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Parental involvement during adolescence and contraceptive use in college

Caroline Payne Purvis
Mississippi University for Women, cpaynepurvis@muw.edu

Rosemary V. Barnett
University of Florida, rbarnet@ufl.edu

Larry Forthun
University of Florida, lforthun@ufl.edu

Introduction

Of the United States' estimated population of 316 million, 23.5% or approximately 74 million individuals are under the age of 18 (United States Census, 2008). Within the field of family studies, it is important to understand the impact of the reported 70.1 million fathers and 80.5 million mothers on the approximately 74 million minors within the United States (United States Census, 2008). A majority of previous research examines the impact of absent parents on children, but what about the positive impact that can be obtained from present parents? Specifically, is there a positive impact of parental involvement during adolescences on sexual behavior during emerging adulthood?

Adolescents and college students continue to be sexually active and participate in sexual-risk-taking behaviors despite efforts of sexuality education programs. Sexual risk-taking behaviors encompass different behaviors including, but not limited to, having multiple lifetime sexual partners, and a lack of contraception use, such as a condom (Stone, Hatherall, Ingham, & McEachra, 2006; Halpern-Felsher, Cornell, Kropp, & Tschann, 2005; Regnerus, 2006). The most recent Youth Risk Behavior Surveillance Study (YRBSS) indicated that 62% of sexually active youth aged 14-17 had used a condom during their last intercourse (Center for Disease Control, YRBSS, 2010). The study also reported 17.6% indicated that they or their partner had used birth control to prevent pregnancy before their last sexual intercourse (Center for Disease Control, YRBSS, 2010). According to the American College Health Association (ACHA) in 2010, 45.4% of college students had penile/vaginal sex within the past 30 days. Nationally, the average college student has had 2.17 sexual partners within the last twelve months. When asked if they used a "method to prevent pregnancy the last time you had vaginal intercourse" only 56.6% of college students indicated yes (ACHA, 2010).

Parental Involvement

A multitude of definitions regarding parental involvement have been identified through previous research with definitions ranging from specific behaviors to broad overarching themes (Fan & Chen, 2001). Parental involvement is a multidimensional concept that includes behaviors relating to parental practice, parental behaviors, and parental communication (Fan & Chen, 2001). Regardless of the specific definition, a majority of research has indicated that limited parental involvement is associated with higher rates of engagement in sexual behaviors during adolescence (Ramirez-Valles, Zimmerman, & Juarez, 2002; Bingham & Crockett, 1996; Gottfredson, McNeil, & Gottfredson, 1991). Likewise, high levels of parental involvement is associated with lower levels of risky sexual behaviors during adolescence (Regnerus, 2006). While the impact of parental involvement on sexual behavior during adolescence has been explored, limited research is available on how the impact of parental involvement during adolescence impacts sexual behavior during college.

When daughters experience a close relationship with their mother and report her as being highly involved in their lives, sexual debut is delayed (Miller, Norton, Curtis, Hill, Schvaneveldt, &Young, 1997). Additionally, young men who spend time with their fathers have shown a delay in sexual debut (Ramirez-Valles et al, 2002). College students recall discussing sexuality more often with their mothers than their fathers (Heisler, 2005). Mothers have also indicated they talk more frequently with their adolescents regarding sexual behaviors compared to fathers (Whitaker, Miller, May, & Levin, 1999). Family communication regarding sex influences sexual decisions making among offspring (DiIorio, Kelley, & Hockenberry-Eaton, 1999; Karofsky,

Zeng, & Kosorok, 2001) and reduces risky sexual behaviors among already sexually active teens (Booth-Butterfield & Sidelinger, 1998).

Parents play an extremely important role in reducing both the physical and emotional risks associated with sexual behavior. Parents, unlike a majority of educators, peers, or others, have a strong emotional bond to the adolescent and can draw on this relationship to educate their adolescent regarding the risks of sexual behavior both physically and emotionally. It is through joint efforts of parents, educators, and communities that adolescents gain knowledge regarding the risks of sexual behavior.

