

FAMILY SEXUAL COMMUNICATION AND SEXUAL ATTITUDES: UNDERSTANDING
THE INFLUENCE ON COUPLES SEXUAL COMMUNICATION

by

ALLEN BURNELL SEARS MALLORY

B.A., Case Western Reserve University, 2012

A THESIS

submitted in partial fulfillment of the requirements for the degree

MASTER OF SCIENCE

Department of Family of Studies and Human Services
College of Human Ecology

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2016

Approved by:

Major Professor
Joyce Baptist

Copyright

ALLEN BURNELL SEARS MALLORY

2016

Abstract

Quality of couples sexual communication remains an understudied area, despite its link with important relational outcomes such as relationship satisfaction, sexual satisfaction and condom use. Using a sample of 441 college students, this study examined how parent-child sexual communication (frequency, quality and permissive and restrictive messages) is related to sexual attitudes (permissive and idealistic) and couples sexual communication. Results suggest that quality of couples sexual communication was positively related to frequency of parent-child sexual communication and negatively related to quality of parent-child sexual communication. There was not a significant relationship between the types of messages about sexuality from parents and quality of couples sexual communication. However, permissive parental messages were positively related to permissive sexual attitudes and restrictive parental messages were negatively related to permissive sexual attitudes. Idealistic sexual attitudes were found to be positively related to couples sexual communication. Finally, idealistic sexual attitudes marginally mediated the relationship between quality of parent-child sexual communication and quality of couples sexual communication. Clinical and research implications are discussed.

Keywords: parent-child sexual communication, couples sexual communication, sexual attitudes

Table of Contents

List of Figures	v
List of Tables	vi
Acknowledgements	vii
Chapter 1 - Introduction.....	1
Chapter 2 - Review of Literature	4
Theoretical Frameworks	4
Parent-Child Sexual Communication	6
Sexual Attitudes	10
Chapter 3 - Methods.....	13
Data Collection	13
Participants.....	13
Measurement.....	13
Dependent Variable	13
Independent Variables	14
Covariates	16
Analysis Plan	17
Chapter 4 - Results.....	21
Chapter 5 - Discussion	33
Limitations	35
Future Directions	37
Clinical Implications.....	38
Conclusion	39
References.....	40
Appendix A - Family Sexual Communication Scale.....	47
Appendix B - Brief Sexual Attitudes Scale	49
Appendix C - Dyadic Sexual Communication Scale.....	51
Appendix D - Multidimensional Scale of Perceived Social Support.....	52
Appendix E - Non-Parent Discussions	53

List of Figures

Figure 1	3
Figure 2	20
Figure 3	26
Figure 4	32

List of Tables

Table 1	22
Table 2	25
Table 3	30

Acknowledgements

This project emerged from an idea I had early in my graduate program and so it is with great pleasure that I am able to see this idea transformed into reality in the form of a thesis. I could not have done this without the support and encouragement of my committee: Karen Meyers-Bowman, Jared Anderson, and Joyce Baptist. From day one, they encouraged me to pursue this topic and spent time helping me develop my ideas into researchable questions long before beginning the thesis process. I also have to give a shout out to my cohort who has been my home away from home while living in a new place. They helped me grow as a person and will be lifelong friends. Finally, I would like to acknowledge my parents who have always been supportive, invested, and excited to see me succeed. Without all this support, this project would not have been possible.

Chapter 1 - Introduction

Half of all new sexually transmitted infections (STI's) diagnoses occur within the 15 to 24 year age range (Centers for Disease Control and Prevention, 2010). Despite these statistics only 62% of college students reported using contraception the last time they had vaginal intercourse (American College Health Association, 2013). One intervention strategy consistently found to be effective in increasing condom use in this age group was talking with one's partner about safer sex (Noar, Carlyle, & Cole, 2006).

Although couples typically do not disclose everything to each other about their sexual likes and dislikes in their sexual relationship—even in long term relationships (Byers, 2011)—couples sexual communication has been tied to a number of positive outcomes. Namely, sexual communication has been positively associated with both men's and women's relationship and sexual satisfaction (Montesi, Fauber, Gordon, & Heimberg 2011), emotional intimacy and understanding (MacNeil & Byers, 2005), and increased condom self-efficacy (Farmer & Meston, 2006). In addition to enhancing safe sex, improved communication about consent can mitigate the rate of sexual assault on college campuses (Johnson & Hoover, 2015)—which is a higher rate than in non-college population in the same age bracket (Sinozich & Langton, 2014).

Despite increasing support for improved sexual communication, research on factors that contribute to couples sexual communication is scarce. One factor that has been explored in regards to sexual communication is the role of the family-of-origin. Given that most people receive their first socialization about sexuality from their family-of-origin (Metts & Cupach, 1989), it is no wonder that they would view their parents as an important source of sexual information (Albert, 2010). For instance, less risky sexual behavior (Simons, Burt, & Tambling, 2013; Hutchinson, & Cooney, 1998), sexual values (Taris, 2000), increased age of first

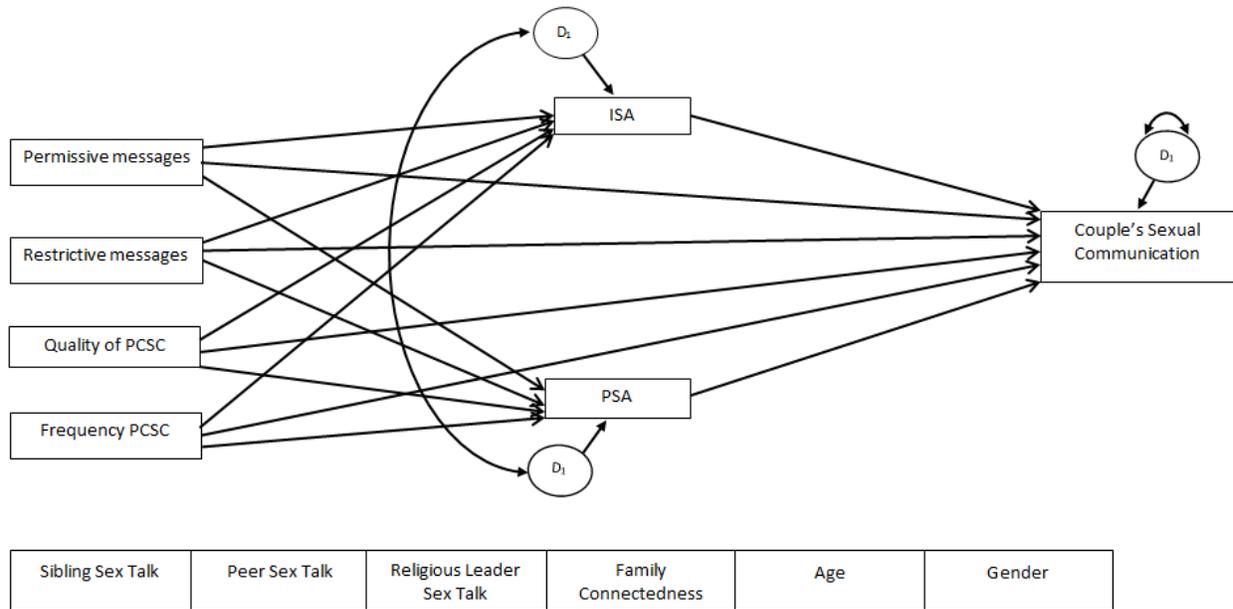
intercourse (DiIorio et. al., 2003; Hutchinson & Cooney, 1998), effective contraceptive use (Hutchinson & Cooney, 1998) and a lower number of partners (Albert 2010; DiClemente et al. 2001) has been linked to family-of-origin factors. One outcome that has been linked specifically to family-of-origin sexual communication is sexual attitudes (Fisher, 1986; Werner-Wilson, 1998) that in turn influences risky sexual behaviors (Levant, Rankin, Hall, Smalley, & Williams, 2012), condom use (Fisher, 1987), and sexual coercion (Eaton & Matamala, 2014). Researchers have not however examined the relationships between communication about sex with parents and development of sexual attitudes with couples sexual communication. Better understanding the contributors to couples sexual communication can help facilitate interventions to improve sexual satisfaction.

This study was conducted to examine how parent-child sexual communication (frequency, quality and type of messages) influences the development of sexual attitudes (idealistic and pessimistic) and in turn couples sexual communication (see Figure 1), using Family Communication Patterns Theory (FCPT, Koerner, & Fitzpatrick, 2002) and Social Cognitive Theory (SCT, Bandura, 1986). Both theories provide a lens from which to view the socialization process of sexual communication within families. This study will add to the literature in a number of ways. First, this is one of the first studies to test sexual attitudes as a mediator for the relationship between parent-child sexual communication couple's sexual communication in a college population. Additionally, the construct used to measure parent-child sexual communication (the Family Sexual Communication Scale) is one of the few multi-dimensional constructs of parent-child sexual communication and has only been tested in one other study—this study will provide another assessment of the scale in a different sample.

Finally, this study will provide insight into factors that influence how partners communicate with one another about their sexual relationship.

Figure 1

Conceptual path model with mediation of family sexual communication variables, sexual attitudes, couples sexual communication, and control variables



Notes: ISA = Idealistic Sexual Attitudes, PSA = Permissive Sexual Attitudes, PCSC = parent-child sexual communication.

Chapter 2 - Review of Literature

Theoretical Frameworks

Although there are numerous ways that parents might socialize children regarding sexuality, scholars often focus on how parents talk to their children about sexual topics (Lefkowitz, 2002). However, what is often neglected is *how* communication socializes children.

Family Communication Patterns Theory (FCPT) (Koerner, & Fitzpatrick, 2002) explains how family communication influences various processes based on two factors 1) how high or how much a family values shared conversation and 2) how much a family uses an authoritative hierarchy regarding parent-child communication. FCPT was first developed by McLeod and Chaffee (1972, 1973) to describe how family members tend to communicate with each other about media messages (Koerner & Fitzpatrick, 2006). Social cognition theory of co-orientation plays a key role in the theoretical underpinnings of FCPT (Heider, 1946, 1958; Newcomb, 1953). Koerner and Fitzpatrick (2006) described co-orientation as “two or more persons focusing on and evaluating the same object in their social or material environment” (p. 52). Co-orientation processes include socio-orientation (relying on family members’ evaluations to make meaning of the object, e.g., media message) and concept-orientation (expanding on concepts and ideas in media to determine their meaning).

