2007

Parent-child communication: influences of maternal sexual experiences as a teenager on the occurrence of sexuality communication with their adolescent

Crystal Marie Luckeroth

Iowa State University

Follow this and additional works at: https://lib.dr.iastate.edu/rtd

Part of the Family, Life Course, and Society Commons, and the Home Economics Commons

Recommended Citation

Luckeroth, Crystal Marie, "Parent-child communication: influences of maternal sexual experiences as a teenager on the occurrence of sexuality communication with their adolescent" (2007). Retrospective Theses and Dissertations. 14638.
https://lib.dr.iastate.edu/rtd/14638

This Thesis is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
Parent-child communication: Influences of maternal sexual experiences as a teenager on the occurrence of sexuality communication with their adolescent

by

Crystal Marie Luckeroth

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Family and Consumer Sciences Education

Program of Study Committee:
Cheryl Hausafus, Major Professor
Yvonne Gentzler
Kimberly Greder

Iowa State University
Ames, Iowa

2007

Copyright © Crystal Marie Luckeroth, 2007. All rights reserved.
DEDICATION

To my father, for always believing in me.
# TABLE OF CONTENTS

**LIST OF FIGURES**

**LIST OF TABLES**

**ACKNOWLEDGEMENTS**

**ABSTRACT**

**CHAPTER I. INTRODUCTION**
- Background for the Study 1
- Purpose 3
- Definitions 3

**CHAPTER II. LITERATURE REVIEW**
- Child Factors 4
  - Gender 4
  - Age 5
  - Quality of relationship with parent 5
- Parent Factors 7
  - Gender 7
  - Race 8
  - Other demographic factors 9
  - Parent perceptions 10
  - Self-efficacy 11
  - Parent values 12
  - Past experiences 13
  - Comfort level 14
- Effects of Parent-Child Communication 16
- Justification for the Study 17

**CHAPTER III. METHODS**
- Purpose Statement 20
- Research Question 20
- Method 21
  - Participants 21
  - Instrument 22
  - Procedure 25
LIST OF FIGURES

Figure 1. Histogram of Discussion Topics Score 32
Figure 2. Histogram of Maternal Experiences Score 32
Figure 3. Stem-and-Leaf Plots of Child’s Gender and Discussion Topics Score 36
Figure 4. Discussion Topics Frequencies 38
Figure 5. Maternal Experiences Frequencies Including First Intercourse 42
LIST OF TABLES

Table 1. Weighted Topics Measure and Discussion Topics Items 28
Table 2. Summary of Respondent Characteristics 30
Table 3. Independent-Samples $t$-test for Child’s Gender and Amount of Communication 35
Table 4. Discussion Topics Percentages 40
ACKNOWLEDGEMENTS

Thank you Nick and Zach for your support and encouragement. An extra special thanks to Zach for helping me fold surveys and stuffing envelopes. I enjoyed our homework time together and I hope that education will become as important of a value for you as it has for me.

Thank you Dr. Hausafus for long distance phone calls and assistance despite our physical distances! I appreciate all the time my committee took to assist me in my goal of completing my masters program and especially my thesis. In addition, I appreciate Dr. Hausfaus, Dr. Gentzler, and Dr. Greder scheduling time when I was back to Iowa to meet with me and to make my work a priority at the time.

My family: for your on-going encouragement, love, supportive words, postage stamps, and highlighters! My friends and coworkers: for asking me how it’s going, listening to my frustrations, offering to proof my papers, and supporting me along this path.

The completion of my Master of Science degree, especially the thesis study, has been a dream of mine since I started college. I look forward to giving back to my community and continuing my life-long learning.
ABSTRACT

Although teen pregnancy rates are declining, nearly half of high school teenagers had sexual intercourse in 2005 and one in four sexually active teens contracted a sexually transmitted disease (Centers for Disease Control, n.d.; Kaiser Family Foundation, 2005). Teens obtain their information on sexuality from different sources including parents, peers, media, and educational programs. Parents are teens’ preferred source of sexuality education, yet parents aren’t providing the majority of the talking (Fitzharris & Werner-Wilson, 2004). When parents do talk about sexuality, studies show that parent and child gender, and child age influence the occurrence of these types of discussions. There is a lack of evidence on what other parental factors influence parent communication on sexual topics with their adolescent children.

This study investigated factors that influence parent-child communication on sexual topics, and specifically sought to determine if maternal teenage sexual experiences influence mothers’ discussions with their adolescent children. The target sample of 500 randomly selected mothers or maternal guardians of children ages 10-14 years were mailed questionnaires. Using a list of 22 sexual topics, 69 respondents reported the frequency of discussions with their adolescent and completed a checklist of their own teenage sexual experiences. There was no follow up of non-respondents.

Correlational research design was used to rank and list sexual topics by frequency. Data was examined in aggregate and in subgroups by gender of the adolescent. Although a majority of the respondents reported that their own teenage sexual experiences influenced the discussions they had with their adolescents, no
statistically significant association was found regarding those experiences and the amount of discussion mothers or maternal guardians had with their child. One expected finding was that as the age of the child increased, so did the amount of sexual topic discussions. The most frequently discussed topics in aggregate and in each gender subgroup were dating/relationships and homosexuality. The majority of respondents reported their first sexual intercourse at age 19 or younger, the use of birth control and participation in oral sex as teenagers. Results are beneficial to family life educators for use in sexuality education programming.

Suggestions for further research on parental past sexual experiences (maternal and paternal) and parent sexuality values as factors influencing parent-child discussion on sexuality issues is encouraged.
CHAPTER I. INTRODUCTION

Background for the Study

In 2005, almost half (47%) of high school students in the United States had sexual intercourse (Centers for Disease Control, n.d.). The consequences of sexual intercourse are serious for teens; including sexually transmitted diseases (STDs) that can lead to lifelong health problems and unplanned pregnancies which can influence educational attainment of the mother and health of the baby. Despite the awareness of these issues, approximately 34% of young women become pregnant before the age of 20 and 50% of all new HIV infections occur in people under the age of 25 (Kaiser Family Foundation, 2005). Half of all teenage pregnancies occur in the first six months of sexual activity (Zabin, Kantner, & Zelnik, 1979). If contraceptives are not used, a sexually active teen has a 90% chance of becoming pregnant within one year (The National Campaign to Prevent Teen Pregnancy, 2006, November).

Even though teen pregnancy rates are declining, the incidence of health related issues for sexually active teens is not declining. One in four sexually active teens contracts a sexually transmitted disease each year (Kaiser Family Foundation, 2005). The data surrounding youth and sexuality creates a cause for concern. Youth are becoming sexually active at younger ages; one-third of youth in the 9th-grade have had sexual intercourse (Kaiser Family Foundation, 2005). Thus today’s youth are sexually active, becoming young parents, at risk for STDs and HIV, and yet are not fully informed about sexuality issues.
Numerous research studies have analyzed the sources in which teens obtain their sexuality information. According to a 2003 poll conducted by the Kaiser Family Foundation, 76% of youth, ages 15 to 24 say they have learned “a lot” or “some” information about sexuality from their friends. In addition, more than three-fourths of the students surveyed expressed a need for more information about sexual health topics (Kaiser Family Foundation, 2003). Despite friends being the greater source of information, teens often wish that parents delivered more sexual health information than they do (Brock & Jennings, 1993; Fitzharris & Werner-Wilson, 2004; Handelsman, Cabral, & Weisfeld, 1987; Hutchinson & Cooney, 1998). According to Somers and Surmann (2004), adolescents’ primary preferred source of sexuality education is parents. Even though parents are a preferred source of sexuality information for teens, peers are often the source from whom teens actually get information (Fitzharris & Werner-Wilson, 2004). For example, 54% of students discussed HIV/AIDS with their parents while 60% have discussed this with their peers (Holtzman & Rubinson, 1995). One study found only two-thirds of daughters and one-sixth of sons reported having had a discussion about sexual topics with their parents (Moore, Peterson, & Furstenberg, 1986). It is suggested that parents are the most influential medium to a child’s development, so why are parents reluctant to discuss sexuality information with their children?

Little is known about the reasons for or against parents discussing sexuality education with their children. Demographic characteristics of parents and adolescents, parental attitudes and beliefs, school sexual health programs, and onset of sexual behaviors are just some of the factors thought to influence this type of communication. Past research on parent-child communication has examined if communication has taken
place, but not so much why the communication has taken place or what parental factors influence these discussions. Why do parents choose to discuss sexuality information with their adolescents and do parents’ past sexual experiences as teens consciously influence their decisions to discuss sexuality with their own children?

Purpose

This study explored the research question: Do mothers’ teenage sexual experiences influence the amount of sexual topic communication they have with their adolescent children? Data was collected in a cross-sectional design using questionnaires mailed randomly to 500 selected households in a Pacific Northwest Metropolitan Statistical Area. Final data analyses included 69 complete cases. This thesis outlines the background for this study, literature review, methods, results, and summary of findings.