Adolescents and Emerging Adults Sexual Health

The years of adolescence and emerging adulthood are defined differently by many researchers. For the purpose of this study, adolescence will be defined as ages 11-17 years old with ages 18-25 years old being defined as emerging adulthood. The years of adolescence and emerging adulthood is a time of exploration and identity development, including sexual exploration. During this time, youth experience biological changes that can cause an increase in hormones and unexpected emotions (Arnett, 2007). An increase in a sexual drive begins to develop during adolescence that until this time period was dormant. While strong feelings and emotions are simply a part of adolescent development, they remain an area of concern as these feelings and emotions can result in an individual making quick decisions.

Before adolescents become sexually active, it is beneficial for them to become aware of the health risks associated with sexual behavior. Adolescents often have a difficult time understanding the potential harmful effects associated with becoming sexually active, both physically and emotionally, and may view being sexually active as a part of life without comprehending the possible negative consequences. While sex education courses have the opportunity to teach adolescents that sexual behavior at an early age can be dangerous to them, both physically and emotionally, a large number of sex education courses, whether abstinence-only or abstinence-plus, focus only on the physical dangers of sexual behavior. It is imperative that the emotional needs of the sexually active adolescent be addressed as well.

Adolescents often act on their emotions, which can result in inappropriate, impulsive behaviors. The emotional decision to participate in sexual behavior can result from peer pressure, low self-esteem, and social norms (Guilamo-Ramos, Jaccard, Dittus, Gonzalez, & Bouris, 2008). Adolescents often make an emotional decision about sexual behavior without considering the emotional or physical consequences.

The emotional effects of sexual behavior vary, however regardless of the type of sexual behavior (i.e.: oral sex, vaginal sex, or anal sex), adolescent males are more likely than their female counterparts to have experienced only positive consequences and less likely to report having felt used or bad about themselves following the sexual behavior (Doskoch, 2007). Some of the most common emotional consequences of becoming sexually active include: feeling bad about oneself, regretful, used, or guilty after sex (Doskoch, 2007). Other consequences that can be experienced that have an emotional impact on the lives of adolescents include: getting into trouble with their parents, experiencing a negative change in their relationship with their partner, or developing a bad reputation (Doskoch, 2007). While not specifically emotional consequences, they can result in negative emotional consequences for the adolescent. When an adolescent perceives a negative outcome, either physical or emotional, attached to a sexual experience, there is an increased likelihood in the use of contraception.

Often the focal point of sex education courses is the physical health and safety of the individuals partaking in the sexual active, however the emotional health of these individuals is equally important. Adolescents are very vulnerable to their emotions and can act upon these emotions without considering the consequences associated with their behaviors. Routinely adolescents only consider the physical dangers related to becoming sexually active and as a result, protect themselves with the use of contraceptives, yet, no forms of contraceptives protects from the emotional dangers associated with sexual behavior.

Emotional consequences are extremely important and are often ignored in regards to sexual risk-taking behaviors, with a majority of prevention efforts focusing on the physical consequences associated with sexual risk-taking behaviors. Physical consequences of sexual risk-taking behaviors include but are not limited to contraction of a sexually transmitted infection (STI) or unplanned pregnancy. In the United States each year, approximately 20 million new infections are contracted, with a total of 110 million infections present in the United States per year (CDC, 2013). It is estimated that sexually transmitted infections cost the United States $16million per year in medical expenses (CDC, 2013) and costs the average individual without insurance a total of $25,000 per infection (CDC, 2013). According the 2008 US Census, it cost approximately $250,000 to raise a child over seventeen years. Guttmacher Institute estimates that more than half of pregnancies in the United States each year are unintended (2013). It is very difficult to determine the number of unintended pregnancies among emerging adults, however, the National Center for Health Statistics estimates that 50% of pregnancies among women aged 20-24 were unintended (2013). The monetary cost associated with the physical consequences of sexual risk-taking behaviors are often higher than those associated with the emotional consequences.

Additionally, there are a multitude of positives or benefits associated with sexuality activity among adolescents. Adolescents report experiencing social benefits to becoming sexually active (Harden, Mendle, Hill, Turkheimer, & Emery, 2008). Likewise the study found that adolescents who particiapt in sexual activity have a decrease in delinquent behavior during adolescence (Harden et al., 2008). According to the Guttmacher Institute, 70% of females and 56% of males report their first sexual experience to have been a positive one in which they were sexually active with a loving partner with whom they were in a steady relationship (Guttmacher Institute, 2014). Studies have also indicated an increase in perceptions of viewing oneself as "attractive" following sexual activity (Guttmacher Institute, 2014). It is important to note both the positives and negatives associated with adolescent sexual behaviors.

