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Patterns of Vaginal, Oral, and Anal Sexual Intercourse in an Urban Seventh-Grade Population

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Abstract

BACKGROUND—This study examines the prevalence of vaginal, oral, and anal inter-course among a population of urban, public middle school students, the characteristics of early sexual initiators, and the sequence of sexual initiation. Such data are limited for early adolescents.

METHODS—A total of 1279 seventh-grade students (57.3% female, 43.6% black, and 41.8% Hispanic), mean age 12.5 years (SD = 0.63) from 10 middle schools in a large southeastern US public school district completed a cross-sectional survey using audio computer-assisted self-interviews. Main outcomes included lifetime and past 3-months' experience of vaginal, oral, and anal sex; condom use; age of initiation; and number of lifetime partners.

RESULTS—Overall, 12.0% of students had engaged in vaginal sex, 7.9% in oral sex, and 6.5% in anal sex. Among students who had initiated intercourse, approximately two thirds were currently sexually active and one quarter reported ≥ 4 lifetime partners. Six percent had engaged in 1 type of intercourse, 4% in 2 types of intercourse, and 4% in all 3 types of intercourse; vaginal sex was typically initiated at an earlier or at the same age as other types of intercourse. Only 2% had engaged in oral sex without engaging in vaginal sex. Although black students were significantly more likely to have initiated sex compared to other racial/ethnic groups, Hispanic students who had initiated each type of intercourse were more likely to be currently sexually active and to have engaged in recent unprotected sex.

CONCLUSIONS—A small percentage of early adolescents are engaging in multiple sexual behaviors. These findings have implications for early adolescent school-based sexual health education.

Keywords

child and adolescent health; human sexuality; reproductive health; risk behaviors

Although adolescent pregnancy rates have declined steadily in the United States over the past decade, adolescent births and sexually transmitted infections (STIs) remain serious public health issues. In 2006, births to mothers aged 15-19 years increased for the first time since the early 1990s.¹ In 2000, youth between the ages of 15 and 24 accounted for 9.1 million (48%) of all new STI cases.² Minority youth are disproportionately affected. Birth rates among Hispanic and black teens remain higher than other racial/ethnic groups, including rates among those aged 10-14 years.¹ Although black teens represent only 17% of US teenagers, they account for 70% of HIV/AIDS cases reported among teens.³

Early sexual initiation has been associated with an increased risk of pregnancy and STI.⁴⁻⁶ Youth who initiate vaginal intercourse at age 14 or younger are more likely to have multiple lifetime sexual partners, engage in greater frequency of sex, use alcohol or drugs before sex, and have sex without a condom compared to youth who initiate sex at an older age.⁵⁻⁸ Some adolescents engage in oral or anal intercourse as perceived less risky alternatives to vaginal sex;⁹⁻¹³ however, both have been implicated in the transmission of nonviral and viral STIs.¹³⁻¹⁵

In order to develop effective pregnancy and STI prevention efforts for early adolescents (aged 11-14 years), it is important to understand the prevalence of vaginal, oral, and anal intercourse in this age-group and the characteristics of early initiators. It is also helpful to understand the sequence of initiation of these different types of sexual behavior to ensure that interventions are relevant to youth's needs. However, public sensitivity regarding sexual behavior surveys among early adolescents, particularly in public school settings, has impeded this research. Active parental consent is typically required, and parents and school administrators may be reluctant to expose students to explicit questions regarding sexual behavior, particularly those regarding oral and anal sex. In the 2003 Middle School Youth Risk Behavior Surveillance Survey (MSYRBS) (grades 6-8 and roughly ages 11-13), 6 of 8 states administered items on sexual behavior. Across states, the percentage of seventh graders who reported ever having "sexual intercourse" (implicitly vaginal sex) ranged from 6.6% to 31.2%, with a median of 15.6%. Of those students, between 3.2% and 13.2% (median 8.5%) reported having 3 or more sexual partners.¹⁶ Other studies have examined sexual behavior among middle school students; 5-6-17-21 however, few have included examination of oral and anal intercourse, and none have examined the sequence of initiation of types of sexual behavior among early adolescents.