Definitions

Sexual Topic Communication: communication centered around broad sexual topics. For this study, sexual topics include the 22 items listed in the Discussion Topics measure.

Discussion Topics Score: the dependent variable in this study. This is a summed score of the 22-item Discussion Topics measure which illustrates the amount of communication respondents report having had with their children in the last year.

Maternal Experiences Score: the independent variable in this study. This is a summed score of the seven-item Maternal Experiences measure which tallies the number of sexual experience types respondents had during their teenage years.
CHAPTER II. LITERATURE REVIEW

There is a significant amount of literature on parent-child communication and parent-child communication on sexual topics. For this study, the literature review focused on child factors such as gender, age, and quality of the relationship with their parents, and parent factors such as demographic factors, parental perceptions, self-efficacy, attitudes and values, past experiences, and comfort level. Past literature on the effects of parent-child communication were reviewed with insight to limitations and considerations for this type of research study.

Child Factors

Gender

The gender of the child appears to be a significant factor influencing whether communication about sexual topics occurs, how much communication occurs, and the topics discussed. The majority of research showed that daughters are more likely to report discussions on sexual topics from parents (typically mothers) than sons (DiIorio, Resnicow, Dudley, Thomas, Wang, Van Marter, et al., 2000; Lefkowitz, Boone, Sigman, & Au, 2002; Moore et al., 1986; Newcomer & Udry, 1985; Nolin & Peterson, 1992; Rosenthal & Feldman, 1999). In addition to this gender disparity in discussions of sexual topics, sons also report less communication in the family and less discussion of topics that are likely to teach about family norms or values about sexual behavior (Nolin & Peterson, 1992). It has been observed that mothers’ reservations for discussing sexual
topics strongly hindered communication with sons but not with daughters (Jaccard, Dittus, & Gordon, 2000).

When sons receive communication from parents on sexual topics, the topics are different than those discussed with daughters. Daughters receive more information about menstruation, abortion, pregnancy, and dealing with sexual pressure than sons. Sons receive more information about abstinence, using a condom, masturbation, and wet dreams (DiLorio, Kelley, & Hockenberry-Eaton, 1999; Rosenthal & Feldman, 1999). Several suggestions are given to explain these findings which include the age old double standard of male vs. female sexuality, the relevance of the topic by gender, and the tendency of the outcome of sexual intercourse, pregnancy, to be a more female-oriented issue (DiLorio et al., 1999; Downie & Coates, 1999).

Age

Most research finds that as children get older, the amount of sexual topic discussion between parent and child increases, as does the breadth of the sexual topics (DiLorio et al., 2000). As adolescents get older, their chance of experiencing sexual intercourse increases. Age is a correlate of sexual behavior and one that may have a direct effect on parent-child sexuality communication (Somers & Paulson, 2000).

Quality of relationship with parent

The quality of the relationship between child and parent is also demonstrated by research as being influential to the occurrence and amount of sexuality communication. Feldman and Rosenthal (2000) found the most important factor in the youths’ evaluation
of mothers as sex educators was the quality of communication. Adolescents were comfortable in sex-related communications when mothers talked openly, made an effort to make them comfortable, encouraged questions, talked about sexual issues like any other health topic, and when they began these types of communications at an early age. On the other hand, mothers who were avoidant of sexual communication were viewed negatively by their adolescents. Feldman and Rosenthal (2000) suggested that communication about sexuality was not the only type of communication that mattered to adolescents. Adolescents viewed mothers positively as communicators when they used good communication techniques in general, such as being honest, being a good listener, and trying to understand another’s point of view. It is suggested that this style of communicating can be practiced early by parents in everyday communication and would facilitate an easier discourse for sexuality communication to take place (Feldman & Rosenthal, 2000).

Other studies have agreed that the more an adolescent perceives his/her family communication as open or experiences other personal discussions together, more discussions about sexual topics with their parents are held (Booth-Butterfield & Sidelinger, 1998; Fisher, 1990; Raffaelli, Bogenschneider, & Flood, 1998). This statement holds true vice versa in that adolescents who report more sex education in the home also are more likely to be satisfied with family interactions and report better communication with their mothers (Baldwin & Baranoski, 1990). Parents who described relationships with their children as very close also reported more involvement in sexual communication than parents who described their relationship as having average closeness (Coreil & Parcel, 1983).
The quality of the relationship between children and parents may also influence the amount of sexual intercourse in which the child engages. As adolescent satisfaction with the parent-child relationship increased, the probability that they engaged in sexual intercourse decreased (Fingerson, 2005; Jaccard, Dittus, & Gordon, 1996). Furthermore, the findings of Jaccard et al. (1996) imply that if children are satisfied in the relationship with their mothers, they may be more likely to pay attention to, understand, and accept the information their mothers present about sexual topics.

Parent Factors

Gender

Gender of the parent may be the most significant parental factor in the occurrence of or amount of sexuality communication that takes place between parent and child in the home. Past studies have demonstrated that mothers are overwhelmingly the primary sexual educator in families (Coreil & Parcel, 1983; Downie & Coates, 1999; Feldman & Rosenthal, 2000; Hutchinson & Cooney, 1998; Nolin & Peterson, 1992). To quantify, daughters in one study reported that more than 70% of their mothers had provided them with some information on sexuality while only about 20% of fathers had done so (Hutchinson & Cooney, 1998). Furthermore, Tucker (1989) conducted research spanning three generations and found that mothers were the primary source of sexual information in each generation. Consistently, past research reviewed tended to use mothers as the participant in their study (DiLorio et al., 2000; Fasula & Miller, 2006; Fox & Inazu, 1980;
Gender of parent and gender of the child influence each other when it comes to sexuality communication and who talks to whom. Mothers tend to be more likely to talk to daughters than sons, and fathers are more likely to talk to sons than daughters (Booth-Butterfield & Sidelinger, 1998; DiLorio et al., 2000; Miller, Kotchick, Dorsey, Forehand, & Ham, 1998). Fathers report more discomfort than mothers in discussing sexuality with their children (Nolin & Peterson, 1992) and daughters report they are more likely to talk to their friends than their fathers about sex (DiLorio et al., 1999). Even though fathers appear to have the under-hand in parent-child communication about sexuality, fathers’ influence for their children in regards to this communication is important. There is a significant gap in the amount of research conducted on fathers’ involvement in this type of communication. Fathers play a major role in the development of sexual beliefs, values, and socio-sexual development for their children with suggestions that future research should involve more father inquiries.

Race

Race is a notable demographic factor that appears to have an association with the amount of sexuality communication between parents and children and frequency of the sexual activity of adolescents. According to a 1983 study by Coreil and Parcel, African American parents reported the highest degree of involvement in sexuality instruction with their children while Hispanic parents reported the lowest degree. Caucasian parents reported involvement levels in the middle between the previous two groups. In addition,
African American parents, specifically mothers, provided more information about sexual topics to their children than Caucasian parents (Fox & Inazu, 1980; Hutchinson, 2002; Hutchinson & Cooney, 1998). Hispanic-Latina women reported less sexuality communication with their parents than their non-Hispanic peers (Hutchinson, 2002). As far as adolescent sexual behavior, African Americans are more likely to initiate first sexual intercourse before the age of 18, to be more sexually experienced than their Caucasian peers, and report that openness with a father is an important predictor of age at first intercourse (Casper, 1990; Lehr, DiLorio, Dudley, & Lipana, 2000). For Caucasians, openness with a mother is an important predictor of age at first intercourse (Lehr et al., 2000).

Other demographic factors

Neighborhoods have been considered in having an association with parent-child communication. Suburban and rural participants reported less parent-child sexuality communication than urban participants (Hutchinson, 2002). Location within the United States may also be associated with youth sexual activity, adolescents from the West are more likely to be sexually active than adolescents from the Northeast (Casper, 1990).

Educational attainment has also been considered influential in sexuality discussions. Mothers without college experience are more likely never to have discussed conception and birth control with their daughters (Fox & Inazu, 1980). One study found family income to have a curvilinear relationship, the lowest and highest income mothers have never talked with their daughters about sexual morality and conception. In addition,
as family income increases the proportion of mothers who have never discussed birth control with their daughters also increases.

Analyses of religious background suggest that mothers raised as Catholics are less likely than mothers from non-Catholic religions to have discussed birth control and sexual intercourse with their daughters (Fox & Inazu, 1980). Parent socioeconomic status and educational attainment have a negative association to adolescent sexual activity. For example, when all other background factors were controlled for, Casper (1990) found that youth from a higher socioeconomic status are less likely to be sexually active than those from a lower socioeconomic status. On the other hand, some research has not found demographic factors such as education (Coreil & Parcel, 1983), religiosity, or socioeconomic status to be significant predictors of parent-child discussions about sexuality (Fisher, 1990).

Parent perceptions

If parents believe that their child is sexually active they are more likely to talk with them about sex related topics than those who do not believe their child is sexually active (Eisenberg, Sieving, Bearinger, Swain, & Resnick, 2006). In addition, research has found that if parents believe their child’s friends are sexually active, more discussions are held between parent and child about sexually transmitted infections, birth control, and whether or not sex is appropriate (Raffaelli et al., 1998).