The sexual behaviors of adolescents are extremely important to examine as they eventually become emerging adults, who continue to participate in risky sexual behaviors. The American College Health Assessment (ACHA) found in 2012 that only 2.0% of female college students in the United States reported always using a barrier contraceptive during oral sex in the past 30 days (ACHA, 2012). The study also indicated that only 17.9% of female students reported using a barrier contraceptive "always" during vaginal intercourse in the past 30 days (ACHA, 2012). When asked if they used a "method to prevent pregnancy the last time you had vaginal intercourse," only 54% of college females indicated "yes" (ACHA, 2012, n.p.). The Center for Disease Control (CDC) reports that each year there are "approximately 19 million new STD (sexually transmitted disease) infections and almost half of them are among youth aged 15 to 24" (CDC, 2010, p. 22). The decision not to use a condom or other form of contraceptive when engaging in any form of sexual behavior increases the risk for pregnancy and sexually transmitted infections (Oswalt, 2010).

Having multiple sexual partners is another sexual risk-taking behavior that specifically occurs at a high rate among emerging adults. An increase in the number of sexual partners increases the odds of exposure to a STI or the occurrence of an unintentional pregnancy (Jeffries, 2011). In the fall of 2012, the ACHA reported the mean number of sexual partners (oral, vaginal, or anal intercourse) for female college students for the past 12 months was 1.88 (SD=2.46), with 13.0% reporting 3 or more sexual partners in this time period (ACHA, 2012). The ACHA's report highlights the prevalence of sexual risk-taking behaviors among college students within the United States and indicates the importance of continued research to examine possible risk factors for sexual risk-taking behaviors among this population.

Risk and Resiliency

Risky sexual behavior is often associated with other emotional or behavioral difficulties. While sexual behavior itself is considered an externalizing problem (the physical sexual act), internalizing problems often occur simultaneously. Internalizing problems generally refer to emotional problems and are most prevalent in female adolescents (depression, anxiety, and low self-worth) (Regnerus & Luchies, 2006). Externalizing problems generally involve others and can inflict pain and suffering on both the individual and others (Regnerus & Luchies, 2006). For a number of adolescent girls, an internal desire to fit in among peers can result in risky sexual behavior. Other adolescent girls simply mature at an earlier age and their bodies feel biologically ready for sexual intercourse despite the lack of emotional readiness. Externalizing problems are also associated with risky sexual behavior. One of the most common externalizing problems associated with risky sexual behavior is drug and alcohol use as the Henry J. Kaiser Family Foundation states, "more than one-third of sexually active young people report that alcohol or drugs have influenced their decisions about sex" (Henry J. Kaiser Family Foundation, 2004, p.1). The study further reports that many teenagers did not use condoms when they were under the influence of drugs or alcohol and had often "done more sexually than they had planned" (Henry J. Kaiser Family Foundation, 2004, p.1). Externalizing problems can come in the form of behaviors, such as alcohol and drug use, or may be a result of other factors in their individual lives, such as their socioeconomic status, parental involvement, or physical safety. The lack of a strong father figure in the lives of adolescent females, an externalizing problem, is a very common negative influence as girls who do not have a relationship with their fathers by or before age 5 have the highest rates of early sexual behavior and teenage pregnancy. Comparatively, girls whose father or father figure remains constant throughout their life have the lowest rate. Boys and girls alike have lower rates of sexual behavior when both parents live together and there is no divorce within the family (Regnerus, 2006). Teenagers who experience these internal and external problems are more likely to engage in risky sexual behavior.

Adolescence is a period of time in which risk-taking behaviors increase, with a focus on negative risk-taking behaviors. However, positive risk-taking behaviors among adolescents also exist and help the individual to develop. When adolescents participate in risk-taking behaviors they feel a sense of accomplishment as well as social acceptance (Harden et al., 2008). As a result of these feelings, they are reported as having lower levels of delinquent behaviors during emerging adulthood and early adulthood (Harden et al., 2008). These behaviors help to form the identity of the individuals and allow them to test the limits while in a safe environment.

