LONGITUDINAL ASSOCIATIONS BETWEEN PARENTAL SEXUAL COMMUNICATION AND ADOLESCENT ORAL SEXUAL INITIATION: AN EXPLORATION OF GENDER DIFFERENCES

by

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Approved: 

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Although the influence of parental sexual communication on adolescent initiation of vaginal intercourse has been well-documented, this relationship has not yet been examined in the case of early oral sexual initiation. The current study used data from 329 community adolescents (52% female; mean age=14.4 years) to assess associations between early oral sexual initiation and frequency of parental communication about (a) sexual topics and (b) relationships with the opposite sex. Gender differences in these associations were also explored. Overall results from bivariate analyses found a modest correlation between parental sexual communication at baseline and initiation of oral sex at one year follow-up. Results further revealed that parental communication about sexual topics was negatively associated with oral sexual initiation for females, but was positively associated for males. Parental communication about relationships was negatively associated with oral sexual initiation for males, but was positively associated for females. The findings are discussed in regard to their implications for preventing early oral sexual initiation among male and female adolescents.

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Chapter One: Introduction

While the topic of adolescent vaginal intercourse has been studied and debated in academic, public policy, and health forums for decades, the interest in adolescent oral sexual involvement is more recent (Tolman & McClelland, 2011). Although sexual education interventions for adolescents still tend to view oral sex to be a non-normative behavior (Tolman & McClelland, 2011; Herek, 2007), national trends suggest otherwise. In a nationally representative study of approximately 20,000 7^{th}-12^{th} graders, Halpern and Haydon (2012) found that that approximately two-thirds of the participants had engaged in oral sexual activity by the time they turned eighteen years of age. Developmental studies suggest that 16 years is the typical age at which most heterosexual adolescents in the United States begin experimenting with oral sexual behaviors (Halpern & Haydon, 2012; Lindberg, Jones, & Santelli, 2011). Early initiation of oral sexual behaviors is found to be associated with greater risk for inconsistent contraceptive use, multiple sexual partners, and sexually transmitted infections (STIs) (Brewster & Tillman, 2008; Gindi, Ghanem, & Erbelding, 2008; Halpern & Haydon, 2011; Mosher, Chandra, & Jones, 2005).

Given the potential negative consequences associated with early oral sexual initiation, it is important to understand what factors impact an adolescent's decision to engage in this behavior. Parent-adolescent communication about sexual topics has been identified across multiple studies to be a protective factor against early initiation of vaginal intercourse (De Rosa et al., 2010; Jordahl & Lohman, 2009; Tolman and McClelland, 2011; Somers & Ali, 2011). However, its effect in relation to oral sex has not been examined thus far. Furthermore, the influence of parental sexual

communication on adolescent sexual behaviors is likely to vary based on the adolescent's gender (De Rosa et al., 2010; Haydon, Herring, Prinstein, & Halpern, 2012; Khurana, 2010; Somers & Ali, 2011). In the case of vaginal intercourse, the protective effect of parental sexual communication is found to be stronger for girls than for boys (Akers, Gold, Bost, Adimora, Orr, & Fortenberry, 2011; Jordahl & Lohman, 2009). Similarly, variations are likely to be present in the case of oral sexual initiation, but this has yet to be examined.

This study aims to fill this gap by examining the relationship between parental sexual communication and adolescent oral sexual initiation, as well as potential variations in these associations based on adolescent gender. The hypothesized pathways of influence are depicted in Figure 1. The findings will serve to inform parents and policy makers on how to better protect and inform adolescents about the harmful consequences associated with early oral sexual initiation.

