Which teachers talk about sex? Psycho-social determinants of educator engagement with high school learners on HIV/AIDS and sexual practices

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Abstract

As a result of the call for educators to provide HIV prevention and education to learners, this study sought to investigate those individual and psycho-social factors associated with high educator-learner interactions around the subject of HIV and sexuality. This study found that younger educators and educators in lower job categories interacted with learners on issues relating to HIV and sexuality far more frequently than their older colleagues. Further, favourable educator-learner interactions were associated with factors such as: a good level of HIV/AIDS knowledge, personal experience with HIV/AIDS and low stigmatizing attitudes towards the disease. Whilst there is evidence of a high number of educator-learner interactions on issues related to HIV/AIDS and sexuality, of concern, is the perceived lack of HIV/AIDS educational and training support for educators by the Department of Education. Compounding this is the relatively high degree of sexual risk behavior reported amongst younger educators as compared to their older counterparts, which undermines their credibility as HIV prevention educators. These findings amplify the call for formal training to be provided to educators to ensure that they are equipped to adequately provide HIV education and sexual life skills training to the learners with whom they interact.

Introduction

In the past decade in South Africa, the role of educators and schools in the fight against HIV/AIDS has expanded. This shift has occurred in response to a number of policies that emphasised that school and educators are well situated to provide HIV prevention and education to learners (Hoadley, 2007; The World Bank, 2002). Whilst many educators recognize this role, many are still unwilling to address issues relating to HIV/AIDS and sexuality with their learners (Mannah, 2002; Wood and Webb, 2008). In spite of some educators'

reluctance to interact with learners about these issues, research continues to highlight the desire of learners to receive HIV prevention and sex education through school-based programmes (Malambo, 2002; Mannah, 2002). In light of the above, this study sought to investigate the individual and psycho-social factors associated with educators interacting with learners on HIV/AIDS and sexual practice issues in South Africa.

In 1996, the National policy on HIV/AIDS for learners and educators in public schools in South Africa made HIV/AIDS education a mandatory component of the curriculum for learners (Department of Education, 1999). Hoadley (2007) has highlighted three further policy documents that have been instrumental in expanding the role of educators and schools in recent years, namely the Education White Paper 6 (Department of Health, 2001), the Implementation Plan for Tirisano, January 2000–December 2004 (Department of Education, 2003 in Hoadley, 2007), and the Norms and Standards for Educators (Department of Education, 2000). The Implementation Plan for Tirisano was responsible for making HIV/AIDS an important priority of the education system, whilst the Norms and Standards for Educators ensured that the role of educators in the fight against HIV/AIDS included a 'community, citizenship, and pastoral role' (Department of Education, 2000; Hoadley, 2007).

With the expansion of their mandate in recent years, schools have come to be known as nodes of care and support for children (Giese, Meintjes and Monson, 2005). Researchers have argued that schools must assume responsibility for equipping learners with the necessary knowledge, skills, and values that will decrease their likelihood of acquiring or transmitting HIV. HIV prevention education in schools is pivotal to overcoming the HIV/AIDS epidemic in South Africa. In Kelly's view (2004, p.39), "the only protection available to society lies with the social vaccine of education". A number of factors support the role of schools in this regard. Schools are able to reach approximately 12 million children on a daily basis and provide a place in which the well-being of children is monitored (Giese*, et al.*, 2005). Schools can deliver HIV prevention efforts to an age group that is largely uninfected, but most at risk of contracting HIV (The World Bank, 2002). In South Africa, the 15 to 24-age group was found to have an HIV prevalence of 8.7% in a national survey conducted in 2008 (Human Sciences Research Council, 2009). The survey also reported that 8.5% of youth within this age group had engaged in sexual intercourse before reaching 15 years. In addition to the school setting, educators in many communities are highly regarded and influential members of whom many adults and children may seek advice

(Blair, 2001; Mannah, 2002). Accordingly, "educators are not only the mentors of academic life but of social life. They are the people who have values and can impart them" (Dube, 2001 cited in Blair, 2001, p.14). In spite of this, many educators have failed to uphold their responsibility as role models in recent years and have been accused of engaging in gross acts of misconduct with learners such as molestation (*Saturday Star*, 22 August 2009), sexual assault (Dimbaza, 5 August 2009), physical assault, and rape (*Star*, 28 August 2009).