In order to help reduce risky sexual behavior among adolescents, many factors must be recognized. The first step is acknowledging that every teen may have a different reason for becoming sexually active. For some, peer pressure and a desire to feel loved are motivations. For

others, it may be an insuppressible biological drive. No matter what the reason for engaging in the risky behavior, the youth must understand the possible consequences, as well as a way to prevent these consequences. Many youth are not receiving sexuality education programs that explain the direct effects of sexual behaviors on the body physically or emotionally. Without understanding the risks associated with their decision to engage in sexual behavior, youth are unable to prepare for the events following their sexual experiences.

The current study aimed to examine the following research questions:
1. Does parental involvement during adolescence impact sexual behavior during emerging adulthood?
2. Does parental involvement during adolescence impact contraceptive use during emerging adulthood?
3. Do racial differences exists in reported levels of parental involvement during adolescence?

Methodology

Participants
A total of 968 of the possible 1061 participants from an introductory level college class completed the IRB approved online questionnaire for this study at a large southeastern university of approximately 35,000 enrolled undergraduate students in spring 2009. Of the completed questionnaires, 748 were used in data analysis. Two hundred twenty questionnaires were removed because either the respondent did not meet the definition of an emerging adult (n=75) (18-25 years), or the respondent indicated that they had never been "sexually active" (n=145). Sexual behavior was defined as "any type of genital contact or sexual stimulation between two persons including, but not limited to sexual intercourse" (Payne, Barnett, & Forthun, 2008).

Measures
A 73-item Sexual Behaviors Questionnaire (SBQ) (Payne et al, 2008) was created for use in this study to explore specifically three aforementioned research questions. Items used for the current study demonstrated a moderate level of internal consistency (α=.706). The questionnaire consisted of multiple concepts including sexual behaviors, contraceptive use frequency, and parental involvement. Items 1-13 contained demographic questions including race, sexual identity, sexual orientation, parental involvement, GPA, marital status, and parent's marital status. General sexual behavior questions were contained within items 14-20, including the number of sexual partners, previous pregnancies, and use of drugs and alcohol during sexual activities. Specific sexual behaviors were examined in items 21-28 within an index entitled *Frequency of Sexual Behavior*. Consistency of contraceptive behaviors were examined within an index entitled *Consistency of Contraceptive Behavior* containing items 29-36. Items 37-40 examined specific contraceptive behaviors during recent sexual behaviors. An index entitled *Frequency of Contraceptive Use* contained items 41-48 and examines the consistency of contraceptive use with specific sexual behaviors. The type of school the participant attended during elementary, middle and high school was examined in items 49-53. The type of sexuality education program and the content within the program was examined with items 54-73, including two indices: one examined the behavior changes as a result of the sexuality education program and one examined the specific topics addressed during their sexuality education program.

Frequency of Sexual Behavior

Sexual behavior was studied through one sexual behavior item and one index: *Have you been sexually active in the past year;?* and *Please indicate on a scale of Never to Daily how often you engage in the following sexual behaviors*. Participants were provided with a series of questions and responses that examined their sexual behavior. Each question was worded to allow respondents, regardless of their sexual orientation, to be able to answer all the questions. Respondents indicated the gender identity –male or female- of the partner (s) with whom they engaged in the sexual activities they were acknowledging in the questionnaire. The frequency of sexual behavior index consisted of eight specific behaviors (kissing, French kissing, touching a partner's breast or having your breast touched by a partner, stimulating a partner's penis or having your penis stimulated by a partner, stimulating a partner's vagina or having your vagina stimulated by a partner, performing oral sex, receiving oral sex, and sexual intercourse) with seven frequency options (never, few times in life, few times a year, few times a month, once a week, few times a week, and daily)**.**

This study examined sexual behaviors including sexual intercourse as a general topic without discriminating by sexual orientation. When a respondent answered a question about sexual intercourse, they based it on their interpretation related to their partner's sex. Since some respondents may have sexual intercourse with both male and female partners, this allowed data collection to include male/female penile/vagina intercourse, female/female intercourse, and male/male intercourse, in addition, male/female anal intercourse, if that is the way the respondent interpreted the term sexual intercourse. Although not specific, this allowed for a more open and comprehensive response to the item based on individual interpretation of the term "sexual intercourse".

