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Extended-Family Talk About Sex and Teen Sexual Behavior †

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Abstract: Research shows that family sexuality communication is protective for teens' risky sexual behavior, but most studies on this topic focus exclusively on the parent-teen dyad. The few studies that assess extended family sexuality communication use a single item to measure this communication and show mixed results as to whether it is associated with sexual risk behaviors for teens. The current study includes cross-sectional survey data from 952 teens in11th and 12th grades. Structural equation modeling (SEM) was used to assess associations between teens' sexual risk behaviors and communication with extended family about protection methods, risks of sex and relational approaches to sex. Results showed that for sexually active teens, talk about protection methods was associated with fewer sexual partners and talk about risks of sex was associated with more sexual partners, even after accounting for talk with parents about sex and controlling for teen gender, racial/ethnic background and mothers' education. Results suggest that extended family talk with teens about sex may protect them from risky sexual behavior over and above effects of teen-parent communication. However, the direction of the effect depends on the content of the conversations. Talk about protection may support teens' sexual health, while talk with teens who have already had sex about risks of sex may not be effective. These findings suggest the need to explore whether and how extended family could be included in health prevention and intervention programs, which currently focus on parents.

Keywords: adolescent reproductive health; family communication; extended family; teen sexual behavior

1. Introduction

Risky sexual behaviors, such as early sex and lack of protection, leave teens vulnerable to sexually transmitted infections (STIs) and unplanned pregnancy [1]. Research shows that family sexuality communication is protective for risky sexual behavior [2,3], but most studies on this topic focus exclusively on the parent-teen dyad [4]. This focus ignores findings that over half of teens talk with extended family about sex or relationships [5]. Preliminary quantitative research shows significant associations between extended-family sexuality communication and teen sexual beliefs and behavior [5,6], but existing research often uses a single item to assess extended-family sexuality communication [7,8] and does not examine under what conditions extended family sexuality communication is protective or risk-promoting. Using a more comprehensive measure of extended family communication, the current study extends extant research by assessing associations between

communication and teens' sexual risk behaviors and whether these associations differ based on the generation of family members (i.e., grandparents, uncles/aunts, cousins) the teen talks to and the teen's gender. We define extended family to include aunts and uncles, grandparents, older cousins and older siblings and godparents. We include siblings because research suggests commonalities between teens' sexuality communication with siblings and cousins [9,10].

Communication with extended family may be particularly important as teens become sexually active. At this stage, teens may become reluctant to talk with their parents about sexual issues as they fear their parents might judge them or worry about their sexual behaviors [11,12]. Hence, some teens seek out extended family as a more comfortable alternative to parents [10]. In addition, parents often focus their messages to teens on delaying sex [13], which can be protective *before* teens become sexually active [14], but may be less effective when teens have already had sex. Extended family may be more open to discussing protection methods with teens, rather than only focusing on messages to delay sex [13]. Therefore, it is important to investigate extended family sexuality communication and teens' safer sex practices (e.g., condom use, number of partners) among teens who are sexually active, rather than a sole focus on teens' transition to sex.

A better understanding of the effects of family sexuality communication on teens' sexual behavior can be gained by assessing who the teen talks to and the teen's gender. Whether messages about sex are protective may depend on which extended family member the teen talks to. For example, findings are mixed as to whether older siblings positively or negatively influence younger siblings' sexual behavior [15-17], while talking with grandmothers about sex and relationships has shown associations with healthy teen sexual behavior [6,18]. Teens' gender also shapes family sexuality communication. Findings are mixed regarding whether the impact of this family sexuality communication differs for girls and boys [4,19]. Research is needed to assess whether the effects of extended family sexuality communication differ depending on the generation of the extended family member (e.g., parents' versus teens' generation) and teen's gender.

The current study assesses 1) associations of extended family sexuality communication with teens' sexual behaviors, and 2) whether this communication differs by the generation of extended family (same generation as the teen vs. parents' generation vs. grandparents' generation) and the gender of the teen. We hypothesize that extended-family communication about protection will be negatively associated with participants' safer sex behaviors, while communication about the dangers of sex will not be associated with participants' safer sex behaviors. We do not expect that extended family sexuality communication will be associated with delay of sex. Analyses assessing whether effects of communication differ by extended-family generation and teen gender are exploratory.