Parents’ perceptions may also be incorrect and lead to other devastating results; studies suggest that parents tend to underestimate the involvement in sexual activity of their children (Jaccard et al., 1996, 1998). In a 1996 study conducted by Jaccard et al.,
66% of mothers believed their adolescents had not engaged in sexual intercourse. However, this was only true for 42% of the adolescents surveyed. Jaccard, Dittus, and Gordon (1998) offered some interesting suggestions as to why these misperceptions occur. Mothers were more likely to underestimate their adolescent’s sexual activity when they reported not engaging their teen in sexual topic discussions and when they reported improved quality in the mother-adolescent relationship. In addition, mothers’ judgments of sexual activity appeared to be based on the mother’s personal opinions about sexual activity. Mothers were unaware of the sexual activity of their younger children, as opposed to the sexual activity of older children, implying that parents are in denial about younger children becoming sexually active. It was further suggested that mothers who disapproved of their adolescent engaging in sexual intercourse were more likely to underestimate the sexual activity of their own adolescent (Jaccard et al., 1998).

Self-efficacy

Other factors found to influence the occurrence of sexuality communication between parent and child are knowledge and self-efficacy. Past research has found that parents, like most adolescents, lack the knowledge and or means to effectively discuss this information (Geasler, Dannison, & Edlund, 1995; Handelsman et al., 1987; Hockenberry-Eaton et al., 1996). Parents who participated in a focus group for a study dealing with sexuality communication in the home suggested that parent discussion groups would be beneficial for parents in gaining support, comfort, and possibly knowledge about sexual topics and communication with their children (Geasler et al., 1995).
Self-efficacy, or the confidence in oneself, has been considered in the research on sexuality communication. Mothers who felt more competent in communicating about sexuality were more likely to have adolescents who reported discussions in the home about birth control (Raffaelli et al., 1998). Past studies have used Bandura’s Social Cognitive Theory (Bandura, 1986) to examine predictors of parent-child communication. Analyses revealed that self-efficacy (DiIorio et al., 2000) and outcome expectancies (DiIorio et al., 2000; Lehr, Demi, DiIorio, & Facteau, 2005) are associated with the occurrence of communication about sexual topics. Mothers who reported more confidence in their ability to talk with their children about sexual issues were also more likely to do so (DiIorio et al., 2000) as were mothers and fathers who report more positive outcomes associated with talking to their children about sex (DiIorio et al., 2000; Lehr et al., 2005).

Parent values

Past research has indicated mixed results between the association of parent values and the effect they have on communication with their children about sexual topics. Daughters of parents with traditional family values are less likely to have had sex than daughters of parents with moderate-liberal family values. In addition, rates of sexual activity are lower for daughters of parents with traditional values when the parents discuss sex and/or television programming together. For sons, a lower probability of sexual activity is related to traditional parents listening and discussing decisions with their sons (Moore et al., 1986).
Other studies did not find parents’ sex-based values to be a predictor of sexual communication with adolescents (DiIorio et al., 1999; Fisher, 1990). Jaccard et al. (1996) found that parental values may influence their adolescent’s sexual behavior when the quality of the relationship between parent and child is positive. On the other hand, when the quality of the parent-child relationship is poor, maternal values may not be taken into consideration by the adolescent and rebellious behavior may take precedence (Jaccard et al., 1996). In addition to parental values combining with parent-child relationship quality, the gender of the adolescent also heavily impacts the association between parent values and the effect of communication (Moore et al., 1986).

Past experiences

Some parents talk to their children about sexual topics in the context of storytelling or by sharing their personal experiences. Gaps in the literature review highlight that parents’ personal experiences have not been exhaustively researched to examine the association to the occurrence of sexuality communication between parent and child, but several studies touched on using past experiences as a method for discussion. In a qualitative study, researchers found that mothers used a “don’t do what I did” approach involving storytelling. Mothers referred to their past experiences or the experiences of neighbors, friends, relatives, and television characters to start or create discussions around sexual topics with their daughters (Pluhar & Kuriloff, 2004).

Another study mirrored these findings in which mothers who experienced adolescent pregnancy themselves used their experiences to teach the consequences of pregnancy and to discourage their daughters from repeating this history (Nwoga, 2000).
Both of these studies involved African American samples and illustrated the style of communication these families have within their culture, as well as a common approach for discussing sexuality. Besides using past experiences as a technique for discussion, parents’ past experiences with sexuality instruction may influence their sexuality communication with their children. Coreil and Parcel (1983) found that parents who had received school-based sex education instruction when they were adolescents reported greater communication with their child and involvement in their own children’s sexual education programs.

Comfort level

Comfort level may be another reason why parents do not communicate sexuality information to their children. Rosenthal et al. (1998) constructed a classification scheme in which their respondents were identified based on their approach to sexuality communication. Each of these categories illustrated a reason for or against the respondents (mothers) having this type of communication with their children.

The avoidant group contained mothers who were uncomfortable dealing with sexuality and mothers and children who avoided discussion of sex-related issues. Mothers gave reasons for their avoidance such as: their own personal characteristics, lack of comfort or uncertainty on how to discuss, or their children’s unwillingness, lack of readiness, or need for privacy. Mothers also justified their avoidance by believing that their children would learn what they needed to in their schools.

The reactive group contained mothers who had one or two conversations with their adolescent when they perceived intimacy in their child’s life. For these mothers,
apprehension about their child’s response was the reason for not communicating with their child about sexual issues.

Opportunistic communicators included mothers who reported they were willing to discuss sexual issues with their adolescents although they did so infrequently. Mothers in this group stated that they perceived their adolescents to be uninterested and not willing to engage in these types of discussions.

Child-initiated communication included mothers who didn’t initiate conversations. These mothers waited for their children to initiate discussions with them. The limitations in this group were the lack of control over what was covered in a discussion.

The final group was called the mutually interactive communicators, characterized by open, intimate, and emotional-based discussions initiated by mother and adolescent. Mothers in this group stated they consciously promote open communication, time for their children, and good listening skills (Rosenthal et al., 1998).

Jaccard et al. (2000) reported that parents have reservations about discussing sexual topics with their children. Mothers responded that the two most important reservations about having sexual topic discussions with their adolescents were concerns about embarrassing their child and concerns about being asked something they do not know. These reservations were followed by concerns that the child would think they were prying, the child would not take them seriously, and that their child would not be honest with them. The stronger the mother agreed with these reservations, the less communication she had with her child about sexual topics (Jaccard et al., 2000).
Effects of Parent-Child Communication

Discussions with parents can have positive influences on their child’s sexual behavior. Adolescents who discuss HIV/AIDS with their parents tend to be less likely than those who do not to have multiple sex partners or to engage in unprotected sexual intercourse (Holtzman & Rubinson, 1995).

Some studies reported no associations between parent-child communication on sexual topics and the child’s sexual behaviors (Casper, 1990; Handelsman et al., 1987; Newcomer & Udry, 1985). As Casper (1990) concludes “…simply informing adolescents about the potential risks associated with becoming sexually active does not mean that they will avoid sexual activity” (p. 112). Other studies eluded that even though sexual communication between parent and child may not influence a child’s sexual activity, it does influence their sexual responsibility. When families discuss the use of contraceptives with adolescents, this influenced the adolescents’ use of birth control during sexual encounters (Casper, 1990; Clawson & Reese-Weber, 2003; Lehr et al., 2000; Whitaker, Miller, May, & Levin, 1999). Sexual risk communication between mothers and daughters was found to be related to fewer episodes of sexual intercourse and greater contraceptive use (Hutchinson, Jemmott, Jemmott, Braverman, & Fong, 2003).

On the contrary, other research reported that the more sexual communication between adolescent and parents, the more likely the adolescent is to engage in sexual-risk taking behaviors. Adolescents who reported more sexual communication with their mother and father also reported a younger age of first intercourse (Clawson & Reese-

There is no clear cut finding on the association between parent-child sexuality communication and adolescent sexual behavior. In spite of this, the results do not have to be discouraging; a review of the literature offers some thoughts for professionals and researchers to keep in mind.

Adolescents may be ignorant of their parent’s views (Newcomer & Udry, 1985) and are often rebellious in their actions and attitudes. Also, age of the adolescent has been suggested to be a primary correlate of sexual behavior, the older the adolescent the more likely he/she is to have had sexual intercourse, regardless of any parent-child discussions on the topic (Somers & Paulson, 2000). Researchers also suggested that results must consider the methods used in the research. Results varied depending on who did the reporting of the communication held between parent and child. Adolescents often reported less communication occurring between themselves and parents, and parents often overestimated the amount of communication held (Jaccard et al., 2000; Lefkowitz et al., 2002; Miller et al., 1998). These reporting differences could be attributed to a difference in adult and child perceptions and interpretations of what was actually said. Many different factors influence the effect of parent-child sexuality communication on adolescent sexual behavior.