The expanded FCPT conceptualized general family communication as an ongoing process that impacts family members’ behaviors (Koerner & Fitzpatrick, 2006). FCPT has been used to understand various familial topics including the impact of family communication on children (Fitzpatrick & Koerner, 2002, 2005), family of origin impact on romantic relationships (Koerner & Fitzpatrick, 2002), parent-adolescent communication (Sillars, Koerner & Fitzpatrick, 2005) and family sexual communication (Isaacs 2012). FCPT was used by Isaacs (2012) to

develop a measure that provides sufficient operationalization and conceptualization of family sexual communication and found a significant relationship between FCPT typologies of families (pluralistic, consensual, protective, and laissez-faire families) and sexual outcomes (e.g., partner sexual communication and sexual self-efficacy). Isaacs (2012) further found that participants with a high conversation orientation with parents that used high levels of restrictive messages and low levels of permissive messages were predictive of several risky sexual behavior outcomes. She concluded that parents need to be clear about the messages they send and that restrictive messages were found to protect against risky sexual behaviors. Overall, FCPT helps make sense of how parental messages socialize aspects of children's sexual behaviors. While FCPT explains how parents socialize children through communication, it does not address the other socializing agents (peers, religion, siblings) and individual attitudes that may also influence sexual communication with a partner.

Social Cognitive Theory (SCT; Bandura, 1986) has been used to explain the link between adolescent's attitudes and their sexual behavior (e.g., DiIorio, Dudley, Kelly, Soet, Mbwarra, & Potter, 2000; O'leary, Goodhart, Jemmott, & Boccher-Lattimore, 1992). SCT integrates the influence of the environmental (family), and personal and cultural influences (sexual attitudes) on behavior (sexual communication). Many of the processes described in FCPT can be conceptualized as modeling. It is through modeling by parents that children learn how and when to communicate and submit to or challenge authority. Through the social learning process, children also learn with whom, how, and when talking about sexuality is appropriate. Although families have some influence on how children view and talk about sexuality, peers (Trinh, Ward, Day, Thomas, & Levin, 2014) and larger culture (Bandalos & Meston, 2010; Epstein & Ward,

2008) also influence a person's sexual attitudes. The effects of these non-familial variables are controlled for in the model.

Parent-Child Sexual Communication

Most young adults receive their first socialization about sexuality from their family-of-origin (Metts & Cupach, 1989) and view their parents as important sources of sexual information (Albert, 2010). It is important to note that researchers have distinguished between overall parent-child communication general and parent-child communication specifically about sexuality, and found that the two constructs are differentially linked with adolescent's sexual decision making (Fisher, 1987).

There tend to be discrepancies between what parents communicated and how college students interpreted those messages (Negy, Velezmoro, Reig-Ferrer, Smith-Castro, & Livia, 2015). College students are more likely to remember their perceptions of what parents communicate rather than the actual messages (Epstein & Ward, 2008). This difference was apparent in a study by Booth-Butterfield and Sidelinger (1998) who found parents' self-reported attitudes did not correlated with students' likelihood of practicing safe sex, but perceptions of parental attitudes were correlated with student's likelihood of practicing safe sex. When examining parent-child sexual communication, researchers have also included frequency of the communication about specific topics, the quality of communication, and specific messages parents communicate (Isaacs, 2012; Lefkowitz, 2002)

Frequency. Frequency of sexual communication between parents and children has long been tied to the sexual attitudes of college students. (Fisher, 1986; 1987). However in families with lower parent-child sexual communication sexual attitudes of parents and teens were unrelated. When looking at how frequently parents talk about certain topics, some research has

found that talking more frequently about abstinence with parents was related to more conservative sexual attitudes of adolescents, while other topics were not significantly related (Lefkowitz & Espinosa-Hernandez, 2007). Adding some complexity to these prior findings, a more recent study (Negy et al., 2015) did not find frequency of parent-child sexual communication (measured by discussion of sexual health and education) related to permissive sexual attitudes across a multi-national sample. Based on these mixed findings, one research question is:

***RQ1:** How does frequency of parent-child discussion about sexual topics relate to college students (permissive and idealistic) sexual attitudes?*

There has been a limited research on how talking with parents about sexual topics impact couples sexual communication. Most studies reported a link between discussing topics related to HIV/AIDS with parents and discussing similar topics with partners. For example, in a validation of the partner sexual communication scale (PCS; Milhausen, Sales, Wingood, DiClemente, Salazar, & Crosby, 2007), the authors found a moderate sized correlation between the PCS and the Parent-Adolescent Communication scale which a measure of frequency of overall communication between a parent and child (Milhausen, et al., 2007; Sales, et al., 2008). However, both measures asked about the *frequency* of discussing similar topics like pregnancy protection, condom use, and protection from HIV/AIDS. Thus, findings were limited to these specific topics.

Previous studies have looked more broadly at the topics beyond pregnancy, condom use, and HIV/AIDS—such as peer pressure, resisting pressure, beliefs about sexuality etc. Results showed that more parent-teen discussion about these topics was positively related to increased quality of sexual communication with a partner for 19 and 20 year old women (Hutchinson &

Cooney, 1998). More recent studies have looked at the predictive paths of talking with parents about sexual topics and its relationship with safer sex communication (talking with partner about condom use, sexual history etc.) and found a small significant correlation and non-significant small path coefficient (DiIorio, Dudley, Lehr, & Soet, 2000). However, the findings of this study were limited because the parent-child sexual communication variable included five dichotomous questions about topics and the safer sex communication variable was a measure of frequency of discussions with a partner. Given how frequency of communication about sexual topics are related to couples sexual communication, it is hypothesized that:

***H1:** Frequency of parent-child sexual communication will be positively related to quality of couples sexual communication.*

Quality. Understanding the quality of conversations is an important aspect of understanding parent-child sexual communication because even if parents talk frequently with a child that does not mean that the discussions are helpful to the child (Lefkowitz, 2002). There is some research that links quality of parent-child communication with sexual attitudes of college students. High quality sex-related communication has been defined as, “conversations in which both partners feel relatively open, comfortable, and are not avoidant or overly embarrassed/negative in discussing these topics” (Lefkowitz & Espinosa-Hernandez, 2007, p. 18). Thus, some researchers have conceptualized quality of parent-child sexual discussions as specific to sexual discussion and found it positively related to conservative sexual attitudes (Lefkowitz & Espinosa-Hernandez, 2007). Other studies have conceptualized the quality of interactions between the parent and child as important in understanding children’s development of sexual attitudes. In one such study, higher quality mother-child interaction was associated with lower incidences of disagreement when parents and adolescents sexual attitudes differed

(Taris, 1997). In a follow-up study, Taris (2000) found a slight relationship between transmission of permissive attitudes between mother and child when there was a low quality of interaction between mothers and teens. In the present study, the quality of parent-child sexual communication was conceptualized as how good or bad participants thought the communication was, accordingly one research question is:

***RQ2:** How does quality of parent-child discussion about sexual topics relate to permissive and idealistic sexual attitudes?*

There are few studies that look specifically at the quality of parent-child communication about sexual attitudes and its relationship to couples sexual communication in college age students. For the studies that do look at college students, higher quality of parent-child communication about sexual topics has been found to positively correlate with communication with a partner about condom use for college students (Lefkowitz & Espinosa-Hernandez, 2007). Similarly, in another study Isaacs (2012) found a positive relationship between the quality of parent-child sexual communication and frequency of couples sexual communication suggesting that higher quality parent-child sexual communication may be related to higher couples sexual communication. Given these findings, it is hypothesized that:

***H2:** Quality of parent-child sexual communication will be positively associated with quality of couples sexual communication.*

Messages. Although parents might discuss certain topics more or less frequently and these conversations may differ in quality, this does not tell us much about the information contained in the messages parents communicate. In general, parents tend to give more restrictive than permissive messages about sex (Epstein & Ward, 2008; Negy et al., 2015). Restrictive messages often emphasize delaying sex until marriage and de-emphasize sexual exploration

whereas permissive messages discuss sexual exploration and sex as pleasurable. Parents also tend to give college students restrictive messages earlier in college but as students get older parents' messages become more permissive (Morgan, Thorn, & Zurbriggaen, 2010). There are also gender differences for what messages parents communicate to adolescents. Typically, women will receive restrictive messages from parents indicating they should avoid sexual relations, whereas men received more permissive messages (DiIorio et al., 2003; Morgan, Thorn, & Zurbriggaen, 2010). Given that gender may influence the type of messages shared by parents to children, gender was added as a control variable in the model to remove its effect on the outcome variables.

Researchers have not examined in depth how permissive or restrictive parental sexual messages are related to couples sexual communication. In one study that looks at the specific messages parents communicate, parental messages (not identified as permissive or restrictive) and separated by type (restrictive or permissive) were not related to couples sexual communication (Isaacs, 2012). The lack of previous research makes it impossible to hypothesize a relationship direction but rather inquire:

***RQ3:** How does type of parental messages (permissive or restrictive) associated with the quality of couples sexual communication?*

Sexual Attitudes

An outcome that has been linked to parent-child sexual communication is college students' sexual attitudes (Fisher, 1986; Werner-Wilson, 1998). The findings regarding parents' influence on their children's sexual attitudes are mixed (DiIorio, 2003). Early on, research found that parents and children with high levels of sexual communication had more similar sexual attitudes than parents and children with low sexual communication (Fisher, 1987). However,

some research has found that men's attitudes toward premarital sex were more heavily influenced by individual factors (e.g., age and religious participation) and women's more heavily influenced by family factors (e.g., parents attitudes about adolescent sex)— indicating that different factors affect men and women's sexual attitudes (Werner-Wilson, 1998).

In a review of gender differences in sexuality, Petersen & Hyde (2010) found that in general men have more permissive attitudes than women, but this effect size was small. In regards to changes over time, the gap between men's and women's sexual attitudes has become increasingly small (Petersen & Hyde, 2010). Women's nontraditional sexuality was slightly related to protective sexual health communication, suggesting that more nontraditional attitudes towards casual sex had a weak positive relationship with sexual communication.