2. Methods

Data for this study came from 11th and 12th grade students at six urban schools. Schools were recruited through school and district offices. Each school assigned a study liaison responsible for data collection coordination, and was paid a $500 stipend for participation. The study was approved by the Wellesley College Institutional Review Board. A survey was administered online using Qualtrics. Four of the six participating schools selected waiver of documentation of parental consent ("passive consent") while two schools selected active consent. A total of 973 surveys were collected of which 952 are included in this analysis following data cleaning procedures.

2.1. Sample

Participants were 952 adolescents (M_{age} = 17.02, SD = .93), and self-identified as 55% female, 17% Black, 54% Latino, 16% White, 7% Asian, 4% Middle Eastern and 2% Biracial/Multiracial. On average, mothers of participants (or primary caregivers) had a high school education, and 71% of these mothers immigrated to the U.S. Thirty-five percent of adolescents reported having vaginal sex. Fifty percent reported talking to at least one parent about dating, sex and relationships and almost half (46%) reported talking to an extended family member. The extended family members who teens primarily reported talking to were: older sisters (24%) and older female cousins (21%). Older brothers (16%), aunts (13%) and older male cousins (10%) were also reported as communication partners.

Fewer adolescents reported talking to grandmothers (7%), uncles (6%), grandfathers (1%) and godparents (1%).

2.2. Measures

The Direct communication measure consisted of three sub-scales. Protection communication is made up of three items asking whether teens have engaged in conversations with family members about protecting themselves from STIs, HIV/AIDS, and from becoming pregnant or getting someone else pregnant (α = .93). Risks of Sex communication has four items asking about conversations concerning the negative consequences of sex, including teen pregnancy and STDs. (α = .86). Relational Sex communication includes three items addressing how sex can be permissible in the context of a relationship (α = .87).

Generation of the extended family consisted of three levels. The younger generation included older siblings and cousins, the middle generation family members included aunts/uncles and godparents, and the older generation included grandparents.

Control variables consisted of: teens' gender, age, race/ethnicity, whether they live in a two-parent household, and teens' religiosity. Teens were also asked about their mothers' education, whether their parents were immigrants, and whether either of their parents was a teen parent. Communication with parents about dating and sex was measured by teens' self-report of talking with at least one parent about these topics.

Sexual behavior outcomes included: vaginal sex, number of sexual partners and condoms use. If the teen did not report having sex, they were assigned a zero for number of partners.

2.3. Analysis

First, separate Structural Equation Models (SEM) were used to test the relationships among direct sex communication with extended family members and each of the three youth sexual behavior outcomes (vaginal sex, condom use, and number of partners). Next, in separate SEMs, we examined whether youth gender and the generation of the extended family member moderated the link between direct sex communication and youth sexual behavior. Each SEM was comprised of a measurement model and a structural model. The measurement model contained the three direct communication scales (Protection, Risks of Sex, and Relational Sex) represented as separate latent variables. In the structural model, each of the observed exogenous variables and the three latent variables representing direct sex communication were regressed on the endogenous variable representing youth sexual behavior. In the moderation models, additional latent variables representing each moderating effect were also regressed on the endogenous variable. Control variables (described above) were included. Given that vaginal sex was measured dichotomously, model parameters were generated using a diagonally weighted least squares estimator (WLSMV) and pairwise estimation of missing data. For the models predicting youth condom use and number of sexual partners, full information maximum likelihood (FIML) was used. All analyses were conducted in the lavaan package (version 0.6-3) in R [20].

3. Result and Discussion

Model fit statistics suggested excellent fit for all of the SEMs tested. Specifically, Tucker-Lewis Indices (TLI) ranged from .95 – .98, Comparative Fit Indices (CFI) from .94 – .96, and root mean square error of approximation (RMSEA) from .04 – .06. In the models assessing the relationships among direct communication with extended family members and youth sexual outcomes, protection and risk communication were both found to be significant predictors of youths' reported number of sexual partners. These effects went in opposite directions with communication about protection predicting *fewer* sexual partners (β = -.502, SE = .164) and communication about risks of sex predicting *more* sexual partners (β = .656, SE = .237). Models predicting delay of sex and condom use were not significant (Table 1).

Table 1. Direct Effects of Extended Family Communication on Teen Sexual Behaviors.

