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The Relationship Between Youth Adult Sexual Communication and Risky Sexual Behavior in Adolescence

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A Thesis Defense

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Biography

The author was born in Atlanta, GA on July 19, 1995. Erin graduated from Holy Spirit Preparatory School in Atlanta, 2013. She received her Bachelor of Arts in Psychology from University of Miami in 2017.

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Abstract

Adolescents are engaging in risky sexual behavior at high rates which is impacting the rise of sexually transmitted infections in the United States. Risky sexual behavior in adolescence is related to both negative health and psychological outcomes. Sexual health communication between adolescents and adults might serve as a protective factor to prevent adolescents in participating in risky sexual behavior, however the specific factors that could contribute to this impact are less known. This thesis has two aims: 1) to determine how sexual health communication between adolescents and adults impacts risky sexual behavior and 2) to explore how sex, race/ ethnicity, and age differences play a factor in the relationship between sexual health communication and risky sexual behavior. The sample included 376 participants who were mostly between the ages of 13-14. Participants completed surveys at two time-points separated by approximately two months. Correlation and hierarchical regression analyses were used to determine the results. Frequency of sexual health discussions, greater number of topics discussed, greater number of adults participants talked with at Time 1 predicted less sex at Time 2. Youth-adult sexual health communication impacts adolescent sexual activity.

Keywords: Adolescent, sexual health, parent-child communication, sexual communication

The Relationship Between Youth Adult Sexual Communication and Risky Sexual Behaviors in Adolescence

Almost half of the individuals contracting sexually transmitted infections (STIs) are between the ages of 15 and 24 (Centers for Disease Control, 2021). About 55% of adolescents have had sex before the age of 18 (Abma & Martinez, 2017). Engaging in risky sexual behavior can result in negative outcomes in adolescence such as STIs, early pregnancies, and psychological challenges (Simons et al., 2016). Risky sexual behavior includes the following: 1) engaging in vaginal or oral sex without using a condom; 2) having sex at an early age, and 3) having multiple sex partners in a (relatively) short period of time (Simons et al., 2016). In addition, risky sexual behavior also includes engaging in sex with partners that are at high risk for contracting sexually transmitted infections and having survival sex such as having sex for money or food (Taylor-Seehafer & Rew, 2000). Studying risky sexual behavior in adolescents is important because of the potential negative effects that it has on individuals in adulthood if pregnancy occurs (Patel & Sen, 2012). Low educational attainment including incompletion of high school, low socioeconomic status, and unemployment are potential outcomes of adolescent pregnancy (Assini-Meytin & Green, 2015). In addition, the cycle of risky behavior including risky sexual behavior in adolescence is likely to continue if the mother has a pregnancy at an early age (Pogarsky et al., 2006). Young age of mother at pregnancy was related to their children engaging in risky sexual behavior (Cederbaum et al., 2020). Adolescents who had sexual intercourse prior to 16 years old were more likely to report having an incurable STI at some point (Vasilenko et al., 2016).

Sexual Health Communication

Although adolescents' participation in sexual behavior most likely begins in high school, it is important that parents initiate communication with their children before this stage to provide information before adolescents start engaging in sexual behavior (Coakley et al., 2017; Ethier et al., 2018; Widman et al., 2014). Sexual health communication is dialogue involving two people in which they discuss sexuality and sex related behaviors and health outcomes (Flores & Barroso, 2017). Sexual health communication is important to explore because of the various links to sexual behavior. Sexual health communication between adolescents and adults impacts adolescent risky sexual behavior through increasing discussions about safe sex with partners and using condoms. (Rogers, 2017). Parent-adolescent communication also increases sexual health self-efficacy (Rogers, 2017). Engaging in sexual health conversations with parents can serve as a protective factor for risky sexual behavior, as males who received most of their sexual health information from peers or media sources were more likely to have the plan of not using a condom during sex (Eversole et al., 2017). When adolescents have communication with their parents regarding sexual health and general topics they are more likely to discuss sexual health practices with their sexual partner (Hicks et al., 2013). More in-depth conversations about STIs was a predictor for engaging in recent sexual behavior (Gabbidon et al., 2017). In a meta-analysis study, researchers found that sexual health communication between parents and their daughters ($r = 0.12$) was related to using condoms and contraception, however this relationship was not as strong with sons ($r = 0.04$), (Widman et al., 2016).

Longitudinal studies provide a more robust analysis of the impact of sexual health communication on risky sexual behavior with the impact of communication varying according to the type of parent (mother versus father), sex of child, and type of risky sexual behavior. For

example, sexual communication between mothers and children decreased risky sexual behavior, but communication with fathers did not (Widman et al., 2016). Boys engaging in sexual health communication with their parents in the past, was related to having fewer sex partners (Schuster et al., 2013). Sexual health conversations between parents and daughters prospectively predicted girls' condom use (Schuster et al., 2013). Parent teen sexual communication among African American adolescents is related to an increase in safer sexual behavior (McDade et al., 2020). Girls who discussed sexual communication with their mother lowered their risk of contracting HIV and engaged in safer sexual health practices (Kapungu et al., 2010). In addition, researchers found that teen sexual health communication with extended family, excluding parents, is related to higher rates of sexual activity compared to teens that solely speak with their parents about sex (Grossman et al., 2015).

Parent-Adolescent Communication

Frequency. Parents provide most of the learning experiences for their children starting from a young age, so initiating communication with their children about risky sexual behavior is extremely important (Jerman & Constantine, 2010). In a study among Latino adolescents regarding where they received most of their information about sexual health, about 40% of the participants reported that they received the most information from their parents (Eversole et al., 2017). Though there is evidence that sexual communication between parents and adolescents can have a positive impact on reducing risky sexual behavior, many parents do not initiate this communication with their children (Flores & Barroso, 2017). There are mixed findings regarding the frequency of youth adult sexual communication, in which studies suggest that parents will not engage in this type of discussion often and others suggest that parents might have these types of discussions on a regular basis (Flores & Barroso, 2017). Parents might not engage in these

conversations because they do not have the communication skills that would allow them to be open with their children in a way that would be conducive for an effective discussion that allows children to ask questions and encourages more conversation about the topic at a later time (Flores & Barroso, 2017). In an ethnically and socioeconomically diverse sample of parents, only 26% had conversations with their children in all of the different areas of sexual health that were included in the study (Jerman & Constantine, 2010). The sample included children from 8 to 18 years old and they were organized into four different groups, preadolescent, early adolescent, middle adolescent, and late adolescent (Jerman & Constantine, 2010). Parents of older adolescents discussed more health topics, however researchers suggest this is only because they have had a longer period of time to discuss more topics with their children compared to younger adolescents (Jerman & Constantine, 2010).