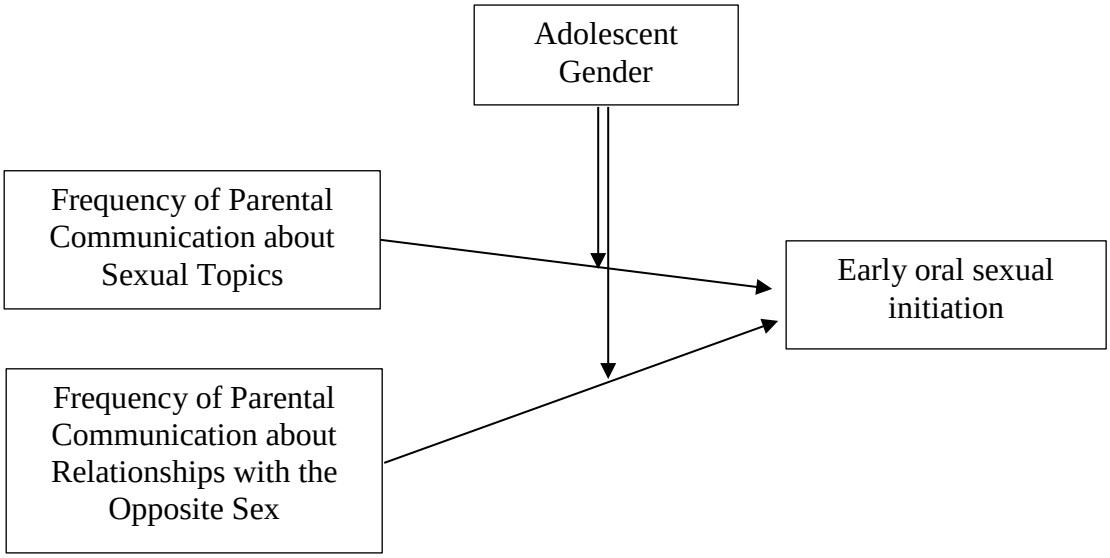

Figure One: Hypothesized pathways of influence between frequency of two types of parental communication, adolescent gender, and early oral sexual initiation.

Hypotheses

Using a community-based sample of 329 adolescents, this study addressed the following research questions: First, is the frequency of parental communication about sexual topics associated with oral sexual initiation when evaluated one year later? Second, is the frequency of parental communication about relationships with the opposite sex associated with oral sexual initiation one year later? Finally, do these relationships vary based on the gender of the adolescent? Greater parental communication about sexual topics and relationships with the opposite sex was expected to be associated with a later age of oral sexual initiation in both male and female adolescents, although this effect was hypothesized to be stronger for girls than boys.

Chapter Two: Literature Review

As previously mentioned, multiple studies exist to document the effects of parental communication about sexuality and relationships on early vaginal sexual initiation in adolescents, and how these effects are moderated by the adolescent's gender. This literature review intends to illuminate the current lack of literature regarding the effects of parental communication on early oral sexual initiation through the lens of adolescent gender differences.

Gender Differences and Oral Sex Practices

Gender differences in oral sexual initiation patterns have been noted in past studies. For instance, using a nationally representative sample, Halpern and Haydon (2012) found that girls were more likely to initiate vaginal intercourse than boys, who were more likely to initiate oral sexual behaviors than girls. Similar findings were reported by Lindberg, Jones, and Santelli (2008) using nationally representative data from 2,200 15-19 year-olds. More research is needed to better understand these gender variations, and identify ways in which adolescent females can be better informed about the risks associated with early oral sexual onset. This study also found that adolescent females were significantly more likely than males to have provided oral sex to their male partners, placing them at greater risk for contracting STIs (De Rosa et al., 2010). Significant gender differences in adolescent oral sexual involvement suggest that it is important to examine how the influence of protective factors, such as parental sexual communication, may vary based on adolescent's gender.

Research indicates that adolescent females may be more vulnerable to negative consequences of early oral sexual initiation than adolescent males. In Fava and Bay-Cheng's (2012) study, 418 undergraduate women recalled their age of initiation of heterosexual fellatio (giving oral sex to a male partner). They found that girls who had early initiation of fellatio experienced low self-worth. These adolescent females' reactions are different from those of adolescent males in other studies. Males reported higher feelings of self-worth with early initiation of fellatio (Brady and Halpern-Felsher, 2007). Early initiation of fellatio may thus lead to poorer mental health outcomes in females than for male adolescents, bringing attention to the need for gender-focused interventions to help inform adolescent girls of the potential negative consequences of oral sexual behaviors.

Parental Communication and Oral Sex Practices

Although the influence of parental sexual communication has been examined in relation to vaginal sexual initiation, its effect on oral sexual behaviors is understudied. A handful of studies that have examined this relationship have found maternal communication to be unrelated to oral sexual initiation (Somers & Ali, 2011), but paternal sexual communication had a protective influence in delaying age of oral sexual onset for males and females. Similar results were found by Bersamin, Todd, Fisher, Hill, Grube, and Walker (2008) in a longitudinal study of 1,100 adolescents. The adolescents who reported having initiated oral sex were older, reported lower quality of mother-child communication and less parental disapproval of sex than peers who did not initiate oral sex for the first time. Critically, the adolescents that had first initiation of oral sex reported more comprehensive communication with their parents about sex

than their peers who had not engaged in oral sex. Findings from both of these studies suggest that parental sexual communication is an important variable to examine; however, its effect is likely to vary based on the gender of the adolescent.

Gender differences have been found to affect adolescent perceptions of parental attitudes and communication about sexual topics. Akers, Gold, Bost, Adimora, Orr, and Fortenberry (2011), focusing on adolescent females, looked at eight different types of heterosexually-focused sexual activities: kissing, having breasts touched, having genitals touched, touching partners' genitals, oral giving, oral receiving, anal, or vaginal sex. The odds of reporting all eight behaviors increased as the adolescent aged, but adolescents reported these behaviors at a less frequent rate if personal or perceived family attitudes regarding adolescent sexual behavior were believed to be less accepting of sexual behaviors. These results suggest that the gender of the adolescent is likely to affect the perception that adolescent has of their parents' communication about sexual topics, which is subsequently likely to affect initiation of oral sexual behaviors.

