

Heterosexual Genital Sexual Activity Among Adolescent Males: 1988 and 1995

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Context: Researchers have paid little attention to adolescents' experience with genital sexual activity other than vaginal intercourse, even though oral and anal intercourse expose youth to the risk of sexually transmitted diseases.

Methods: Males aged 15–19 interviewed in 1988 and 1995 as part of the National Survey of Adolescent Males were asked questions about whether they had ever engaged in a series of genital sexual activities. These data were collected in a self-administered questionnaire that respondents completed at the end of the interview.

Results: In 1995, 55% of males aged 15–19 reported that they had ever engaged in vaginal intercourse, 53% that they had ever been masturbated by a female, 49% that they had ever received oral sex, 39% that they had ever given oral sex and 11% that they had ever engaged in anal sex. More than three-quarters of males who had had vaginal intercourse reported experience with masturbation or oral sex by a female. Moreover, one in five males who had never had vaginal intercourse reported having been masturbated by a female, and one in seven said they had received oral sex. Between 1988 and 1995, the proportion of males who reported having ever been masturbated by a female increased significantly, from 40% to 53%. There were less sizable shifts in the proportions who had received oral sex: Overall proportions were similar in both years, although levels more than doubled among black teenagers, an increase that brings them in line with levels of oral sex reported by white and Hispanic adolescent males in 1995.

Conclusions: Evidence from the National Survey of Adolescent Males showing that a substantial share of male teenagers engage in genital sexual activity beyond vaginal sexual intercourse underlines the importance of monitoring a broad spectrum of sexual behaviors among teenagers. More detailed data with larger samples of both males and females are needed to determine the frequency and timing of these behaviors. Measuring risk for STD infections among teenagers requires attention to all forms of genital sexual activity.

Family Planning Perspectives, 2000, 32(6):295–297 & 304

A recent spate of articles by journalists describing patterns of oral sex among middle school students in particular communities has heightened interest in understanding the prevalence of this and other nonvaginal sexual activities among young teenagers.* Much of the information about these activities has been collected in nonrepresentative surveys of teenagers, however.¹ Although the prevalence of vaginal sexual experience is closely monitored at the national level because of its attendant risks of unintended pregnancy and sexually transmitted disease (STD) transmission, little attention has been paid to

other, nonvaginal sexual activity, even though oral and anal intercourse also expose youth to STDs. To address this gap in information, we provide estimates of the incidence of various sexual practices from the 1995 National Survey of Adolescent Males. We also examine how reports of these practices have changed from 1988 to 1995.

Methodology

The National Survey of Adolescent Males conducted in-person interviews with nationally representative samples of males aged 15–19 living in households in the coterminous United States. The survey was first conducted in 1988 and was repeated in 1995. Both rounds oversampled black and Hispanic youth. Questions about whether the respondent had ever

engaged in a series of genital sexual activities were asked in a self-administered questionnaire that the respondents were to complete at the end of the interview. Questions about vaginal intercourse were also asked in the interviewer-administered portion of the survey; however, for consistency, all results presented in this research note are from responses to the self-administered questionnaire only.

The following questions were used to categorize the responses from each cohort for the various sexual activities. Respondents were asked to answer yes or no regarding whether they had ever engaged in any of these activities with a female.

•*Masturbation.* In 1988, this item read: "A girl touched my penis until I ejaculated or came." In 1995, the item read: "A female touched your penis until you ejaculated or 'came.'"

•*Received oral intercourse.* In 1988, this item consisted of two possible behaviors: "A girl put her mouth on my penis, but I did not come or ejaculate;" and "A girl put her mouth on my penis until I ejaculated or came." In 1995, the item read: "A female put her mouth on your penis (oral intercourse)."

•*Gave oral intercourse.* In 1988, this item read: "Put my mouth on a girl's sex organ." In 1995, the item read: "Put your mouth on a female's vagina (oral intercourse)."