Topic. The sex of the parents and the child could have an impact on sexual health communication between parents and their children (Flores & Barroso, 2017; Widman et al., 2016). Jerman and Constantine found that parents had more sexual health communication with their same-sex child (2010) and that the focus of the communication varied by sex. For example, fathers of adolescents were more likely to have educated their sons about safe sex practices while they educated their daughters on STIs (Jerman & Constantine, 2010). Additionally, mothers discuss risky sexual behavior more with their daughters compared to fathers with their daughters (Evans et al., 2020). However, there is conflicting evidence regarding fathers communicating with their children, as there was no difference in communication among both daughters and sons (Kapungu et al., 2010).

Girls appear to discuss risky sexual behavior and other sexual health topics more than boys (Evans et al., 2020; Kapungu et al., 2010; King et al., 2007; Widman et al., 2014).

However, in a study conducted with African American adolescents, boys had sexual health conversations with their mother and father more than girls had conversations with both of their parents (Sneed et al., 2013), but this may vary depending on the type of information that is communicated. For example, sons had more communication with their parents about condoms whereas daughters had more communication with their parents regarding hormonal birth control (Bleakley et al., 2018), timing, and attitudes about sex (Kapungu et al., 2010).

Age and Developmental Differences. Parents sometimes identify children's age as a barrier to initiating sexual health communication (Malacane & Beckmeyer, 2016) as they think that their children are too young for these conversations. In contrast, daughters report desiring earlier initiation of these conversations by mothers (Dennis & Wood, 2012). Earlier communication seems to be one way that parents can ensure that these topics are discussed before sexual behavior begins (Beckett et al., 2010). For example, more than two-thirds of sons had sexual intercourse before having a conversation with a parent regarding condom use (Beckett et al., 2010). Parents start talking to their daughters at an earlier age compared to their sons (Flores & Barroso, 2017; Jerman & Constantine, 2010), but these differences were not found in mothers with HIV (O'Sullivan et al., 2005). Adolescent development also impacts the type of sexual communication between caregivers and adolescents (Ritchwood et al., 2019). Caregivers discussed more positive sex topics (e.g., sexual satisfaction) with boys as they advanced more into puberty, however this was the opposite for girls in which developmental changes did not prompt discussions about sexual topics, but potentially stopped them from occurring (Ritchwood et al., 2019).

Racial/ethnic Differences. Racial and ethnic differences in youth sexual behavior have been noted making it important to examine sexual health communication across different groups

(Gabbidon et al., 2017; Lindberg et al., 2019; Pflieger et al., 2013). Compared to other ethnicities, African Americans are at a higher risk for contracting STI's, especially HIV (CDC). Rates of sexual intercourse prior to age 13 was higher in non- Hispanic black males compared to non-Hispanic white, Hispanic, and non-Hispanic other males (Lindberg et al., 2019). Furthermore, more than 1/3 of early adolescents (38%) had engaged in sex more than once without using a condom (Widman et al., 2014). Current findings are mixed as to the existence and direction of racial/ethnic group differences between and within groups depending on whether the construct being measured includes parental health education (Black adolescents received less than White adolescents (Bleakley et al, 2018) or general sexual health (Black adolescents speak with parents more) (Widman et al., 2014). Hispanic females appear to engage in the least amounts of sexual health discussions with parents (Lantos et al., 2019). Within the African diaspora, Haitian participants seem to be less likely to teach children about sex than African American and Jamaican parents (Gabbidon et al., 2017).

Non-Parental Communication

Though there is evidence that parents are the primary source for sexual health education for adolescents, some adolescents have communication with non-parental adults and potentially prefer this type of communication compared to parental communication. Further, researchers noted that since what is known as the traditional family is changing, other family members might discuss sexual health topics with adolescents (Flores & Barroso, 2017). In a mixed methods study, more than half of the participants had discussions about sex with extended family members (Grossman et al., 2015). A developmental lens suggests that adolescents might be more willing to discuss sexual health topics with extended family as they are becoming more independent and want to seek out information themselves instead of just relying on their parents

(Grossman et al., 2015); this seems to be particularly true for girls (Grossman et al., 2021). There was no difference in the occurrence of discussions about condom use between adolescents and parents and adolescents and family members, but parents were more likely to promote abstinence and putting off having sex compared to extended family members perhaps because of differential family roles (Grossman et al., 2018). The current study will further examine the role of non-parental adults in relation to youth sexual behavior.

Social Cognitive Theory

The current study uses social cognitive theory to explain how family socialization of health behaviors occurs through communication practices that serve as a modeling function (Bandura, 1998). Social cognitive theory says that individuals will receive information from people that they are around and interact with on a regular basis just by being in contact with them. (Baiocchi-Wagner, 2015). Social cognitive factors such as self-efficacy and outcome expectancies explain the influence of sexual communication on sexual behavior (Dilorio et al., 2000). Self-efficacy in the context of risky sexual behavior is an individual's belief in themselves that they can utilize safe sex methods. Outcome expectancies are the positive or negative effects after engaging in a behavior such as decreasing risky sexual behavior after engaging in sexual communication. Though it is important to examine frequency of communication, the process and content of communication is especially important as existence of communication might not represent effective communication between parents and adolescents (Kapungu et al., 2010; McKee & Karasz, 2006). Direct communication about sexual health topics can impact sexual behavior, however there is evidence that observing various communication skills from parents may affect young adult sexual communication with their partners which is an example of modeling in the social cognitive theory (Troth & Peterson, 2000).

The Current Study

The goal of the current study is to determine how sexual health communication between adolescents and adults impacts risky sexual behavior and if sex, race/ ethnicity, and age differences play a factor in this relationship. The intervention is expected to effect sexual activity. To meet the study goal, the following research questions and hypotheses will be examined.

Research Question 1: Are there sex, ethnic, and development differences in frequency of sexual health discussions, specific topics that were discussed, and the type of adult with whom the youth had the conversation?

Research Question 2: Does Time 1 frequency of sexual health discussions predict changes in Time 2 sexual activity and self-efficacy?

Research Question 3: Does Time 1 sexual activity and self-efficacy predict Time 2 frequency of sexual health discussions?

Method

Procedure

Students at Chicago area schools had the opportunity to participate in the Gilead/ Sexual Health/ HIV prevention study through the Communities in Schools of Chicago program. The study was conducted by Dr. Jocelyn Carter from DePaul and Dr. Mimi Doll from Candeo Consulting from September 2012 - September 2013. Parents had to sign permission forms which gave their consent allowing their children to participate in the study and assent from children was required after receiving informed consent from parents. The prevention program included eight one-hour meetings that provided information regarding HIV/STI information and safe sexual health behaviors. There were 14 educators throughout the program that were all trained to discuss these topics with adolescents. Their training utilized the Information, Motivation,

Behavior Skill health change theory (Fisher et al., 2002). Data was collected at Time 1, prior to completing the prevention program, and then at Time 2 which was within 2 weeks after the program ended. Data collection was from October 2012 to June 2013. Each participant had the opportunity to receive a $20 gift card for completing the Time 1 and Time 2 surveys.