Previous studies among older adolescents report contrasting findings regarding the sequence of sexual initiation. Several studies among 9th- and 10th-grade students indicate earlier initiation of oral sex compared to vaginal sex.^{11,22} In contrast, data from the 2002 National Survey of Family Growth (NSFG) among 15- to 19-year-olds indicate greater likelihood of initiating vaginal sex prior to other types of sex. The NSFG data also indicate significant differences in sexual behavior by racial/ethnic group and by socioeconomic status with white and higher socioeconomic status teen more likely to engage in oral and anal sex than their peers.²³ However, it is unclear whether patterns of sexual activity and initiation among older adolescents accurately reflect patterns among younger teens, who become sexually active.

Given this lack of detailed information, further epidemiological studies examining sexual behavior among middle school youth are needed to help prioritize effective sexual health education efforts. The goals of the present study were to (1) examine the prevalence of vaginal, oral, and anal intercourse among a population of urban, public middle school seventh-grade students; (2) to examine the demographic characteristics of those youth who engaged in each type of sexual intercourse, and (3) to examine the sequence of initiation of the 3 types of sexual intercourse. This information may help to prioritize needs for middle school sexual health education to prevent or mitigate the consequences of early sexual initiation among potentially high-risk youth populations.

METHODS

Subjects

Seventh-grade students from 10 middle schools in a large urban public school district in the southeastern United States ($n = 3007$) served as the target population for this study. A total of eighty-nine percent of students were eligible for free or reduced-price lunches, an indicator of low socioeconomic status. The schools were participating in a randomized controlled trial to evaluate an HIV, STI, and pregnancy prevention program, approved by the authors' institutional review board. Parental consents were returned by 62.4% of students ($n = 1876$) during fall 2004. Students classified by the school as learning disabled or as having limited English proficiency (ie, had their primary instruction in Spanish) were excluded from the study sample, leaving 1445 youth eligible for participation. Ninety percent of eligible students were actually surveyed ($n = 1307$). Reasons for nonparticipation included being absent on survey dates or refusal to participate. Data were collected between November 2004 and January 2005; student consent was obtained at the time of the survey.

Measures

The survey contained multiple items addressing precoital behavior, sexual intercourse, and demographic characteristics. To mitigate concerns from parents and school personnel regarding exposure of nonsexually experienced seventh-grade students to explicit questions regarding vaginal, oral, and anal sex, 2 precoital items were used to identify and screen for nonsexually experienced youth. Pilot testing confirmed youth's comprehension of the wording and intent of the precoital questions, and pilot data indicated prevalence of sexually experienced youth similar to surveys that did not use precoital screening items. Thus, the precoital items appeared to provide a valid and reliable strategy for avoiding overexposure to sensitive content in this age-group while collecting important information from those youth who were sexually experienced.

Precoital Behavior—All students received 2 items adapted from Ball et al²⁴ regarding consensual precoital behavior, either touching someone else's private parts or having their private parts touched by someone else. "Private parts" were defined as parts of the body covered by underwear or a bra. Only students who indicated participation in 1 or both of these precoital behaviors received items regarding sexual intercourse.

Sexual Intercourse—Three sets of questions were used to assess engagement in vaginal, oral, and anal intercourse, each prefaced by a specific definition: "By vaginal sex we mean when a boy puts his penis inside a girl's vagina. Some people call this 'making love' or 'doing it'; "By oral sex we mean when some-one puts his or her mouth on their partner's penis, vagina, or anus (that means their butt) or lets their partner put his or her mouth on their penis, vagina, or anus," and "By anal sex we mean when a boy puts his penis in his partner's anus (which means butt)." These definitions were provided to enhance student comprehension and were extensively pilot tested in the target population prior to survey administration. Students who

indicated participation in a specific type of intercourse received additional questions regarding age of initiation, lifetime number of sexual partners, and past 3-months' frequency of intercourse. For vaginal and anal sex, students who reported being currently sexually active were also asked about the frequency of intercourse without a condom during the past 3 months. Unfortunately, due to the need to limit the number of items, questions regarding condom use during oral sex were not included.