Research on educators' knowledge and comfort in teaching learners about HIV/AIDS and sexuality has revealed mixed results. Studies have reported that educators lack adequate knowledge and the necessary skills to educate learners about these issues (Clarke, 2008; Mannah, 2002; McGinty and Mundy, 2008). Mannah (2002) has argued that many South African educators lack the emotional resources required to deal with these issues, and cope with low educator to learner ratios. Other studies conducted in sub-Saharan Africa and North America, however, have found a moderate to good level of HIV/AIDS knowledge amongst educators (Dawson, Chunis, Smith, and Carboni, 2001; Oshi and Nakalema, 2005; Peltzer and Promtussananon, 2003). Furthermore, the fact that learners are eager to receive information about HIV/AIDS and sexuality from them, reinforces the important role of educators (Jacob, Shaw, Morisky, Hite and Nsubuga, 2007; Malambo, 2002; Mannah, 2002).

Research has demonstrated that both personal and contextual factors can play a role in either undermining or facilitating effective educator-learners interactions about HIV/AIDS and sexuality. For instance, a lack of knowledge about HIV/AIDS and lack of training can make educators reluctant to engage in HIV/AIDS and sex education with their students (Kachingwe, Norr, Kapanda, Norr, Mbweza and Magai, 2005; Malambo, 2002; Mannah, 2002; Oshi and Nakalema, 2005). Educators are often reluctant to assume roles as 'prevention leaders' in their schools or communities because they themselves engage in risky sexual behaviour (Mannah, 2002; Oshi and Nakalema, 2005). Bhana (2008) has also drawn attention to the influence of the discourse of 'childhood innocence' and how this can regulate the way in which educators discuss information about sex with primary school children.

In contrast, research has shown that educators who are willing to share information about HIV/AIDS and sexuality with their learners are more likely to have good knowledge of HIV/AIDS, confidence in their ability to teach

about HIV/AIDS, and positive attitudes towards sex and moral issues (Lin and Wilson, 1998). Prior training and experience in teaching about HIV/AIDS and sexuality has been shown to be significantly associated with higher levels of instructional confidence and comfort in discussing such topics amongst Belizean educators (Lohmann, Tam, Hopman and Woebster, in press). Amongst educators in Mozambique, Visser (2004) found that educators of a younger age, who knew someone who was sick with or who had died of AIDS-related illnesses, who had a good knowledge of HIV/AIDS, who consistently used a condom in sexual interactions, and who had a high perception of their personal risk of contracting HIV, were more likely to have communicated about HIV/AIDS with their learners or fellow community members. Likewise, in a sample of high school educators in South Africa, factors such as previous training, self-efficacy, student centeredness, beliefs about controllability and the outcome of education, and personal responsibility were associated with having implemented HIV/AIDS education with learners. (Matthews, Boon, Flisher and Schaalma, 2006).

In light of the above, this study specifically addressed the concerns voiced by Peltzer and Promtussananon (2003) and Visser (2004) about the lack of research on the psycho-social factors associated with South African educators' interactions with learners in regard to HIV/AIDS and sexuality. More specifically, a cross sectional survey of knowledge, attitudes, sexual practices and sexual risk behaviour was conducted amongst educators in two Districts within the Orange Free State. Furthermore, as part of this survey, educators were questioned on their interactions with learners on issues relating to HIV/AIDS and sexual practices. The study hypothesized a significant relationship between psycho-social factors related to perceptions of AIDS and (a) personal risk of contracting HIV and (b) educators' perceived interactions with learners on these issues.

Methods

Participants

Two districts within the South African province of the Orange Free State took part in the study. There were 48 schools within the two districts of which 34 agreed to participate. These schools were evenly distributed in urban and peri-urban areas. Of the 1 214 educators representing the 34 schools, a total of

1 074[1] were present to participate in the study. A total of 843 questionnaires were completed and captured, which represented a response rate of 79%.

Measuring instruments

Participants were required to complete a questionnaire booklet that consisted of five sections. Two sections comprising psychometric scales that measured the relevant constructs of interest and three sections consisted of survey questions. Section one related to information regarding the socio-demographic characteristics of the sample. It included eight questions that elicited information about participants' age, gender, job category, population classification, experience as an educator, family structure, and living arrangements. The second section of survey questions collected information about the sexual history of the sample using 11 questions that inquired about past and present sexual interactions, sexual partners, condom use, knowledge of HIV status, and STI treatment.

The third group of survey questions inquired about sources of communication and information about HIV/AIDS, sexually transmitted infections (STIs), and TB. It consisted of eight questions with varying response formats. Participants were required to rank their sources of HIV/AIDS, TB, and STI information and indicate how frequently they communicated about HIV/AIDS with different groupings of individuals. The ease with which information about HIV/AIDS was obtained and spoken about was assessed using a four-point likert scale that ranged from 'very easy' (=1) to 'impossible' (=4). Two questions asked participants where they would 'most likely seek' and 'prefer to seek' medical care for HIV/AIDS, STIs, and TB, with responses including medical doctor, hospital, community clinic, and 'I don't know'. In addition to the above survey questions, participants were asked a further two questions that elicited information about their susceptibility to HIV infection in the future and their perceived risk of having AIDS at present. Response options were coded on a four-point likert scale that ranged from 'probably' (=4) to 'definitely not' (=1).