Justification for the Study

Just as numerous factors influence an adolescent’s sexual behavior, numerous factors also influence the occurrence of, amount of, and type of sexuality communication
held between parent and child. As the literature on this topic unfolds over time, gender of
the parent holds firm in being associated with the occurrence of and amount of sexuality
communication had between parent and child. Other demographic factors such as race,
education, socioeconomic status, and religion do not show strong associations in the
occurrence of sexuality communication (DiIorio, Pluhar, & Belcher, 2003). As Jaccard
and Dittus point out in their 1993 review, few studies have examined why some parents
have discussions with their children about sexual matters and why other parents avoid the
topic. They raise the question, “what factors facilitate communication and what factors
inhibit it” (Jaccard & Dittus, 1993, p. 342).

Past studies have examined demographic factors and their correlations with
adolescent sexual behaviors, but few studies have examined demographic factors with the
occurrence of sexual communication between parent and child. Jaccard et al. (1998)
again suggest that understanding the factors that underlie a parent’s denial or ignorance
of sexual behavior can help professionals in developing effective parent education
programs. Raffaelli et al. (1998) agree with past researcher’s requests in that
“identification of characteristics of parents who discuss sexual issues with their teenage
children would provide important information for educators and practitioners” (p. 315).

The justification for this graduate thesis is based in addressing gaps in the
research; specifically gaps in exploring parental background factors that may influence
the occurrence of parent-child sexuality communication. Parent-child communication
regarding sexuality is a heavily researched field; however little is known about the
influence that mothers’ teenage sexual experiences have on their discussions with their
own children on sexuality. This study offers implications for helping family life
educators and other family professionals in supporting parents in their sexuality educator role. Parents are in need of support and education when it comes to establishing rapport and a basis for these types of essential health-related discussions. The information garnered from this study will help family professionals better understand how to create programs and opportunities for families to learn about sexuality information.
CHAPTER III. METHODS

This chapter outlines the purpose statement, research question, and methods used to conduct this research. This study uses a correlational research design to measure the degree of association between two specific variables, outlined below (Creswell, 2005).

Purpose Statement

The purpose of this study was to demonstrate an association, if any, between mothers’ sexual experiences as a teenager and the amount of sexual topic communication between them and their adolescent children. Secondary purposes were to further demonstrate any association between child’s gender, mother’s sexual experiences as a teenager, and the amount of sexuality topic communication.

Research Question

The primary research question for this study was: Do mothers’ sexual experiences as a teenager influence the amount of sexual topic communication they have with their children aged 10 to 14 years. It was hypothesized that mothers with more sexual experiences in their teenage years (13 to 19 years) such as teenage pregnancy, a sexually transmitted disease, or multiple sex partners will have more sexual topic communication with their children than mothers who did not have these sexual experiences as teenagers.

The dependent variable was the amount of sexual topic communication between mother (or individual in the maternal relationship) and their child. This variable,
Discussion Topics score is operationally defined as the summed score of the Discussion Topics measure.

The primary independent variable describes the amount of sexual experiences the mother had during the ages of 13 to 19 years. This variable, Maternal Experiences score, is operationally defined as the summed score of the Maternal Experiences measure. Other independent variables reviewed in this study include child’s gender, child’s age, and the age of the mother at her first sexual intercourse.

Method

This research study was cross-sectional in design, representing the experiences of a target sample at one point in time (Creswell, 2005). Due to the cross-sectional nature, the results may recognize an association between variables, but cannot determine any cause and effect relationships between those variables. Any inferences made from these results must consider this important design limitation.

Participants

Due to the overwhelming evidence in previous research that mothers were held as the primary sex educator in families, mothers or other female guardians were chosen to be the respondents for the survey instrument. Participants were randomly selected through Survey Sampling International. Survey Sampling International is a global supplier of Internet, telephone, mail, and in-person sampling solutions (Survey Sampling International, 2007). A list of adult names and addresses was purchased from Survey Sampling International’s Specific Age Database, a subset of the Listed Household
Database, which uses hard sourced information from public directories to obtain a sample which is highly likely to contain households with youth ages 10 to 14.

The Metropolitan Statistical Area of Seattle, Washington, was selected as the target area for sampling. According to the U. S. Census Bureau in 2005 the total population estimate for the Seattle-Tacoma-Bellevue Metropolitan Statistical Area was 3,133,715 people. Of this 50% of the population was male, 50% of the population was female, and 23% were under 18 years old. The racial demographics reported for this area were 79% White, 5% Black or African American, 1% American Indian and Alaskan Native, 11% Asian, 1% Native Hawaiian and Other Pacific Islander, and 3% Other Race. In 2005 there were 1.3 million households in the Seattle-Tacoma-Bellevue Metro Area. Of these households, 30% contained children under the age of 18 years. For people 25 years and over, 91% had graduated from high school and 36% had a bachelor’s degree or higher (U. S. Census Bureau, 2005).

The sample population can be generalized to the target population. Of the respondents who reported demographic information in this study, 93% are White, 3% Hispanic, 1% Black or African American, 1% American Indian. In addition, 93% of the study respondents had their high school diploma. These characteristics from the sample closely resemble the target group.

Instrument

The survey instrument used in this study contained four sections (Appendix C). The demographic section questions consisted of the respondent’s relationship to children in home, respondent’s age, race, and level of educational attainment, and the age and
gender of the oldest child between the ages of 10 to 14. The second section asked the respondents to answer one question that best described their discussions with their child about sexuality, “If you have already had discussions about sexuality with your child (ages 10 to 14), do you think your past sexual experiences as a teenager influenced those discussions,” or “If you have not had discussions about sexuality with your child (ages 10 to 14), do you think your past sexual experiences as a teenager will influence those discussions?” Response selections were yes or no. The third and fourth sections included two measures, the Discussion Topics measure and Maternal Experiences measure, outlined in greater detail below.

The Discussion Topics measure is adapted and modified from the Weighted Topics Measure of Family Sexual Communication (Fisher, 1998). The Weighted Topics Measure contains nine specific sexual topics in which respondents indicate the extent that they have discussed these topics, using a scale of 0 (none) to 4 (a lot). Possible scores range from 0 to 36 with higher scores indicating greater amounts of communication. Reliability for mother respondents was strong (Cronbach’s α = .87), but not as strong as fathers (Cronbach’s α = .89) (Davis, Yarber, Bauserman, Schreer, & Davis, 1998). Validity for this measure was reported to correlate with general family communication as measured by the Openness in Family Communication subscale of Olson and Barnes’s Parent-Adolescent Communication Scale (Olson et al., 1982). Correlation coefficients range from α = .28 for fathers’ reports of communication to α = .53 for males’ reports of communication with their mothers (Davis et al., 1998).

The Discussion Topics measure used in this study was adapted and modified from the Weighted Topics Measure of Family Sexual Communication (Fisher, 1998). The
nine topics were used from the Weighted Topics Measure with additional topics added by the researcher. The Discussion Topics measure used the scale and responses from a study conducted by Raffaelli et al. (1998). The 5-point response scale indicates the frequency of topics discussed by respondents with 0 (never discussed), 1 (discussed, but not in the last year), 2 (discussed once or twice in the last year), 3 (discussed several times in the last year), 4 (discussed many times in the last year). Reliability and validity coefficients were not available for the Raffaelli et al. (1998) scale. Thus, the Discussion Topics measure is a ranked scale providing a summated score of all the topics; the higher the score, the greater the amount of communication on sexual topics between mother and child. Scores range from 0 to 88.

The Maternal Experiences measure was created for this study by the author and adapted from the Discussion Topics measure. The author used items from the Discussion Topics measure to guide the selection of possible sexual experiences that respondents might have experienced as a teenager. The Maternal Experiences items represent specific sexual activities, but are not inclusive to all possible sexual activities. The scale is a dichotomous, nominal scale. Yes answers were weighted at 1 and no answers were weighted at 0. Scores range from 0 to 11 with higher scores indicating greater maternal sexual experiences as a teenager. Age at first intercourse was also asked for respondents to answer with the specific age in years as the scale.

The additional question read, “If you have already had discussions about sexuality with your child (ages 10 to 14), do you think your past sexual experiences as a teenager influenced those discussions,” or “If you have not had discussions about sexuality with your child (ages 10 to 14), do you think your past sexual experiences as a teenager will
influence those discussions?” Scores on this question were dichotomous, nominal scores of a range 0 to 1, and respondents were to only answer one of the two questions. A higher score indicated the respondent perceived a greater influence of their past sexual experiences on their discussions with their children about sexual topics.

Procedure

The data collection procedure started with a pilot study to determine readability and ease of questionnaire completion. Three women with children ages 10 to 14 completed the questionnaire in approximately five minutes and did not report any suggestions for changes. The questionnaire and informal consent letter received human subjects approval from the Iowa State University Institutional Review Board and permission to conduct the study was granted (Appendix A). The researcher mailed an informational letter (Appendix B), survey (Appendix C), and a self-addressed stamped return envelope to the 500 randomly selected households from Survey Sampling International. Consent was implied from participants who returned a completed survey. Returned surveys were anonymous. The survey procedures were straightforward and did not include any incentive or follow-up mailings.