•*Anal intercourse.* In 1988, this item was not asked. In 1995, the item read: "Put your penis in a female's rectum or butt (anal intercourse)."

•*Vaginal intercourse.* In 1988, this item consisted of two possible behaviors: "Put my penis in a girl's vagina but I did not come

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*A Lexis-Nexis of articles published since June 1999 uncovered 19 stories in newspapers around the United States and Canada.

Table 1. Percentage of never-married males aged 15–19 who report having ever engaged in various sexual activities, by experience with vaginal intercourse and by age and race or ethnicity, 1995

Characteristic	N	Masturbated by a female	Received oral sex from female	Gave oral sex to female	Had anal intercourse	Had vaginal intercourse
ALL RESPONDENTS						
Total	1,297	52.5	49.4	38.6	10.6	54.9
Age						
15–16	606	38.1	32.6	23.9	7.4	37.1
17–19	691	63.2	61.8	49.5	12.9	67.9
Race/ethnicity						
White	474	53.4	50.8	41.8	8.6	50.2
Black	360	52.1	47.1	20.5	15.9	77.6
Hispanic	426	48.2	43.6	36.8	15.9	57.9
EVER HAD VAGINAL SEX						
Total	765	77.8	77.4	60.8	18.5	na
Age						
15–16	275	70.4	67.3	48.2	19.4	na
17–19	490	80.8	81.5	65.9	18.1	na
Race/ethnicity						
White	228	83.6	84.6	70.5	16.5	na
Black	280	60.9	59.1	26.1	20.0	na
Hispanic	244	74.3	68.3	57.4	25.4	na
NEVER HAD VAGINAL SEX						
Total	526	21.7	15.4	11.7	0.9	na
Age						
15–16	328	19.0	12.1	9.6	0.4	na
17–19	198	25.6	20.1	14.8	1.7	na
Race/ethnicity						
White	244	22.8	16.7	12.8	0.6	na
Black	80	21.5	5.6	1.1	2.0	na
Hispanic	179	12.3	9.6	8.7	3.0	na

Notes: Data shown here are taken from responses to an audio computer-assisted self-interviewing survey instrument. na=not applicable.

or ejaculate;" and "Put my penis in a girl's vagina and I came or ejaculated." In 1995, the item read: "Put your penis in a female's vagina (vaginal intercourse)."

Thus, there were slight changes in the question wording from one round of the survey to the other. In particular, in the 1988 survey, the items measuring receptive oral intercourse and vaginal intercourse differentiated between whether ejaculation occurred. The 1995 survey did not make this distinction. For the 1988 cohort, we counted respondents as having engaged in either receptive oral sex or vaginal sex regardless of whether they reported ejaculation. In addition, the wording regarding other sexual activities also differed slightly between the two samples. Thus, when comparing responses in the two years, we cannot rule out the possibility that some or all of the differences may be due to the varied wording of the questions.

There also were differences in how the instrument was administered across the two survey rounds. The 1988 responses (N=1,880) were gathered from a self-administered paper questionnaire. In 1995, as part of an experiment to assess if and

how the survey method altered responses, respondents utilized either a self-administered paper questionnaire (N=356) or an audio computer-assisted self-interviewing survey instrument (N=1,297).

Analyses of the experimental data indicated that those who were randomly assigned to audio computer-assisted self-interviewing were more likely to report very sensitive behaviors than were those who completed the paper-and-pencil questions.² Additional analyses of the 1995 experimental data indicated that the survey methodology did affect responses to some of the questions examined in this research note. We determined that the 15- and 16-year-old males who said they never had had vaginal sex were more likely to report that they had been masturbated by a girl when the audio computer-assisted self-interviewing method was utilized than when the self-administered paper questionnaire was used.

Thus, in the subsequent analyses, we describe the prevalence of heterosexual genital activities in 1995 using data obtained using audio computer-assisted self-interviewing methodology only. To ex-

plore whether the proportion of youth engaging in these activities has risen since 1988, we compare responses obtained using the paper-and-pencil questionnaires in both years. We also limit our analyses to never-married males, because the 1988 survey only included this portion of the teenage male population.