Studies that have examined the impact of sexual messages communicated by parents have produced mixed results. Although Negy et al. (2015) found that the type of message (restrictive or permissive) communicated by parents did not significantly influence emerging adult's sexual attitudes, but the overall perception of the messages were significantly correlated with sexual attitudes. In another study, both restrictive and permissive messages from parents were associated with permissive and conservative sexual attitudes held by children suggesting that type of sexual attitude may be dependent upon the type of messages parents send to their children (Isaacs, 2012).

Finally, in the validation studies examining the psychometric properties of the Brief Sexual Attitudes Scale (BSAS; Hendrick, Hendrick, & Reich, 2006) the authors found that each of the factors—permissiveness (attitudes about casual sex), birth control (attitudes about contraception), idealistic (idealized attitudes towards sex), and instrumentality (sex as a

biological need)—all significantly correlated with a measure of self-disclosure to a romantic partner supporting a link between sexual attitudes and sexual communication between partners. To explore the relationship between sexual attitudes and parent-child and couples sexual communication, two types of sexual attitudes will be examined: permissive (e.g., pro casual sex) and idealistic (e.g. seeing sex as the ultimate form of connection). To examine the relevance of type of messages parents send to their children and how these messages may influence development of sexual attitudes and subsequently couples sexual communication, it is hypothesized that:

***H3:** Permissive parental messages will be positively associated with permissive sexual attitudes and restrictive messages negatively associated with permissive sexual attitudes.*

***H4:** Permissive messages will be negatively associated with idealistic sexual attitudes and restrictive messages positively associated with idealistic attitudes.*

Because sexual attitudes may play a pivotal role in linking parent-child sexual communication and to couples sexual communication, it is possible that sexual attitudes may mediate these relationships. As such, the following hypotheses will be tested:

***H5:** Idealistic sexual attitudes will mediate the relationship between parent-child sexual communication and quality of couples sexual communication.*

***H6:** Permissive sexual attitudes will mediate the relationship between parent-child sexual communication and quality of couples sexual communication.*

Chapter 3 - Methods

Data Collection

Data were collected as part of a large online survey at a large Midwestern university. The study was promoted to students enrolled in four human development and three sociology undergraduate courses. The researcher was not an instructor for any of these courses. Students who volunteered their participation were given extra credit in their course. Students who did not want to participate in the survey we given the option to complete an alternative writing assignment requiring a similar time commitment for extra credit. Data were collected in the spring 2015 ($N = 605$) and fall 2015 ($N = 462$) semesters. The data were limited to students who were in a current heterosexual relationship, defined their relationship as dating nonexclusively, dating exclusively, engaged, or married, and were between the ages of 18 to 29 in spring 2015 ($n = 253$) and fall 2015 ($n = 188$). Data were collected from one time point in both semesters and merged into one data set to conduct a cross sectional analysis.

Participants

Participants ($n = 441$) were undergraduate students from a large Midwestern university. Participants were mostly White (91.9%), with less Black (3.4%), Latino (5.4%), Asian (3.4%), Native American (.2%) and other (.9%) students. The majority of participants were women (75.4%; $n = 333$). The average age for the sample was 19.68 years ($SD = 1.77$). All participants were in heterosexual relationships. The majority of students reported dating exclusively (82.3%) with the rest reporting dating non-exclusively (7.5%), engaged (4.1%), and married (6.1%).

Measurement

Dependent Variable

Dyadic sexual communication scale. The Dyadic Sexual Communication Scale (DSCS; Cantina, 1998) is a 13-item measure of the quality of couple sexual communication with one's partner. That is, the DSCS measure how comfortable participants are discussing the enjoyable and problematic parts of their sexual relationship with their partner. The scale has been utilized in college age populations and diverse national samples (Cantina, 1998). Sample items included: "My partner has no difficulty in talking to me about his or her sexual feelings and desires" and "There are sexual issues or problems in our sexual relationship that we have never discussed." Participants responded using a 5-point Likert scale from "strongly disagree" (1) to "strongly agree" (5). All items were recoded such that higher scores meant a higher quality of sexual communication. The scale had a good reliability for ($\alpha = .84$).

Independent Variables

Frequency of parent-child sexual communication. The Family Sexual Communication Scale (FSCS; Isaacs, 2012) has a subscale that measures the frequency of discussing sexual topics. The frequency of topics discussed subscale has 20 topics (e.g., STIs, monogamy, abortion, masturbation) with a 4-item response: "Never discussed" (1), "Discussed once" (2), "Discussed a few times" (3), and "Discussed frequently" (4). Items were coded such that higher scores represent more frequent discussions of sexual topics with parents. The reliability for this scale was high ($\alpha = .93$).

Quality of parent-child sexual communication. The FSCS (Isaacs, 2012) also has a subscale that measures the quality—how good or bad—the discussions participants had with parents on the same 20 sexual topics. The quality of discussions about the topics discussed [listed above] is measured on an 8-point scale from "Never discussed" (0), "Very bad" (1) to "Very good" (8) with one item "never discussed" coded as missing. Items were coded such that higher

scores represent higher quality of discussions about sexual topics with parents. The reliability for the quality of sexual communication with parents had a high reliability ($\alpha = .95$).

Restrictive messages communicated by parents. Eight items from the “content” scale in the (FSCS; Isaacs, 2012) were used to measure restrictive messages communicated by parents verbally or non-verbally (e.g., “My parents have made it clear that one should never cheat on one’s partner”). Response choices are on a 7-point Likert scale from “strongly disagree” (1), to “strongly agree” (7) and one response item “never discussed” which was coded as missing. Items were coded such that higher scores represent receiving more restrictive messages from parents. The reliability for this scale was acceptable ($\alpha = .81$).

Permissive messages communicated by parents. Nine items from the “content” subscale in the (FSCS; Isaacs, 2012) were used to measure permissive messages communicated by parents verbally or non-verbally (e.g., “My parents have directly or indirectly encouraged me to ‘play the field’”). Response choices are on a 7-point Likert scale from “strongly disagree” (1), to “strongly agree” (7) and one response item “never discussed” which was coded as missing. Items were coded such that higher scores represent receiving more permissive messages from parents. The reliability for this scale was acceptable ($\alpha = .80$).

Permissive sexual attitudes. Permissive sexual attitudes were measured using a subscale of the Brief Sexual Attitudes Scale (BSAS; Hendrick, Hendrick, & Reich, 2006). The permissive sexual attitudes scales were measured with ten items using a 5-point Likert scale from “strongly disagree” (1) to “strongly agree,” (5). Permissive sexual attitudes indicate positive attitudes towards casual sex (e.g., “Casual sex is acceptable”) Items were coded such that higher score represent higher permissive sexual attitudes. The Cronbach’s alphas for permissive sexual attitudes were high ($\alpha = .92$).

Idealistic sexual attitudes. Idealistic sexual attitudes were measured using a subscale of the (BSAS; Hendrick, Hendrick, & Reich, 2006). The idealistic sexual attitudes were measured with five items using a 5-point Likert scale from “strongly disagree” (1) to “strongly agree,” (5). Idealistic sexual attitudes measure the attitude that sex is a peak or spiritual experience (e.g., “Sex is the closest form of communication between two people”). Items were coded such that higher scores represent higher idealistic sexual attitudes. The Cronbach’s alphas for idealistic sexual attitudes were acceptable ($\alpha = .79$).

Covariates

Gender. There are a number of gender differences in sexual attitudes (Petersen & Hyde, 2010) and how parents talk to their children about sexuality (DiIorio et al., 2003; Morgan, Thorn, & Zurbriggan, 2010) so gender was controlled for in the model. Participants were asked to identify their gender as either “male”, “female”, or “transgender”. No participants identified as transgender. Males were coded as 1 and females as 2. We also tested for gender difference for the variables included in the model (See Table 2).

Age. Since age have been found to be an important factor in the messages parents communicate (Morgan, Thorn, & Zurbriggan, 2010) it was controlled for in the model. Participants reported their age in years. Ages ranged from 18 to 28.

Family connectedness. Family connectedness (Taris, 1997; Taris, Semin, & Bok, 1998, Taris, 2000; Troth & Peterson, 2000) has been shown to be an important aspect of parent-child sexual communication. Therefore it is included as a control variable. Family connectedness was measured using four items from the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988) that measured family social support. Items included: “My family really tries to help me”, “I get the emotional help and support I need from my family”, “I

can talk about my problems with my family”, and “My family is willing to help me make decisions”. Items were coded such that higher scores represent more family connectedness. The reliability for this scale was high ($\alpha = .94$) in this study and good construct validity in previous studies (Zimet, Dahlem, Zimet, & Farley, 1988)

Discussing Sexual Topics with Peers, Siblings, and with a Religious Leader. Discussing sexual topics with peers (Trinh, Ward, Day, Thomas, & Levin, 2014), siblings (Kowal & Blinn-Pike, 2004), and religiosity (Werner-Wilson, 1998) have been found to be important factors in developing sexual attitudes. Three dichotomous “yes” (1) “no” (0) questions were included to control for the influence of discussions about sexual topics participants may have had with peers, siblings, and with a religious leader. The three questions were: “Have you discussed any sexual topics with [Peers, siblings, religious leader?]”

Analysis Plan

Statistical Package for the Social Sciences Version 22(SPSS; IBM Corp, 2013) was used to calculate the mean scores for items, descriptive statistics for variables, correlations between variables, and *t*-tests to examine differences based on gender. Mplus 7.31 (Muthén & Muthén, 2011) was used to run the path analysis. All assumptions for a normal distribution and multivariate normality were checked and met for each variable. A path analysis with mediation was run to test the relationship between variables. In order to test for mediation bootstrapping was used to estimate the hypothesized indirect effects. The bootstrapping method of testing mediation repeatedly samples the data by sampling with replacement in order to estimate and arrive at an approximation of the indirect effect (Preacher & Hayes, 2008). Among the various methods of testing mediation, bootstrapping has been recommended because it does not require a large sample size, does not assume a normal distribution, provides a standard error, and produces

a confidence interval (Preacher & Hayes, 2008). Indirect effects were tested for the relationship between messages communicated by parents on dyadic sexual communication through sexual attitudes by computing 5,000 bootstrapping samples along with the 95% confidence interval to examine unstandardized indirect effects.