Parental Communication, Gender, and Oral Sexual Initiation

There is currently a dearth of studies on the interplay of parental-adolescent sexual communication, gender, and oral sex initiation. De Rosa and colleagues (2010) surveyed over 4,500 middle school adolescents to identify risk and protective factors associated with age of oral sexual initiation. The moderating effects of ethnicity, age, and gender were also examined. Findings revealed that adolescents who perceived negative parental attitudes about sexual involvement were less likely than their peers to have had both oral and vaginal sex, as compared to their peers who did not perceive parental disapproval of sexual involvement. Although relevant for the proposed

research, this study did not examine gender differences as a moderating variable for parental communication.

Several studies examining the influence of family factors on oral sexual initiation have isolated gender as a moderating variable. Brewster and Harker Tillman (2008) examined 3,000 youth ages 15-21 to see if social and family background variables that are predictive for vaginal intercourse are similarly predictive for oral sex. Although this study found gender differences in the influence of key family variables (i.e., socioeconomic status assessed using mother's educational attainment; the family's religious involvement; and family structure) on oral sexual initiation, the authors did not examine the influence of parental sexual communication in particular.

Based on past research, it is hypothesized that higher frequency of parental communication about relationships with the opposite sex and sexual topics will be associated with later initiation of oral sexual behaviors. Further, this protective association is expected to be stronger for girls than boys, based on studies that suggest girls are less likely to initiate vaginal intercourse when they experience frequent sexual communication with their parental figures, compared to their male counterparts (Akers, Gold, Bost, Adimora, Orr, & Fortenberry, 2010).

Chapter Three: Methods

Sample

The present study makes use of the last two waves of data from a five-year longitudinal follow-up of a community cohort of adolescents (N=387) recruited from the Philadelphia area (Khurana, Romer, Betancourt, Brodsky, Giannetta, & Hurt, 2012; Romer et al., 2009). The sample was recruited using flyers from public schools, community centers, and libraries. The majority of the sample was from lower-middle socioeconomic status. The present study sample included 329 adolescents (52% female; mean age: 14.4 years, standard deviation: .87) who had not initiated oral sex at baseline, and who had participated in the last two waves of the longitudinal study.

Measures

Oral Sexual Involvement

At each wave of the survey, the adolescents answered a yes-no question: “Have you ever had oral sex?” with oral sex being defined as “putting your mouth, tongue, or lips on the genitals of someone of the opposite sex” or “someone of the opposite sex putting their mouth, tongue, or lips on your genitals”. Only those adolescents who had not initiated oral sexual behavior at baseline were included in the present analyses.

Parental Communication about Sexual Topics and Relations with the Opposite Sex

At each wave of the survey, the adolescents were asked to report, “How often do your parents talk to you about sexual activity?” and “How often do your parents talk to

you about relationships with boys/girls?" Response options included 1 "never", 2 "sometimes", and 3 "often".

Analytic Plan

All analyses were conducted using STATA 11.0 to examine correlations between parental sexual communication at baseline and oral sexual initiation at a 1-year follow-up in a sample of adolescents who had not initiated oral sex at baseline. The moderating effect of gender was examined by analyzing these correlations separately for males and females.

Chapter Four: Results

The analyses revealed a modest correlation between parental communication about sexual topics (at baseline) and initiation of oral sex at one year follow-up (r = 0.09, $p < 0.12$). When examined across the gender groups, a negative association was observed among girls (r = -0.08), while a weak positive association was observed in case of boys (r = 0.04). Gender differences were also observed when examining associations between "frequency of parental communication about relationships with the opposite sex" and oral sexual initiation. For this parental communication variable, a positive association was observed in the case of girls (r = 0.04**)**, but a negative association was found for boys (r = -0.09).

Chapter Five: Discussion

Oral sex is an increasingly prevalent non-coital activity that is widely considered by many adolescents to be a safer and more socially acceptable option than vaginal sex (Brady & Halpern-Felsher, 2007). Nevertheless, like vaginal sex, oral sexual involvement at a young age has been associated with inconsistent condom use, multiple sexual partners (Halpern & Haydon, 2012), and subsequent increased risk of STIs (Brewster & Harker Tillman, 2008). Furthermore, while much of the current literature supports that oral sex is a normative part of many teens' sexual repertoires during middle and late adolescence (Halpern & Haydon, 2012), there are clear negative consequences associated with early initiation of oral sex, such as a lack of self-esteem and self-worth in females after providing oral sex to their male partners (Brady & Halpern-Felsher, 2007). Given the potential physical and emotional risks associated with the early initiation of oral sex, it is critical to examine the role of parents in protecting adolescents from such harm. To that end, the present research was conducted to identify the relationship between the frequency of parental sexual communication and oral sexual initiation as moderated by gender.

