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## National cross sectional study of views on sexual violence and risk of HIV infection and AIDS among South African school pupils

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### Abstract

**Objective** To investigate the views of school pupils on sexual violence and on the risk of HIV infection and AIDS and their experiences of sexual violence.

**Design** National cross sectional study.

**Setting** 5162 classes in 1418 South African schools.

**Participants** 269 705 pupils aged 10-19 years in grades 6-11.

**Main outcome measure** Answers to questions about sexual violence and about the risk of HIV infection and AIDS.

**Results** Misconceptions about sexual violence were common among both sexes, but more females held views that would put them at high risk of HIV infection. One third of the respondents thought they might be HIV positive. This was associated with misconceptions about sexual violence and about the risk of HIV infection and AIDS. Around 11% of males and 4% of females claimed to have forced someone else to have sex; 66% of these males and 71% of these females had themselves been forced to have sex. A history of forced sex was a powerful determinant of views on sexual violence and risk of HIV infection. **Conclusions** The views of South African youth on sexual violence and on the risk of HIV infection and AIDS were compatible with acceptance of sexual coercion and "adaptive" attitudes to survival in a violent society. Views differed little between the sexes.

### Introduction

Several studies in South African youth have shown that they are affected by sexual violence and that there is a

high prevalence of misconceptions about sexual violence and about the risk of HIV infection and AIDS.<sup>1-9</sup> We investigated the views of South African school pupils towards sexual violence and towards the risk of HIV infection and AIDS.

### Methods

We based our sample on the South African 2001 census, stratifying the enumeration areas of each province into metropolitan, urban, or rural. We randomly drew sentinel enumeration areas proportional to the population in each stratum, and we matched schools to each area from a list provided by the education authorities. Over-sampling in three provinces was weighted to derive national indicators (see [bmj.com](http://bmj.com)).

Our questionnaire elicited views on and experiences of forced sex. We used the term "forced sex without consent," as the equivalent word for "rape" does not exist in some languages.

We used three or more of eight views on sexual abuse (see [bmj.com](http://bmj.com)) as a summary measure of misconceptions about sexual violence. We defined views that would put someone at high risk of HIV infection as believing that sex with a virgin can cure HIV infection or AIDS, condoms cannot protect against HIV, have no



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Factors associated with claim among South African youth that they had forced someone else to have sex

Factor	Males			Females		
	No (%) with risk factor	Crude odds ratio	Adjusted odds ratio (95% CI)*	No (%) with risk factor	Crude odds ratio	Adjusted odds ratio (95% CI)*
Been forced to have sex:						
Yes	9159/44 989 (20.4)	4.13	3.35 (3.32 to 3.48)	4428/39 750 (11.1)	7.03	5.30 (5.02 to 5.59)
No	4752/81 413 (5.8)			1788/102 116 (1.8)		
Age (years):						
15-19	9782/72 213 (13.6)	1.91	1.61 (1.55 to 1.68)	4509/71 175 (6.3)	2.76	2.29 (2.16 to 2.24)
10-14	4127/54 483 (7.6)			1699/71 049 (2.4)		
<b>Beliefs</b>						
One has to have sex to show love:						
Yes	8977/60 041 (15.0)	2.18	1.66 (1.60 to 1.72)	2417/32 899 (7.4)	2.20	1.57 (1.49 to 1.66)
No	5000/6756 (74.0)			3818/109 709 (3.5)		
Girls like sexually violent guys:						
Yes	5584/33 355 (16.7)	2.06	1.47 (1.42 to 1.53)	1485/17 301 (8.6)	2.38	1.58 (1.48 to 1.69)
No	8393/93 742 (9.0)			4750/125 307 (3.8)		
Girls enjoy rape:						
Yes	5751/40 858 (14.1)	1.56	1.15 (1.11 to 1.20)	2378/40 510 (5.9)	1.59	1.16 (1.09 to 1.22)
No	8226/86 239 (9.5)			3857/102 098 (3.8)		
Girls mean yes when they say no:						
Yes	9092/72 850 (12.5)	1.44	1.17 (1.12 to 1.21)	3625/70 785 (5.1)	1.43	1.13 (1.07 to 1.19)
No	4885/54 247 (9.0)			2610/71 823 (3.6)		
Unwanted touching is not sexual violence:						
Yes	7744/70 132 (11.0)	1.01	0.93 (0.90 to 0.97)	3734/80 704 (4.6)	1.15	1.02 (0.97 to 1.08)
No	6233/56 965 (10.9)			2501/61 904 (4.0)		
It is not rape to force sex on someone known:						
Yes	8295/79 251 (10.5)	0.87	0.85 (0.82 to 0.88)	3949/90 874 (4.4)	0.99	0.92 (0.87 to 0.97)
No	5682/47 856 (11.9)			2286/51 734 (4.4)		

\*Simultaneous stratification by other factors shown.

intention of having an HIV test, have no intention of telling family if HIV positive, and intend to spread HIV if positive. We analysed risk with the Mantel-Haenszel test.<sup>10 11</sup>

## Results

Between September and November 2002 we invited 5162 classes in 1418 South African schools to take part in our study. Overall, 283 576 young people agreed to participate. We excluded pupils aged over 20 years, leaving 269 705 participants (average age 14.8 years). The questionnaire was returned by all participants. The non-response rate to individual questions was between 0% and 4.3% (see *bmj.com*).