Participants

There were 376 participants in the study and the sample was mostly female students (60.8%) and most of the participants were between 13-14 years old (59.1%; M=12.98, SD=1.28). The sample was made up of different racial and ethnic groups including Black/African American (53%), Hispanic or Latino (27.2%), multiracial (17.1%), or other (16.6%). All participants were in grades 5th- 9th grade at the time of data collection. See Table 1 for full details.

Table 1

Descriptive Statistics for Study Variables

Variable	*n*	*M*	*SD*
1. Age	363	12.70	1.43
2. Race	369	4.08	1.66
3. Frequency discussions T1	322	13.19	9.85
4. Frequency discussions T2	320	13.97	9.88
5. Total number of adults T1	356	2.49	1.63
6. Total number of adults T2	353	2.54	1.63
7. Self- efficacy T1	321	23.53	4.44
8. Self- efficacy T2	326	24.02	4.28
9. Number of topics T1	322	4.71	2.85
10. Number of topics T2	320	5.03	2.86
11. Sexual activity T1	329	2.82	0.48
12. Sexual activity T2	342	2.85	0.45

Measures

Demographics. In order to measure age, participants wrote in their age at the beginning of the questionnaire. Participants were able to choose either male or female for their gender. Two items were used to measure race/ ethnicity. The first item was "Are you Hispanic or Latino (such as Mexican, Puerto Rican, Cuban?" and the options were yes or no. The second item was "which of the following groups below best describes your race- American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White or Caucasian, Multi-Racial (write in) and Other (write- in).

Sexual Health Communication. Sexual health communication was measured using three indicators: frequency of sexual health discussions, specific topics that were discussed, and the type of adult with whom the youth had the conversation. Frequency was measured using a 4 - point Likert scale (0 = "none;" 4 = "a lot") with eight topic items. The topic items included pregnancy, sex, abstinence, birth control/ contraception, condoms, sexual transmitted infections (STIs), HIV/AIDs (Human immunodeficiency Virus/ Acquired Immune Deficiency Syndrome), and how to talk to a partner about sex. To measure the adult type variable, participants were able to select who they had discussions with, and they were permitted to select multiple adults including mother, father, aunt, uncle, grandmother, grandfather, adult friend, teacher (other than during this class) and other. For the "other" option participants had the option to write in a response. A sum was created to show the number of adults that participants communicated with about sexual health topics.

Sexual Activity Behaviors. Sexual activity behaviors were measured in two ways: past month sexual activity and self-efficacy for protective sexual practices. For past month sexual activity, participants were asked whether they had any type of sex in the past month (vaginal,

oral, or anal). Self-efficacy was measured using a 4-point Likert scale (*1*= Very unsure; *4* = Very sure) that included seven sexual health items. Sample items included "use a condom the next time you have sex" and "get tested for STIs (including HIV). Higher scores represented higher levels of self-efficacy for protective practices.

Data Analytic Plan

Research Question 1: Are there sex, ethnic, and development differences in frequency of sexual health discussions, specific topics that were discussed, and the type of adult with whom the youth had the conversation?

Research Question 1 Analysis: Correlation tests were used to examine relationships between sex and age, and the frequency of sexual health discussions, specific topics that were discussed, and the type of adult with whom the youth had the conversation. Chi square tests were used for race/ethnicity differences in the frequency of sexual health discussions, specific topics that were discussed, and the type of adult with whom the youth had the conversation.

Research Question 2: Does Time 1 frequency of sexual health discussions predict later Time 2 sexual activity and self-efficacy?

Research Question 2 Analysis: Hierarchical regression analysis were used to determine the relationship between Time 1 frequency of sexual health discussions and Time 2 sexual activity and self-efficacy. Time 1 frequency of sexual health discussions was used as a predictor of Time 2 sexual activity and self-efficacy, and Time 1 sexual activity and self-efficacy was entered as a control variable. If sex, ethnic, and/or developmental differences in sexual activity and self-efficacy emerge in Research Question 1, these variables were also included as control variables.

Research Question 3: Does Time 1 sexual activity and self-efficacy measures predict later Time 2 frequency of sexual health discussions?

Research Question 3 Analysis: Hierarchical regression analysis were used to determine the relationship between Time 1 sexual activity and self-efficacy and Time 2 frequency of sexual health discussions. Time 1 sexual activity and self-efficacy were used as a predictor of Time 2 frequency of sexual health discussions and Time 1 frequency of sexual health discussions were entered as a control variable. If sex, ethnic, and/ or developmental differences in sexual health discussions emerge in Research Question 1, these variables were included as control variables.

Results

Research Question 1: Are there sex, ethnic, and development differences in frequency of sexual health discussions, specific topics that were discussed, and the type of adult with whom the youth had the conversation. The results of the correlation analyses can be seen in Table 2.

Table 2

Correlations for Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	—	−0.32	0.23**	.20**	.08	.06	.20**	.27**	.03	.05	−.15**	−.19**
2. Gender		—	−.05	−.01	−.13*	−.07	−.01	−.04	.42**	.33*	.22**	.26**
3. Frequency T1			—	.63**	.49**	.39**	.56**	.91**	.16**	.08	−.14*	−.18**
4. Frequency T2				—	.39**	.45**	.90**	.54**	.11	.13*	−.09	−.11
5. Total Adults T1					—	.63**	.36**	.49**	−.00	−.01	−.23**	−.19**
6. Total Adults T2						—	.41**	.33**	.07	.06	−.21**	−.18**
7. Topics T1							—	.57**	.16*	.09*	−.11**	−.13*
8. Topics T2								—	.14*	.14*	−.04	−.04
9. SE T1									—	.54**	.20**	.18**
10. SE T2										—	.23**	.26**
11. Sex Past T1											—	.81**
12. Sex Past T2												—

Note. Frequency = frequency of health discussions, Total adults = total number of adults communicated with, Topics = total number of topics discussed, SE= Self-Efficacy, Sex Past= Sexual past month.

Age positively predicted frequency of sexual health discussions at both Time T1 (r = .227, p <.001) and Time 2 (r = .197, p <.001) such that older participants were more likely to have more conversations with adults. Age positively predicted the number of topics discussed with an adult at both Time 1 (r= .267, p <.001 and Time 2 (r= .201, p <.001) such that older participants were more likely to discuss more sexual health topics with an adult.

Age did not predict the number of adults that participants had sexual health discussions with at T1 (r = .083, p = .120) or Time 2 (r = .056, p = .300). Sex negatively predicted the number of adults that participants had sexual health discussions with at T1 (r = -.129, p = .015) such that girls were less likely to have sexual health discussions with adults. Sex did not predict the number of adults that participants had sexual health discussions with at Time 2 (r = - .065, p=.223), sexual health discussions at Time 1 (r = -.045, p = .422) or Time 2 (r = -.013, p = .813), or the number of topics discussed with an adult at Time 1 (r = -.043, p = .439) or Time 2 (r = .013, p = .819).

