them for two or three days in a row. T/F/dk
7. Women who use IUDs cannot use tampons. T/F/dk
8. Women using the vaginal ring, or Nuva Ring, must have it inserted by a doctor or health care provider every month. T/F/dk
9. A woman who is still breast feeding cannot get pregnant. T/F/dk
10. Pregnancy is much less likely to occur if a couple has sex standing up. T/F/dk
11. The only way to completely prevent pregnancy is by not having sex. T/F/dk
12. Which is more effective at preventing pregnancy? Condoms or withdrawal method of birth control