The response rate for the surveys was as follows: 500 surveys were mailed and 95 surveys were returned (response rate 19%). The response rate for this study falls into the 10% to 33% average survey return rate as outlined by Somers and Somers (as cited in Egbert, Paulus, & Nakamichi, 2002). The data-producing (complete cases with no missing data) response rate was 69 cases, 14%. Due to the anonymous response and limited funds to support this study, the researcher was not able to follow-up with non-
respondents or offer incentives to respondents. These factors, in addition to the sensitive nature of the questionnaire, might also account for the low response rate.
CHAPTER IV. RESULTS

Results of the study are divided in this chapter into several sections. Initial analyses outline the data analysis procedure and the descriptive statistics of the study responses. Several statistical tests and procedures were conducted using SPSS statistical software. This chapter outlines the results of reliability analyses, descriptive analyses, frequencies, and non-parametric correlations. Although the design of the study was quantitative in nature, some respondents chose to openly indicate additional information. See Appendix D for qualitative comments.

Initial Analyses

All data entry, computation, and analyses were conducted using SPSS Student Version 14.0. Missing values were coded 999 and any case with a missing value was not included in final analyses (12 cases were not included). In addition, surveys that contained an answer to both sections of question 6, “If you have already had discussions about sexuality with your child (ages 10 to 14), do you think your past sexual experiences as a teenager influenced those discussions,” or “If you have not had discussions about sexuality with your child (ages 10 to 14), do you think your past sexual experiences as a teenager will influence those discussions?” were coded with the first answer to the first part of this question. The latter question’s answer was disregarded in assumption that respondents had already discussed sexuality with their children.
Reliability

Reliability analysis was conducted on the 22-item Discussion Topics measure. The analysis revealed this scale had high reliability and internal consistency within items (Cronbach’s $\alpha = .92$). The Discussion Topics measure is adapted and modified from the Weighted Topics Measure of Family Sexual Communication (Fisher, 1998). The Weighted Topics Measure contains nine specific sexual topics in which respondents indicated the extent that they have discussed these topics. Reliability analysis conducted by T. D. Fisher, author of the Weighted Topics Measure, for mother respondents was found at the Cronbach’s $\alpha = .87$ (Davis et al., 1998). Reliability for the nine topics of the Weighted Topics Measure within this study’s Discussion Topics measure was found at the Cronbach’s $\alpha = .86$. The nine items of the original Weighted Topics Measure and the nine items used to compare from the current study Discussion Topics measure are listed in Table 1.

Table 1. *Weighted Topics Measure and Discussion Topics Items*

<table>
<thead>
<tr>
<th>Weighted Topics Measure</th>
<th>Discussion Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy</td>
<td>Pregnancy</td>
</tr>
<tr>
<td>Fertilization</td>
<td>Conception</td>
</tr>
<tr>
<td>Intercourse</td>
<td>Sexual intercourse</td>
</tr>
<tr>
<td>Menstruation</td>
<td>Menstruation</td>
</tr>
<tr>
<td>Sexually transmitted (venereal) disease</td>
<td>Sexually transmitted infections</td>
</tr>
<tr>
<td>Birth control</td>
<td>Birth control</td>
</tr>
<tr>
<td>Abortion</td>
<td>Abortion</td>
</tr>
<tr>
<td>Prostitution</td>
<td>Prostitution</td>
</tr>
<tr>
<td>Homosexuality</td>
<td>Homosexuality</td>
</tr>
</tbody>
</table>
In addition, reliability analysis was conducted on the female child and male child data sets. Respondents who answered the 22-item Discussion Topics measure in regards to a female child produced a Cronbach’s $\alpha = .94$, and for the selected nine items of the Weighted Topics Measure a Cronbach’s $\alpha = .89$. Respondents who answered the Discussion Topics measure in regards to a male child produced a Cronbach’s $\alpha = .90$, and for the selected nine items of the Weighted Topics Measure a Cronbach’s $\alpha = .84$.

Descriptive statistics

The mean age of the respondents (N=69) was 45 years with a standard deviation of 6 years. The range of respondent age was 20 to 57 years with 23% of the respondents between the ages of 20 to 41, 54% between the ages of 42 to 49, and 23% between the ages of 50 to 57. The mean age of the children in which the respondents answered questions (N=69) was 13 years with a standard deviation of 1 year. The range of child age was 10 to 14 years with 6% age 10, 10% age 11, 26% age 12, 20% age 13, and 38% age 14. The mean age of the respondents at first sexual intercourse (N=69) was 19 years with a standard deviation of 4 years. The range of the respondents’ age at first sexual intercourse was 10 to 39 years with 20% between the ages of 10 to 15, 43% between the ages of 16 to 19, 28% between the ages of 20 to 23, and 9% between the ages of 24 to 39.

The mean score for the Discussion Topics measure (N=69) was 33 with a standard deviation of 15. The range of Discussion Topics scores was 7 to 74. The mean score for the Maternal Experiences measure (N=69) was 2 with a standard deviation of 2. The range of Maternal Experience scores was 0 to 7.
The majority of respondents were mothers (97%). Respondents were asked to answer the questionnaire based on a child in their household between the ages of 10 to 14 and to specify whether this child was a male or female. Of the 69 cases in this study, 33 reported a female child (48%) and 36 reported a male child (52%). The majority of respondents selected Caucasian/White as their race (93%) and had a degree from a 4-year college or institution (39%). A summary of respondent characteristics can be found in Table 2.

Table 2. Summary of Respondent Characteristics

<table>
<thead>
<tr>
<th>Variable Category</th>
<th>Categories</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent Age (years)</td>
<td>20-41</td>
<td>16</td>
<td>23.2</td>
</tr>
<tr>
<td></td>
<td>42-49</td>
<td>37</td>
<td>53.6</td>
</tr>
<tr>
<td></td>
<td>50-57</td>
<td>16</td>
<td>23.2</td>
</tr>
<tr>
<td>Relationship to Child</td>
<td>Mother</td>
<td>67</td>
<td>97.1</td>
</tr>
<tr>
<td></td>
<td>Stepmother</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Grandmother</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Aunt</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Sister</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Cousin</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Other Female, not of marriage or blood relation</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Child Age (years)</td>
<td>10</td>
<td>4</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>7</td>
<td>10.1</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>17</td>
<td>24.6</td>
</tr>
<tr>
<td></td>
<td>12.5</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>13</td>
<td>18.8</td>
</tr>
<tr>
<td></td>
<td>13.5</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>26</td>
<td>37.7</td>
</tr>
<tr>
<td>Child Gender</td>
<td>Female</td>
<td>33</td>
<td>47.8</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>36</td>
<td>52.2</td>
</tr>
</tbody>
</table>
Table 2. Continued

<table>
<thead>
<tr>
<th>Variable</th>
<th>Categories</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent Race</td>
<td>African American/Black</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>American Indian</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Latino or Hispanic</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Alaskan Native</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Asian/Pacific Islander</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Caucasian/White</td>
<td>64</td>
<td>92.8</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Respondent's Highest</td>
<td>High School Diploma</td>
<td>8</td>
<td>11.6</td>
</tr>
<tr>
<td>Education Level</td>
<td>GED</td>
<td>5</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>AA Degree/Certificate from a community college or technical school</td>
<td>16</td>
<td>23.2</td>
</tr>
<tr>
<td></td>
<td>College degree from a 4 year institution</td>
<td>27</td>
<td>39.1</td>
</tr>
<tr>
<td></td>
<td>Masters or other professional degree</td>
<td>13</td>
<td>18.8</td>
</tr>
</tbody>
</table>

Correlation Analyses

Amount of communication and maternal experiences

In order to determine the appropriate statistical procedure a frequency test and histogram was completed to determine the shape of the data. The sum of the 22-item Discussion Topics measure provided a variable named Discussion Topics score which is of non-normal distribution (see Figure 1). The sum of the 11-item Maternal Experiences measure provided a variable named Maternal Experiences score which is also of non-normal distribution (see Figure 2). Therefore, the correlational tests conducted were non-parametric correlations.
Figure 1. *Histogram of Discussion Topics Score*

![Histogram of Discussion Topics Score](image)

- Mean $= 33.06$
- Std. Dev. $= 15.733$
- N $= 69$

Figure 2. *Histogram of Maternal Experiences Score*

![Histogram of Maternal Experiences Score](image)

- Mean $= 2.09$
- Std. Dev. $= 1.976$
- N $= 69$
The primary research question for this study was, do mothers’ teenage sexual experiences influence the amount of sexual topic communication they have with their children aged 10 to 14 years. The study alternative directional hypothesis was mothers with more sexual experiences in their teenage years (13 to 19 years) such as teenage pregnancy, a sexually transmitted disease, or multiple sex partners will have more sexual topic communication with their children than mothers who did not have these sexual experiences as teenagers. To examine this relationship the Spearman rank correlation was used. The relationship between Maternal Experiences score and Discussion Topics score produced a Spearman’s $r_s = -.014$, which indicated no association between these two variables. Therefore, mothers’ teenage sexual experiences did not influence the amount of discussion about sexual topics they have with their children.