The five psychometric scales that were used in this study measured HIV/AIDS knowledge, educators' perceived interactions with learners, stigma, perceived susceptibility, perceived severity, and perceived efficacy.

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1 Educators were absent at the time of the study as a result of illness, away on excursions or attending workshops.

Interactions with learners

This scale was designed to determine educators' interactions with learners on issues relating to HIV/AIDS and sexuality. Two questions assessed whether or not learners approached educators to discuss HIV/AIDS and sexuality and three questions elicited information about the level of comfort educators experienced in such discussions. Educators' willingness to teach a child who was either HIV positive themselves or who had an HIV positive parent was assessed with two other questions. Educators' perceived competence in assisting learners with sexual issues or issues related to HIV/AIDS was measured with three questions. The scale consisted of 10 questions to which participants could respond either 'yes' (=3), 'unsure' (=2), or 'no' (=1). The scale demonstrated an internal consistency figure of .71 in the study. Participants' responses achieved a mean value of 27.01 and a standard deviation of 3.40 (Min = 10, Max = 30).

Perceived susceptibility

This scale was used to assess participants' perceived susceptibility to contracting HIV. It was adapted from a scale developed by DeHart and Birkimer (1997). It consisted of three questions to which participants could respond on a four-point likert scale that ranged from 'strongly agree' (=4) to 'strongly disagree' (=1). The scale included questions such as, 'It is likely that I will get HIV', and 'I am at risk of getting HIV'. In the current study it demonstrated an internal consistency score of .71, with a mean value of 7.75 and a standard deviation of 2.28 (Min = 3, Max = 12).

HIV/AIDS knowledge

Participants' level of HIV/AIDS knowledge was assessed using 25 questions which included questions relating to HIV prevention, HIV transmission, HIV/AIDS treatment, and general HIV/AIDS knowledge. The response format ranged from 'agree' (=3) to 'disagree' (=1). The mean value for the scale was 63.39, with a standard deviation of 4.78 (Min = 25, Max = 75). This scale was developed by the researchers for the current study and demonstrated a low internal consistency value of .56.

Perceived efficacy

This scale consisted of seven items, three which assessed the perceived

efficacy of condom use and abstinence in preventing HIV infection and four which measured the perceived self-efficacy of participants to reduce their risk of HIV infection. The scale was developed by the researchers and included statements such as, 'Using condoms is effective in preventing the AIDS virus', and 'I am able to abstain from sex to prevent getting the AIDS virus'. Response options were coded on a four-point likert scale that ranged from 'strongly agree' (=4) to 'strongly disagree' (=1). Responses to this scale achieved a mean value of 23.32 and a standard deviation of 4.78 (Min = 7, Max = 28). An internal consistency value of .73 was recorded for this scale.

Perceived severity

This scale measured participants' perceptions about the severity of the consequences of HIV/AIDS and STIs for themselves and the country. It was developed by the researchers for the current study. The scale consisted of three statements to which participants had to indicate their level of agreement. Response options ranged from 'strongly agree' (=4) to 'strongly disagree' (=1). Statements included, 'I believe that getting an STI is extremely harmful' and 'AIDS is a problem within our society'. A mean value of 3.48 and standard deviation of 1.68 were found amongst the sample (Min = 3, Max = 12). The scale demonstrated a moderate internal consistency figure of .61.

Stigma

The Stigma scale measured participants' level of stigmatising attitudes towards HIV positive people using nine questions to which participants could indicate their level of agreement on a four-point likert scale developed by the researchers. Response options ranged from 'strongly agree' (=1) to 'strongly disagree' (=4). The Stigma scale elicited information about participants' perceptions of whether HIV positive learners should be discriminated against, and whether they should be blamed for contracting HIV (e.g. 'A person with HIV deserves it'). Participants' responses achieved a mean value of 15.97, with a standard deviation of 4.24 (Min = 9, Max = 36). The scale demonstrated an internal consistency figure of .63.

Results

Demographic characteristics of sample

The majority of participants were between the ages of 31 and 50-years-old (78.9%). There was a relatively even split of males (45.6%) and females (54.4%) in the sample. Qualified educators comprised over half of the sample (63.9%), followed by heads of departments (11.2%), principals or deputy principals (8.3%), senior educators (7.1%), and student educators (2.7%). Student educators and qualified educators were significantly younger than senior educators, heads of department, principals and deputies, $F(6, 817) = 14.34$, $p < .00$. Most of the sample had more than three years experience as an educator (87.7%). Two thirds of participants had been employed at their current school for more than three years. The majority of participants were married with one spouse (60%), whom they lived with (53.4%). Nineteen percent of the sample were single and had never been married and 13.6% were either widowed or divorced/separated.