All statistics reported here were calculated utilizing weights that adjust for sample selection and nonresponse bias. In addition, adjustments were applied to align the sample with 1995 Census Bureau population estimates. Estimates of significant change between 1988 and 1995 were calculated using a Student's t-test, with variances adjusted for the complex survey design.

Results

A majority of U.S. adolescent males report having engaged in genital sexual activities with females (Table 1). In 1995, 55% of males aged 15–19 reported that they had ever engaged in vaginal intercourse, 53% that they had ever been masturbated by a female, 49% that they had ever received oral sex, 39% that they had ever given oral sex and 11% that they had ever engaged in anal sex. (The proportion who had engaged in vaginal intercourse varies slightly from previously published statistics obtained in the interviewer-administered portion of the survey.)³

Among males who had had vaginal intercourse, more than three-quarters reported experience with masturbation or oral sex by a female (77–78%). Among those who had never had vaginal intercourse, 22% reported having been masturbated by a female and 15% reported having received oral sex. This rate of oral sex among males who had never had vaginal intercourse is somewhat higher than what has previously been reported.⁴

Table 2 provides a comprehensive picture of sexual activity among teenagers, by showing cumulative experience with a range of genital behaviors. While 55%

Table 2. Cumulative percentage of never-married males aged 15–19 who have ever participated in selected sexual activities, by type of activity, according to age

Activity	All	15	16	17–19
Vaginal sex	54.9	28.0	47.2	67.9
Plus anal sex	55.7	28.6	49.0	68.6
Plus oral sex				
Given	60.7	33.1	56.2	72.9
Received	63.6	37.1	58.6	75.6
Plus masturbation	67.1	43.7	62.0	78.0

Note: Data shown here are taken from responses to an audio-assisted self-interviewing survey instrument.

of male teenagers have had vaginal intercourse, 64% have had either vaginal, anal or oral intercourse, and 67% have engaged in some genital sexual activity. Thus, the level of overall experience of various sexual activities among teenage males is higher than the reported levels of vaginal sexual experience.

Among 15-year-old males, 28% have had vaginal intercourse, but 37% have had vaginal, anal or oral intercourse and 44% have participated in some genital sexual activity with a female. Among 16-year-olds, 47% have had vaginal intercourse, but 62% have had any experience of genital sexual activity. For 17–19-year-olds, the proportion who have experienced any genital sexual activity (78%) is considerably higher than the share (68%) who report having had vaginal intercourse.

A number of studies have reported that teenagers' rates of experience with vaginal intercourse have stabilized or declined since the late 1980s.⁵ While rates of vaginal sexual activity in adolescent males (as reported in the paper-and-pencil questionnaires) remained about the same in 1988 and 1995 (60–61%), experience with some nonvaginal sexual activity appears to have risen (Table 3).

Among all males aged 15–19, the proportion who reported having ever been masturbated by a female increased significantly, from 40% to 53%. Significant increases were also found among older teenagers, among white, black and Hispanic teenagers, and among males who reported having had vaginal intercourse. Although both younger and older teenagers who reported vaginal sexual experience showed increases, the magnitude of the change was much larger among younger than among older teenagers. There was also a rise in reports of this behavior among older male virgins.

Shifts in receptive oral sex were less substantial. Experience with having received oral sex was similar in both years, except among black teenagers, whose rates more than doubled (from 25% to 57%). However, this increase brings them more in line with the levels reported by white and Hispanic males in 1995 (50% and 45%, respectively). A chi-square test shows that rates of receptive oral sex differed significantly by race and ethnicity in 1988 ($\chi^2=34.6$), but not in 1995 ($\chi^2=3.4$). Other analyses show no change in most rates of experience with giving oral sex, except that black males reported an increase (not shown). (Changes in anal sexual activity could not be examined, as respondents were not questioned about this activity in 1988.)