Research focusing on early initiation of vaginal sex has identified parental sexual communication as a key protective factor (Bersamin, Todd, Fisher, Hill, Grube, & Walker, 2008; Somers & Ali, 2011; Tolman & McClelland, 2011). These studies have also found that initiation of vaginal sex often coincides with timing of initiation of oral sex (Bersamin, Walker, Fisher, & Grube, 2006; Halpern & Haydon, 2012), suggesting that there may be some overlap in the risk and protective factors associated with these sexual behaviors. Furthermore, gender differences have also been noted in

the impact of parental sexual communication on early vaginal initiation (Somers & Ali, 2011; Zimmer-Gembeck & Helfand, 2008), but these variations have not been examined in case of oral sexual initiation.

Findings from the current study suggest that both types of parental communication (i.e., communication about sexual topics, and communication about relations with opposite sex) were associated with oral sexual initiation in adolescents. Important gender variations in these correlations were also observed. While communication about relationships with the opposite sex had a positive association with oral sex in the case of adolescent males, it had the opposite relation in the case of girls. Conversely, parent-adolescent communication about sex had a protective effect on adolescent females but the opposite effect on their male counterparts. These effects not only support the current study's hypotheses by confirming the relationship between parental communication, adolescent gender, and oral sexual initiation, but further highlight the complexity of gender as a moderating variable in parent-adolescent interactions about sexual topics and relationships. Greater awareness about these gender differences is critical for sex educators and parents alike, who often have close and meaningful contact with young adolescents. The findings should help inform the design of preventative interventions, encouraging parents to engage in open communication about the potential negative consequences associated with early oral sexual onset while being aware of the gender-specific needs of their adolescents.

Limitations

The following limitations should be considered when interpreting the current findings. First, the current study relied solely on self-report data from adolescents,

which could have impacted the accuracy of the findings. To address this issue, data were collected anonymously using computerized self-assisted interviewing techniques. Second, although the main finding was not significant at $p < 0.05$ level, the strength of the association suggests a trend that needs to be further explored using multivariate models and a larger sample size. Third, the analysis examined associations between key variables at a bivariate level. As such, confounding effects of other variables such as age, pubertal development, or family socioeconomic status could not be controlled for. Future research should replicate these finding using models that can account for such confounding variables. Fourth, the measures used to gather information on adolescents' oral sexual involvement did not assess whether the adolescent had engaged in giving and/or receiving oral sex. Adolescent males are more likely to report positive expectancies and positive consequences associated with oral sex than their female counterparts (Brady & Halpern-Felsher, 2007). These variations need to be further explored in future research. Finally, the measures examining parental communication only assessed adolescents' report of the frequency of parental communication. Information about the quality of the communication, the quality of relationship the adolescent has with their parent(s), or the youths' perception of parental attitudes about sexual activity were not assessed, and thus could not be included in the present analyses.

Implications for Future Research

Future studies focused on this topic should include measures focused on the frequency of parental communication specific to oral sexual behaviors. Current research has only broadly examined the effects of parental communication about general sexual

topics on heterosexual oral sexual initiation, rather than the effect of parental communication about oral sexual behaviors specifically. Parental communication that specifically addresses the unique consequences of oral sexual behaviors may have more effect on oral sexual initiation than general communication about sexual topics.

Building on the present findings, future research should include measures that account for variance in adolescent sexual orientation. While examining factors that affect heterosexual adolescents' initiation of oral sex is undoubtedly an important task, it nevertheless mirrors the heterosexual focus of existing literature on this topic. Broadening this field of study by incorporating youth that identify with a sexual orientation outside of heterosexuality will not only provide more accurate and inclusive information for parents and human services professionals, but provide more informed and accurate information to a group of adolescents that is generally seen to be at high risk for negative sexual outcomes as compared to heterosexual adolescents (Herek, 2007).

Conclusions

Despite its limitations, this study takes an important step towards identifying the relationship between parental communication about sexual topics and oral sexual initiation in adolescents. Further, the findings reveal important gender differences in these associations. Results suggest that female adolescents are less likely to initiate oral sex if they frequently engaged in sexual communication with their parents. However, the same relationship examined in boys was found to be positive. These gender differences highlight the complex relationship between parental communication and oral sexual initiation in adolescents. Furthermore, the findings of the current study

suggest that adolescents may respond differently to various types of parental communication based on their gender. It is crucial that these gender differences, in the context of parental communication, be further studied to better equip parents to educate their adolescents on the potential consequences of oral sexual initiation.

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