Missing Data. As mentioned above, couples sexual communication, quality of parent child sexual communication, permissive sexual messages from parents, and restrictive messages from parents all had responses (i.e., never discussed and does not apply to my relationship) which were recoded as missing for each item in the construct. Since these responses indicated that the participants had not engaged in certain discussion with parents or did not feel an item fit their discussions with a partner, the variables with “never discussed” and “does not apply to my relationship” coded as missing when means were computed. There were 31 (7%) responses missing for couple’s sexual communication, 24 (5%) for frequency of parent-child sexual communication, 33 (7%) for quality of parent-child sexual communication, 53 (12%) for permissive parental messages, and 40 (7%) for restrictive parental messages. Data were identified as missing at random as there was no pattern to the missing data and were handled using full information maximum likelihood estimation in Mplus 7.31 (Muthén & Muthén, 2011).

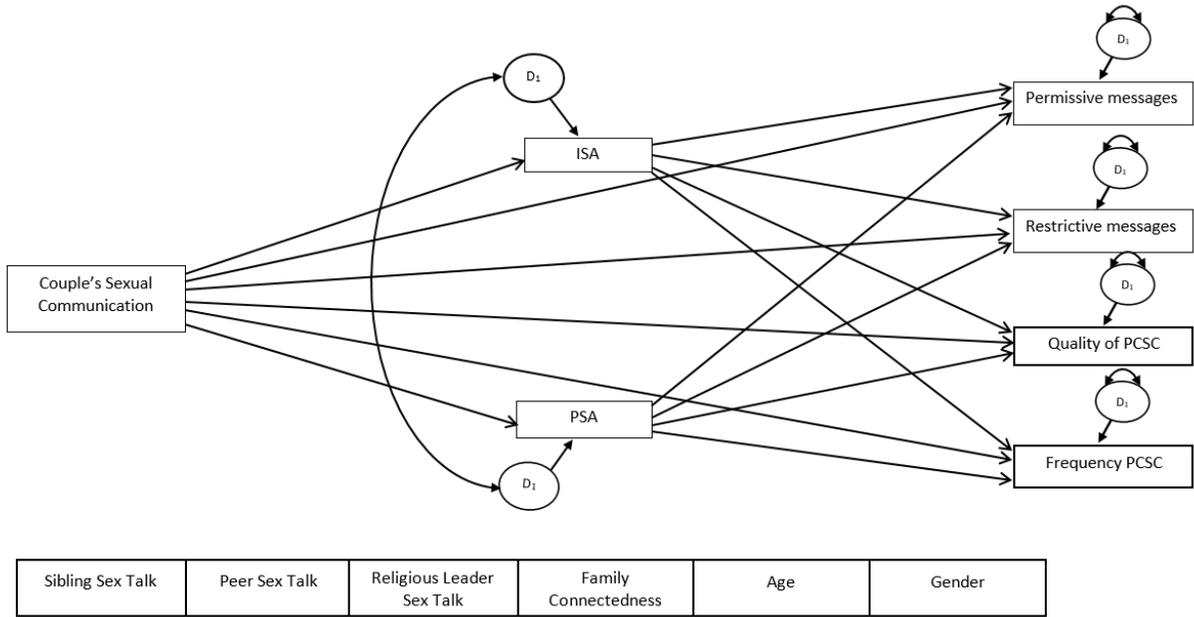
Path Analysis. The path analysis was just-identified. This means the covariance matrix was perfectly reproduced because the number of observations and parameters were equal and there are zero degrees of freedom (Kline, 2011). This means no fit indices were calculated (Muthén & Muthén, 2011). Figure 2 includes the path analysis with significant standardized path coefficients. Table 2 presents the unstandardized regression coefficients, standard errors, and standardized regression coefficients for the model. Only statistically significant results for the control variables were included in the table. The unstandardized regression coefficients should

be interpreted as a 1 unit increase in the predictor is associated with a 1 unit increase in the outcome variable (i.e., quality of couples sexual communication). The standardized regression coefficients should be interpreted as 1 standard deviation increase in the predictor is associated with a 1 standard deviation increase in the outcome variable.

Alternative Model. Because the data in this sample is cross sectional, it was important to test an alternative model to see if variables were simply correlated. One way to do this is by reversing the model. If this reversed model produces significant path coefficients with the outcome predicting the variables this would suggest that the theorized model will need to be re-specified unless there is a theoretical reason for the hypothesized model to be correct (Kline, 2011). For clarity, this reversed model included quality of couples sexual communication predicting sexual attitudes, and both couples sexual communication and sexual attitudes predicting the parent-child sexual communication variables (frequency, quality, permissive messages, and restrictive messages), See Figure 2. The alternative model was tested using the same analysis plan identified above. Control variables are included but will not be discussed if there was a significant relationship with the parent-child sexual communication variables or sexual attitudes as it is expected that there will be a reciprocal relationships based on the previous literature.

Figure 2

Alternative model with mediation of family sexual communication variables, sexual attitudes, couples sexual communication, and control variables



Notes: ISA = Idealistic Sexual Attitudes, PSA = Permissive Sexual Attitudes, PCSC = parent-child sexual communication.

Chapter 4 - Results

The correlations and descriptive statistics for variables are presented in Table 1 and gender differences are presented in Table 2. Couples sexual communication was positively correlated with idealistic attitudes ($r = .18, p <.001$), family connectedness ($r = .18, p <.01$), gender ($r = .15, p <.01$), talking with siblings about sexual topics ($r = .18, p <.001$), and talking with peers about sexual topics ($r = .17, p <.01$). Permissive sexual attitudes were positively correlated with permissive messages ($r = .18, p <.001$) and age ($r = .14, p <.01$). Permissive sexual attitudes were negatively correlated with restrictive parental messages about sexuality ($r = -.23, p <.001$), family connectedness ($r = -.17, p <.001$), gender ($r = -.29, p <.001$), and talking with a religious leader ($r = -.24, p <.001$). Idealistic attitudes were positively correlated with restrictive parental messages about sexuality ($r = .10, p <.05$) and family connectedness ($r = .11, p <.05$). Idealistic attitudes were negatively correlated with quality of parent-child communication about sexual topics ($r = -.11, p <.05$).

Table 1

Correlations and descriptive statistics for variables included in path model. (n = 441)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Couples Sexual Communication	–												
2. Frequency of PCSC	.09	–											
3. Quality of PCSC	-.05	.75***	–										
4. Permissive Messages	-.09	.09	.19***	–									
5. Restrictive Messages	.26	.12*	.07	-.04	–								
6. Permissive Sex Attitudes	-.06	-.04	-.03	.18***	-.23***	–							
7. Idealistic Sex Attitudes	.18***	-.002	-.11*	-.01	.10*	-.04	–						
8. Age	-.08	-.10*	-.05	.03	.04	.14**	-.03	–					
9. Family Connectedness	.18**	.18***	.12*	-.04	.22***	-.17**	.11*	-.11*	–				
10. Gender	.15**	.14**	.02	-.04	.04	-.29***	.06	-.22	.15**	–			
11. Talk with Siblings	.18**	.25***	.16**	-.03	-.09	.07	.01	-.001	.05	.06	–		

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
12. Talk with Peers	.17**	.16**	.13**	.01	.06	.03	.07	-.08	.10	.06	.17**	–	
13. Talk with Religious Leader	-.02	.04	-.01	-.30***	.14**	-.24***	.08	-.06	.09	-.02	.01	.03	–

Notes: * $p < .05$. ** $p < .01$. *** $p < .001$. PCSC = parent-child sexual communication.

Table 1

Continued

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
M	4.13	2.11	3.41	2.86	5.03	1.87	3.84	19.68	5.93	1.76	.54	.93	.32
SD	.69	.67	1.67	1.40	1.31	.90	.80	1.78	1.22	.43	.50	.26	.40
Range	4.00	3.00	6.00	6.00	6.00	3.60	4.00	10.00	6.00	1.00	1.00	1.00	1.00
α	.84	.93	.95	.75	.81	.92	.79	–	.94	–	–	–	–

Notes: * $p < .05$. ** $p < .01$. *** $p < .001$.

There were several significant differences between men and women on the variables included in the model (see Table 2). Specifically, men ($M = 2.33$; $SD = 1.04$) had significantly higher permissive sexual attitudes than women ($M = 1.72$; $SD = .80$). Women ($M = 2.16$; $SD = .68$) reported having more frequent discussions with parents about sexual topics than men ($M = 1.94$; $SD = .60$). For couples sexual communication women ($M = 4.19$; $SD = .69$) reported a higher quality of couples sexual communication than men ($M = 3.94$; $SD = .69$). Men ($M = 20.37$; $SD = 1.84$) were older than women ($M = 19.45$; $SD = 1.70$). Lastly, women ($M = 6.03$; $SD = 1.20$) reported higher family connectedness than men ($M = 5.61$; $SD = 1.21$).

Table 2

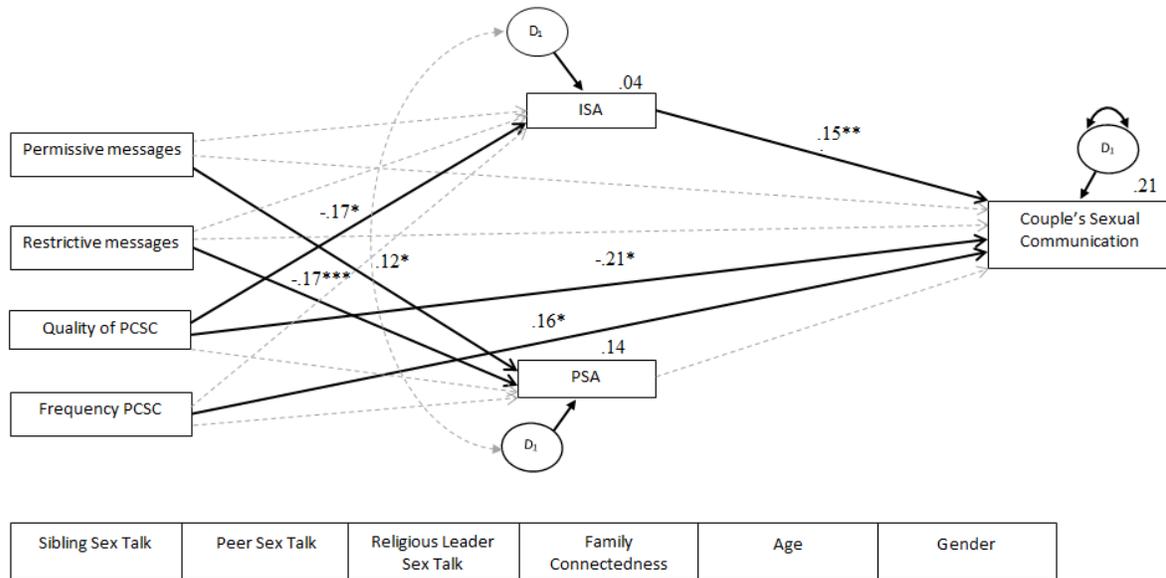
Results of t-test for gender differences in variables in path model including covariates