Table 1: Demographic characteristics of sample

Demographic variable	n	%
Age (years)		
<20	5	.6
21 – 30	72	8.6
31 – 40	368	44.0
41 – 50	292	34.9
51 – 60	84	10.0
60+	16	1.9
Gender		
Male	377	45.6
Female	451	54.4
Population class±		
Asian	1	.1
Black	802	96.4
Coloured	20	2.4
White	3	.6
Job category		
Student educator	22	2.7
Qualified educator	529	63.9
Senior educator	59	7.1
Head of department	93	11.2
Principal or deputy principal	69	8.3
Administrator	32	3.9
Other	24	2.9
Level of experience as an educator±		
Less than 1 year	28	3.6
More than 1 year but less than 3 years	62	8.0
Between 3 and 8 years	202	26.1
More than 8 years	477	61.6
Number of years at current school±		
Less than 1 year	111	13.7
More than 1 year but less than 3 years	142	17.5
Between 3 and 8 years	180	22.2
More than 8 years	376	46.4

± Missing values not reflected in the table

Sexual history of the sample

As illustrated in Table 2 the majority of participants reported that they had engaged in sexual intercourse (87.5%). In terms of the number of people with whom participants having had sexual intercourse with during their lives, the category 'five or more people' received the highest proportion of responses (32.9%). However, 32.1% of participants refused to answer this question, the majority being male (55.2%) and qualified educators (55.4%). The number of reported sexual partners significantly varied by gender, $\chi^2(4, N = 529) = 68.87$, $p<.001$, and job category, $\chi^2(24, N = 530) = 58.38$, $p<.001$, with student educators reporting significantly more sexual partners (M = 3.19, SD = 1.81) than qualified educators (M = 2.43, SD = 1.17), senior educators (M = 2.55, SD = 1.36), heads of department (M = 2.51, SD = 1.28), and principals and deputies (M = 2.45, SD = 1.05), $F(6, 790) = 2.40$, $p<.03$. In the past three months, 56.8% of participants reported having had sex with only one person, in comparison to 14.2% who indicated more than two sexual partners. A significant proportion of participants chose not to answer this question (13.8%). The majority of participants (73.2%) indicated that their spouse or a long term partner was the person they had sexual intercourse within the last three months. Slightly over half of participants reported knowing their HIV status (53.3%), while 36.5% did not know their HIV status. Participant responses for this question varied significantly between educators from different job categories, $\chi^2(12, N = 800) = 32.44$, $p<.01$. Of the participants who chose not to reveal if they knew their HIV status (10.2%), 45% were qualified educators and12.5% were senior educators. Qualified educators were also the largest proportion of educators who reported not knowing their HIV status (65.8%).

Table 2: Sexual history characteristics of sample

Questionnaire item	n	%
Have you ever had sexual intercourse?±		
Yes	725	87.5
No	24	2.9
I choose not to answer	72	8.7
During your life, with how many people have you had sexual intercourse?		
1 person	105	13.2
2 people	85	10.7
3 people	51	6.4
4 people	37	4.7
5 or more people	261	32.9
I choose not to answer	255	32.1
During the past 3 months, with how many people have you had sexual intercourse with?±		
None	116	14.3
1 person	461	56.8
2 people	76	9.4
3 or more people	39	4.8
I choose not to answer	112	13.8
With whom have you had sex with in the last 3 months?±		
Spouse	385	51.8
Long term partners	159	21.4
Sex worker	3	.4
Casual partner	42	5.7
Other	19	2.6
I choose not to answer	133	17.9
Do you know your HIV status?		
Yes	434	53.3
No	297	36.5
I choose not to answer	83	10.2
I have been treated for an STI infection during the past year.		
Yes	112	13.7
No	681	83.6
I choose not to answer	22	2.7
Before having sex I often:		
Consume alcohol	35	5.0
Take drugs	3	.5
Herbs	19	2.8