Sexual Behaviors and Contraceptive Use

The examination of sexual behavior included contraceptive use frequency. An index was used to determine if there were differences in the frequency of contraceptive use based on participant perceived parental involvement. Frequency of contraceptive use was examined using an index that asked participants to identify how often they engaged in eight specific contraceptive behaviors. Frequency items were scaled from *Never* to *Always* (any contraceptive use during intercourse, any contraceptive use during oral sex, use of hormonal method contraceptive, use of male condom, use of the rhythm method, use of the withdrawal method, intercourse without any form of contraceptive, oral sex without any form of contraceptive).

Parental Involvement

Parental involvement was examined based on the participants' perceptions of their parent's involvement during their teenage years, including those participants who were currently 18-19 years of age. Two items were used to determine the level of perceived parental involvement during the participant's teenage years. Parental involvement was examined using items that asked participants to identify how involved their father/mother was during their teenage years (13-19 years of age). Parental involvement items were scaled from *Never* to *Always.*

Results

Data Analyses

Bivariate analyses, specifically Pearson Correlations, were conducted to determine the relationship between dependent variables/outcome variables (frequency of contraceptive use and

frequency of sexual behavior) and demographic variables, as well as the relationship between the dependent variables/outcome variables (frequency of contraceptive use, frequency of sexual behavior) and independent variable/predictor variable (parental involvement). Pearson Correlations were used as the data were interval allowing for the highest level of analysis. In order to conduct Pearson Correlations, all assumptions had to be met including normalcy of the data. Prior to analysis, all data were examined for normality in order to meet all assumptions of the statistical tests employed. The Kolmogorov-Smirnov (KS) test for normality indicated the need for normalizing the data. As such, a square-root transformation was employed. Following transformation, the KS test indicated normal data distribution.

Demographics

Of study participants, more than a third reported they were male (38.5%), whereas six in ten reported they were female (60.8%), the additional participants (.7%) refused to provide their sexual identity. The mean age of respondents was 19.70 years (SD 1.452). The majority of respondents (63.6%) identified their race/ethnic origin as White (non-Hispanic). Respondents identifying as Black (non-Hispanic) comprised 12.9%, Hispanic's comprised 13.1% of participants, while 6.7% participants identified their race/ethnic origin as Asian. The remaining participants, less than 1%, identified as either Native American or Native Hawaiian. The remaining respondents (3.2%) reported that they identified with a race/ethnic origin other than the given answer choices. The vast majority of respondents (98.4%) indicated that their marital status was single; only 9 individuals (1.2%) indicated that they were married and only 3 individuals (.4%) indicated they were divorced. Participants reported that most often they had received sexuality education in ninth grade (48.4%). University enrollment includes 53.1% female and 46.9% males with undergraduate students indicated that 69.3% were white, 12.9% Hispanic, 9.2% African American/Black, 8.3% Asian or Pacific Islander .4% indicated that were of "other" race/ethnicity.

Sexual Behaviors

Since the study did not focus solely on sexual intercourse, it was important to determine how many participants were involved in some form of sexual behavior. "Sexual behavior" was defined as "any type of genital contact or sexual stimulation between two persons including, but not limited to sexual intercourse" (Payne et al, 2008). Just over a third of respondents 34.5% indicated that they daily participated in kissing. Daily French kissing was reported by a quarter of the respondents (24.6%) whereas another quarter (25.1%) participated in monthly French kissing. Respondents most commonly indicated that touching a partner's breast or having your breast touched by a partner was done a "few times a week" by 25.4%. Stimulating a partner's penis or having your penis stimulated by a partner was most commonly done a "few times a week" (28.6%), as was stimulating a partner's vagina or having your vagina stimulated by a partner (28.4%). The most common response for performing oral sex and receiving oral sex was a "few times a month" with 22.3% indicating that they had performed oral sex; 25.6% indicating that they had received oral sex on that frequency basis. The most common response for sexual intercourse was a "few times a week" with 25.4% indicating that they had sexual intercourse a "few times a week" (See Table 3 for full results). In addition, 47% of participants reported having had 3 or more sexual partners in their lifetime with 8.4% reporting having had ten or more lifetime sexual partners.