Chi-square analyses were conducted to examine racial and ethnic differences in sexual health communication variables. Race was not associated with the number of adults that participants communicated with at T1 (χ^2 (48, 332) = 40.69, p =.764) and T2 (χ^2 (54, 325) = 53.13, p = .508), the frequency of sexual health discussions at T1 (χ^2 (192, 299) = 197.52, p = .377) or T2 (χ^2 (192, 297) = 196.73, p =. 392) or the number of topics discussed with an adult at Time 1 (χ^2 (48,299) = 61.67, p = .089) or Time 2 (χ^2 (48, 297) = 40.32, p = .78).

Ethnicity was not associated with number of adults participants communicated with at Time 1 (χ^2 (8, 364) = 6.19, p = .546) or Time 2 χ^2 (9,348) = 5.367, p = .801 or frequency of sexual health discussions at Time 1 (χ^2 (32,320) = 37.941, p=.217 or Time 2 (χ^2 (32, 317) = 24.143, p = .839). Ethnicity was associated with number of topics discussed with an adult an adult at Time 1 (χ^2 (8, 320) = 17.069 , p = .029) such that those who identified as Hispanic or Latino were more likely to discuss more topics discussed with an adult at Time 1, but not at Time 2 (χ^2 (8, 317) = 8.431, p= .393) such that identifying as Hispanic/ Latino is not associated with number of topics discussed with an adult at Time 2.

Sexual Health Communication Predicting Sexual Activity and Self-Efficacy

Research Question 2: Does Time 1 frequency of sexual health discussions predict changes in Time 2 sexual activity and self-efficacy?

Regression models without control variables were used to test research question 2.

Sexual Activity Models. The model with frequency of sexual health discussions at Time 1 predicting sexual activity at Time 2 explained a significant amount of variance (R^2 = .031, (F(1,289) = 9.,29 p = .003, 95% CI [-.268, .60]). In this model, frequency emerged as a significant negative predictor of time 2 sexual activity (B = -.009, Beta = -.177, SE = .003, 95% CI [-.015, -.003]) such that participants who had more sexual health discussions were less likely to have sex at Time 2.

The model with number of topics discussed at Time 1 predicting sexual activity at Time 2 explained a significant amount of variance (R^2 = .016, (F(1, 289) = 4.58, p = .033, 95% CI[-.042, -.002]). In this model, the number of topics discussed emerged as a significant negative predictor of Time 2 sexual activity (B = -.022, Beta = -.125, SE = .010, 95% CI [-.042, -.002]) such that participants who discussed a greater number of topics were less likely to have sex at Time 2.

The model with number of adults with whom topics were discussed at Time 1 predicting sexual activity at Time 2 explained a significant amount of variance $R^2 = .035$, (F (1, 318) = 11.45, p <.001, 95% CI [-.089, -.023]. In this model, number of adults emerged as a significant negative predictor of Time 2 sexual activity (B = -.056, Beta= -.186, SE= .01, 95% CI [-.089, -.023]) such that participants who talked with a great number of adults were less likely to have sex at Time 2.

Sexual Self-Efficacy Models. The model with frequency of sexual health discussions at Time 1 predicting sexual self-efficacy at Time 2 did not explain a significant amount of variance

$R^2 = .007$, (F (1, 284) = 2.002, p = .158, 95% CI [-.015, .090]. In this model, frequency of sexual health discussions did not emerge as a significant negative predictor of Time 2 sexual self-efficacy (B = .038, Beta = .084, SE= .027, 95% CI [-.015, .090]).

The model with number of topics discussed at Time 1 predicting sexual self-efficacy at Time 2 did not explain a significant amount of variance $R^2 = .007$, (F (1, 284) = 2.07, p = .151, 95% CI [-.049, .317]. In this model, the number of topics did not emerge as a significant negative predictor of Time 2 sexual self-efficacy (B = .134, Beta = .08, SE= .093, 95% CI [-.049, .317]).

The model with number of adults with whom topics were discussed at Time 1 predicting sexual self-efficacy at Time 2 did not explain a significant amount of variance $R^2 = .000$, (F (1, 314) = .047, p = .829, 95% CI [-.327, .263]. In this model, number of adults did not emerge as a significant negative predictor of Time 2 sexual self-efficacy (B = -.032, Beta = -.012, SE= .150, 95% CI [-.327, .263]).

Sexual Activity and Self-Efficacy Predicting Sexual Health Communication

Research question 3: Does Time 1 sexual activity and self-efficacy measures predict Time 2 frequency of sexual health discussions? Regression models without control variables were used to test research question 3 because the effects disappeared once they are included in models which suggests that study variables are impacted by these variables.

Sexual Activity Models. The model with sexual activity in the past month at Time 1 predicting frequency of sexual health discussions at Time 2 did not explain a significant amount of variance $R^2 = .009$, (F (1, 302) = 2.67, p = .103, 95% CI [-4.63, .427]. In this model, sexual activity in the past month did not emerge as a significant predictor of frequency (B = -2.10, Beta = -.094, SE = 1.29, 95% CI [-4.63, .427]).

The model with sexual activity in the past month at Time 1 predicting number of topics discussed with an adult at Time 2 did not explain a significant amount of variance $R^2 = .001$, (F (1, 302) = .423, p = .516, 95% CI [-.975, .491]. In this model, sexual activity did not emerge as a significant predictor of number of topics discussed. (B =. -242, Beta= -.037, SE= .372, 95% CI [-.975, .491]).

The model with sexual activity in the past month at Time 1 predicting number of adults with whom youth discussed topics with at Time 2 explained a significant amount of variance $R^2 =$ .045, (F (1, 327) = 15.23, p < .001, 95% CI [-1.16, -.383]. In this model, sexual activity in the past month emerged as a significant negative predictor of number of adults with whom youth communicated (B = -.773, Beta = -. 211, SE= .198, 95% CI [-1.163, -.383]) such that participants who had sex at Time 1 were less likely to communicate with multiple adults at Time 2.

Sexual Self-Efficacy Models. The model with sexual self-efficacy at Time 1 predicting frequency of sexual health discussions at Time 2 did not explain a significant amount of variance $R^2 = .013$, (F (1, 278) = 3.52, p = .062, 95% CI [-.012, .511]. In this model, sexual self-efficacy did not emerge as a significant predictor of frequency of sexual health discussions at Time 2 (B = .249, Beta = .112, SE = .133, 95% CI [-.012, .511]).

The model with sexual self-efficacy at Time 1 predicting number of topics discussed with an adult at Time 2 did not explain a significant amount of variance, $R^2 = .020$, (F (1, 278) = 5.59, 95% CI [.015, .166]. In this model, sexual self-efficacy at did not emerge as a significant predictor of number of topics discussed with an adult at Time 2 (B = .091, Beta = .140, SE= .038, 95% CI [.015, .166.]).

The model with sexual self-efficacy at Time 1 predicting number of adults with whom youth communicated at Time 2 did not explain a significant amount of variance, R^2 = .005, (F (1, 306)

= 1.60, 95% CI [-.015, .068]. In this model, sexual self- efficacy did not emerge as a significant predictor of number of adults with whom youth communicated at Time 2 (*B* = .027, Beta = .072, SE= .021, CI [-.015, .068]).