	Delay Sex	Condom Use	Number of Sex Partners
	β (SE)	β (SE)	β (SE)
Protection Communication	0.07(3.92)	-0.28(0.20)	-0.50(0.16)*
Risks of Sex Communication	0.23(5.93)	0.36(0.36)	0.66(0.24)*
Relational Sex Communication	-0.14(5.17)	0.22(0.26)	-0.13(0.17)
Female	-0.09(0.12)	-0.23(0.22)	0.07(0.16)
Age	0.16(0.07)*	-0.19(0.13)	0.08(0.10)
Mother's Education	0.04(0.04)	-0.06(0.07)	0.03(0.05)
Teen Parent	0.35(0.13)**	-0.21(0.23)	0.03(0.17)
Religion	-0.04(0.06)	0.09(0.12)	-0.10(0.08)
Parent Immigrant	-0.21(0.16)	0.04(0.31)	0.03(0.21)
Black	-0.31(0.21)	-0.35(0.42)	0.01(0.31)
Latino	0.13(0.18)	-0.47(0.34)	-0.49(0.24)*
Asian	-0.38(0.27)	-0.59(0.60)	-0.42(0.43)
Biracial/Other	-0.41(0.30)	-0.21(0.62)	-0.40(0.41)
Two Parent Household	-0.20(0.13)	0.04(0.25)	-0.04(0.17)
Talk to Parent about Sex	0.17(0.12)	0.43(0.25)	0.32(0.17)

*$p < 0.05$, **$p < 0.01$.

In the models examining the potential moderating roles of youth gender and generation of the extended family member, there were no significant findings (Table 2). This suggests that the link between direct communication with extended family members about sex and teens' sexual behaviors is stable regardless of teen gender or the generation of the extended family member with whom the teen is communicating about sex.

Negative associations between communication about protection and number of partners and positive associations between risks of sex communication with number of partners confirm study hypotheses. For sexually active teens, conversations about safer sex fit with teens' developmental stage and experience and may encourage them to make thoughtful decisions about their sexual activity. Extended family may take on a larger role for these teens due to their concerns about parent judgement regarding their sexual behavior [11], and to openness among extended family members to discussing safer sex behaviors, compared to parents, who tend to focus on delaying sex [13]. In contrast, extended–family messages about the risks of sex (reasons not to have sex) may strike a dissonant chord with teens who are already sexually active. For this group of teens, messages about delaying sex do not acknowledge their sexual behavior and suggest that sexual behavior is bad or inappropriate, while also failing to provide tools or information to support safer sex behaviors. As hypothesized, extended family sexuality communication was not associated with delay of sex. This may reflect parents' key role in talking with teens about the dangers of sex, which is associated with delayed sex among teens who are not yet sexually active [21]. Counter to study hypotheses, extended family sexuality communication did not predict teens' condom use. The lack of significant moderation findings for generation of extended family suggest that the protective potential of extended family messages about sex does not depend on the age of the extended family member. This runs counter to findings that same-generation family members, such as siblings, promote risky sexual behavior among their younger teen relatives [17]. Non-significant moderation findings for teen gender indicate the effects of extended family messages do not differ for teen boys and girls.

Table 2. Moderation of Teen Gender and Extended Family Generation on Extended Family Communication and Teen Sexual Behaviors.