Parental Involvement

Participants were asked to indicate how involved their mother/father was in their lives during their adolescence. Female participants reported that their mother was a part of their lives "always" 89.4% of the time and their father was "always" a part of their lives 65.1% of the time. Male participants reported that their mother was a part of their lives "always" 83.5% and their father was "always" a part of their lives 67.1% of the time.

Parental Involvement and Sexual Behaviors

Analysis of the frequency of specific sexual behaviors during college and parental involvement during adolescence indicated a negative correlation between all sexual behaviors among females and their father's involvement. Females who reported higher rates of father involvement reported lower rates of sexual behaviors. (See Table 4 for full results). There was no significant relationship between mother's involvement during adolescence and sexual behaviors during college. The number of sexual partners for females was also negatively correlated, using Pearson's Correlation, with her father's involvement during adolescent years. However, between mother's involvement and number of sexual partners, no significant association was found.

Additional analyses were conducted to examine if a similar relationship exists among males and parental involvement. Results indicated that no statistically significant relationship existed between the frequency of specific sexual behaviors during college and parental involvement during adolescence among males.

Parental Involvement and Contraceptive Use Frequency

Analysis of the frequency of contraceptive use during college and parental involvement during adolescents indicated a positive correlation between contraceptive use frequency among females and their father's involvement. Females who reported higher rates of father involvement reported higher frequency of contraceptive use (See Table 5 for full results). In addition, frequency of hormonal contraceptive use among females was positively related to mother's involvement during adolescents.

Parental Involvement and Racial Differences

Cross-tabulations were conducted to examine if racial differences appeared to exist between sexual identity and reported father involvement. Based on the results presented in Table 6, group differences by race appeared to exist. African American females most frequently reported that their father was "never" in their lives 19.8% of the time compared with White females who reported only 3.2% of the time that their fathers were never involved. ANOVA were conducted to explore the group differences. ANOVA indicated that racial differences are statistically significant when examining the reported father involvement by both males (P=.007) and females (P=*.000)*. No statistically significant differences existed between mothers' involvement and racial differences.

Other Interesting Findings

Additional analyses were conducted to examine if sexual orientation was related to parental involvement during adolescence. While only 86% of the female population reported being strictly heterosexual and 83.9% of the male population reporting being strictly heterosexual, there was no statistically significant relationship between parental involvement and sexual orientation.

Discussion

Previous research has indicated that parental involvement during adolescence is related to delayed sexual debut (Ramirez-Valles et al, 2002). The current study indicates a strong relationship between fathers and daughters and the impact on contraceptive use during college. Additionally, the current results indicate that as females perceive their fathers to have been very involved in their lives during adolescence their report lower rates of sexual behavior. Mothers have historically been the primary educator of daughters regarding sexual behaviors, with father's often educating sons. The current study does not examine if sexuality education took place in the home or if mother, father, or both discussed sexual behaviors with the participants. It does, however, indicate that the mere involvement of fathers in the lives of females is positively associated with decreased risky sexual behaviors.

The current findings are extremely important in the continued work regarding decreasing risky sexual behaviors among college students. Fathers are encouraged to continue to be a part of their daughter's life during her adolescent years. A mother's involvement in a daughter's adolescent years was positively associated with hormonal contraceptive use during college. This finding is not surprising as hormonal contraceptives are the primary contraceptive used by females (American Academy of Pediatrics, 1999). There is no real rationale for the current results and could simply be a by-chance result.

Future research must also further examine the potential long-term impacts of fathers on females regarding sexual behaviors rather than simply focusing only on delaying sexual debut. A multitude of factors may contribute to the results of the current study and given the study design it is impossible to determine specific factors that influenced the results. However, it is important to note the statistically significant results and examine possible factors. As the results indicate there is a decrease in sexual behaviors among females and an increase in safer sexual behaviors (i.e. contraceptive use) who report highly involved fathers, the question remains as to why these results exist. One possible factor is that the presence of a father figure in their lives during adolescence reducing the desire to obtain male attention outside of the home. Research has continued to indicate that adolescent and emerging adult females desire male attention and when they not receiving the attention from a father figure they will look elsewhere for said attention. An additional potential factor includes the home environment in which they were raised as a result of a present father figure. It is possible that females whose fathers are present in their lives are not exposed to dating relationships involving their mothers. One final possibility is that females may participate in safer sexual behaviors through the use of contraceptives as a result of respect for their fathers and potentially fear of their father's reaction to an unplanned pregnancy. It is not possible from the current study to determine if any of the above three factors contributed to the current results, however these three factors must be examined in the future to understand the relationship between fathers involvement and contraceptive use as well as sexual behaviors. The positive outcomes for females when they reported having their father involved in their adolescent years may be an important factor in the effort to decrease risky sexual behavior and must be a focus of future research.