Discussion

The purpose of the current study was to examine the impact that sexual health communication had on sexual behavior in adolescents. Consistent with this purpose, the study tested whether demographic factors such as age, gender, and race/ethnicity impacted conversations and the reciprocal relations between communication and behaviors/beliefs across time. Age positively predicted both sexual health discussions and number of sexual health topics and boys had sexual health discussions with fewer adults than did girls. The frequency of sexual health discussions, greater number of topics discussed, greater number of adults participants talked with at Time 1 predicted less sex at Time 2, however none of the sexual health communication variables predicted sexual self-efficacy at Time 2. Sexual activity in the past month and sexual self-efficacy at Time 2 did not predict frequency of sexual health discussions or number of topics discussed with a parent, but sexual activity negatively predicted the number of adults with whom adolescents communicated with.

Many adolescents are actively engaging in sexual activity so it is important to understand if they are communicating with adults about sexual health and if communication can impact future sexual activity (Lindberg et al., 2019). In the current study, 329 participants had sex at Time 1 and 342 had sex at Time 2 and this is pretty representative of the general adolescent population. Adolescents are engaging in sexual activity a lot younger than parents and adults suspect so it is important to look at how improvements in sexual health communication can be implemented (Malacane & Beckmeyer, 2016). Identifying potential gaps in communication

between adolescents and adults can help improve sexual health educational programming. Only about half of adolescents are learning about sexual health through formal educational settings so it's important that parents and other adults in adolescents' lives have sexual health discussions with them (Lindberg & Kantor, 2022). Most adolescents are not receiving sexual health information from multiple sources which potentially limits the topics that are discussed (Donaldson et al., 2013). It is important that adolescents receive sexual health information from more than one source as one source might not be sufficient when adolescents are learning about sexual health topics (Bleakley et al., 2018; Donaldson et al., 2013). Adults have said that they might not want to initiate sexual health discussions because they might not know all the answers their child might ask (Malacane & Beckmeyer, 2016) so it is important to have various sources including extended family and other adults (Grossman et al., 2015, 2020). Lastly, adolescents might feel more comfortable discussing different sexual health topics with extended family instead of parents (Grossman et al., 2018).

Demographic Differences in Sexual Health Communication

Age. Older participants were more likely to have sexual health discussions with adults and discuss more sexual health topics. These results make sense in that adults are more comfortable discussing sexual health with older adolescents rather than younger ones (Flores & Barroso, 2017; Malacane & Beckmeyer, 2016), however previous studies suggest that adults should start talking to adolescents at a younger age (Eisenberg et al., 2006; Pariera & Brody, 2018). One study found that emerging adults thought that parents should discuss sexual health with their children at the ages of 12 or 13 (Pariera & Brody, 2018). Previous literature has shown that parents base having sexual health discussions on age of their child (Malacane & Beckmeyer, 2016). In addition, regardless of the child's age, parents are hesitant about discussion sexual

health topics as they feel that their children are always “too young” (Pariera, 2016). Parents often think that having sexual health discussions with their children that are young might encourage sexual health behavior instead of just educating them which limits sexual health communication (Malacane & Beckmeyer, 2016). However, a study found that young adolescents who received sexual health information from their parents were less likely to engage in risky sexual behaviors (Secor-Turner et al., 2011). In a study in which parents discussed sexual health topics with children in kindergarten through 8th grade, parents discussed more topics as the child got older, however the depth in which the parents were providing was minimal even at an older age (Byers et al., 2008). Lastly, there is evidence that parent- child sexual health discussions are effective prior to the adolescent having a romantic relationship, so it is important that these discussions happen at a younger age (Eisenberg et al., 2006).

Sex/ Gender. Girls were less likely to have sexual health discussions with adults. Unfortunately, many adults do not approach sexual health communication with girls and boys in the same way because of adults’ opinions on adolescent sexual activity and might limit sexual health conversation topics with girls (Dennis & Wood, 2012; Pflieger et al., 2017). Some fathers are unable to perceive that their daughter is growing up and view them as “their little girl” so they do not discuss sexual health topics with them (Hutchinson & Cederbaum, 2011). Fathers specifically might consider gender roles when communicating with their children about sex and this could impact how they communicate with both sons and daughters (Wilson et al., 2010). In addition, parents may want to be more protective of their daughters, so they have more sexual health communication with their daughters compared to their sons (Kapungu et al., 2010). Previous literature has shown that girls were more likely to have sexual health discussions with adults which is the opposite of what the study found (Evans et al., 2020; Kapungu et al., 2010;

Widman et al., 2016). However, males were more likely to discuss sexual health topics including condoms use compared to females (Donaldson et al., 2013). Age of the study participants potentially explains the discrepancies between the results of the current study as the Donaldson study included older adolescents (ages 15-19). As adolescents get older they start depending more on their peers than their parents for their sexual health information so this might explain the discrepancies (Secor-Turner et al., 2011).

Ethnicity. Participants that identified as Hispanic or Latino were more likely to discuss sexual health topics with an adult at Time 1 than were participants that were not Hispanic or Latino. Previous literature has shown that adolescents that identify as Black or White discuss sexual health topics with parents more than Hispanic adolescents (Lantos et al., 2019; Lindberg et al., 2019). An additional study found that Latin American mothers discussed sexual health topics with their sons since they did not have these types of conversations with their parents own while they were growing up (Alcalde & Quelopana, 2013). Mothers discussed various sexual health topics with their children as an active way to prevent adolescent and young adult pregnancies (Alcalde & Quelopana, 2013). Overall, culture values regarding sexual health may impact sexual health communication across ethnic groups.

Sexual Activity

Participants that had sexual health discussions with an adult, discussed more sexual health topics, and that had these sexual health discussions with multiple adults at Time 1 were less likely to have sex at Time 2. Overall, these results show that youth adult sexual health communication is important because it can impact the likelihood of an adolescent having sex. These results also show that adults discussing sexual health does not encourage adolescents to engage in sexual activity as some adults think that having sexual health discussions too soon

could have a potential negative effect (Malacane & Beckmeyer, 2016). On the contrary, sexual health communication between adolescents and adults might encourage abstinence over engaging in sexual activities (Coakley et al., 2017). A previous systematic literature review found that when parents discuss sexual health topics with their children, they are less likely to start engaging in sexual behavior (Coakley et al., 2017), but this finding did not apply to African American boys' (Coakley et al., 2017) suggesting that culture might impact what sexual health topics parents might discuss with their children. The current study found that all three communication variables predicted sexual activity. This adds to the literature that focuses on the types of communication variables individually (Coakley et al., 2017; McDade et al., 2020; Rogers, 2017). Though it is important to examine different communication variables separately, it is also important to look at multiple variables to see how they all impact sexual health behavior as they are all related to each other.