Child’s age and amount of communication

The data gathered warrants further examination. To corroborate the literature review findings that the older the child is the more discussion from parents on sexual topics, correlational analysis between the child’s age and the Discussion Topics score was conducted. These variables are of non-normal distribution and therefore Spearman rank correlation was used. The association between child’s age and the Discussion Topics score was significant, Spearman’s $r_s = .273$, $p = .012$, $\alpha = .05$ (1-tailed).

Therefore, the older the child, the more discussion on sexual topics between mother and child.

Considering ages, does the age of the mother have any association to the amount of sexual topic communication between herself and her child? To examine this, the non-
normal variables respondent age and Discussion Topics score were analyzed. There was no association between mother’s age and the amount of discussion with her child on sexuality topics (Spearman’s $r_s = .119$, $p = .164$, $\alpha = .05$ [1-tailed]).

Child’s gender and amount of communication

To examine the literature review findings that girls tend to receive more sexual topic communication from their parents than boys, the relationship between child’s gender and the Discussion Topics score was examined. Child’s gender variable was a dichotomous variable and Discussion Topics score was a continuous variable. Using descriptive statistics to explore the means for each group, it was found that the mean Discussion Topics score for female children ($n=33$, $M = 36$, $SD = 17$) was higher than the mean Discussion Topics score for male children ($n=36$, $M = 30$, $SD = 14$). A visual depiction of the mean differences can be found in Figure 3.

Creswell (2005) indicated that a $t$-test is the appropriate statistical test to compare means of one independent variable and one dependent variable. Therefore, an independent-samples $t$-test was run to determine if the observed differences in mean Discussion Topics scores were significant. Levene’s test for equality of variances was analyzed first to determine that the variances were equal for the purposes of a $t$-test ($F = 1.356$, Significance $= .248$). The $t$-test demonstrated that the observed differences were not large enough to conclude differences between males and females in the amount of discussion topic communication they received from their mothers ($t = 1.469$, $df = 67$, $\alpha = .147$ [2-tailed], $M$ Difference $= 5.523$, $SE$ Difference $= 3.760$). See Table 3 for test results.
Table 3. *Independent-Samples t-test for Child’s Gender and Amount of Communication*

<table>
<thead>
<tr>
<th>Child's Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>Levene's Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion Topics Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Female</td>
<td>33</td>
<td>35.94</td>
<td>17.088</td>
<td>2.975</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>36</td>
<td>30.42</td>
<td>14.104</td>
<td>2.351</td>
<td></td>
</tr>
</tbody>
</table>

**t-test for Equality of Means**

<table>
<thead>
<tr>
<th>$t$</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.469</td>
<td>67</td>
<td>0.147</td>
<td>5.523</td>
<td>3.760</td>
<td>1.982 13.027</td>
</tr>
</tbody>
</table>
Age of first sexual intercourse and amount of communication

There was no association between the age of the respondents’ first sexual intercourse and their summed score on the Discussion Topics, as illustrated by Spearman’s $r_s = .180$, $p = .139$, $\alpha = .05$ (2-tailed). The majority of respondents experienced sexual intercourse for the first time at or before the age of 19 years (64%, $N = 69$).
Discussion Topics Frequencies

Respondents were asked to indicate the amount of discussion they had with their adolescent child for 22 sexual topics. The most frequently discussed topics as indicated by responses of 1 (discussed, but not in the last year), 2 (discussed once or twice in the last year), 3 (discussed several times in the last year), or 4 (discussed many times in the last year) were as follows, in order (N=69):

1. Dating and Relationships (96%)
2. Homosexuality (94%)
3. (Tie) Pregnancy (91%)
3. (Tie) Puberty (91%)

The least discussed topic was anal sex (12%). Reported amounts of discussions on each discussion topic can be found in Figure 4.

Discussion topic frequencies varied little with each gender. For respondents answering with female children, the most frequent discussion topics as indicated by a response of 1 through 4 are as follows, in order (n=33):

1. Dating and Relationships (100%)
2. (Tie) Homosexuality (97%)
2. (Tie) Menstruation (97%)
4. Puberty (94%)

Anal sex was the least discussed variable with female children (12%).
Figure 4. Discussion Topics Frequencies

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dating/Relationships</td>
<td>66</td>
</tr>
<tr>
<td>Homosexuality</td>
<td>65</td>
</tr>
<tr>
<td>Puberty</td>
<td>63</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>63</td>
</tr>
<tr>
<td>Consequences of Sex</td>
<td>61</td>
</tr>
<tr>
<td>Menstruation</td>
<td>58</td>
</tr>
<tr>
<td>Sexual Intercourse</td>
<td>55</td>
</tr>
<tr>
<td>Conception</td>
<td>55</td>
</tr>
<tr>
<td>Molestation</td>
<td>54</td>
</tr>
<tr>
<td>Pressure to Have Sex</td>
<td>52</td>
</tr>
<tr>
<td>Pornography</td>
<td>48</td>
</tr>
<tr>
<td>Sexually Transmitted Infections</td>
<td>47</td>
</tr>
<tr>
<td>Domestic Violence</td>
<td>47</td>
</tr>
<tr>
<td>Abortion</td>
<td>42</td>
</tr>
<tr>
<td>Birth Control</td>
<td>39</td>
</tr>
<tr>
<td>Prostitution</td>
<td>35</td>
</tr>
<tr>
<td>Date Rape</td>
<td>31</td>
</tr>
<tr>
<td>Wet Dreams</td>
<td>22</td>
</tr>
<tr>
<td>Statutory Rape</td>
<td>22</td>
</tr>
<tr>
<td>Oral Sex</td>
<td>19</td>
</tr>
<tr>
<td>Sexual Acts to Belong</td>
<td>15</td>
</tr>
<tr>
<td>Anal Sex</td>
<td>8</td>
</tr>
</tbody>
</table>

Number of cases
For respondents who had male children, the most frequent discussion topics as indicated by a response of 1 through 4 are as follows, in order (n=36):

1. (Tie) Dating and Relationships (92%)
1. (Tie) Homosexuality (92%)
1. (Tie) Pregnancy (92%)
4. (Tie) Consequences of Sex (89%)
4. (Tie) Puberty (89%)

Anal sex was the least discussed variable with male children (11%). Reported amounts of discussions from most to least on each discussion topic for female, male, and the total group can be found in Table 4.
<table>
<thead>
<tr>
<th>Discussion Topic</th>
<th>(%) Discussed Total Group&lt;sup&gt;a&lt;/sup&gt;</th>
<th>(%) Discussed Female Group&lt;sup&gt;b&lt;/sup&gt;</th>
<th>(%) Discussed Male Group&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dating/Relationships</td>
<td>95.6</td>
<td>100.0</td>
<td>91.6</td>
</tr>
<tr>
<td>Homosexuality</td>
<td>94.2</td>
<td>96.9</td>
<td>91.6</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>91.3</td>
<td>96.9</td>
<td>91.6</td>
</tr>
<tr>
<td>Puberty</td>
<td>91.3</td>
<td>93.9</td>
<td>88.8</td>
</tr>
<tr>
<td>Consequences of Sex</td>
<td>88.4</td>
<td>87.8</td>
<td>80.5</td>
</tr>
<tr>
<td>Menstruation</td>
<td>84.0</td>
<td>81.8</td>
<td>80.5</td>
</tr>
<tr>
<td>Conception</td>
<td>79.7</td>
<td>78.7</td>
<td>77.7</td>
</tr>
<tr>
<td>Sexual Intercourse</td>
<td>79.7</td>
<td>78.7</td>
<td>72.2</td>
</tr>
<tr>
<td>Molestation</td>
<td>78.2</td>
<td>78.7</td>
<td>69.4</td>
</tr>
<tr>
<td>Pressure to Have Sex</td>
<td>75.3</td>
<td>75.7</td>
<td>72.2</td>
</tr>
<tr>
<td>Pornography</td>
<td>69.5</td>
<td>69.6</td>
<td>69.4</td>
</tr>
<tr>
<td>Domestic Violence</td>
<td>68.1</td>
<td>69.6</td>
<td>66.6</td>
</tr>
<tr>
<td>Sexually Transmitted Infections</td>
<td>68.1</td>
<td>69.6</td>
<td>55.5</td>
</tr>
<tr>
<td>Abortion</td>
<td>60.8</td>
<td>63.6</td>
<td>52.7</td>
</tr>
<tr>
<td>Birth Control</td>
<td>56.5</td>
<td>60.6</td>
<td>52.7</td>
</tr>
<tr>
<td>Prostitution</td>
<td>50.7</td>
<td>51.5</td>
<td>38.8</td>
</tr>
<tr>
<td>Date Rape</td>
<td>44.9</td>
<td>45.4</td>
<td>38.8</td>
</tr>
<tr>
<td>Wet Dreams</td>
<td>31.8</td>
<td>30.3</td>
<td>38.8</td>
</tr>
<tr>
<td>Statutory Rape</td>
<td>30.4</td>
<td>30.3</td>
<td>30.5</td>
</tr>
<tr>
<td>Oral Sex</td>
<td>27.5</td>
<td>30.3</td>
<td>25.0</td>
</tr>
<tr>
<td>Sexual Acts to Belong</td>
<td>21.7</td>
<td>24.2</td>
<td>13.8</td>
</tr>
<tr>
<td>Anal Sex</td>
<td>11.5</td>
<td>12.1</td>
<td>11.1</td>
</tr>
</tbody>
</table>

<sup>a</sup>N=69. <sup>b</sup>n=33. <sup>c</sup>n=36.
Maternal Experiences Frequencies

The most frequent sexual experience reported by respondents when they were teenagers was the use of birth control (N=69, 54%). The second most frequent sexual experience was oral sex (49%). The third most frequent sexual experience as reported was having multiple sexual partners (30%). The fourth frequent sexual experience was teenage pregnancy (19%). Of the 13 cases with this response, nine respondents chose abortion and four chose to raise the child. Of these teenage mothers, it was hypothesized that they will have more communication with their child about sexual topics than non-teen parents, however the sample size was too small in this study to examine this assumption. Figure 5 outlines the frequency of all items in the Maternal Experiences measure.