One very interesting finding within the current study is the lack of a statistically significant relationship between female sexual behaviors, contraceptive use, and mothers' involvement. Just as with rationales for why involvement from fathers was statistically significant, factors for why mothers' involvement was not statistically significant in a majority of the analysis cannot be determined from the current study. However, some possibilities for future

examination include: the lack of discipline from mothers, lower levels of intimidation from mothers, and increase in environment factors relating to mother's dating life.

Future research will also examine the impact that parental involvement during college has on sexual behaviors and safe sex practices during college. It is important to determine if the positive impact of fathers on daughters during adolescence continues into college. It is possible that the positive impact decreases once the daughter is no longer living with her father, however it is extremely important for fathers to understand how their continued involvement, even during emerging adulthood, impacts their daughters sexual behaviors.

It must also be noted that none of the findings among males indicated a negative outcome as a result of parental involvement. While the findings were not statistically significant, there was still a positive association between parental involvement and male's sexual behaviors and frequency of contraceptive use based on results of chi-squared analysis. Males have repeatedly reported being more likely to have a higher number of sexual partners compared to females and to report less frequent use of contraceptive compared to females (American College Health Association, 2011). While these findings were not statistically significant, the positive association indicates that the relationship between parental involvement and sexual behaviors/contraceptive use frequency among males must continue to be explored to determine if a possible relationship exists.

Limitations

As with all studies, the current study is not without limitations. The study sample is a convenience sample, thereby reducing the generalizability of the study to populations outside of the study sample. Additionally, parental involvement was examined only by asking the participants their perception of their parent's involvement retrospectively.

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Table 1: Demographics

	N	Frequency
Male	288	38.5%
Female	455	60.8%
White	476	63.6%
African American	97	12.9%
Hispanic	98	13.1%
Asian	50	6.7%
Other	27	3.7%

Table 2: Frequency of Contraceptive Use with Specific Sexual Behavior

	Never	Rarely	Sometimes	Often	Always
Any Contraceptive with Intercourse	58.% (35)	3.6%(22)	7% (42)	17.4% (105)	66.2 (400)
Any Contraceptive with Oral Sex	72.6% (452)	9.6% (60)	4.8% (30)	3% (19)	10% (62)
Use of Hormonal Contraceptive	37.9% (212)	4.5% (25)	6.8% (38)	7.7% (43)	43.1% (241)
Use of Male Condom	14.8% (91)	9.3% (57)	16.5% (101)	21.5% (132)	37.8% (232)
Use of the Rhythm Method	84.7% (432)	5.7% (29)	4.7% (24)	4.1% (21)	.8% (4)
Use of Withdrawal Method	44.1% (254)	14.2% (82)	15.8% (91	13.9% (80)	12% (69)
Intercourse with No Form of Contraceptive	65.6% (389)	16.5% (98)	9.8% (58)	5.2% (31)	2.9% (12)
Oral Sex with No Form of Contraceptive	18.6 % (116)	5.4% (34)	7.1% (44)	10.7% (67)	58.2% (363)