	Gender						95% CI for Mean Difference	<i>t-value</i>	<i>df</i>
	Men			Women					
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>			
Couples Sexual	3.94	.69	100	4.19	.69	310	-.40, -.09	-3.07**	408
Communication									
Frequency of PCSC	1.94	.60	101	2.16	.68	316	-.37, -.07	-2.86**	415
Quality of PCSC	3.36	1.69	99	3.42	1.66	309	-.44, .32	-.33	406
Permissive Messages	2.95	1.31	98	2.83	1.32	290	-.20, .45	.75	386
Restrictive Messages	4.93	1.34	99	5.06	1.30	302	-.43, .17	-.85	399
Permissive Sexual	2.33	1.04	105	1.72	.80	316	.39, .83	5.51***	146.13
Attitudes									
Idealistic Sexual	3.76	.75	105	3.86	.81	327	-.28, .07	-1.22	430
Attitudes									
Age	20.37	1.84	108	19.45	1.70	333	.19, .54	4.80***	439
Family	5.61	1.21	100	6.03	1.20	313	.14, -.70	-3.08**	411
Connectedness									
Talk with Siblings	.48	.50	99	.56	.50	309	-.19, .04	-1.25	406
Talk with Peers	.90	.30	101	.94	.24	316	-.10, .03	-1.09	144.60
Talk with Religious	.34	.47	101	.31	.46	316	-.08, .13	.44	415
Leader									

*Notes: *p < .05. **p < .01. ***p < .001. T-test was run in SPSS so n is between 99 to 108 for men and 290 to 333 for women based on missing data. PCSC = parent-child sexual communication.*

Figure 3

Path model with significant standardized path coefficients and R2 values



Notes: $*p < .05$, $**p < .01$, $***p < .001$. Significant paths are bolded and non-significant paths are grey dotted lines. ISA = Idealistic Sexual Attitudes, PSA = Permissive Sexual Attitudes, PCSC = parent-child sexual communication.

RQ1: How does frequency of parent-child discussion about sexual topics relate to permissive and idealistic sexual attitudes?

Frequency of parent-child sexual communication was not significantly related to permissive ($\beta = .08$, $p < .05$) or idealistic sexual attitudes ($\beta = .09$, $p < .05$). This finding was somewhat expected given the mixed findings of the previous research. One explanation may be

that broadly grouping the topics that parents and their children discuss may mask any significant differences that may exist if topics are grouped into more specific topics.

H1: Frequency of parent-child sexual communication will be positively related to quality of couples sexual communication.

This hypothesis was supported. As expected frequent conversations with parents about sexual topics was associated with higher quality of couples sexual communication ($\beta = .17, p < .05$).

RQ2: How does quality of parent-child discussion about sexual topics relate to permissive and idealistic sexual attitudes?

The quality of parent child discussion about sexual topics was related to idealistic sexual attitudes ($\beta = -.08, p < .05$) but not permissive sexual attitudes ($\beta = -.03, p < .05$). Although these findings suggest that there is a relationship between quality of parent-child discussions about sexual topics and idealistic attitudes there doesn't appear to be a good theoretical reasoning for why the relationship is negative.

H2: Quality of parent-child sexual communication will be positively associated with quality of couples sexual communication.

While this hypothesis was not supported, there was a significant relationship between the two variables. The quality of discussion about sexual topics with parent had a negative association with the quality of couples sexual communication ($\beta = -.21, p < .01$). One potential explanation for the negative relationship between quality of parental discussion about sexual topics and quality of couples sexual communication is the relatively low average on quality of parental discussion about sexual topics variable—this means most participants felt their conversations with their parents about sexual topics was “somewhat bad” to “okay”. This

suggests that these conversations did not provide a good model for communicating with a partner about sexual issues.

***RQ 3:** How does type of parental messages (permissive and restrictive) associated with the quality of couples sexual communication?*

There was not a significant relationship between permissive parental messages ($\beta = -.07$, $p < .01$) and restrictive parental messages ($\beta = .02$, $p < .01$) and quality of couples sexual communication. A simple explanation for the lack of a relationship between permissive messages is that none of the items included specifically address parent's attitudes about talking with a partner about the sexual relationship. Another explanation is that, perhaps it is not the type of message (permissive/restrictive) that matters as much just student's overall perceptions of the messages parents communicated, which would suggest conceptualizing parental messages as a single construct.

***H3:** Permissive parental messages will be positively associated with permissive sexual attitudes and restrictive messages negatively associated with permissive sexual attitudes.*

This hypothesis was supported. Permissive messages from parents were associated with more permissive sexual attitudes. ($\beta = .12$, $p < .01$). Restrictive messages from parents were associated with lower permissive sexual attitudes. ($\beta = -.18$, $p < .01$).

***H4:** Permissive messages will be negatively associated with idealistic sexual attitudes and restrictive messages positive associated with idealistic attitudes.*

This hypothesis was not supported as neither permissive messages ($\beta = .04$, $p = .44$) or restrictive messages ($\beta = .07$, $p = .20$) from parents was significantly associated with idealistic sexual attitudes.

***H5:** Idealistic sexual attitudes will mediate the relationship between parent-child sexual communication and quality of couples sexual communication.*

This hypothesis was not supported. There was an indirect effect from quality of parent-child sexual communication through idealistic sexual attitudes, to couples sexual communication that was significant at the .10 level but not at the .05 level ($b = -.01$ ($SE = .01$) $t = -1.77$, 95% $CI [-.02, .00]$, $p = .08$). This means that a one unit increase in quality of parent-child sexual communication is associated with a .01 decrease in quality of couples sexual communication through idealistic sexual attitudes. Idealistic sexual attitudes did not mediate the relationship between any of the other parent-child sexual communication variables and quality of couples sexual communication.

***H6:** Permissive sexual attitudes will mediate the relationship between parent-child sexual communication and quality of couples sexual communication.*

This hypothesis was not supported as permissive and idealistic sexual attitudes did not mediate the relationship between any of the parent-child sexual communication variables, permissive messages, or restrictive messages.

Frequency of talking with parents about sexual topics, quality of parent-child sexual communication, parental permissive messages, parental restrictive messages, idealistic sexual attitudes, permissive sexual attitudes, and control variables accounted for 21% of the variance in quality of couples sexual communication, Frequency of talking with parents about sexual topics, quality of parent-child sexual communication, permissive messages from parents, restrictive messages from parents, and control variables accounted for 4% of the variance in idealistic sexual attitudes and 14% of the variance in permissive sexual attitudes. The overall effect sizes of the standardized path coefficients were small.

Table 3

Unstandardized and standardized estimates for path model examining relationships between parent-child sexual communication, sexual attitudes, and couples sexual communication. (n = 441)

Parameter Estimate	Unstandardized	SE	Standardized
Idealistic Sex Attitudes (ISA)			
Frequency of PCSC → ISA	.09	.09	.08
Quality of PCSC → ISA	-.08*	.04	-.17*
Permissive Messages → ISA	.03	.03	.04
Restrictive Messages → ISA	-.08	.03	.07
Permissive Sex Attitudes (PSA)			
Frequency of PCSC → PSA	.08	.09	.06
Quality of PCSC → PSA	-.03	.03	-.06
Permissive Messages → PSA	.08*	.03	.12*
Restrictive Messages → PSA	-.12***	.03	-.17***
Gender → PSA	-.58***	.11	-.28***
Religious Leader Sex Talk → PSA	-.35***	.09	-.18***
Couples sexual communication (CSC)			
Frequency of PCSC → CSC	.17*	.07	.16*
Quality of PCSC → CSC	-.08*	.03	-.21*
Permissive Messages → CSC	-.04	.03	-.07
Restrictive Messages → CSC	.01	.03	.02
Permissive Sex Attitudes → CSC	-.003	.02	-.004
Idealistic Sex Attitudes → CSC	.13***	.04	.15***

Family Connectedness → CSC	.07*	.03	.12*
Sibling Sex Talk → CSCS	.18*	.07	.13*
Peer Sex Talk → CSC	.36*	.17	.13*

Notes: * $p < .05$. ** $p < .01$. *** $p < .001$. PCSC = Parent-Child Sexual Communication, PSA = Permissive Sexual Attitudes, ISA = Idealistic Sexual Attitudes, CSC = Couples Sexual Communication.