Maternal Teenage Experiences Effects on Discussions with Children

Fifty-one respondents reported that they had already had discussions with their children about sexuality and their teenage sexual experiences influenced those discussions. Additionally, five respondents reported that they had not yet had sexuality discussions with their children, but when they did, their teenage sexual experiences would influence those discussions. This results to 81% of respondents self-reporting that their sexual experiences as a teenager have or will influence their discussions with their adolescent children. These numbers suggest that an influencing factor of parent-child communication on sexuality could be a parent’s past sexual experiences.
Figure 5. Maternal Experiences Frequencies Including First Intercourse
CHAPTER V. SUMMARY

This chapter summarizes the findings of the study and references consistencies with other researchers’ results on parent-child sexuality communication. Due to the small sample size, cross-sectional design, and funding constraints, several limitations will be addressed and finally, this chapter describes implications and conclusions for targeted audiences.

This study investigated factors that influenced parent-child communication on sexual topics, and specifically sought to determine if maternal teenage sexual experiences influence mothers’ discussions with their adolescent children. The target sample of 500 randomly selected mothers or maternal guardians of children ages 10-14 years were mailed questionnaires. Using a list of 22 sexual topics, 69 respondents reported the frequency of discussions with their adolescent and completed a checklist of their own teenage sexual experiences. There was no follow up of non-respondents.

Correlational research design was used to rank and list sexual topics by frequency. Data was examined in aggregate and in subgroups by gender of the adolescent. Although a majority of the respondents reported that their own teenage sexual experiences influenced the discussions they had with their adolescents, no statistically significant association was found regarding those experiences and the amount of discussion mothers or maternal guardians had with their child. The most frequently discussed topics in aggregate and in each gender subgroup were dating/relationships and homosexuality. The majority of respondents reported their first sexual intercourse at age 19 or younger, the use of birth control and participation in oral sex as teenagers.
Summary of Findings

The majority of mothers talked about sexual topics with their children. As expected, some sexual topics were discussed more than others as a whole and with gender differences. As reflected by more than 60% of responses by mothers, sexual intercourse was often first experienced during the teenage years. From this finding, it is suggested that talking early and talking often are still valid points to educating children on healthy sexual choices.

This study also illustrates which discussion topics are more frequently discussed than others and when compared to mothers’ sexual experiences as teenagers, (ages 13 through 19) thought provoking issues arise. Almost half of all respondents experienced oral sex during their teenage years, but only a little more than one-fourth have discussed oral sex with their adolescent children. Birth control was used by 54% of respondents during their teenage years but of this group, only 32% had discussions about birth control with their adolescent children. Sexual topics considered “risky” were discussed less with children in the study. Fewer than 32% of respondents discussed wet dreams, anal sex, oral sex, statutory rape, or sexual acts to belong to a group with their adolescent children. It is suggested that these topics may be uncomfortable for parents to discuss with their children.

Sexual topics considered more “traditional” were discussed often with children in this study, to the credit of the respondents. More than 84% of respondents discussed menstruation, puberty, dating and relationships, and consequences of sex with their adolescent children; in addition, 25% reported having discussed these topics with their children many times in the last year. In comparing respondents’ sexual experiences as a
teenager to discussions with their adolescent children, other positive connections were
discovered.

In a closer inspection of the data by Maternal Experiences subgroups several
interesting findings were revealed. Of the 12 respondents who selected yes to
experiencing domestic violence as a teenager, 10 of them had discussed domestic
violence with their adolescent children. Of the 13 respondents who had experienced a
teenage pregnancy, all of them had discussed pregnancy with their adolescent children,
three-fourths had discussed pressures to have sex, and two-thirds had discussed birth
control.

Even though this study failed to find significant associations between maternal
sexual experiences as a teenager and the amount of communication with their adolescent
children on sexual topics, all was not lost. As children age, sexual topic communication
between mothers and children increases, with males still tending to receive less amounts
of these discussions than females according to mean scores in this study. Mothers are
talking to their adolescent children about certain topics and sometimes these topics are
reflections from the past of their own sexual experiences at that age. This study has
provided insight for further examination into parental past sexual experiences and how
this might influence their communication with their adolescent children.

Relationship of Findings to Past Studies

This study replicated results of past findings in DiLorio et al. (2000) and Somers
and Paulson (2000) that as children age, sexual topic communication increases. Males
and females tend to receive communication from parents on different sexual topics,
despite their age. Downie and Coates (1999), DiIorio et al. (1999), and Rosenthal and Feldman (1999) found that mothers were more likely to discuss menstruation, birth control, and abortion with their daughters than sons. This study corroborated those findings. Additionally in this study, males received more discussions on sexually transmitted infections, pregnancy, and wet dreams than females which align with results found by DiIorio et al. (1999) and Rosenthal and Feldman (1999).

Limitations

This study has several limitations. First, the questionnaire used to gather responses is subject to self-reported information some of which could cause retrospective reporting errors. Respondents were asked to recall experiences from their teenage years and to recall amounts of discussion on sexual topics with their children over the last year. In addition, the final number of cases was often too small to determine significant associations between variables.

The study chose maternal parents or guardians as the respondent which excluded the influence that paternal parents or guardians have on parent-child communication. The source of reporting on sexual topic communication is important and should be considered in future studies.

The quantitative research method of this study was a correlational, cross-section design. Any inference drawn on variable associations or direction must be made with care and does not indicate a direct cause and effect relationship.
Implications

This study provides insight for assisting parents in learning about sexual communication with their children. With this study’s finding that most mothers experienced their first sexual intercourse at or younger than the age of 19, it is assumed that a majority of children will have their first intercourse while living with their parents. Parent-child communication about sexual topics has been suggested by other researchers to be the best way for youth to get the sex education message. In addition to teens being a “captured audience” to a parent or family unit, Jaccard et al. (1996) suggests that family sexual communication allows for transmission of parent values, sensitivity to child’s personality and family context, and timing with their child’s level of maturity. Jaccard et al. also hypothesized that parents will need education on these topics and approaches to communicating them with their children (1996).

Sex education programs for parents should be aware of several factors including parent demographics, cultural values, child gender differences, and parent experiences. In this study, the majority of respondents reported that they think their teenage sexual experiences influence the sexual topic discussions they have with their adolescent children. These influences may help or hinder their discussions, and suggest to facilitators to consider parent experiences as a powerful voice in communications with their children. Parents may benefit from counseling, sex education programs, communication skills training, or discussion groups to enhance their own awareness of their perceptions and potential bias in sexual topic communication with their children.
Conclusions

To reiterate gaps in the research, Jaccard and Dittus point out in their 1993 review that few studies have examined why some parents have discussions with their children about sexual matters and why other parents avoid the topic. They raise the question, “what factors facilitate communication and what factors inhibit it” (Jaccard & Dittus, 1993, p. 342). In conclusion from this study, the answer is still ambiguous. Although greater amounts of maternal sexual experiences as a teenager did not significantly influence the amount of sexual topic communication mothers had with their adolescent children, the majority of respondents did report that they believe their past sexual experiences do influence these discussions. Although the latter result has no directional indication or statistical association, it is a start, that mothers consider their own sexual experiences influential to discussions with their children.