Table3: Sexual behaviors frequency by lifespan

	Kiss	French Kissing	Touching of your breast/ partner's breast	Touching of your penis/ partner's penis	Touching of your vagina/ partner's vagina	Receiving Oral Sex	Performing Oral Sex	Sexual Inter-course
Never	3 (.4%)	5 (.7%)	9 (1.2%)	23 (3.2%)	25 (3.5%)	81 (11.2%)	126 (17.5%)	105 (14.4%)
Few times in life	27 (3.7%)	32 (4.4%)	65 (8.9%)	79 (10.9%)	65 (9.0%)	92 (12.7%)	83 (11.5%)	74 (10.2%)
Few times a year	91 (12.5%)	102 (14.0%)	126 (17.3%)	139 (19.2%)	141 (19.6%)	161 (22.2%)	147 (20.4%)	131 (18.0%)
Few times a month	174 (23.9%)	**183 (25.1%)**	174 (23.9%)	159 (21.9%)	164 (22.7%)	**185 (25.6%)**	**161 (22.3%)**	133 (18.3%)
Once a week	55 (7.6%)	64 (8.8%)	51 (7.0%)	50 (6.9%)	64 (8.9%)	65 (9.0%)	65 (9.0%)	66 (9.1%)
Few times a week	127 (17.4%)	163 (22.4%)	**185 (25.4%)**	**207 (28.6%)**	**205 (28.4%)**	127 (17.5%)	128 (17.7%)	**185 (25.4%)**
Daily	**251 (34.5%)**	179 (24.6%)	118 (16.2%)	68 (9.4%)	57 (7.9%)	13 (1.8%)	12 (1.7%)	34 (4.7%)

Table 4: Parental Involvement and Sexual Behaviors

	Female		**Male**	
	Was your *father* involved in your life as a teenager?	**Was your *mother* involved in your life as a teenager?**	**Was your *father* involved in your life as a teenager?**	**Was your *mother* involved in your life as a teenager?**
Kissing	**-.106***	-.043	-.023	-.016
French Kissing	**-.120****	.000	-.040	-.021
Touching a partner's breast or having your breast touched by a partner	**-.127****	-.021	-.029	-.026
Stimulating a partner's penis or having your penis stimulated by a partner	**-.092****	.035	-.047	-.037
Stimulating a partner's vagina or having your vagina stimulated by a partner	**-.108***	.028	-.041	-.058
Performing oral sex	**-.107***	-.003	-.065	-.030
Receiving oral sex	**-.146****	-.003	-.050	-.012
Sexual Intercourse	**-.104***	-.015	-.051	-.026
Number of Sexual Partners	**-.143****	-.063	-.040	-.023

* Pearson's Correlation is statistically significant at 0.05 level (2-tailed)
** Pearson's Correlation is statistically significant at 0.01 level (2-tailed)

Table 5: Parental Involvement and Contraceptive Use

	If you are a female, was your father involved in your life as a teenager?	**If you are a female, was your mother involved in your life as a teenager?**	**If you are a male, was your father involved in your life as a teenager?**	**If you are a male, was your mother involved in your life as a teenager?**
Any contraceptive use during intercourse	**.112****	-.053	.015	.037
Any contraceptive use during oral sex	**.146****	-.008	-.034	-.044
Use of hormonal method Contraceptives	**.101***	**.084***	-.003	-.018
Use of male condom	**.123****	.009	-.028	.070
Use of the rhythm method	**.109***	.036	.026	.027
Use of the withdrawal method	**.117***	.002	.018	-.015
Number of sexual partners	**-.143****	.063	.040	.023
Performing Oral Sex	**-.107***	.003	.065	.030
Receiving Oral Sex	**-.146****	.003	.050	.012
Sexual Intercourse	**-.104***	.015	.051	.026

* Pearson's Correlation is statistically significant at 0.05 level (2-tailed)
** Pearson's Correlation is statistically significant at 0.01 level (2-tailed)

Table 6: Father Involvement and Racial Differences

		Always	Often	Some	Rarely	Never
White						
	Male & Female	69.3%	14.7%	8.4%	5.2%	2.4%
	Male	70.9%	16.3%	9.7%	1.8%	1.3%
	Female	68.2%	13.7%	7.6%	7.3%	3.2%
African American						
	Male & Female	50.5%	12.8%	11.0%	9.2%	16.7%
	Male	50%	15.4%	11.5%	15.4%	7.7%
	Female	50.6%	12.3%	11.1%	6.2%	19.8%
Asian						
	Male & Female	64%	16%	12%	6.7%	1.3%
	Male	74.2%	6.5%	12.9%	6.5%	0
	Female	56.8%	22.7%	11.4%	6.8%	2.3%
Hispanic						
	Male & Female	66%	12.8%	10.1%	4.1%	6.8%
	Male	58%	22%	10%	2%	8%
	Female	70.4%	8.2%	10.2%	5.1%	6.1%
Other						
	Male & Female	50%	50%	0	0	0
	Male	66.7%	33.3%	0	0	0
	Female	0	100%	0	0	0