

Attitudinal and Behavioral Differences between Youth Who Have Had Anal Sex and Those Who Have Not in Cape Town, South Africa

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Society for the Scientific Study of Sexuality: 2016 Annual Meeting
Phoenix, AZ – November 16-17, 2016

*Thank you for your interest in this presentation. Please note that analyses included herein are preliminary. More recent, finalized analyses may be available by contacting CIPHR.



Background: HIV/AIDS in South Africa

- An estimated 18.9% (6.5 million) people living with HIV/AIDS in South Africa (CIA, 2015)
- 7% of youth between ages 15-24 are HIV positive (Shisana, et al., 2012)
- Research aimed at understanding youth sexual risk has chiefly focused on:
 - Early sexual debut (Pettifor, et al., 2009)
 - Age differences between sexual partners (Pettifor, et al., 2004)
 - Multiple sexual partners (Shisana et al., 2009)
 - Condom use (Moyo, et al., 2008)
 - Drug and alcohol use (Simbayi, et al., 2005)
- To date, the role that anal sex may play in HIV incidence has been largely ignored



Background: Anal Sex in South Africa

- Transmission of HIV during anal is high: meta-analysis found unprotected anal sex increased risk of HIV transmission by 1.4 for both men who have sex with men and male-female anal intercourse (Baggaley, et al., 2010)
- South African males between 15-24 who reported anal intercourse were nearly twice as likely to have HIV (Lane et al., 2006)
- Potential reason for oversight in the literature may be due to assumption that HIV is spread through heterosexual sex (Shisana, et al., 2014) which is understood to be penile-vaginal sex
 - Assumption related to a cultural denial of existence of anal sex (Brody & Potterat, 2003)
- 5.3% and 5.5% sexually active 15-24 old males and females, respectively, had anal sex (Lane et al., 2006)



Current Study

This study addresses gaps in the literature by examining the anal sex experiences of secondary school students in Cape Town, South Africa. Specifically, we:

- Present age-specific frequencies of anal sex among secondary students in Cape Town, South Africa
- Examine the attitudinal and behavioral differences between youth who have engaged in anal sex and those who have not
- Differences are examined separately for males and females because of disproportionate rates of HIV for females



Methods

Participants

- Attended one of three partner schools in Langa, a low-income township in Cape Town
- All students Grade 8-11 who were 16 years or older were invited to voluntarily participate (Response rate = 93%)

Procedure

- Surveys completed via paper and pencil in absence of teachers and school administrators; names not collected on survey to ensure anonymity
- The survey was written in English, the official language of South Africa and language of instruction in high school
- The survey took an average of one hour to complete



Methods

Outcome Measures

- Anal Sex: "Have you ever had anal sex? We mean when a penis goes into an anus."
- Participants also asked about:
 - Oral sex (i.e., "Have you ever had oral sex? We mean stimulating the vagina or penis with the mouth or tongue")
 - Vaginal sex (i.e., "Have you ever had vaginal sex? We mean when a penis goes into a vagina.")



Measures

Attitudinal Indicators

- Information-Motivation-Behavior Skills (IMB) Model (Fisher & Fisher, 1992)
- HIV Information: 8 items; "The HIV virus is small enough to go through a condom"
- Motivation:
 - 1) attitudes towards HIV prevention acts ("For me, buying condoms during the next two months would be...")
 - 2) subjective norms regarding HIV prevention acts ("My boyfriend or girlfriend would advise me to use condoms every time if we have sex during the next two months")
 - 3) behavioral intentions for HIV prevention ("If I have sex during the next two months, I am planning to use condoms ever time")
- Behavioral Skills: 6 items "How hard or easy would it be for you to carry condoms with you"
- Beliefs About Abstinence: 4 items "People who don't have sex until they're older are very responsible"
- Perceived chances of getting HIV: below average, average, above average



Measures

Behavioral Indicators

- Condom use: "Generally, when you have vaginal or anal sex, how often do you use a condom"; ranging from never to always
- Dating violence: "has a boyfriend or girlfriend ever hit, slapped, or physically hurt you?" Perpetration assessed with a parallel question
- Sexual victimization and perpetration: five items *similar* to sexual violence Youth Risk Behavior Survey (eg. Have you ever had sex because you were too afraid to say "no"?). Parallel perpetration questions were asked



Data Analyses

- Data Cleaning**
 - All surveys entered by two independent research staff to ensure accuracy
 - Missing data imputed using best set regression through STATA (StataCorp, 2009)
 - Respondents required to have non-missing data for at least 80% of variables included in analyses (179 respondents removed)
- Lifetime prevalence of the three types of sexual behaviors stratified by sex and shown by age
- Three categories of youth were created: 1) no sexual experience, 2) engaged in vaginal anal/oral but not anal sex, 3) engaged in anal sex (including those who engaged in other types of sex)
- Differences in continuous scores compared across three groups (ANOVA), chi-square for categorical variables
- Differences quantified using adjusted multiple logistic regression

Results: Youth Characteristics

- n = 937 (63% females); age: M=17.50; SD=1.21
- 97.97% African race (<1% Coloured, White, Indian, Other)
- ~50% have parental education levels of secondary school or higher
- 28% said their family income was lower than the average family's
- 83% said religion is very important in their lives