± Missing values not reflected in the table

Condom use practices amongst participants

Responses to the question, 'How often do you or your partner use a condom during sexual intercourse?' showed that 26.3% reported using a condom every time they had sex, whilst 32.2% never did so. Of the proportion of participants who chose not to answer this question, 51% were qualified educators and 11% were principals and deputy principals. Mean scores by job category indicated that student educators reported a lower level of condom use (M = 3.61, SD = 1.50) compared to qualified educators (M = 2.97, SD = 1.40), senior educators (M = 2.79, SD = 1.70), heads of department (M = 3.01, SD = 1.32), principals and deputies (M = 2.81, SD = 1.70), and administrators (M = 3.03, SD = 1.74), although this finding was not significant, $F(6, 741) = 1.87$, $p<.08$). Participants' responses to the question, "Whose decision was it to use a condom?" significantly varied by job category, $\chi^2(24, N = 735) = 49.75$, $p<.01$, with qualified educators being the largest proportion of educators who selected the option 'I choose not to respond'(54.5%). The proportion of participants who reported that condom use was their own decision (25.7%) was similar to the proportion who reported that it was a joint decision (26.8%), and the proportion who reported that they had never used a condom (22.7%). While 31.8% reported that they did use a condom the last time they had sexual intercourse, the majority of participants reported that they did not use a condom (54.0%). Responses to this question about condom use during last sexual encounter varied by job category, $\chi^2(18, N = 766) = 62.65$, $p<.05$ and age, $\chi^2(15, N = 771) = 26.93$, $p<.05$. Student educators were the job category that had the lowest proportion of participants who reported using a condom at last sexual encounter (10%), while 55% chose not to respond to this question. In terms of STIs, 13.7% of participants reported they had received treatment for an STI in the past 12 months. The proportion of educators receiving treatment for an STI in the past 12 months was slightly higher amongst qualified educators (14.8%).

Table 3: Condom use practices amongst participants

Questionnaire item	n	%
How often do you or your partner use a condom during sexual intercourse? ±		
Every time	200	26.3
Almost every time	69	9.1
Sometimes	142	18.7
Never	245	32.2
I choose not to answer	101	13.3
Whose decision was it to use a condom? ±		
Own decision	194	25.7
Sexual partner	44	5.8
Joint decision	202	26.8
Never used a condom	171	22.7
I choose not to answer	137	18.2
The last time you had sexual intercourse, did you or your partner use a condom? ±		
Yes	249	31.8
No	422	54.0
I choose not to answer	105	13.4
Have you ever used a femidon?		
Yes	60	7.8
No	611	79.2
I choose not to answer	100	13.0

± Missing values not reflected in the table

HIV/AIDS, TB and STD related information

Table 4 indicates that the 79.7% of participants reported it very easy to obtain information about HIV/AIDS and 52.8% found it very easy to talk about HIV/AIDS. Bivariate analysis indicated that the majority (70.0%) of participants who found it very easy to discuss issues around HIV/AIDS also reported knowing someone who was HIV positive, $\chi^2(6, N = 792) = 15.33$, $p<.05$. Furthermore, the ease with which information about HIV/AIDS was discussed with others also varied across gender, $\chi^2(3, N = 805) = 9.54$, $p<.05$, and job category, $\chi^2(18, N = 805) = 33.90$, $p<.05$, with females (53.5%) and qualified educators (64.9%) the largest proportion of educators reporting this. In addition, the majority of participants reported knowing someone who is HIV positive (65.9%).

Table 4: HIV/AIDS, TB, and STD related information and health-seeking behaviour

Questionnaire item	n	%
How easy is it to get information on AIDS?		
Very easy	648	79.7
Quite easy	138	17.0
Quite difficult	21	2.6
Impossible	6	.7
How easy is it to talk about AIDS?		
Very easy	432	52.8
Quite easy	180	22.0
Quite difficult	176	21.5
Impossible	30	3.7
Where would you most likely seek medical care for AIDS, STDs, and/or TB? [±]		
Medical doctor	489	69.8
Hospital	49	7.0
Community clinic	120	17.1
Don't know	41	5.8
Where would you prefer to seek medical care for AIDS, STDs, and/or TB?		
Medical doctor	545	74.7
Hospital	69	9.5
Community clinic	89	12.2
Don't know	27	3.6
Have you ever required treatment for TB?[±]		
Yes	127	15.7
No	652	80.8
I choose not to answer	27	3.3
Do you know anyone with HIV?[±]		
Yes	531	65.9
No	166	20.6
I choose not to answer	106	13.2

[±] Missing values not reflected in the table

Approximately three quarters of the sample (74.7%) either believed they would get HIV in the future or were uncertain of this. In response to the question, 'What are the chances I already have HIV?' thirty-three per cent believed they did not have HIV at present, with 35% unsure of this, whilst 13.3% believed that they probably were HIV positive.

Sources of information and interactions on HIV/AIDS

Table 5 provides information about the sources of HIV/AIDS information which participants utilised. Their primary source of information appeared to be TV (36.4%) followed by newspaper and magazines (21.9%), and health clinics (15.9%). Almost half of the sample (49.9%) talked about HIV/AIDS with their friends on a daily basis, which was followed by fellow workers (43.9%), learners (43.1%), and family members (40.6%).