Males were more likely than females to have misconceptions about sexual violence (see *bmj.com*). The younger respondents (10-14 years) were more likely than the older ones (15-19 years) to believe that sexual violence does not include touching, that if you know someone, forcing sex is not sexual violence, and that girls have no right to refuse sex with their boyfriends. Respondents who were male or lived in a rural area were more likely to express three or more of the eight views (see *bmj.com*).

### Knowledge, views, and beliefs about risk of HIV infection

#### Condoms

Around half of respondents stated that condoms could prevent pregnancy or that they can prevent sexually transmitted diseases, and around a third thought that they can help prevent HIV infection. In urban areas, younger females were significantly less likely than older females to believe that condoms could prevent

the spread of HIV and AIDS (odds ratio 0.71, 95% confidence interval 0.70 to 0.73).

#### HIV test

Around 60% of respondents intended to have an HIV test. A gradient was seen between rural and urban or metropolitan or capital areas, with little difference between ages or sex (see *bmj.com*).

#### Talking about sex

In total, 34.0% (weighted value based on 108 284/269 705) of respondents reported that they never spoke to anyone about sex. When they did talk to someone it was associated with the intention of being tested for HIV (odds ratio 1.34, 95% confidence interval 1.32 to 1.37). Overall, 15.7% (19 720/124 120) of males and 14.4% (20 303/141 184) of females said they would not tell their family if they were HIV positive (see *bmj.com*).

#### High risk behaviour

Overall, 15.8% (42 658/269 704) of respondents said they would have unprotected sex and 15.7% (weighted value based on 41 904/266 903) said they would spread the infection intentionally. These views were expressed most by older (15-19 years) males from rural areas.

#### Virgin myth

The belief that sex with a virgin could cure HIV infection or AIDS was more common in youth from rural areas. Those respondents who had learnt from school about the risk of HIV infection were significantly less likely to believe this myth (odds ratio 0.84, 0.82 to 0.87).

### Links between sexual violence and risk of HIV infection

Overall, 8.6% (weighted value based on 27 118/269 705) of respondents said they had been forced to

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**What is already known on this topic**

Several studies report a high incidence of sexual abuse among South African youth

**What this study adds**

A history of sexual abuse distorts perceptions about sexual violence and the risk of HIV infection

South African youth of both sexes have a high prevalence of misconceptions about sexual violence and about the risk of HIV infection

Most of the youth who forced someone else to have sex had themselves been forced to have sex

have sex in the past year. Younger males were more likely to report this than younger females. In the older age group, more females than males reported having been forced to have sex in the past year.

Respondents of either sex who had been abused in the past year were more likely to have misconceptions about sexual violence and about the risk of HIV infection and AIDS. Sexually abused youth were more likely to believe they were HIV positive (odds ratio 1.9, 1.85 to 1.92). Respondents who had been sexually abused in the past year were more likely to have no intention of taking an HIV test, more likely to say they would not inform their family if they were HIV positive, and more likely to believe that sex with a virgin could cure HIV infection or AIDS (see [bmj.com](http://bmj.com)). Youth who had been forced to have sex were more likely to say that they would intentionally spread HIV (odds ratio 2.39, 2.34 to 2.44; table). This attitude did not differ between the sexes.

A third (weighted value based on 88 932/268 622) of respondents thought that they were HIV positive. This response was more common in youth from rural areas. Those respondents who had never had sex (25.8%; 34 987/135 708) still feared they might be HIV positive. They were also more likely to say they would spread the infection if they were HIV positive and were more likely to believe the myth about virgins (see [bmj.com](http://bmj.com)).

**Attitudes associated with sexual abuse perpetrated by youth**

No less than 65.8% (9159/13 911) of males and 71.2% (4428/6216) of females who admitted to forcing someone else to have sex had themselves been forced to have sex. The influence of forced sex was especially pronounced on females (odds ratio 7.0, 6.7 to 7.4).

**Discussion**

South African school pupils seem to have internalised their risk of sexual abuse into misconceptions about sexual violence and about the risk of HIV infection and AIDS. Participants who claimed to have been forced to have sex were more likely to say they had forced someone else to have sex and were more likely to have views that would put them at high risk of HIV infection.

Our questionnaire was provided in nine languages and was completed by respondents in the best achievable conditions for anonymity. We have no way of knowing how many pupils exaggerated their responses

or were inhibited by the proximity of peers in crowded classrooms. Although we obtained high response rates, the brevity of our survey did not allow for detailed responses.

Our survey reflects the situation of school pupils only. Youth absent from school at the time of the survey may have been at higher risk. The extent of sexual abuse among females may be underestimated by those who had to leave school as a result of pregnancy due to sexual abuse.

The apparent expectation of sexual coercion among the youth and the associated adaptive attitudes contribute to a culture of sexual violence. Males and females were affected similarly. The classroom setting seemed to be the only source of education consistently associated with fewer misconceptions. One in three youth believed they could be HIV positive. One in four of these had not even had sex, an indicator of ignorance of the mechanism of HIV infection. This failure of education about the risk of HIV infection comes at an important cost: youth who believed they were HIV positive had misconceptions about sexual violence and about the risk of HIV infection similar to those who had forced someone else to have sex.

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