



## STUDENT PAPER

## Sexual risk behaviours are influenced by knowing someone with HIV/AIDS

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Behavioural risk reduction interventions are a central part of continuing efforts to stem the spread of the HIV epidemic. A range of interventions have been developed and tested in different populations within South Africa. These seek to lower individual risk of HIV infection by discouraging sexual relations with multiple partners and increasing levels of condom use. Many interventions to date have met with mixed success, and understanding the determinants of high-risk sexual behaviour remains a major concern in addressing HIV/AIDS.<sup>1</sup>

Several studies from other parts of sub-Saharan Africa have suggested that knowing someone with HIV/AIDS may be an important predictor of decreased risk behaviour. One pooled analysis<sup>2</sup> found that adult men in Kenya, Zambia and Uganda were more likely to reduce their risk behaviours if they knew someone who had HIV/AIDS. Similar results have been reported in a population-based study<sup>3</sup> of women in rural Zimbabwe. However, one previous study from South Africa<sup>4</sup> using data from the 1998 Demographic and Health Survey (DHS) found that there was no association between knowing someone with HIV and levels of condom use. Given that the links between knowing someone with HIV and risk behaviours have important implications for HIV prevention efforts, we investigated this association in a survey of individuals attending a public sector health facility in Khayelitsha, near Cape Town.

### What we did

We conducted a cross-sectional survey at a community health centre during July 2002. The study population comprised consecutive men and women attending the clinic for any reason (including accompanying another person seeking care). In order to be eligible for the survey, individuals had to be over the age of 15 years and be willing to give verbal informed consent after reading a study information sheet. Interviews

lasted 20 minutes and were conducted in a private area in the clinic reception. To help reduce reporting biases, male interviewers approached male participants and female interviewers approached female participants. Data were analysed using the statistical programme Stata 7.0 (College Station, USA). Student's *t*-tests were used to compare means, chi-square tests were used to compare proportions (replaced by Fisher's exact tests in the case of sparse data), and logistical regression was used to examine associations after multiple statistical adjustments.

### What we found

Of the 139 people interviewed, slightly more than half were female ( $N = 79$ , 57%), and the median age was 26 years (range 15 - 62 years). One-third ( $N = 50$ ) were employed and the majority were at the clinic either because they were seeking primary care curative services, or because they were accompanying another person ( $N = 46$ , 33% and  $N = 43$ , 31% respectively). Most of those interviewed were sexually active, with 95% ( $N = 132$ ) reporting ever having had sex; 83% of those who were sexually active ( $N = 115$ ) reported having had sex in the month before the interview. Among sexually active participants, 16% ( $N = 22$ ) reported more than one sexual partner in the previous month, and 76% ( $N = 105$ ) reported last having sex with a casual partner or boyfriend/girlfriend. Forty-one per cent ( $N = 57$ ) of participants reported using a condom at last sexual intercourse before being interviewed.

Slightly more than half of those interviewed (53%,  $N = 73$ ) reported knowing someone who was infected with HIV/AIDS. Knowing someone who has HIV was associated with increased level of education, but associations with younger age and female gender were not statistically significant (Table I). Multiple sexual partners in the previous month, and having sex with a casual partner, were also less common among participants who reported knowing someone with HIV, but these associations were not statistically significant. In addition, 53% of individuals who knew someone with HIV reported condom use at the last sexual contact before the study, compared with only 32% of those who did not know someone with HIV ( $p = 0.01$ ). This association persisted after adjusting for participant age, education, gender, employment and number of sexual partners (adjusted odds ratio 2.28, 95% confidence interval (CI): 1.06 - 4.92).

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**Table I. Bivariate associations between knowing someone with HIV/AIDS and participant demographic and sexual behaviour characteristics in a sample of individuals attending a community health centre in Khayelitsha, Cape Town**

Characteristic	Individuals who know someone with HIV/AIDS (N = 73)	Individuals who do not know someone with HIV/AIDS (N = 66)	p-value*
Age in years (mean)	27.1	29.8	0.09
Number of years education (mean)	11.0	9.1	0.001
Female gender (N (%))	46 (63)	33 (50)	0.12
Currently employed (N (%))	24 (33)	20 (30)	0.74
Number of sexual partners in previous month (mean)	0.97	1.03	0.65
Last sexual contact with a casual partner (N (%))	2 (3)	6 (10)	0.15
Condom use at last sexual contact (N (%))	37 (53)	20 (32)	0.01

\* P-values are from Student's *t*-tests (for means) or chi-square tests (for proportions); because of sparse data, *p*-values for last sexual contact with a casual partner were calculated using Fisher's exact test.

## Conclusions

These data suggest that levels of condom use in this setting may be increased among individuals who know someone living with HIV. This finding is in keeping with the results of research from several other countries, but conflicts with an analysis of the 1998 South African DHS data<sup>4</sup> which found that only 17% of those interviewed knew someone with HIV/AIDS, and that there was no independent association with condom use at last sex. These differences may in part be attributed to the extent of the HIV/AIDS epidemic at the time of research as the number of individuals with AIDS, and AIDS-related mortality, have increased substantially since that time, in turn increasing the visibility of HIV/AIDS within communities.<sup>2,4</sup>

Like all research into sexual behaviour, our measures of condom use and sexual partnership may be subject to reporting error owing to participant sensitivity. However it is unlikely that such mismeasurement would be associated with reporting knowing someone who has HIV. In addition, because this is a facility-based survey from a single community, our results may not be generalisable to other settings. In particular, the availability of antiretroviral therapy (ART) in Khayelitsha since 2000 may have increased the visibility of HIV-infected persons and have enhanced the impact of HIV prevention activities in the area.<sup>5</sup> While the link between availability of ART and improved HIV prevention is still largely hypothetical, this possibility deserves close attention in future research.<sup>6</sup>

The link between knowing someone with HIV/AIDS and sexual risk behaviour has important implications for HIV prevention. It is likely that the increased visibility of individuals with HIV/AIDS within communities, coupled with reduced stigmatisation of the disease, may play an important role in facilitating prevention efforts. Many studies have found that individual knowledge of how to prevent HIV correlates poorly with safe sex behaviour, and it is plausible that knowing someone with HIV/AIDS is an important co-factor in changing high-risk practices.<sup>1</sup> Given the challenges encountered by behaviour change interventions in South Africa to date, this possibility requires further attention.

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