Table 5: Sources of information on HIV/AIDS

Ranked sources of information on AIDS, TB and STDs±:	**1st**	**2nd**	**3rd**	**4th**	**5th**
Newspapers/magazines	33 (21.9%)	41 (27.7%)	19 (13.0%)	13 (9.5%)	12 (9.0%)
TV	55 (36.4%)	35 (23.6%)	30 (20.5%)	12 (8.8%)	6 (4.5%)
Health clinic	24 (25.9%)	27 (18.2%)	26 (17.8%)	18 (13.1%)	11 (8.3%)
Local doctor	8 (5.3%)	11 (7.4%)	17 (11.6%)	18 (13.1%)	14 (10.5%)
School	9 (6.0%)	4 (2.7%)	19 (13.0%)	10 (7.3%)	12 (9.0%)
Radio	18 (11.9%)	18 (12.2%)	14 (9.6%)	36 (26.3%)	19 (14.3%)
Posters	4 (2.6%)	8 (5.4%)	13 (8.9%)	16 (11.7%)	24 (18.0%)
Friends	–	2 (1.4%)	4 (2.7%)	9 (6.6%)	22 (16.5%)
Family	–	–	1 (1.4%)	5 (3.6%)	3 (2.3%)
Colleagues	–	2 (1.4%)	2 (1.4%)	–	10 (7.5%)
None/do not receive information	–	–	–	–	–
With who, and how often, do you talk about AIDS?±	At least once a day	At least once a week	At least once a month	At least on one occasion	Never
Friends	26.8 (49.9%)	91 (16.9%)	86 (16.0%)	61 (11.4%)	31 (5.8%)
Family	201 (40.6%)	83 (16.8%)	70 (14.1%)	86 (17.4%)	55 (11.1%)
Fellow workers	205 (43.9%)	77 (16.5%)	68 (14.6%)	69 (14.8%)	48 (10.3%)
Learners	208 (43.1%)	79 (16.4%)	84 (17.4%)	66 (13.7%)	46 (9.5%)
Employees at an AIDS NGO	72 (20.3%)	34 (9.6%)	64 (18.0%)	71 (20.0%)	114 (32.1%)
My medical doctor	115 (27.4%)	38 (9.0%)	94 (22.4%)	92 (21.9%)	80 (19.0%)
Other	49 (27.4%)	22 (12.3%)	32 (17.9%)	29 (16.2%)	47 (26.3%)

± Missing values not reflected in the table

Psycho-social scales by gender, job category, treatment for STI and knowledge of HIV status

T-tests and one way ANOVAs were run between the five scales and variables such as gender, job category, treatment for STI, and knowledge of HIV status. Perceived efficacy scores were significantly higher amongst women (M = 23.65, SD = 3.38) in the sample in comparison to men (M = 22.91; SD = 3.10), $t(734) = -3.10$, $p<.01$. Females (M = 27.32, SD = 3.19) were also found to have higher scores than males (M = 26.68, SD = 3.62) on the Interactions with Learners scale, $t(724) = -2.52$, $p<.05$. Interactions with learners were more favourable amongst participants who found it very easy to obtain HIV/AIDS information (M = 27.22, SD = 3.30), as compared to those who found it quite difficult (M = 24.67, SD = 2.72), $F(3, 721) = 4.813$, $p<.05$, and higher amongst those who found it very easy to talk about HIV/AIDS (M = 27.47, SD = 3.25), as compared to those who found it quite easy to talk about HIV/AIDS (M = 26.53, SD= 3.50), $F(3, 726) = 4.95$, $p<.05$. Similarly, participants who reported knowing someone who was HIV positive (M = 27.45, SD = .13) achieved significantly higher scores on the Interactions with Learners scale in comparison to those participants who did not know someone who was HIV positive (M = 26.14, SD = 4.37), and those who chose not to answer (M = 25.63, SD = 3.70), $F(2, 714) = 17.21$, $p<.01$.

Correlations between psycho-social variables and selected demographics

Table 6 shows that interactions with learners on HIV and sexuality were found to be significantly correlated with all of the scales apart from Perceived Susceptibility. Educators with high scores on the Interactions with Learners scale were found to be in younger age groups, $r = -.09$, $p<.05$, and lower job categories, $r = -.15$, $p<.001$, and were likely to hold less stigmatising attitudes towards HIV positive people, $r = -.13$, $p<.05$. Having a good knowledge of HIV/AIDS, $r = .16$, $p<.05$, holding stronger beliefs about the severity of STDs and HIV/AIDS, $r = .10$, $p<.05$, and holding positive efficacy beliefs about condoms, abstinence, and personal ability to prevent HIV infection, $r = .12$, $p<.05$, were found to be statistically correlated with learner interactions.