		Teen Gender Moderation			**Extended Family Generation Moderation**		
Delay Sex	Condom Use	Number of Sex Partners	Delay Sex	Condom Use	Number of Sex Partners		
		β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
Protection Communication		0.03(4.61)	-0.05(16.33)	-0.49(0.17)*	-0.05(8.70)	0.12(51.49)	-0.57(0.31)
Risks of Sex Communication		0.31(8.69)	0.01(9.63)	0.73(0.25)*	0.33(46.78)	0.35(103.27)	0.87(0.56)
Relational Sex Communication		-0.15(8.06)	0.21(19.31)	-0.22(0.18)	-0.01(51.13)	-0.24(67.63)	-0.06(0.30)
Protection X Teen Gender		-0.02(19.34)	0.03(19.41)	-0.25(0.34)	--	--	--
Risks of Sex X Teen Gender		-0.02(45.31)	0.02(34.14)	0.09(0.49)	--	--	--
Relational Sex X Teen Gender		-0.08(26.16)	0.06(20.34)	0.07(0.40)	--	--	--
Protection X Middle Age EF		--	--	--	0.01(20.55)	-0.32(25.38)	0.50(0.71)
Risks of Sex X Middle Age EF		--	--	--	-0.02(136.42)	0.04(138.25)	-0.27(1.25)
Relational Sex X Middle Age EF		--	--	--	0.08(125.02)	0.18(133.22)	-0.03(0.83)
Protection X Older Age EF		--	--	--	0.03(177.05)	0.06(90.03)	-0.50(1.78)
Risks of Sex X Older Age EF		--	--	--	-0.01(472.61)	0.01(262.55)	0.77(4.91)
Relational Sex X Older Age EF		--	--	--	-0.01(314.04)	-0.02(171.28)	-0.06(1.39)
Middle Age EF					0.12(0.16)	-0.19(0.25)	-0.01(0.29)
Older Age EF					-0.13(0.22)	0.66(0.39)	-0.65(0.35)
Female		-0.09(0.12)	-0.17(0.19)	0.09(0.16)	-0.13(0.13)	-0.08(0.23)	0.10(0.19)
Age		0.16(0.07)*	-0.15(0.11)	0.07(0.10)	0.11(0.09)	0.06(0.16)	-0.01(0.12)
Mother's Education		0.04(0.04)	-0.04(0.06)	0.03(0.05)	0.01(0.04)	0.00(0.07)	0.01(0.06)
Teen Parent		0.35(0.13)**	-0.13(0.19)	0.04(0.17)	0.40(0.15)**	-0.44(0.22)*	0.15(0.21)
Religion		-0.04(0.06)	0.10(0.09)	-0.11(0.08)	-0.05(0.07)	-0.09(0.13)	-0.06(0.10)
Parent Immigrant		-0.21(0.16)	0.01(0.25)	0.05(0.22)	-0.34(0.20)	0.41(0.31)	-0.04(0.28)

Black	-0.31(0.21)	-0.28(0.36)	0.01(0.31)	-0.11(0.25)	-0.49(0.41)	0.04(0.38)
Latino	0.13(0.18)	-0.35(0.25)	-0.50(0.24)*	0.27(0.22)	-0.54(0.32)	-0.68(0.31)*
Asian	-0.38(0.27)	-0.30(0.47)	-0.43(0.43)	-0.02(0.31)	-0.89(0.56)	-0.51(0.51)
Biracial/Other	-0.41(0.30)	-0.16(0.84)	-0.40(0.41)	-0.11(0.34)	-0.22(1.02)	-0.87(0.52)
Two Parent Household	-0.20(0.13)	-0.03(0.19)	-0.04(0.17)	-0.23(0.15)	-0.35(0.23)	0.07(0.21)
Talk to Parent about Sex	0.17(0.12)	0.43(0.19)*	0.27(0.18)	0.26(0.15)	0.52(0.25)*	0.38(0.22)

*$p < 0.05$, **$p < 0.01$.

4. Conclusions

Close to half of teens talk with extended family about sex [5], yet little research investigates whether and under what conditions this communication could protect teens from risky sexual behavior. While the current findings are cross-sectional, they suggest that extended family communication may make a difference in teens' sexual behavior. They may play a particularly important role for sexually active teens, who often turn to extended family as less judgmental and more open supports for discussing sexual issues [13]. The content of this communication is critical as it can be either protective or risk-promoting. As shown in research with parents [22], extended family may underestimate teens sexual behavior and therefore share messages about sex that do not match teens' behaviors and their needs for information and support. In contrast, talking with sexually active teens about how to minimize risk may support teens' sexual health. Extended-family communication has similar effects regardless of the generation of extended family teens talk with and the gender of the teen. Overall, these findings suggest that 1) Given the frequency and potential health effects of teens' communication with extended family, these relationships should be recognized in teen health programs, which primarily focus on parents [23,24]. Counter to common fears about teens' conversations with siblings and cousins about sex, these preliminary data suggest that programs should not discourage teens from talking with their older siblings and cousins about sex and relationships, particularly when teens do not have a parent they can talk to about these issues. 2) Education is needed to support extended family members regarding which types of communication can effectively support the health of sexually active teens. Targeting communication to a teen's development and experience is key to its protective potential.

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