Demographic Variables—Several recognized demographic covariates of adolescent sexual behavior were measured using previously validated items, including gender, age, race/ethnicity, and family structure.²⁵⁻²⁷ Race/ethnicity was recoded into 3 categories: black, Hispanic, and "Other," which included white, Asian, Pacific Islander, and non-Hispanic multiracial youth. Age was dichotomized as 12 years versus 13-14 years since the majority of students were 12 years old. Family structure was collapsed into 4 categories: living with 2 biological parents, living with 1 biological parent, living with 1 biological parent and a stepparent or partner, and other which included living with another relative or nonrelative.

Procedures

Surveys were administered on laptop computers via audio computer-assisted self-interview (ACASI) during regular school hours. Surveys were conducted in a quiet location such as an empty classroom or library. Laptops were arranged so that students could not see each other's screens and were equipped with headphones for acoustic privacy. The use of ACASI systems has been found to be a valid and reliable method for obtaining sensitive information, including sexual risk-taking behavior, as it appears to increase the honesty of reporting over pencil-paper surveys.^{28,29} In addition, ACASI methodology mitigates problems of low-literacy levels and attention deficits. It also allowed for an automatic skipping procedure to limit exposure of nonsexually experienced students to sexually explicit items.

Analytic Procedures

Prior to analysis, 5 students were removed from the data set due to missing data regarding lifetime intercourse, and 23 students were removed due to small counts for a specific age (ages 11, 15, and 16) leaving a total sample of 1279 for analysis.

To examine the overall prevalence of vaginal, oral, and anal sex and the prevalence of intercourse by demographic variables, prevalence estimates for life-time sexual experience were computed for the total sample and then by gender, race/ethnicity, and age. Prevalence estimates for age of initiation, number of lifetime partners, and past 3-month's experience were computed only for sexual experienced students. Prevalence estimates of condom use for vaginal and anal sex were computed only for students who were currently sexually active (ie, reported having sex in the past 3 months). Statistical differences between groups were determined using chi-square and Fisher's exact statistics. Multivariate logistic regression analysis was used to examine associations between demographic variables and lifetime intercourse experience.

Among students who had initiated more than 1 type of intercourse, frequencies were calculated to examine the relative age of initiation for each type of sex (ie, whether a specific type of sex was initiated at a younger age, the same age, or an older age relative to the other type of intercourse).

RESULTS

Of 1279 seventh graders who participated in the study, 57.3% were female, 43.6% self-identified as black, and 41.8% as Hispanic (Table 1). (This distribution was similar to that of

the study schools' seventh-grade population, although female students were over represented [by 7.9%], while male and Hispanic students were underrepresented [by 7.9% and 10.4%, respectively]) The mean age of survey participants was 12.5 years (SD = 0.63). Although approximately one third reported living with both parents, 36% lived with 1 parent, 12% with a parent and stepparent/partner, and 16% with another relative or nonrelative. Just over one third reported engaging in precoital behavior; of those students, 43% had ever had intercourse.

Prevalence of sexual intercourse is reported in Table 2. Overall, 1 of 7 students (14.2%) reported having engaged in some type of sexual intercourse. Twelve percent of students reported engaging in vaginal intercourse, 7.9% in oral intercourse, and 6.5% in anal intercourse. Among students who were sexually experienced, approximately one quarter reported having 4 or more lifetime sexual partners and approximately two thirds reported being currently sexually active (ie, they had sex within the past 3 months). Among students who were currently sexually active, approximately one third reported having had vaginal or anal sex without a condom at least once during the past 3 months.

Several differences were reported by gender. Significantly higher percentages of males reported initiation of vaginal, oral, and anal sex. Significantly more males reported initiating vaginal and anal sex before age 11 compared to females. No significant gender differences were reported regarding current sexual activity or condom use.

