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Increases in Oral and Anal Sexual Exposure among Youth Attending STD Clinics in Baltimore, Maryland.

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Abstract

We examined reports of receptive oral or anal sex among clinic patients age 12−25 over time. Odds of reporting oral sex were approximately three times higher in 2004 than in 1994; odds of anal sex were twice as high. Providers should be aware of increased risk behavior among young people.

INTRODUCTION

Shifts in sexual behaviors over time influence the spread of sexually transmitted infections. Cross-sectional surveys in the United States suggest that patterns of oral and anal sexual activity among adolescents and young adults have been changing. Most surveys of adolescent sexual activity have not asked about oral sex in consistent ways, making trends in these behaviors difficult to assess over time. [1-4] National surveys of risk behaviors of school-aged youth do not ask about oral or anal sex.[5] Using information collected over the past decade, we describe trends in reported oral or anal sexual exposure among young people attending the public sexually transmitted disease (STD) clinics in Baltimore, Maryland.

METHODS

We analyzed medical record data from patients age 12−25 seen in the Baltimore City STD clinics. We selected the first record from each young patient seen in 1994 or in 2004, so that each patient appeared only once in the analysis. Nearly all patients reported vaginal intercourse, so only comparative data on oral and anal sex are reported here. Recent receptive oral or anal sexual exposure were defined as exposure of the throat or rectum to a partner's genitals within the preceding three months, and were recorded by trained STD clinicians. We used Pearson's chi-square test to assess bivariate associations, and multivariate logistic regression models stratified by gender to adjust for the effects of other covariates . To assess trends in receptive oral and anal exposure over time in comparable groups, we examined records of patients reporting exclusively heterosexual contact, as same-sex contact was reported infrequently in 1994. We also restricted analyses by race, as few patients in 1994 described their race as anything other than African-American or Caucasian. Age was dichotomized as <18 / ≥18. The Institutional Review Boards of the participating agencies approved this analysis.

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RESULTS

Of 11,262 patients, 56% were male, 13% were under age 18, 94% were African-American, and 96% reported exclusively heterosexual contact. Females, patients ≥18 years old, Caucasians, and patients reporting same-sex contact were more likely to be seen in 2004 (n=6,538) than in 1994 (n=4,724). The prevalence of receptive oral sexual exposure increased from 16% in 1994 to 37% in 2004 (Pearson's chi square p <.0001). The prevalence of anal sexual exposure increased from 2% to 6% (p <.0001).

After adjusting for age group and race, the odds of reporting oral sexual exposure increased significantly over time in young people reporting exclusively heterosexual contact (Table 1). Females had three times the odds of reporting receptive oral sex in 2004 than in 1994, while males had twice the odds [$aOR_{females}$ 3.27 (95% CI: 2.79 − 3.84), aOR_{males}: 2.24 (95% CI: 1.97 − 2.54)]. Young women in 2004 had almost two times the odds of reporting receptive anal sex compared with similar patients in 1994 [$aOR_{females}$ 1.85 (95% CI: 1.35 − 2.54)]. Including age as a continuous variable did not change the association with calendar time.

DISCUSSION

We have detected a significant increase over the past decade in the prevalence of receptive oral and anal sexual exposures among young people, similar to findings suggested by others: The National Survey of Adolescent Males and the National Survey of Family Growth (NSFG) show increasing trends in young males reporting having ever had oral sex.[2,3] A higher proportion of young females in NSFG report experiencing oral sex than report vaginal intercourse, suggesting a similar behavior shift in this group. Adolescents in other research settings perceive oral sex as having fewer health, social, and emotional risks than vaginal intercourse.[6] Increases in oral and anal sex have also been observed among adolescents who have made a pledge to remain abstinent until marriage.[7] Nearly all of the STD clinic patients in this study reported intercourse, so we can not make inferences about decisions to substitute oral or anal sex for intercourse.

Clinicians were trained on sexual risk behavior assessment according to a standard curriculum that did not change during this time, reducing the potential for bias due to changes in clinical practice. Self-reported data on sexual risk behaviors may still be subject to recall or social desirability biases. If the observed results reflect a change in *reporting* sexual risk behaviors, this may indicate changes in norms among young people rather than a real shift in the behaviors themselves. Finally, data from STD clinic patients may not be representative of the general population.

Oral sex, and to a lesser degree, anal sex, appear to be increasing among teenagers and young adults, the age group at highest risk for STD acquisition. Medical providers need to be aware of this shift in behavior and discuss the full range of sexual activities with youth in order to provide appropriate diagnostic services, especially as urine-based testing becomes more routine. Additionally, sexual health education needs to comprehensively address the possible health consequences of the range of sexual activities in order to meet the STD prevention needs of young people today.

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Table 1

Factors associated with oral and anal sexual behavior among young heterosexual patients 12−25 years old in 1994 and 2004

	Adjusted Odds Ratios 95% CI			
	Oral Sex		Anal Sex	
Characteristics	Females	Males	Females	Males
2004 vs. 1994	3.27 2.79 − 3.84	2.24 1.97 − 2.54	1.85 1.35 − 2.54	--
≥18 vs. <18	3.05 2.44 − 3.80	2.07 1.59 − 2.70	1.89 1.22 − 2.93	--
White vs. Black	2.80 2.10 − 3.75	1.96 1.39 − 2.76	2.35 1.49 − 3.60	--