Table 3. Percentage of never-married males aged 15–19 who report ever having engaged in various sexual activities, by year, according to experience with vaginal intercourse and to age and race or ethnicity, 1988 and 1995

Characteristic	N		Masturbated by a female		Received oral sex from female		Had vaginal intercourse	
	1988	1995	1988	1995	1988	1995	1988	1995
ALL RESPONDENTS								
Total	1,880	356	40.1	53.2**	43.7	49.5	60.0	60.9
Age								
15–16	781	156	25.3	33.3	30.2	32.6	41.1	42.7
17–19	1,098	200	49.5	65.6***	52.3	59.7	72.1	72.2
Race/ethnicity								
White	755	122	45.7	56.9*	48.5	50.3	56.6	55.3
Black	677	110	21.9	49.3***	25.1	56.9***	76.8	80.5
Hispanic	386	107	27.7	50.2**	37.6	45.4	64.6	67.2
EVER HAD VAGINAL SEX								
Total	1,213	221	59.6	77.5***	65.5	70.8	na	na
Age								
15–16	393	73	49.4	72.7**	61.0	62.2	na	na
17–19	820	148	63.3	79.4**	67.2	74.0	na	na
Race/ethnicity								
White	435	61	70.9	87.8**	76.1	73.2	na	na
Black	522	84	26.7	58.3***	30.3	69.3***	na	na
Hispanic	229	66	41.2	73.7***	55.9	66.2	na	na
NEVER HAD VAGINAL SEX								
Total	623	126	10.7	16.8	10.3	16.9	na	na
Age								
15–16	364	78	8.3	3.5	8.5	10.0	na	na
17–19	259	48	14.0	33.6*	12.8	25.5	na	na

*Difference is significant at $p < .05$. **Difference is significant at $p < .01$. ***Difference is significant at $p < .001$. Notes: Significance tests were based on Student's t-tests, with the null hypothesis: $\mu_{95} - \mu_{88} = 0$. Data shown here are taken from responses to the paper-and-pencil self-administered questionnaire only. Because of small numbers, breakdowns by race and ethnicity are not shown for respondents who never had sex. na=not applicable.

Discussion

As of 1995, two-thirds of males aged 15–19 had ever engaged in genital sexual activity with a female, a share that is substantially higher than the proportion typically defined as engaging in sexual risk behavior by virtue of their experience with vaginal sex. Two-fifths of 15-year-olds and three-fifths of 16-year-olds have had some genital sexual experience. After vaginal intercourse, masturbation by a female accounts for the next largest share of individuals participating in some type of genital sexual activity.

Reports of experience with masturbation have risen since 1988, but much of this increase is reported by males who have also experienced vaginal intercourse. While there is no evidence of a rise in this activity among males aged 15–19 who had not had vaginal intercourse, there is a significant increase when the sample is limited to 17–19-year-olds. There is no evidence of a rise in other genital sexual behaviors, except for the increase in oral sex among teenage black males.

The evidence that a substantial share of male teenagers engage in genital sexual activity beyond vaginal intercourse underlines the importance of monitoring a

broader spectrum of sexual behaviors among teenagers. Some of these behaviors, like oral and anal sex, pose health risks in terms of STD transmission. Masturbation is a safe behavior in terms of disease and pregnancy, but for young teenagers it may signal entry into situations that could be gateways to riskier behaviors. On the other hand, substituting this behavior for other forms of genital activity could reduce young people's exposure to disease and pregnancy. Increases in masturbation experience between 1988 and 1995 suggest its emergence as a possible substitution.

The National Survey of Adolescent Males data allow us to measure only whether respondents had ever engaged in the sexual behaviors discussed here, not how often or how recently they have done so. There are also limitations regarding sample size, sample composition and shifts in question wording. Clearly, more detailed data with larger samples of both males and females are needed to measure the frequency and timing of these behaviors. Measuring risk for STD infections among teenagers requires attention to all forms of genital sexual activity.

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