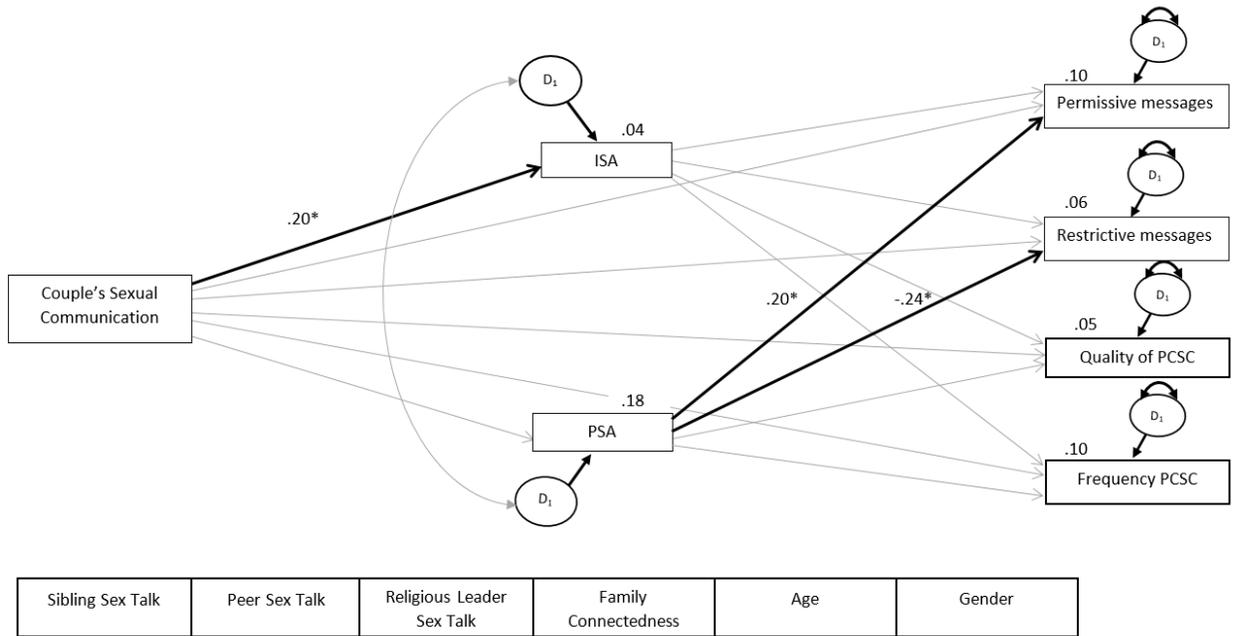
Alternative Model. Higher permissive sexual attitudes were associated with higher permissive messages from parents and lower restrictive messages from parents (see Figure 4). These findings suggest that participants that had higher permissive sexual attitudes may have perceived parental messages through this lens which might explain why permissive sexual attitudes predicted the scores on participants reports about the types of messages parents communicated. This is consistent with previous literature about the discrepancies between what parents report they communicate about sexuality and children’s perceptions of this communication (Negy et al., 2015).

Higher couples’ sexual communication was associated with higher idealistic sexual attitudes (see Figure 4). This finding suggests that participants who had higher idealistic sexual attitudes may perceive their sexual relationship in a very positive light and thus report a higher quality of couples sexual communication. Reporting a high quality couples sexual communication may suggest that individuals have idealized attitudes about their sexual communication with their partner. This has some support as found in the validation study of the BSAS (Hendrick, Hendrick, & Reich, 2006) whereby idealistic sexual attitudes were positively and significantly correlated with the perception that “love is most important”, “sex demonstrates

love”, and “love comes before sex”. The results outlined above from the hypothesized path analysis should be interpreted in light of the findings from the alternative model.

Figure 4

Alternative model with significant path coefficients and R2 values



Notes: * $p < .05$, ** $p < .01$, *** $p < .001$. Significant paths are bolded and non-significant paths are grey dotted lines. *ISA* = Idealistic Sexual Attitudes, *PSA* = Permissive Sexual Attitudes, *PCSC* = parent-child sexual communication.

Chapter 5 - Discussion

This study included an examination of the relationship between the frequency, and quality of parent-child sexual communication college students had with their parents, parental permissive messages, and parental restrictive sexual messages received from parents and the quality of their sexual communication in their current relationship, when mediated by idealistic and permissive sexual attitudes. Although sexual attitudes did not mediate the relationship between parental sexual messages and sexual communication, there was a positive relationship between frequency of discussion about sexual topics with parent and quality of couples sexual communication. This finding is consistent with previous literature and suggests that the more often parents discuss a variety of topics with their kids that it can have an impact on the quality of couples sexual communication in the children's future romantic relationships. Family Communication Patterns Theory (Koerner & Fitzpatrick, 2006) suggests that families that have higher conversation orientation value open dialogue and discussion. Perhaps, when families discuss sexual topics more often it provides children with more opportunities to become more comfortable and effective with communicating about sexual topics which may translate to talking with partners. Thus, when parents both have a good relationship with their child and talk with them frequently about a variety of sexual topics, they can prepare their child to better communicate their wants, needs, and boundaries with their sexual partners.

There was also a direct negative relationship between quality of parent-child sexual communication and students' quality of sexual communication in their current relationship. This is a relatively new finding as previous research has either found no relationship between qualities of parent's discussions about sexual topics or a positive relationship. One explanation for this finding is a low average for participant's perception of the quality of these discussions. Applying

FCPT, if the quality of the discussions that parents had with their parents serves as a model—in this case a poor model—for communication with their partners, this may explain the negative relationship between quality of parental sexual communication and quality of couples sexual communication.

The finding that higher idealistic sexual attitudes were related to higher quality of couples sexual communication warrants some exploration. One might expect a person who has idealistic attitudes towards sex to put a high value on his or her sexual encounters with their partner. Examining this relationship through SCT would suggest that someone with these attitudes would want to have better discussions with their partner about the sexual relationship in order to ensure sexual experiences match their expectations, which might lead to a higher quality of couples sexual communication. It is important to remember that in this study sexual communication reflects participants perception of the sexual communication in their relationships. Therefore it is possible that people with idealist sexual attitudes may also idealize and are overly optimistic about their sexual relationships. This theory has some support, as lower quality of parental discussions about sexual topics was related to higher idealistic attitudes. Using the FCPT lens, their finding would suggest that when conversations about sexual topics do not resonate with children, or they do not have them at all, they may not have accurate information about realistic aspects of sexual encounters. One would expect that peers, siblings, or religious influences might fill these gaps to influence sexual attitudes (Lefkowitz & Espinosa-Hernandez, 2007; Werner-Wilson, 1998) however in this study, these variables were not significantly related to idealistic sexual attitudes.

A relationship was not found for either permissive or restrictive messages with idealistic sexual attitudes. Little research has focused on idealistic sexual attitudes; this is reflected in the

items of the parent-child sexual communication variables—none of the items address messages or topics regarding idealizing sex. One potential explanation for not finding a link between parental messages and idealistic sexual attitudes is that college students may have discussed these topics with their siblings, peers, or a religious leader rather than their parents.

Permissive messages from parents were associated with higher permissive sexual attitudes of the young adults. Restrictive messages from parents were associated with less permissive sexual attitudes of the participants—this adds to the previous research on parent-child sexual communications influencing sexual attitudes. Previously there have been mixed findings regarding the influence of specific messages parents communicate and their influence on college student’s sexual attitudes (Isaacs, 2012; Negy et al., 2015). One difference in this study is that messages were measured by how much participants agreed that statements fit messages that their parents communicated, directly or indirectly (Isaacs, 2012), rather than the acceptability of some behaviors (Negy et al., 2015). Although we were not able to test if there were gender differences due to the limited sample of men, gender was significantly and negatively associated with permissive sexual attitudes suggesting that men had more permissive sexual attitudes which is consistent with previous literature (Petersen & Hyde, 2010).

Limitations

Although the sample size was sufficiently large, an even larger sample would facilitate examining the specific subscales of the frequency scale to identify if there were specific topics that parent’s discussed that were linked with quality of sexual communication. The study was also limited by gathering data from individual participants, rather than from both partners in the couple relationships. Moreover, all of the constructs were measured at one time point in this cross-sectional design. Thus, we could not see how messages from parents predicted sexual

communication through the course of participants' relationships. Because sexual communication is dyadic in nature, studying only one partner's perspective does not provide a holistic picture of the relationship.

Relying on students' retrospective reports of messages parents communicated has its limitations. Further, the directions in the survey do not ask participants to think of a particular time or limit the range of when they communicated with their parents about sexual topics. Thus, it is possible that in recalling their sexual communication with parents participants could have thought back to conversations years ago or a few days ago which would influence their responses. Research has found a discrepancy between reports of messages parents says they gave and those children recalled (Booth-Butterfield & Sidelinger, 1998). Another limitation was that a measure of social desirability was not included in the survey to ensure that participants were not responding in a way that they thought was socially acceptable.

Also, the influence of others on the development of sexual attitudes seems to capture important information; however the dichotomous nature of these variables limits its interpretation. Like parent-child sexual communication, there are likely varied dimensions to the type of sexual communication with siblings, peers and religious leaders which were not captured by "Yes-No" questions. It is possible students receive different messages about different aspects of sexuality from peers compared to siblings and religious leaders. These differences should be teased out in future studies.

It is also worth mentioning that the participants in this study were relatively young and thus likely in shorter relationships. Early on in a relationship partners tend to be in a honey moon stage and more proactive about understanding each other's sexual likes and dislikes. Typically relationship quality is high early in the relationship and this has positively correlated with sexual

satisfaction (Byers, 1999)—and sexual communication has been found to explain this relationship (Mark & Jozkowski, 2013). Thus sexual communication will be high. This would explain the high mean of quality of couples sexual communication reported by participants.

Future Directions

Future studies should measure sexual communication at multiple time points to see how it may change over the course of the relationship based on parent-child sexual communication. Dyadic data should also be collected in order to better understand the influence messages from families may impact both partners' sexual communication. If possible, research should include parents' perspectives of the type of messages they tend to share with their children. Additionally, rather than getting a retrospective reports of parent-child sexual communication and couple's sexual communication, observational research would allow the research to identify what communication looks like in real time and identify themes within couples or parent-child communication (Lefkowitz, 2002) across time. Other variables such as self-efficacy, history of trauma, relationship variables (e.g., length of relationship, relationship satisfaction, sexual satisfaction), types of sexual attitudes (traditional vs. non-traditional), and sexual scripts that may influence couples sexual communication should be examined in future research. While the family sexual communication scale provide a multi-dimensional approach to parent-child sexual communication it does largely address issues of pleasure, STIs, safe sex, monogamy, and sexual risk. While important, these topics capture a limited perspective of sexuality and neglects to ask about emotional aspects of sex, spiritual aspects of sex, why we have sex, choosing a sexual partner, or communicating about sex, for example. Finally, some gender differences were identified suggesting that future research should examine parent-child sexual communication, sexual attitudes, and couples sexual communication for men and women separately.

Clinical Implications

The findings from this study have a number of implications for clinical work with couples and families. This study empirically demonstrates that implicit assumptions and expectations (via idealist sexual attitudes) have a direct effect on the quality of couples sexual communication. Additionally, there is an important connection between the conversation people have with their parents as they may model how to talk about sex through frequent discussions and the quality of those conversations may also set the baseline for sexual communication with a partner. As with many patterns we learn from our family, we sometime replicate these same behaviors with our intimate partners (Bowen, 1966). So it would be important for couple's in premarital counseling to explore how these conversations around sexual topics in their family may provide useful information about talking with each other about their sexual relationship. Also, talking about expectations for the sexual relationship that couples in premarital counseling or sex therapy may also prove important for improve the quality of couples sexual communication.