With regard to race/ethnicity, a higher percentage of black students reported engaging in vaginal, oral, and anal sex compared to youth classified as Hispanic and Other. However, the percentage of Hispanic students who had engaged in vaginal, oral, and anal sex in the past 3 months was significantly higher compared to other racial/ethnic categories. In other words, among youth who were sexually experienced, Hispanic youth were more likely to be currently sexually active regardless of type of intercourse. Greater percentages of other race/ethnicity students also reported past 3-month vaginal and anal sex compared to black students. With regard to condom use, a greater percentage of Hispanic youth reported having vaginal sex without a condom during the past 3 months compared to their peers. Hispanic and black students were more likely to report having anal sex without a condom compared to students of other race/ethnicity. No significant differences were reported by racial/ethnic group in terms of age of initiation or lifetime number of sexual partners.

Age was significantly related to initiation of vaginal sex, with higher percentages of 13- to 14-year-olds reporting lifetime engagement compared to 12-year-olds. No significant differences were reported by age in terms of age of sexual debut, current sexual activity, lifetime number of sexual partners, and condom use.

Adjusted odds ratios presented in Table 3 indicate that male and black students were significantly more likely to report having engaged in each type of intercourse compared to female and Hispanic students, respectively. Students designated as other race/ethnicity were also more likely to have engaged in vaginal and oral intercourse compared to Hispanics. Older students (13-14 years) indicated increased likelihood of engaging in vaginal intercourse. Students living in nontraditional family structures were almost 2-3 times more likely to have engaged in vaginal and oral intercourse compared to students living in a 2-biological parent household.

Overall, 79 (6%) of all students had engaged in 1 type of sexual intercourse, 55 (4%) in 2 types of intercourse, and 53 (4%) in all 3 types of intercourse. Among students who had engaged in more than 1 type of intercourse, vaginal intercourse was the most frequently reported type of sex. Only 2% of students reported engaging in oral sex without having experienced vaginal sex. Regarding the sequence of initiation, among students who reported engaging in both vaginal and oral sex, 66 (66.8%) reported initiating vaginal sex either at an earlier age or at the

same age as oral sex. Among students who reported engaging in both vaginal and anal sex, 57 (85.1%) reported initiating vaginal sex either at an earlier age or at the same age as anal sex (Figure 1).

DISCUSSION

This study was conducted to examine patterns of sexual intercourse among seventh-grade students in an urban public middle school. One of 7 students (14.2%) reported having engaged in some type of sexual intercourse. This estimate is similar to the median percentage (15.6%) of youth who reported engaging in “sexual intercourse” on the MSYRBS,¹⁶ indicating that a small percentage of early adolescents are at risk for the potentially negative consequences of early sexual initiation.

For all types of intercourse, students who were sexually experienced were more likely to be male and black, corroborating findings from previous studies.^{5,6,8,16-21} However, in contrast with previous studies, Hispanic students who were sexually experienced were more likely to be currently sexually active compared with the other racial/ethnic groups.^{5,21} Youth in the other racial/ethnic category were also more likely to be currently sexually experienced than black youth. Heightened risk behavior may occur among youth who are in the minority racial/ethnic group (eg, Caucasian or Asian) in a predominantly black or Latino school. Similar findings are observed for youth who experience peer victimization in their schools.³⁰ Overall, these findings underscore the urgent need for effective, culturally sensitive, HIV, STI, and pregnancy prevention programs at the middle school level to delay or mitigate the consequences of early sexual activity.³¹⁻³²

Students living in nontraditional family structures, particularly those living with a single biological parent and a stepparent/partner, were more likely to have initiated vaginal and oral intercourse. Previous studies indicate that family structure may affect parents’ ability to monitor teens’ behavior²⁶ and disruptions in family structure may impact family connectedness, both factors shown to be protective against early sexual initiation.²⁷ Middle school sexual health education curricula may benefit from the inclusion of activities that promote parental involvement and communication with their early teen.^{18,26}