Participants that had sex at Time 1 were less likely to communicate with multiple adults at Time 2, but no other impacts on communication were found. This contradicts a finding from a previous study that adolescents discussed various sexual health topics with their parents even though they had not discussed them with the person they were dating, however it is unclear if they had previously had sex with their partner (Widman et al., 2014). Adolescents might be ashamed or embarrassed that they engaged in sexual activity, so they do not want to have sexual health discussions with their family. Additionally, when sexual activity is normalized among adolescents they might not have sexual health discussions with their parents (Secor-Turner et al., 2011). I was expecting sex to predict the number of topics discussed with an adult as I thought adults might discuss more sexual health topics with boys rather than with girls as a previous study found that boys discussed more topics than girls (Sneed et al., 2013). I was

surprised that none of the sexual health communication variables at Time 1 predicted sexual self-efficacy at time 2, in that communicating about sexual health should have increased sexual self-efficacy (Coakley et al., 2017; Rogers, 2017). Having sex in the past month at Time 1 not predicting frequency of sexual health discussions at Time 2 might signify adolescents are not comfortable talking with adults if they have already had sex because of possible fear of judgment or getting in trouble. In addition, if adolescents are older they might want to exert more of their independence so they might not seek out sexual health information from their parents (Secor-Turner et al., 2011). If an adolescent is already having sex, one might think that they would discuss more sexual health topics with an adult, however this was not the case.

Self-Efficacy

In contrast to the findings for the prediction of sexual health behavior, no sexual health communication variables predicted sexual self- efficacy at Time 2. Previous studies have shown that there are mixed findings regarding sexual health communication and sexual self-efficacy in that age or timing or sexual health discussions might matter (Secor-Turner et al., 2011). In addition, sexual health communication discussions about condom use might only be effective for a certain period of time instead of having an impact on all future sexual risk behaviors (Coakley et al., 2017) . However, a previous study found that when girls had sexual health discussions with their parents they were more likely to have sexual health discussions with their sexual partner (Hicks et al., 2013). Though sexual health discussions with parents should encourage more sexual self – efficacy a study found that they had sex at an earlier age than expected, more sexual partners compared to those that did not have these discussions and also were at higher risk of contracted sexually transmitted diseases (Clawson & Reese-Weber, 2003). Sexual health conversations between parents and adolescents might not impact sexual self- efficacy due to

parents not being able to effectively communicate sexual health topics as explained by the sexual socialization theory (Shtarkshall et al., 2007). Some parents do not have the sexual health education knowledge that is needed to effectively teach their children about sexual health (Coakley et al., 2017; Flores & Barroso, 2017; Shtarkshall et al., 2007). In addition to communication barriers, the timing of initial sexual health discussions between parents and children might have been too late as some parents wait until they already suspect that their child is engaged in sexual activity to have these conversations (Clawson & Reese-Weber, 2003; Eisenberg et al., 2006; Hyde et al., 2013).

The current study has several strengths including looking at three different types of communication variables including frequency, topics discussed, and the number of adults that adolescents had sexual health discussions with. Examining three different communication variables allowed for more of an in depth look at how adolescents are communicating with their parents and other adults. There was also a wide range of sexual health topics that were included in the questionnaires that the study participants completed. It is important to look at various sexual health topics because sexual health covers such a wide range of sexual risk behaviors and sexual self-efficacy. Including diversity as a variable was a strength because different cultures might not communicate about sexual health in similar ways or even think that sexual health communication is important. In addition to the study variables, having different time points is a key strength as we were able to examine changes over a period time to measure the effectiveness of the sexual health education program. We were also able to analyze the relation between Time 1 and Time 2 variables going in both directions. Lastly, the number of participants was a strength because we were able to see how a wide range of adolescents engage in sexual health communication with adults. In addition to this, studying both girls and boys allowed for

comparisons between the two, which is important as girls and boys might have different communication patterns and sexual activity behaviors.

The current study has several limitations including not specifying the "type of adult" that participants were communicating with, age, and analysis of specific communication styles or patterns. The "type of adult" that adolescents communicated is important to look at to see if participants preferred talking to one parent over another or if they even preferred talking to an extended family. Further, adolescents might not feel comfortable talking to their parent or family member so they might even prefer to talk to an adult mentor, teacher, or coach. This was not specified in the results, and it would be helpful to see in order to make sure the adult has the adequate tools to provide sexual health education to their child, family member, or mentee. The mean age of the study participants was 13-14, so it would have been helpful to have more younger participants as having sexual health discussions before sexual activity begins is very important (Clawson & Reese-Weber, 2003; Pariera & Brody, 2018). The adult's communication style would have been important to analyze as that could determine the effectiveness of the discussion about sexual health and potentially impact sexual self-efficacy (Beckett et al., 2010; Hicks et al., 2013; Holman & Koenig Kellas, 2018; Jerman & Constantine, 2010; Malacane & Beckmeyer, 2016). In addition to communication style, the type of relationship that participants had with their parents could have been analyzed to see if quality of relationship could have potentially impacted sexual self-efficacy (Deptula et al., 2010; Harris et al., 2019). Adolescents might be more likely to engage in protective sexual health practices if they have a good relationship with the parent or adult that is having these conversations with them (Kincaid et al., 2012; Sears et al., 2020; Szkody et al., 2018).

These limitations suggest directions for further research including looking at the specific adult that adolescents communicate including whether the gender of the parents can affect the effectiveness of sexual health communication. Previous research has found that sexual health communication may be more effective when fathers communicate with their children, as children anticipate that their mothers will discuss sexual health topics (Scull et al., 2022). In addition, exploring sexual health discussions that adolescents might have with extended family members that could differ from discussions that are had with parents (Grossman & Lynch, 2022; Secor-Turner et al., 2011). Though it is important to include extended family in researching sexual health communication between adults and adolescents, it is also important to examine cultural values that might influence conversations between adults and adolescents (Velazquez et al., 2017). The current study does not use control variables such as age, gender, and race or ethnicity in the models as the effects disappeared once they are included in models which suggests that study variables are impacted by these variables.

The results of the current study can be used to inform sexual health promotion programs for adolescents. In addition, I think it's important to look at how parenting types could potentially impact communication between parents and adolescents. Permissive parents might discuss sexual health topics with their children to inform them of health implications or they might not engage in these conversations (Newman et al., 2008). Authoritarian parents might be overbearing and insist on not having sexual health discussions with their children to prevent adolescents from engaging in sexual behavior. However, authoritative parents might be the most helpful with providing sexual health information to their children though there are conflicting results on this (Huebner & Howell, 2003; McDade et al., 2020; Newman et al., 2008; Pflieger et al., 2017). Though adolescents receive much of their sexual health education from their parents, it would be

interesting to examine sexual health discussions they might have with an older sibling or cousin since they are peers rather than just family members. A previous study suggests that siblings or cousins could have a positive impact on adolescent sexual health (Secor-Turner et al., 2011).