There are no definitive factors that link greater sexual communication between parent and child, only combinations of factors. Widespread acceptance of sexuality education and communication with adolescents about sexual health topics will continue to enhance the amount of communication parents are able to have with their children. How we get there will require more research, collaboration, and open-minded discussions between research results, practitioners, communities, youth, and families.
APPENDIX A. INSTITUTIONAL REVIEW BOARD APPROVAL
Iowa State University

DATE: March 29, 2007

TO: Crystal M. Luckeroth
c/o Dr. Cheryl Hausafus, 30E MacKay

CC: Dr. Cheryl Hausafus
30E MacKay

FROM: Jan Canny, IRB Administrator
Office of Research Assurances

IRB ID: 07-136

Approval Date: 23 March 2007
Date for Continuing Review: 22 March 2008

The Chair of the Institutional Review Board of Iowa State University has reviewed and approved the protocol entitled: "Parent-child communication: Influences of maternal past sexual experiences on the occurrence of sexuality communication with their adolescent children." The protocol has been assigned the following ID Number: 07-136. Please refer to this number in all correspondence regarding the protocol.

Your study has been approved from 23 March 2007 to 22 March 2008. The continuing review date for this study is no later than 22 March 2008. Federal regulations require continuing review of ongoing projects. Please submit the form with sufficient time (i.e. three to four weeks) for the IRB to review and approve continuation of the study, prior to the continuing review date.

Failure to complete and submit the continuing review form will result in expiration of IRB approval on the continuing review date and the file will be administratively closed. All research related activities involving the participants must stop on the continuing review date, until approval can be re-established, except when necessary to eliminate immediate hazard to research participants. As a courtesy to you, we will send a reminder of the approaching review prior to this date.

Please remember that any changes in the protocol or consent form may not be implemented without prior IRB review and approval, using the "Continuing Review and/or Modification" form. Research Investigators are expected to comply with the principles of the Belmont Report, and state and federal regulations regarding the involvement of humans in research. These documents are located on the Office of Research Assurances website or available by calling (515) 294-4566, www.compliance.iastate.edu.

You must promptly report any of the following to the IRB: (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.

Upon completion of the project, please submit a Project Closure Form to the Office of Research Assurances, 1138 Pearson Hall, to officially close the project.
APPENDIX B. SURVEY INTRODUCTION LETTER
Hello,

My name is Crystal Luckeroth. I am a graduate student in the College of Human Sciences at Iowa State University, completing research for my graduate degree. You were randomly selected to participate in a research study involving mothers (or female guardians) and their communication with their adolescent children, ages 10-14 years old. The study is titled, “Parent-child communication: Influences of maternal past sexual experiences on the occurrence of sexuality communication with their adolescent children”.

I ask that you read this informational document before completing the attached questionnaire.

Background Information:
Not much is known about the reasons why parents discuss sexuality information with their children. The information you provide will help family professionals better understand how to create programs and opportunities for families to learn about sexuality information.

Procedure:
The study is voluntary, and while you may refuse to answer any item you wish, we encourage you to complete the attached questionnaire and mail it in the enclosed paid envelope by April 27, 2007. We have found that others have completed this questionnaire in approximately 5 minutes.

Risks and Benefits of this Study:
There are no physical risks involved in this study, however there may be some possible discomfort with the study topic and as you recall past experiences. While there may be no direct benefits to you, the study has benefits to society such as assisting professionals in understanding more about communication between mothers and adolescents on sexuality information and maternal background factors that influence these discussions.

Confidentiality:
This study is anonymous. Please do not place your name anywhere on this questionnaire. All questionnaires and the mailing list are kept separate, in a secure location. Only I will have access to the data. No mention of family names, city name, or any other identifying information will be included in any writings concerning this study. No deception is involved in this study in any way.

Thank you for your time and considering your participation in this research study. If you have any questions, please contact me at (360) 440-3973 or my Major Professor for this research study, Dr. Cheryl Hausafus at (515) 294-5307. If you have any questions about the rights of research subjects, please contact the IRB Administrator, (515) 294-4566, or Director, (515) 294-3115, Office of Research Assurances, Iowa State University, Ames, Iowa 50011.

Sincerely,

Crystal Luckeroth
Graduate Student, Iowa State University
3130 NE 73rd Street
Bremerton, WA 98311
(360) 440-3973

Dr. Cheryl Hausafus
Family & Consumer Sciences Education
30 E MacKay, Iowa State University
Ames, IA 50011-1121
(515) 294-5307
APPENDIX C. SURVEY INSTRUMENT
Maternal Experiences and Their Influence on Sexuality Communication

This questionnaire is part of a graduate thesis study. The study hopes to understand if mother's early sexual experiences influence their discussions with their children about sexual topics. The information you provide will help family professionals better understand how to create programs and opportunities for families to learn about sexuality information.

Your response is important. The maternal parent or guardian in the household should complete this questionnaire. After the questionnaire is completed, please return it in the enclosed self-addressed, stamped envelope. There are no right or wrong answers. Please do not include your name; we want all responses to be anonymous. This questionnaire contains sensitive questions and may take approximately 5 minutes to complete. Please select the responses that best reflect your experiences or situation. Thank you for your participation.

Demographics:
1. Please place an X next to the term that best describes your relationship to the children in your household. (Choose only 1)
   - Mother
   - Stepmother
   - Grandmother
   - Aunt
   - Sister
   - Cousin
   - Other Female, not of marriage or blood relation

2. Please indicate your age: ______ years

3. Think about a child in your household between the ages of 10-14 years old. (If you have more than one child in this age range, please think of the child who is the oldest between 10-14 years old). Write the age and place an X by the gender of this child below.
   Child (between ages of 10-14): ______ age in years ______ female ______ male

4. Place an X next to the group below that best describes your race. (Choose only 1)
   - African American/Black
   - American Indian
   - Latino or Hispanic
   - Alaskan Native
   - Asian/Pacific Islander
   - Caucasian/White
   - Other: ______
   (please indicate)

5. Please place an X next to the highest level of formal education you have completed.
   - Less than high school diploma or less than a GED
   - High School diploma
   - GED
   - AA Degree or Certificate from a community college or technical school
   - College degree from a 4 year institution
   - Masters or other professional degree

6. Please answer one question below that best describes your discussions with your child about sexuality:

If you have already had discussions about sexuality with your child (ages 10-14), do you think your past sexual experiences as a teenager influenced those discussions?
   - Yes
   - No

If you have not had discussions about sexuality with your child (ages 10-14), do you think your past sexual experiences as a teenager will influence those discussions?
   - Yes
   - No

Please turn page over
### Discussion Topics

Now think about the communications that you have had with your 10-14 year old child over the past year (the child described in question 3). For each of the topics listed below, recall how often you discussed the topic with your child. Using the 0 to 4 scale provided, please write the number that best describes how often you have discussed each topic. Place the number on the line to the left of the topic, and answer both columns.

<table>
<thead>
<tr>
<th>Never discussed</th>
<th>Discussed but not in last year</th>
<th>Discussed once or twice in last year</th>
<th>Discussed several times in last year</th>
<th>Discussed many times in last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>Conception</td>
<td>Sexual intercourse (penile/vaginal)</td>
<td>Menstruation</td>
<td>Wet dreams</td>
</tr>
<tr>
<td>Puberty</td>
<td>Sexually transmitted infections</td>
<td>Birth control</td>
<td>Abortion</td>
<td>Prostitution</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dating and relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homosexuality</td>
<td>Anal sex</td>
<td>Oral sex</td>
<td>Pornography</td>
<td>Date rape</td>
</tr>
<tr>
<td></td>
<td>Domestic violence</td>
<td>Statutory rape</td>
<td>Molestation</td>
<td>Racial discrimination</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sexual acts to belong to “groups”</td>
<td></td>
<td>Pressure to have sex</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Consequences of sex</td>
</tr>
</tbody>
</table>

### Maternal Experiences

Think back to the time when you were between the ages of 13-19 years old. Please place an X in the blank to the left of yes if you experienced any of the following items or place an X in the blank to the left of no if you did not experience any of the following items during that time period.

Remember, these questions are about experiences you had during the time you were 13 to 19 years old.

- Yes | No
- Yes | No
- Yes | No
- Yes | No
- Yes | No
- Yes | No
- Yes | No
- Yes | No
- Yes | No
- Yes | No
- Yes | No
- Yes | No

At what age did you have your first sexual intercourse encounter? ________ years

**Thank you for your participation!** Your responses will be compiled and analyzed with others’ responses to help family professionals better understand how to create programs and opportunities for families to learn about sexuality information. Please do not place your name on this paper; all your answers are anonymous.
APPENDIX D. QUALITATIVE RESPONSES
Selected Responses

“Critical topic of study for our teen’s generation. Sexuality issues are happening at younger ages than when I was a teen. Good luck in your studies.”

“I discussed issues more with my daughter than I do with my son. She asked questions, he doesn’t. If he asks I will.”

“…strongly believe that our past DOES NOT need to dictate our future. We have a choice. Yes, it is often difficult, but for our future and that of the next generation we must rise above (our lack of experience or over experience) and talk with our children about their sexuality…”

“Thank you for your research efforts…”
REFERENCES


topics [Electronic version]. *Adolescence, 24*(94), 269-278.

http://factfinder.census.gov

communication about sexual risk and condom use: The importance of parent-
teenager discussions [Electronic version]. *Family Planning Perspectives, 31*(3)
117-121.

first months of intercourse [Electronic version]. *Family Planning Perspectives,