In this study, vaginal intercourse was the most prevalent type of sexual intercourse reported. Few students had engaged in oral or anal intercourse without having engaged in vaginal sex, and only 2% of students had engaged in oral sex without having experienced vaginal intercourse. Most students who had engaged in both oral and vaginal intercourse, or anal and vaginal intercourse, reported initiating vaginal intercourse either at an earlier age or at the same age. These results corroborate findings from the 2002 NSFG among 15- to 19-year-olds, which indicate that youth who have experienced vaginal sex are more likely to initiate other types of intercourse.²³

Nearly as many students had engaged in anal intercourse (6.5%) as oral intercourse (7.9%), a new finding for this age group. Furthermore, 23.8% of those who had initiated anal intercourse reported already having had 4 or more anal sex partners. Although lifetime experience of anal intercourse was greater among blacks, recent anal activity was greater among Hispanic youth, which contrasts with data from older adolescents.³³ Engagement in anal sex is a high-risk activity for transmission of HIV and STI, and early adolescents need guidance regarding the risks associated with anal sex.

Approximately two thirds of students who reported being sexually experienced also reported being currently sexually active, that is, they had engaged in sex 1 or more times in the past 3 months. This contrasts with findings from the National Longitudinal Study of Adolescent Health in which 45% of sexually experienced 12- to 13-year-olds reported *not* engaging in sex

during the past 18 months.³⁴ Thus, in the current sample, the majority of early initiators continued to engage in sexual behavior once they were sexually experienced. This underscores the need to provide youth with reasons and skills to delay further sexual activity once they become sexually experienced.

Among students who were currently sexually active, approximately one third reported having had vaginal or anal sex without a condom at least once in the past 3 months. Although a greater percentage of Hispanic youth reported having vaginal sex and anal sex without a condom compared to other racial/ethnic groups, a similar percentage of black students reported having unprotected anal sex. This emphasizes the need to provide accurate information about condoms for contraceptive and disease prevention purposes. In addition, students who have been sexually active need to receive information and services related to STI and pregnancy testing, as well as skills training for future abstention or risk reduction if they intend to remain sexually active.

Several aspects of the conduct of this study were important for obtaining approval from parents and school district personnel. Use of ACASI for questionnaire delivery was important for maintaining confidentiality of data and inclusion of pre-coital screening questions limited exposure of sexually inexperienced students to more explicit questions. However, several limitations must be also noted with respect to these findings. First, the data were self-reported, which may raise concerns regarding reliability and validity. While use of ACASI has been demonstrated to increase reliability over other types of survey administration,^{28,29} the data may still reflect under- or overreporting.³³ Second, although pilot testing was conducted to assess the validity and reliability of using pre-coital questions as a skip pattern for screening out nonsexually experienced youth, it is possible that some students who did not report genital touching may have engaged in intercourse and were erroneously excluded from analysis. However, this potential underreporting would result in more conservative prevalence estimates of sexual intercourse than overestimates, and the methodology still provided important information not otherwise available. Active parental consent was required for this study, which led to a lower response rate than desired. Our response rate is similar, however, to other school-based studies, which have used active parental consent.^{34,35} Subsequently, a selection bias may be present as youth who did not return a consent form may be engaging in sexual behavior. The result is that the prevalence estimates in our study would be underestimated. Finally, all schools were recruited from a single school district, which limits external generalization to other urban middle school youth.

CONCLUSIONS

These findings indicate that a small percentage of early adolescents are engaging in multiple sexual risk behaviors. Effective, culturally sensitive school-based HIV, STI, and pregnancy prevention programs are needed at the middle school level to help reduce problems related to early sexual activity. Furthermore, open discussion of the risks involved in all types of sexual intercourse by school nurses and health educators is recommended with this age group despite sensitivities surrounding sexual health issues.

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Figure 1. Relative Age of Initiation of Vaginal and Oral Sex and Vaginal and Anal Sex
Among students who had engaged in more than 1 type of intercourse
Numbers in the bars represent n of students.