Conclusion

Overall, these findings are important as they provide evidence that sexual health communication between adolescents and adults can be effective in reducing sexual activity in adolescents. The results show that sexual education health programs should ensure that parents receive sufficient sexual health education themselves to effectively communicate with their children. Additionally, communication regarding sexual self-efficacy might need to be increased as adolescent sexual self-efficacy did not increase as predicted. Adolescents might be engaging in sexual activity younger than parents expect, so both adolescents and parents potentially need to initiate sexual health discussions earlier than planned. Lastly, sexual health communication is essential to adolescents' sexual health and parents should address this topic as it is imperative for adolescent health.

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Appendix A: CISC-Gilead HIV/ STI Prevention Program Evaluation Project Measure

CISC-Gilead HIV/STI Prevention Program Evaluation Project
Pre-Test

Thank you for participating in this survey which focuses on students' opinions about teen health. Your responses will be used to understand how well the CISC-Gilead HIV/STI Prevention Program reaches its goals and to improve this program in the future.

Do not write your name on the survey. The answers you provide will be kept private. No one will know what you write. Completing this survey is optional and will not affect your grade in this class. If you are not comfortable answering a question, just leave it blank.

Please read the instructions closely for each section. If you do not understand a question, please raise your hand and someone will assist you. When you are finished, please follow the instructions given to the class.

Please fill in the information below to create a unique identifier for you. Your unique identifier will be based on your last name, date of birth, and your mother's first name.

This information is designed to keep your identity confidential and is only for the purposes of comparing participants' responses over time. You will also be asked to fill in this information on the top left corner of each survey page before you start the survey. ***Example 1: Your name is Anita Smith. Your birth date is February 12. Your mother's first name is Wanda.***

1st letter of your last name	Date you were born (day of month)	1st two letters of your mother's (primary caretaker's) first name
_S_ W _A_	_1_ _2_	

-Additional Instructions: If someone other than your mother is your primary caretaker, like an aunt or a grandmother, you may use that person's first name instead of your mother's if it's easier to remember.
-If you were born on days 1-9 in a month, please put a zero before the number

Example 2: Your name is Marcus King. Your birth date is September 4. The first name of your grandmother who takes care of you is Beulah.

1st letter of your last name	Date you were born (day of month)	1st two letters of your mother's (primary caretaker's) first name
_K_ B _E_	_0_ _4_	

Please fill in the boxes below with your answers:

1st letter of your last name	Date you were born (day of month)	1st two letters of your mother's (primary caretaker's) first name
___	___ ___	

Date you took this survey
(Example: January 16, 2012 = 1/16/2012):
_____/_____/_____
month date year

Please answer the following questions so we know a little bit about the group of students taking this survey. Please remember, all your responses will be confidential.

1. How old are you? _____ years old

2. What is your gender?
- ☐1 Male
- ☐2 Female

3. What grade are you in?
- ☐1 5th grade
- ☐2 6th grade
- ☐3 7th grade
- ☐4 8th grade
- ☐5 9th grade

4. Are you Hispanic or Latino (such as Mexican, Puerto Rican, Cuban)?
- ☐1 Yes
- ☐2 No

5. Which of the following groups below best describe your race? *(Note: if you are Hispanic please also select a race).*
- ☐1 American Indian or Alaska Native
- ☐2 Asian
- ☐3 Black or African American
- ☐4 Native Hawaiian or Other Pacific Islander
- ☐5 White of Caucasian
- ☐6 Multi-Racial (Please specify_____)
- ☐7 Other (Please specify_____)

Please note:

- when we say **HIV** we mean **H**uman **I**mmunodeficiency **V**irus
- when we say **STI** we mean **S**exually **T**ransmitted **I**nfection (also called **STD** or **S**exually **T**ransmitted **D**isease)
- when we say **AIDS** we mean ***A***cquired **I**mmuno**d**eficiency **S**yndrome

The following questions are about your thoughts, feelings and behaviors. Do not spend too much time on any statement and there are no right or wrong answers. If you have any trouble understanding the meaning of something, tell us. Everything you write will be kept confidential and your name will not appear on this questionnaire.

Please answer whether the following statements about STIs & HIV are True or False. Circle the "T" if you think the answer to the statement is true and circle "F" if you think the answer is false. If you are unsure please give it your best guess.

6. STIs and HIV are **most often transmitted** the following ways:	True/False

a. **Oral sex** (putting ones' mouth on another person's vagina, penis, and/or anus/butt)	☐1T ☐2F
a. **Genital contact** (partners' naked genital area/groin rubbing against or touching each other)	☐1T ☐2F
b. **Anal sex** (inserting one's penis into the anus of a partner)	☐1T ☐2F
c. **Casual physical contact** (e.g. hugging, shaking hands)	☐1T ☐2F
d. **Vaginal sex** (inserting one's penis into the vagina of a partner)	☐1T ☐2F
7. **Abstinence** is the only sure way to avoid a Sexually Transmitted Infection (STI) or Human Immunodeficiency Virus (HIV)	☐1T ☐2F
8. The following Sexually Transmitted Infections (STIs) are **life threatening**:	
a. HIV (Human Immunodeficiency Virus)	☐1T ☐2F
b. Chlamydia	☐1T ☐2F
c. HPV (Human Papilloma Virus)	☐1T ☐2F
d. Public Lice	☐1T ☐2F
9. The following Sexually Transmitted Infections (STIs) are **curable**:	
a. Syphilis	☐1T ☐2F
b. HIV	☐1T ☐2F
c. Gonorrhea	☐1T ☐2F
d. Genital herpes	☐1T ☐2F
10. **Viruses** are a type of illnesses that can be cured	☐1T ☐2F
11. If someone has an STI/HIV they always have **symptoms** you can see, like sores or excessive discharge coming from their penis or vagina	☐1T ☐2F
12. **Condoms** are very effective when used correctly at preventing Hepatitis B & C	☐1T ☐2F
13. **Oil-based lubricants** like Vaseline or hand cream can break down latex condoms making them less effective	☐1T ☐2F
14. You can tell if someone has an STI/HIV by **looking at them**	☐1T ☐2F
15. STIs/HIV can be **transmitted** from through the following body fluids:	
a. Blood	☐1T ☐2F
b. Semen/sperm	☐1T ☐2F
c. Urine	☐1T ☐2F
d. Vaginal fluids	☐1T ☐2F
e. Saliva	☐1T ☐2F

When answering the next set of questions, we'd like you to think about your own opinions and attitudes about sex. Please indicate how much you agree with each of the following statements with 1 = strongly disagree and 4 = strongly agree.