*Table 6 to be inserted here

Multiple regression analysis

A standard multiple regression analysis was run using Interactions with Learners as the dependent variable. The regression included three demographic variables, three sexual risk items, and the five psychometric scales. The tolerance values for each of these predictor variables were examined for the presence of mutlicollinearity and were found to be above the recommended level .10 (Pallant, 2005). The regression model was significant in accounting for the variance in interactions with learners $F(11, 434) = 7.02$, $p<.001$ and yielded an R^2 value of .15 (Adjusted $R^2 = .13$). Although this model was not a powerful predictor of participants' interactions with learners, it did, nevertheless, produce some significant findings. Six predictors were found to account for a statistically significant proportion of the variance in the dependent variable. A high level of HIV/AIDS knowledge was the strongest predictor of the interactions with learners, $\beta = .15$, $t = 3.17$, $p<.01$, followed by a low level of stigmatising attitudes, $\beta = -.13$, $t = -2.81$, $p<.01$, a high level of condom use, $\beta = -.12$, $t = -2.64$, $p<.01$, being a female, $\beta = .10$, $t = 2.30$, $p<.05$, younger age, $\beta = -.09$, $t = -2.03$, $p<.05$, and being in a lower job category, $\beta = -.09$, $t = -1.94$, $p<.05$.

Table 7: Results of the simultaneous regression for interactions with learners

	Coefficients				
	Beta (β)	**t value**	**R^2**	**Adjusted R^2**	**Model Sig.**
Model			.15	.13	.00
Predictor variables:					
Age	-.09*	-2.03			
Gender	.10*	2.30			
Job category	-.09*	-1.93			
Condom use frequency	-.10*	-1.86			
Knowledge of HIV status	-.70	-1.43			
STI treatment	.80	1.66			
HIV/AIDS knowledge	.15*	3.17			
Perceived susceptibility	.08	1.81			
Perceived severity	.05	.96			
Stigma	-.13*	-2.81			
Perceived efficacy	-.03	-.68			

* Sig at p<.05.
** Sig at p<.001. Dependent variable: Interactions with learners

Discussion

In terms of their sexual risk profile, a large proportion of the sample appeared to be engaging in relatively low risk sexual activities. The results indicated that only a small proportion of participants reported having had more than one sexual partner in the past three months (14.2%) and had engaged in sexual activity with casual partners (5.7%) or sex workers (0.4%) during this period. A substantial proportion of participants reported never or sporadically using condoms with their sexual partners (50.9%). This may be partially explained by the low prevalence of high risk activity in the sample, which is evidenced in the large proportion of participants who were married (60%), who have either not had a sexual partner (14.3%), or had only one sexual partner in the past three months (56.8%), and who reported having sex with their spouse or

long term partner in the past three months (73.2%). However, it must be noted that other factors beyond the focus of this study, such as gendered norms or self-efficacy, may be influencing the low rate of condom use amongst educators.

The findings suggest that there is a portion of educators who acknowledge the likelihood that they may be HIV positive at present, yet were engaging in high risk sexual behavior. Slightly under half of the sample (48.4%) believed they were either living with HIV or were unsure of this, and 72% of this proportion reported never using a condom during sexual intercourse. In light of this and the worrying finding that 36.5% of participants do not know their HIV status, it appears that a significant proportion of educators in the sample are placing themselves and their partners at risk of HIV infection. This lack of knowledge of HIV status is cause for concern given the role of educators as HIV/AIDS educators and role models for learners. Further, the fact that this was more prevalent amongst qualified educators (65.8%), who are oftentimes the individuals responsible for educating learners about HIV/AIDS, serves to detract from their credibility as 'prevention leaders' within their schools. The finding that 20.9% of participants feel highly susceptible to contracting HIV in their lifetime and 53.8% are uncertain as to whether they will eventually contract HIV, suggests that a proportion of the educators felt a sense of powerlessness in terms of their ability to protect themselves from contracting HIV in the future.

It was apparent that obtaining information and talking about HIV/AIDS were considered relatively easy tasks in this sample of educators. Female and qualified educators found it easier to talk about HIV/AIDS, which may have been facilitated by knowing someone who was infected with HIV. Seventy percent of this cohort found it very easy to talk about HIV/AIDS and also reported knowing someone with HIV. This is similar to the findings of Visser (2004). Thus it appears that knowing someone who is HIV positive may serve to diminish an educator's fear of talking about HIV/AIDS with learners (Mannah, 2002).