The findings from this study also have implications for sex therapy. Clinicians have suggested that exploring these messages about sexuality and sexual attitudes expressed in the family-of-origin can be made salient through the use of sexual genograms with individuals and couples (DeMaria, Weeks, Hof, 1999; Hertlein, Weeks, & Sendak, 2009; Hof & Berman, 1986; 1989;. This study adds support to this clinical intervention by suggesting that when exploring the connection of family-of-origin with couples, clinicians should not solely explore the messages people remember from their family but also how often they talked and if the conversations were useful—there may be connections between the conversations and how often partners talk and if they feel the conversations are productive. With families who are dealing with sex-related issues,

helping families talk more often and have constructive conversations may have important influences on how children view sexuality and set children up to have better conversations with their own partners in the future.

Conclusion

Frequency and quality of parent-child sexual communication was found to be associated with higher quality of couples sexual communication in students' current romantic relationships. This suggests having frequent and quality conversations about a variety of sexual topics will help prepare children to negotiate and discuss their own sexual needs and wants in a romantic relationship. To some extent, the quality of the conversations parents have with their children can influence their expectations for their sexual relationships which may indirectly influence the quality of communication they have in their relationships. Similarly, the messages that parents communicate about sexuality influence their children's attitudes about casual sex. Overall, these findings support that conversations about sexual topics with parents has an important influence on college students' sexual attitudes and how they communicate with their relationship partner's and that parents can equip their children to do so effectively.

References

- Ahrold, T. K., & Meston, C. M. (2010). Ethnic differences in sexual attitudes of US college students: Gender, acculturation, and religiosity factors. *Archives of sexual behavior, 39*(1), 190-202.
- Bandalos, D. L. (2002). The effects of item parceling on goodness-of-fit and parameter estimate bias in structural equation modeling. *Structural Equation Modeling, 9*(1), 78-102.
- Berman, E. M., & Hof, L. (1986). The sexual genogram. *Journal of Marital and Family Therapy, 12*, 39-47.
- Berman, E. M., & Hof, L. (1989). Assessing Family-of-origin Factors in the treatment of sexual dysfunction. In Kantor, D & Okun, B (Eds.), *Intimate environments: Sex intimacy and gender in families*. New York: Guilford Press.
- Booth-Butterfield, M., & Sidelinger, R. (1998). The influence of family communication on the college-aged child: Openness, attitudes and actions about sex and alcohol. *Communication Quarterly, 46*(3), 295-308.
- Bowen, M. (1966). The use of family theory in clinical practice. *Comprehensive psychiatry, 7*(5), 345-374.
- Byers, E. S. (1999). The Interpersonal Exchange Model of Sexual Satisfaction: Implications for sex therapy with couples. *Canadian Journal of Counselling, 32*, 95-111
- Byers, E. S. (2011). Beyond the birds and the bees and was it good for you?: Thirty years of research on sexual communication. *Canadian Psychology/Psychologie canadienne, 52*(1), 20.
- Catania, J. A. (1998). Dyadic sexual communication scale. *Handbook of sexuality-related measures, 129-131*.

- Cleary, J., Barhman, R., MacCormack, T., & Herold, E. (2002). Discussing sexual health with a partner: A qualitative study with young women. *The Canadian Journal of Human Sexuality, 11*(3/4), 117.
- DeMaria, R., Weeks, G., & Hof, L. (1999). Intergenerational assessment of individuals, couples, and families: Focused genograms. *Philadelphia: Brunner/Mazel*.
- DiClemente, R., Wingood, G., Crosby, R., Cobb, B., Harrington, K., & Davies, S. (2001). Parent-adolescent communication and sexual risk behaviors among African American adolescent females. *Journal of Pediatrics, 139*(3), 407-412.
- DiIorio, C., Dudley, W. N., Lehr, S., & Soet, J. E. (2000). Correlates of safer sex communication among college students. *Journal of advanced nursing, 32*(3), 658-665.
- DiIorio, C., Pluhar, E., & Belcher, L. (2003). Parent-child communication about sexuality: A review of the literature from 1980-2002. *Journal of HIV/AIDS Prevention & Education for Adolescents & Children, 5*(3-4), 7-32.
- Eaton, A. A., & Matamala, A. (2014). The relationship between heteronormative beliefs and verbal sexual coercion in college students. *Archives of sexual behavior, 43*(7), 1443-1457.
- Epstein, M., & Ward, L. M. (2008). “Always use protection”: Communication boys receive about sex from parents, peers, and media. *Journal of Youth and Adolescence, 37*, 113-126.
- Farmer, M. A., & Meston, C. M. (2006). Predictors of condom use self-efficacy in an ethnically diverse university sample. *Archives of sexual behavior, 35*(3), 313-326.

- Fisher, T. D. (1986). An exploratory study of parent-child communication about sex and the sexual attitudes of early, middle, and late adolescents. *The Journal of Genetic Psychology, 147*(4), 543-557.
- Fisher, T. D. (1987). Family communication and the sexual behavior and attitudes of college students. *Journal of Youth and Adolescence, 16*(5), 481-495.
- Hendrick, C., Hendrick, S. S., & Reich, D. A. (2006). The brief sexual attitudes scale. *Journal of sex research, 43*(1), 76-86.
- Hertlein, K. M., Weeks, G. R., & Sendak, S. K. (2009). *A clinician's guide to systemic sex therapy*. Routledge.
- Hutchinson, M. K., & Cooney, T. M. (1998). Patterns of parent-teen sexual risk communication: Implications for intervention. *Family relations, 185*-194.
- IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.
- Isaacs, A. M. (2012). *Let's Talk about Sex: How Family Communication Patterns and Family Sexual Communication Impact Adolescents' and Emerging Adults' Sexual Outcomes* (Doctoral dissertation, University of Minnesota, 2012. Major: Communication Studies.).
- Jozkowski, K. N., Peterson, Z. D., Sanders, S. A., Dennis, B., & Reece, M. (2014). Gender differences in heterosexual college students' conceptualizations and indicators of sexual consent: Implications for contemporary sexual assault prevention education. *The Journal of Sex Research, 51*(8), 904-916.

- Lefkowitz, E. S. (2002). Beyond the yes-no question: Measuring parent-adolescent communication about sex. *New directions for child and adolescent development, 2002(97)*, 43-56.
- Lefkowitz, E. S., & Espinosa-Hernandez, G. (2007). Sex-related communication with mothers and close friends during the transition to university. *Journal of Sex Research, 44(1)*, 17-27.
- Levant, R. F., Rankin, T. J., Hall, R. J., Smalley, K. B., & Williams, C. M. (2012). Measurement of nontraditional sexuality in women. *Archives of Sexual Behavior, 41(1)*, 283-95. doi: <http://dx.doi.org/10.1007/s10508-011-9793-6>
- MacNeil, S., & Byers, E. S. (2005). Dyadic assessment of sexual self-disclosure and sexual satisfaction in heterosexual dating couples. *Journal of Social and Personal Relationships, 22(2)*, 169-181. Retrieved from: <http://search.proquest.com.er.lib.k-state.edu/docview/212903011?accountid=11789>
- Mark, K. P., & Jozkowski, K. N. (2013). The mediating role of sexual and nonsexual communication between relationship and sexual satisfaction in a sample of college-age heterosexual couples. *Journal of sex & marital therapy, 39(5)*, 410-427.
- Metts, S., & Cupach, W. R. (1989). The role of communication in human sexuality. *Human sexuality: The societal and interpersonal context*, 139-161.
- Milhausen, R. R., Sales, J. M., Wingood, G. M., DiClemente, R. J., Salazar, L. F., & Crosby, R. A. (2007). Validation of a partner sexual communication scale for use in HIV/AIDS prevention interventions. *Journal of HIV/AIDS prevention in children & youth, 8(1)*, 11-33.

- Montesi, J. L., Fauber, R. L., Gordon, E. A., & Heimberg, R. G. (2011). The specific importance of communicating about sex to couples' sexual and overall relationship satisfaction. *Journal of Social and Personal Relationships, 28*(5), 591-609.
- Morgan, E. M., Thorne, A., & Zurbriggen, E. L. (2010). A longitudinal study of conversations with parents about sex and dating during college. *Developmental Psychology, 46*(1), 139-150. doi: <http://dx.doi.org/10.1037/a0016931>
- Muthén, L. K., & Muthén, B. O. (1998-2011). Mplus User's Guide. Sixth Edition. Los Angeles, CA: Muthén & Muthén.
- Negy, C., Velezmoro, R., Reig-Ferrer, A., Smith-Castro, V., & Livia, J. (2015). Parental Influence on Their Adult Children's Sexual Values: A Multi-National Comparison between the United States, Spain, Costa Rica, and Peru. *Archives of sexual behavior, 1-13*.
- Noar, S. M., Carlyle, K., & Cole, C. (2006). Why communication is crucial: Meta-analysis of the relationship between safer sexual communication and condom use. *Journal of health communication, 11*(4), 365-390.
- Petersen, J. L., & Hyde, J. S. (2010). A meta-analytic review of research on gender differences in sexuality, 1993–2007. *Psychological Bulletin, 136*(1), 21-38. doi: <http://dx.doi.org/10.1037/a0017504>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879-891.