Table 1
Sample Characteristics (N = 1279)

	n (%)
Gender	
Male	546 (42.7)
Female	733 (57.3)
Race/ethnicity	
African American	557 (43.6)
Hispanic	535 (41.8)
Other*	187 (14.6)
Age	
12 years	701 (54.8)
13-14 years	578 (45.2)
Family structure [†]	
Both parents	415 (32.4)
1 parent	461 (36.0)
Parent and stepparent or partner	155 (12.1)
Relative only	105 (8.2)
Nonrelative only	107 (8.4)
Precoital behaviors	
Have touched other's privates	360 (28.4)
Have had privates touched	299 (23.5)
Either behavior	424 (34.0)

* Self-identified as non-Hispanic multiracial, Caucasian, Asian, Pacific Islander, or missing data.

[†] Parent refers to either a biological or an adoptive parent; 36 students did not indicate any information regarding family structure.

Table 2
Prevalence of Vaginal, Oral, and Anal Sexual Intercourse by Gender, Race/Ethnicity, and Age

	No. (%) [†]						
	Gender			Race/Ethnicity			Age
	Total	Male	Female	Black	Hispanic	Other [‡]	
All	1279	546 (42.7)	733 (57.3)	447 (43.6)	535 (41.8)	187(14.6)	13-14 years 578 (45.2)
Vaginal sex							
Ever had vaginal sex	154 (12.0)	102 (18.7)**	52 (7.1)**	103 (18.5)**	26 (4.9)**	25 (13.4)**	60 (8.6)** 94 (16.3)**
Of those ever having vaginal sex							
Had in past 3 months	97 (64.7)	64 (64.0)	33 (66.0)	59 (59.0)*	23 (88.5)*	15 (62.5)*	60 (65.9)
Initiated ≤ 10 years	32 (20.8)	29 (28.4)**	3 (5.8)**	25 (24.3)	5 (19.2)	2 (8.0)	15 (25.0)
Lifetime partners							
1 only	57 (38.3)	28 (28.3)**	29 (58.0)**	39 (39.0)	8 (30.1)	10 (43.5)	24 (40.7)
2-3 only	53 (35.6)	38 (38.4)**	15 (30.0)**	34 (34.0)	11 (42.3)	8 (34.8)	17 (28.8)
4+	39 (26.2)	33 (33.3)**	6 (12.0)**	27 (27.0)	7 (26.9)	5 (21.7)	18 (30.5)
Of those having vaginal sex in past 3 months							
1+ times without a condom	28 (29.5)	16 (25.4)	12 (37.5)	14 (24.6)*	10 (43.5)*	4 (26.7)*	11 (30.6)
Oral sex							
Ever had oral sex	101 (7.9)	74 (13.6)**	27 (3.7)**	60 (10.8)**	24 (4.5)**	17 (9.1)**	46 (6.6)
Of those ever having oral sex							
Had in past 3 months	68 (68.7)	52 (71.2)	16 (61.5)	39 (65.0)	19 (82.6)	10 (62.5)	29 (64.4)
Initiated age ≤ 10 years	30 (29.7)	24 (32.4)	6 (22.2)	23 (38.3)	4 (16.7)	3 (17.7)	18 (39.1)
Lifetime partners							
1 only	33 (34.7)	19 (26.8)**	14 (58.3)**	21 (37.5)	7 (30.4)	5 (31.3)	11 (26.8)
2-3 only	38 (40.0)	30 (42.3)**	8 (33.3)**	20 (35.7)	11 (47.8)	7 (43.8)	16 (39.0)
4+	24 (25.3)	22 (31.0)**	2 (8.3)**	15 (26.8)	5 (21.7)	4 (25.0)	14 (34.2)
Anal sex							
Ever had anal sex	101 (7.9)	74 (13.6)**	27 (3.7)**	60 (10.8)**	24 (4.5)**	17 (9.1)**	46 (6.6)
Of those ever having anal sex							
Had in past 3 months	68 (68.7)	52 (71.2)	16 (61.5)	39 (65.0)	19 (82.6)	10 (62.5)	29 (64.4)
Initiated age ≤ 10 years	30 (29.7)	24 (32.4)	6 (22.2)	23 (38.3)	4 (16.7)	3 (17.7)	18 (39.1)
Lifetime partners							
1 only	33 (34.7)	19 (26.8)**	14 (58.3)**	21 (37.5)	7 (30.4)	5 (31.3)	11 (26.8)
2-3 only	38 (40.0)	30 (42.3)**	8 (33.3)**	20 (35.7)	11 (47.8)	7 (43.8)	16 (39.0)
4+	24 (25.3)	22 (31.0)**	2 (8.3)**	15 (26.8)	5 (21.7)	4 (25.0)	14 (34.2)