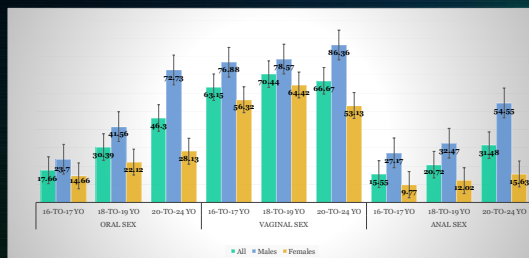


Results: Lifetime Sexual Behaviors

Sexual Behaviors N (%) ±	All (n = 937)	Males (n = 349)	Females (n = 588)	p value
No Sexual Behaviors	269 (28.71)	53 (15.19)	216 (36.73)	.00
Oral Sex	227 (24.23)	121 (34.67)	106 (18.03)	.00
Vaginal Sex	620 (66.17)	273 (78.22)	347 (59.01)	.00
Anal Sex	173 (18.46)	109 (31.23)	64 (10.88)	.00
Exclusive Sexual Behaviors				
Only Vaginal Intercourse	358 (38.21)	124 (35.53)	234 (39.80)	.19
Only Oral Sex	23 (2.45)	9 (2.58)	14 (2.38)	.85
Only Anal Sex	13 (1.39)	5 (1.43)	8 (1.36)	.93
Only Vaginal & Oral Sex	114 (12.17)	54 (15.47)	60 (10.20)	.02
Only Anal & Oral Sex	12 (1.28)	9 (2.58)	3 (.51)	.01
Only Vaginal & Anal Sex	70 (7.47)	46 (13.18)	24 (4.08)	.00
All Three Sexual Behaviors	78 (8.32)	49 (13.18)	29 (4.93)	.00



Results: Age-Specific Frequencies



Results: Anal Sex Among Males

Compared to sexually experienced male youth who have not had anal sex, those who have had anal sex are:

- Less likely to have positive views about abstinence (aOR = .90)
- More likely to have perpetrated dating violence (aOR=1.45)
- Less likely to use condom more than half the time or always (aOR=.24)
- More likely to have experienced all measured sexual violence victimization and perpetration:
 - Had sex for a gift/gave a gift for sex
 - Had sex after lied to/lied to someone for sex
 - Had sex after given alcohol or drugs/given someone alcohol or drugs
 - Had sex because afraid to say no/made someone afraid to say no
 - Had sex after physically forced, hurt, threatened/physically forced, hurt, or threatened someone

Multiple logistic regression models adjusted for age, family income, parental education levels

Results: Anal Sex Among Females

Compared to sexually experienced female youth who have not had anal sex, those who have had anal sex are:

- Less HIV information (aOR=.79)
- Less likely to have positive views about abstinence (aOR = .88)
- More likely to both been victimized (aOR=1.69) and perpetrated dating violence (aOR=2.40)
- Less likely to use condom more than half the time or always (aOR= .18)
- More likely to have experienced all measured sexual violence victimization and perpetration:
 - Had sex for a gift/gave a gift for sex
 - Had sex after lied to/lied to someone for sex
 - Had sex after given alcohol or drugs/given someone alcohol or drugs
 - Had sex because afraid to say no/made someone afraid to say no
 - Had sex after physically forced, hurt, threatened/physically forced, hurt, or threatened someone

Multiple logistic regression models adjusted for age, family income, parental education levels

Discussion

- Anal sex not that uncommon: almost one in three males and one in ten females have had anal sex
- It is associated with inconsistent condom use, involvement in sexual violence as perpetrator and as victim, and dating violence victimization and perpetration
- Discussions about healthy relationships and how to negotiate sexual/ dating relationships are critical
- Findings suggest anal sex is an important marker for other experiences associated with increased risk for HIV among South African youth

Discussion

- Reported rates of anal sex higher among males
 - Social desirability bias making it less likely for females to be honest
 - Males having sex with other males
- HIV prevention programs directed at males need to discuss anal sex directly
- Lack of difference in perceived HIV risk concerning; they're not aware they are putting themselves at risk
- Data suggest sexual education about anal sex would be useful at least as young as 16 years of age, and perhaps younger

Limitations

- Data from three purposefully selected high schools; generalizability to greater Cape Town, as well as other parts of South Africa is not known
- Data may not generalize to youth who are not enrolled in secondary schools
- The sex of partner was not assessed
- Sensitivity of the topic and stigma related to HIV/AIDS and sexual behaviors, especially anal sex, may have led some youth to not answer honestly (although the complete anonymity may have reduced this bias)

Conclusions

- Findings suggest greater research attention needs to be paid to anal sex and how it may be related to increased HIV risk among adolescents in South Africa
- Results should be replicated in additional, and ideally more representative, samples
- Further investigation of predictors of engaging in anal sex may be helpful in developing targeted HIV prevention programs
- To affect incidence of HIV among young people in South African, discussions with youth about anal sex are warranted

Acknowledgements

- We would like to thank our collaborators at CIPHR and University of Western Cape as well as the schools for their support of the research and the participants for their time taking the survey
- Project supported by grant number R03MH094298 from the National Institute of Mental Health. This content is solely the responsibility of the authors and does not represent the official views of the National Institute of Mental Health or the National Institute of Health
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