- Sales, J. M., Milhausen, R. R., Wingood, G. M., DiClemente, R. J., Salazar, L. F., & Crosby, R. A. (2008). Validation of a parent-adolescent communication scale for use in STD/HIV prevention interventions. *Health Education & Behavior, 35*(3), 332-345.
- Simons, L. G., Burt, C. H., & Tambling, R. B. (2013). Identifying mediators of the influence of family factors on risky sexual behavior. *Journal of Child and Family Studies, 22*(4), 460-470.
- Taris, T. W. (2000). Quality of mother-child interaction and the intergenerational transmission of sexual values: A panel study. *The journal of genetic psychology, 161*(2), 169-181.
- Taris, T. W., & Semin, G. (1997). Quality of mother-child interaction, differences in sexual attitudes, and intergenerational disagreement on sexuality. *Early Child Development and Care, 136*, 65-78. Retrieved from <http://search.proquest.com.er.lib.k-state.edu/docview/619273699?accountid=11789>
- Taris, T. W., Semin, G. R., & Bok, I. A. (1998). The effect of quality of family interaction and intergenerational transmission of values on sexual permissiveness. *The Journal of genetic psychology, 159*(2), 237-250.
- Trinh, S. L., Ward, L. M., Day, K., Thomas, K., & Levin, D. (2014). Contributions of divergent peer and parent sexual messages to Asian American college students' sexual behaviors. *The Journal of Sex Research, 51*(2), 208-220.
- Troth, A., & Peterson, C. C. (2000). Factors predicting safe-sex talk and condom use in early sexual relationships. *Health Communication, 12*(2), 195-218.
- Werner-Wilson, R. (1998). Gender differences in adolescent sexual attitudes: The influence of individual and family factors. *Adolescence, 33*(131), 519-31. Retrieved from <http://search.proquest.com.er.lib.k-state.edu/docview/195927472?accountid=11789>

- Wilson, H. W., & Donenberg, G. (2004). Quality of parent communication about sex and its relationship to risky sexual behavior among youth in psychiatric care: a pilot study. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 45(2), 387–395.
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, 52(1), 30-41.

Appendix A - Family Sexual Communication Scale

In the next several sections we will be asking you questions regarding your parents.

Looking back at the discussions you may have had with your parents about sex indicate who you would say you talked to the most about sex

Mother

Father

Both parents equally

Male parental figure

Female parental figure

In this section we ask you to think about the sexual communication you have had with your parents up until this point in your life. First, please circle the number that best describes how often your parents have talked with you about each sexual subject. (0=Never discussed, 1=Discussed once, 2=Discussed a few times, 3=Discussed frequently).

1. STDs (other than HIV/AIDS)
2. HIV/AIDS
3. Condom Use
4. Unplanned pregnancies
5. Abortion
6. Abstinence
7. Oral sex
8. Resisting sexual pressure
9. Monogamy (having only one partner)
10. Fidelity (being faithful to a partner)
11. The enjoyment/fun/pleasure of sexual relationships
12. Parents' attitudes about me having sex
13. Masturbation
14. Rape/molestation/sexual harassment
15. Resources available to help with family planning (i.e. Planned Parenthood)
16. Resources available to help deal with sexual trauma/rape
17. Statistics about sexually active adolescents
18. Gender specific info (menstruation, ejaculation)
19. Non-sexual ways to show love
20. Sexual orientation

Still thinking about the sexual communication you have had with your parents up until this point in your life, please circle the number that best describes how good or bad the communication about each subject was. If you have never discussed the subject, please circle "0." (0=Never discussed, 1=Very bad, 2=Bad, 3= Somewhat bad, 4=Okay, 5=Somewhat good, 6=Good, 7=Very good).

1. STDs (other than HIV/AIDS)

2. HIV/AIDS
3. Condom Use
4. Unplanned pregnancies
5. Abortion
6. Abstinence
7. Oral sex
8. Resisting sexual pressure
9. Monogamy (having only one partner)
10. Fidelity (being faithful to a partner)
11. The enjoyment/fun/pleasure of sexual relationships
12. Parents' attitudes about me having sex
13. Masturbation
14. Rape/molestation/sexual harassment
15. Resources available to help with family planning (i.e. Planned Parenthood)
16. Resources to help deal w/ sexual trauma/rape
17. Statistics about sexually active adolescents
18. Gender specific info (menstruation, ejaculation)
19. Non-sexual ways to show love
20. Sexual orientation

Thank you for your responses thus far. Again still thinking about the sexual communication you have had with your parents up until this point in your life, please circle the number that best describes how well the statement describes what your parents have communicated with you about sex. (1=Strongly disagree, 2=Moderately disagree, 3=Slightly disagree, 4=Neither agree nor disagree, 5=Slightly agree, 6=Moderately agree, 7=Strongly agree, NA=Haven't discussed).

1. My parents told me to wait to have sex until I am married.
2. My parents encouraged me to explore my sexual urges even at a young age.
3. My parents made it clear that one should never cheat on one's partner.
4. My parents told me to always use protection.
5. My parents directly or indirectly encouraged me to have as few of sexual partners as possible.
6. My parents directly or indirectly said it was okay not to use protection when I have sex.
7. My parents said that sex isn't necessarily only for marriage but must be saved for someone you love.
8. My parents made it clear that we all make mistakes when it comes to being faithful to one partner.
9. My parents directly or indirectly encouraged me to "play the field".
10. My parents directly or indirectly said it was okay for me to have sex for the pleasure and joy of it.
11. My parents discouraged me from engaging in sexual activities until I am married.
12. My parents directly or indirectly encouraged me to explore my sexual urges even if they are unconventional (i.e. certain sexual positions, multiple sexual partners, one night stands).
13. My parents made it clear that sex is only appropriate in marriage.
14. My parents discouraged me from engaging in sexual activities until I am older.

15. My parents directly or indirectly made it clear that there are appropriate and inappropriate types of sexual behavior (regarding things such as sexual positions, multiple sexual partners, one night stands, etc).

Restrictive Messages: items 1, 3, 5, 7, 11, 13, 14, 15

Permissive Messages: items 2, 4, 6, 8, 9, 10, 12,

Appendix B - Brief Sexual Attitudes Scale

Listed below are several statements that reflect different attitudes about sex. For each statement fill in the response on the answer sheet that indicates how much you agree or disagree with that statement. Some of the items refer to a specific sexual relationship, while others refer to general attitudes and beliefs about sex. Whenever possible, answer the questions with your current partner in mind. If you are not currently dating anyone, answer the questions with your most recent partner in mind. If you have never had a sexual relationship, answer in terms of what you think your responses would most likely be.

For each statement:

- A** = Strongly agree with statement
- B** = Moderately agree with the statement
- C** = Neutral - neither agree nor disagree
- D** = Moderately disagree with the statement
- E** = Strongly disagree with the statement

1. I do not need to be committed to a person to have sex with him/her.
2. Casual sex is acceptable.
3. I would like to have sex with many partners.
4. One-night stands are sometimes very enjoyable.
5. It is okay to have ongoing sexual relationships with more than one person at a time.
6. Sex as a simple exchange of favors is okay if both people agree to it.
7. The best sex is with no strings attached.
8. Life would have fewer problems if people could have sex more freely.
9. It is possible to enjoy sex with a person and not like that person very much.
10. It is okay for sex to be just good physical release.
11. Birth control is part of responsible sexuality.
12. A woman should share responsibility for birth control.
13. A man should share responsibility for birth control.
14. Sex is the closest form of communication between two people.
15. A sexual encounter between two people deeply in love is the ultimate human interaction.
16. At its best, sex seems to be the merging of two souls.
17. Sex is a very important part of life.
18. Sex is usually an intensive, almost overwhelming experience.
19. Sex is best when you let yourself go and focus on your own pleasure.
20. Sex is primarily the taking of pleasure from another person.
21. The main purpose of sex is to enjoy oneself.

- 22. Sex is primarily physical.
- 23. Sex is primarily a bodily function, like eating.

Note. The BSAS includes the instructions shown at the top. The items are given in the order shown. The BSAS is usually part of a battery with items numbered consecutively. For purposes of analyses, we have A=1 and E=5. (The scoring may be reversed, so that A = strongly disagree, etc.) A participant receives four subscale scores, based on the mean score for a particular subscale (i.e., we add up the 10 items on Permissiveness and divide by 10). An overall scale score is really not useful.

Items	Scoring Key
1-10	Permissiveness
11-13	Birth Control
14-18	Communion
19-23	Instrumentality

If you need additional appendices, follow these steps:

1. Insert a Page Break.
2. Type the headline that you want in regular text.
3. Select the text and apply a “Heading 6” style.

Appendix C - Dyadic Sexual Communication Scale

- (0) This Does Not Apply to My Relationships(s)
- (1) Strongly disagree
- (2) Disagree
- (3) Neither Agree nor Disagree
- (4) Agree
- (5) Strongly Agree

Please indicated how much you agree or disagree with the following statements.

1. My partner rarely responds when I want to talk about our sex life.
2. Some sexual matters are too upsetting to discuss with my sexual partner.
3. There are sexual issues or problems in our sexual relationship that we have never discussed.
4. My partner and I never seem to resolve our disagreements about sexual matters.
5. Whenever my partner and I talk about sex, I feel like she or he is lecturing me.
6. My partner often complains that I am not very clear about what I want sexually.
7. My partner and I have never had a heart to hear about our sex life together.
8. My partner has no difficulty in talking to me about his or her sexual feelings and desires.
9. Even when angry with me, my partner is able to appreciate my views on sexuality.
10. Talking about sex is a satisfying experience for both of us.
11. My partner and I can usually talk calmly about our sex life.
12. I have little difficulty in telling my partner what I do or don't do sexually.
13. I seldom feel embarrassed when talking about the details of our sex life with my partner

Appendix D - Multidimensional Scale of Perceived Social Support

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

- (1) Very Strongly Disagree
- (2) Strongly Disagree
- (3) Mildly Disagree
- (4) Neutral
- (5) Mildly Agree
- (6) Strongly Agree
- (7) Very Strongly Agree

- 1. There is a special person who is around when I am in need.
- 2. There is a special person with whom I can share joys and sorrows.
- 3. My family really tries to help me.
- 4. I get the emotional help & support I need from my family.
- 5. I have a special person who is a real source of comfort to me.
- 6. My friends really try to help me
- 7. I can count on my friends when things go wrong.
- 8. I can talk about my problems with my family.
- 9. I have friends with whom I can share my joys and sorrows.
- 10. There is a special person in my life who cares about my feelings.
- 11. My family is willing to help me make decisions.
- 12. I can talk about my problems with my friends.

Scoring Information:

To calculate mean scores:

Significant Other Subscale: Sum across items 1, 2, 5, & 10, then divide by 4.

Family Subscale: Sum across items 3, 4, 8, & 11, then divide by 4.

Friends Subscale: Sum across items 6, 7, 9, & 12, then divide by 4.

Total Scale: Sum across all 12 items, then divide by 12.

Appendix E - Non-Parent Discussions

1. Have you ever talked with your siblings regarding any sexual topics? (yes/no)
2. Have discussed any sexual topics with your peers? (yes/no)
3. Have discussed any sexual topics with a religious leader? (yes/no)