	Strongly Disagree	Disagree	Agree	Strongly Agree
16. It's okay to be sexually active at my age	1	2	3	4
17. It's okay to have sex without a condom	1	2	3	4
18. It's okay to drink/use other drugs when having sex	1	2	3	4
19. It's better to be abstinent than sexually active	1	2	3	4
20. People will think I'm lame if I'm abstinent	1	2	3	4

For the next questions, read a list of statements about condoms and condom use and circle the response that best describes how you feel about the statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
21. Using a condom takes the "wonder" out of sex	1	2	3	4
22. I am concerned about catching AIDS or some other sexually transmitted disease.	1	2	3	4
23. A condom is not necessary when you and your partner agree not to have sex with anyone else.	1	2	3	4
24. A condom is not necessary if you know your partner.	1	2	3	4
25. A condom is not necessary if you're pretty sure the other person doesn't have a sexually transmitted disease.	1	2	3	4
26. If I'm not careful I could catch a sexually transmitted disease.	1	2	3	4
27. I wouldn't use a condom if my partner refused.	1	2	3	4
28. People who carry condoms would have sex with anyone.	1	2	3	4
29. Condoms create a sense of safety.	1	2	3	4
30. Condoms take away the pleasure of sex.	1	2	3	4
31. If my partner suggested using a condom I would respect him/her.	1	2	3	4
32. Other people should respect my desire to use a condom.	1	2	3	4
33. I worry that I could catch a sexually transmitted disease	1	2	3	4
34. If my partner suggested using a condom, I would feel relieved.	1	2	3	4
35. People who carry condoms are just looking for sex.	1	2	3	4
36. Condoms protect against sexually transmitted diseases.	1	2	3	4

How likely do you feel it is that the following things could happen to you:

	Not at all likely	Somewhat unlikely	Somewhat likely	Very likely
37. I could get a sexually transmitted infection (STI)	1	2	3	4

38. I could get HIV (Human Immunodeficiency Virus)	1	2	3	4

When answering the next set of questions, we'd like you to think about the friends that you regularly hang out with. Please answer the following questions about your friends' views & behavior:

	None	A few	Some	Most or All
39. How many of your friends have had sex?	1	2	3	4
40. How many of your friends think that you should have sex?	1	2	3	4
41. How many of your friends think it would be okay if you had sex without a condom?	1	2	3	4
42. How many of your friends think that you should be abstinent (i.e. not have sex)?	1	2	3	4
43. Of *your sexually active friends*, how many use condoms regularly when they have sex?	1	2	3	4
44. Of *your sexually active friends*, how many drink/use other drugs when they have sex?	1	2	3	4

How sure are you that you are able to do the following things:

	Very Unsure	**Somewhat Unsure**	**Somewhat Sure**	**Very Sure**
45. Use a condom the next time you have sex	1	2	3	4
46. Get tested for STIs (including HIV)	1	2	3	4
47. Refuse sex with my partner if I didn't want to have it	1	2	3	4
48. Refuse sex with my partner without a condom	1	2	3	4
49. Avoid a situation that may lead to unwanted sex	1	2	3	4
50. Avoid a situation that may lead to sex without a condom	1	2	3	4
51. Abstain from sex (oral, vaginal and/or anal)	1	2	3	4

52. In the past month, have you had sex?

☐1 Yes ☐2 No, not in the past month ☐3 No, I've never had sex

If Yes,

a. In the past month, how many people have you had sex with (oral, vaginal or anal)?

_____

b. In the past month, how many times have you had sex (oral, vaginal or anal)? _____

c. In the past month, how often did you use a condom when having sex (oral, vaginal or anal)?

☐1 Never ☐2 Almost never ☐3 Half the time ☐4 Usually ☐5 Always

In the past month:

53. Have you done something to avoid places or situations that might lead to having sex? (For example, changing who you hang out with or where, making sure you weren't alone with a potential sex partner in order to avoid sex)	☐1 Yes ☐2 No
54. Have you abstained from sex (oral, vaginal, anal)?	☐1 Yes ☐2 No
55. Have you refused to have sex (oral, vaginal, anal) even though your partner may have wanted to?	☐1 Yes ☐2 No
56. Have you gotten tested for HIV or STIs?	☐1 Yes ☐2 No
57. Have you been told you have a sexually transmitted disease/infection or HIV?	☐1 Yes ☐2 No
58. Have you received treatment for HIV or STIs?	☐1 Yes ☐2 No

Within the next month, how likely is it that you will:

	Very unlikely	Somewhat unlikely	Somewhat likely	Very likely
59. Have sex less often than you did in the past month (oral, vaginal or anal)?	1	2	3	4
60. Reduce the number of people you have sex with (oral, vaginal or anal)?	1	2	3	4
61. Not have sex at all (oral, vaginal or anal)?	1	2	3	4

If you have sex with someone within the next month, how often do you think you will use a condom?

☐1 Never ☐2 Almost never ☐3 Half the time ☐4 Usually ☐5 Always ☐6 I don't plan on having sex in the next month

Using a scale from 0 to 4, with 0 = none and 4 = a lot, please indicate how much discussion have you had with a parent/adult caregiver about the following topics:

	None				A lot
	0	1	2	3	4

53. Pregnancy	0	1	2	3	4
54. Sex	0	1	2	3	4
55. Abstinence	0	1	2	3	4
56. Birth control/contraception	0	1	2	3	4
57. Condoms	0	1	2	3	4
58. Sexually transmitted infections (STIs)	0	1	2	3	4
59. HIV/AIDS (Human immunodeficiency Virus/Acquired Immune Deficiency Syndrome)	0	1	2	3	4
60. How to talk to a partner about sex	0	1	2	3	4

61. Who have you had these discussions with? (check all that apply)

☐1 Mother
☐2 Father
☐3 Aunt
☐4 Uncle
☐5 Grandmother
☐6 Grandfather
☐7 Adult Friend
☐8 Teacher (other than during this class)
☐9 Other (specify): _____

For the next questions, please circle the response that best describes how you feel about each statement.

	Not at all	A little	Some what	Quite a bit	Very much
62. How much do you feel you can talk to your mother about your problems?	1	2	3	4	5
63. How much do you feel your mother cares about you?"	1	2	3	4	5
64. How much do you feel you can talk to your father about your problems?	1	2	3	4	5
65. How much do you feel your father cares about you?"	1	2	3	4	5

Using a scale from 1 to 4, please indicate how much you agree with each of the following statements, with 1 = strongly agree and 4 = strongly disagree. Please answer as honestly as possible.

	Strongly Agree	Agree	Disagree	Strongly Disagree
66. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4
67. I feel that I have a number of good qualities.	1	2	3	4
68. All in all, I am inclined to feel that I am a failure.	1	2	3	4
69. I am able to do things as well as most other people.	1	2	3	4

70. I feel I do not have much to be proud of.	1	2	3	4
71. I take a positive attitude toward myself.	1	2	3	4
72. On the whole, I am satisfied with myself.	1	2	3	4
73. I wish I could have more respect for myself.	1	2	3	4
74. I certainly feel useless at times.	1	2	3	4
75. At times I think I am no good at all.	1	2	3	4

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	Most or all of the time (5-7 days)
76. You were happy.	1	2	3	4
77. You cried frequently.	1	2	3	4
78. You felt depressed.	1	2	3	4

THANK YOU FOR COMPLETING THIS SURVEY!!!