	No. (%) [†]						
	Gender			Race/Ethnicity			Age
	Total	Male	Female	Black	Hispanic	Other [‡]	
Ever had anal sex	83 (6.5)	59 (10.8)**	24 (3.3)**	49 (8.8)**	24 (4.5)**	10 (5.4)**	45 (7.8)
Of those ever having anal sex							
Had in past 3 months	51 (64.6)	34 (60.7)	17 (73.9)	25 (52.1)**	20 (90.9)**	6 (66.7)**	27 (64.3)
Initiated ≤ 10 years	20 (24.1)	20 (33.9)**	0 (0.0)**	16 (32.7)	2 (8.3)	2 (20.0)	8 (17.8)
Lifetime partners							
1 only	37 (46.3)	23 (40.4)	14 (60.9)	20 (41.7)	12 (52.2)	5 (55.6)	22 (51.2)
2-3 only	24 (30.0)	18 (31.6)	6 (26.1)	16 (33.3)	6 (26.1)	2 (22.2)	12 (27.9)
4+	19 (23.8)	16 (28.1)	3 (13.0)	12 (25.0)	5 (21.7)	2 (22.2)	9 (20.9)
Of those having anal sex in past 3 months							
1+ times without a condom	19 (38.0)	13 (39.4)	6 (35.3)	10 (41.7)*	8 (40.0)*	1 (16.7)*	9 (33.3)

*
p ≤ .05**
p ≤ .01.[†] N's vary slightly for some variables due to missing data; percentages are calculated as (positive responses)/(total responses).[‡] Self-identified as non-Hispanic multiracial, Caucasian, Asian, Pacific Islander, or missing data.

Table 3
Adjusted Odds Ratios (OR) for Lifetime Engagement in Vaginal, Oral, and Anal Intercourse
(N = 1279)*

Variable (Referent)	OR	95% Confidence Interval	P
Vaginal sex			
Gender (female)			
Male	3.1	2.12-4.44	.000
Race/ethnicity (Hispanic)			
Black	4.2	2.57-6.63	.000
Other [†]	3.1	1.72-5.67	.000
Age (12 years)			
13-14 years	1.8	1.27-2.62	.001
Family structure (both parents)			
1 parent	1.7	1.03-2.92	.036
Parent and stepparent/partner	2.1	1.13-4.08	.020
Other [‡]	2.1	1.18-3.62	.011
Oral sex			
Gender (female)			
Male	4.3	2.73-6.94	.000
Race/ethnicity (Hispanic)			
Black	2.5	1.48-4.17	.001
Other [†]	2.3	1.20-4.56	.013
Age (12 years)			
13-14 years	1.3	0.84-1.96	.251
Family structure (both parents)			
1 parent	1.3	0.73-2.45	.344
Parent and stepparent/partner	3.0	1.54-6.01	.001
Other [‡]	1.6	0.82-3.01	.176
Anal sex			
Gender (female)			
Male	3.5	2.13-5.75	.000
Race/ethnicity (Hispanic)			
Black	1.9	1.09-3.16	.024
Other [†]	1.2	0.57-2.67	.601
Age (12 years)			
13-14 years	1.2	0.79-1.99	.330
Family structure (both parents)			
1 parent	1.7	0.88-3.17	.119
Parent and stepparent/partner	1.6	0.69-3.69	.270
Other [‡]	1.8	0.90-3.58	.097

* Adjusted for gender, race/ethnicity, age, and family structure.

[†] Other refers to participants identifying as non-Hispanic multiracial, Caucasian, Asian, Pacific Islander, or missing data.

[‡] Other refers to living with relative, foster parent, or other nonrelative.