Consistent with this finding, participants who were less inclined to hold stigmatising attitudes towards HIV positive people reported more favourable interactions with learners, $\beta = -.13$, $p<.05$. Hence, one could infer that educators with low stigmatising attitudes may be perceived by learners as more approachable and open to discussion on HIV/AIDS. Overall, there was a relatively low level of stigma amongst participants, especially amongst

younger participants, $r = .09$, $p<.05$, and participants with fewer years of teaching experience, $r = .09$, $p<.05$. This is a pleasing finding as stigma has been identified as a significant barrier preventing educators from assuming roles as HIV prevention leaders in Malawi (Kachingwe*, et al.*, 2005). Furthermore, it suggests that the younger generation of educators moving into the education system may hold less discriminatory attitudes towards HIV positive people.

Televisions and newspapers were cited as the most popular sources of information about HIV/AIDS, STIs and TB. This finding regarding the wide appeal of mass media because of its ease of accessibility is not surprising and has been recorded in other local studies (Goldstein, Usdin, Scheepers and Japhet, 2005; UNAIDS, 2005). However, the fact that large proportions of educators were identifying these media as their first, second, and third most important sources of HIV/AIDS information does suggest that educators are not receiving adequate formal HIV/AIDS and sexuality training through their schools or the Department of Education. An encouraging finding was the large proportion of participants (between 40% and 50%) that reported talking to family, friends, colleagues, and learners about HIV/AIDS on a daily basis. Because educators did not mention these individuals as important sources of information, this suggests that educators' social networks may serve more as a form of social support regarding daily issues or problems related to HIV/AIDS.

Overall, the educators in the sample reported being very comfortable discussing issues related to HIV/AIDS and sexuality with learners, and confident in their ability to address any issues or questions from learners in this regard. As expected, participants who found it very easy to talk about HIV/AIDS and to obtain HIV, AIDS, STI, or TB information were more likely to interact with learners about these topics. Hence, educators that were exposed to information about HIV/AIDS on a regular basis were more likely to feel comfortable in sharing this information with learners as they felt more competent and knowledgeable in this regard. This is supported by the significant correlation between Interactions with Learners and HIV/AIDS knowledge, $r = .16$, $p<.05$, as well as the results of the regression analysis that identified HIV/AIDS knowledge as a significant predictor of Interactions with Learners, $\beta = .15$, $t = 3.17$, $p<.001$. This finding affirms those of Visser (2004) and Lin and Wilson (1998) and further reinforces the importance and need for educators to receive ongoing, formal in-service training about HIV prevention and sex education.

Interactions with learners about HIV/AIDS and sexuality were also more likely amongst educators who reported practicing a high degree of condom use in sexual interactions, $\beta = -.12$, $t = -2.64$, $p<.01$. A similar finding was documented by Visser (2004) amongst Mozambiquen educators. Given that frequent condom use indicates that these educators are regularly engaging in health protective behaviours, this finding affirms the importance of educators' perceptions of themselves as positive role models. One could therefore argue that educators who feel that their lifestyle reinforces the education and prevention messages they communicate to their learners will be more willing and comfortable to engage with learners about HIV/AIDS. In contrast, studies have shown that educators who engaged in risky personal behaviours were reluctant to speak to learners about HIV/AIDS because they perceived themselves to be poor role models (Kachingwe*, et al.*, 2005). However, this may have a wider degree of influence than the individual educators concerned. Recent media reports, for instance, about the sexual and physical abuse of learners by educators (Dimbaza, 5 August 2009; Otto, 6 August 2009; *Saturday Star*, 22 August 2009; *Star*, 28 August 2009) may serve to diminish the credibility of educators as role models and HIV prevention educators in the schools and communities in which these offences take place.

Favourable perceptions of educator-learner interactions were more likely amongst educators who believed in the efficacy of condoms and abstinence and in their personal ability to prevent HIV infection, $r = .12$, $p<.05$. Hence, educators who believed in the efficacy of condoms to prevent HIV infection were more likely to use condoms themselves and may in fact be more willing to educate learners about this prevention method. In addition, educators who believed in the severity of the HIV/AIDS epidemic and in the consequences of STIs reported higher levels of interactions with learners, $r = .10$, $p<.05$. Similar findings have been found by Matthews*, et al.*, (2006), where school-based HIV/AIDS programmes were more likely to be implemented by educators who felt personally responsible for learner outcomes and for providing critical HIV prevention information.

Three socio-demographic characteristics were identified as significant predictors of Perceived Interactions with Learners. Female educators reported more favourable interactions with learners about HIV/AIDS and sexuality, $\beta = .10$, $t = 2.30$, $p<.05$, which confirms the findings of other studies (Matthews*, et al.*, 2006; Peltzer and Promtussananon, 2003). This may be attributed to prevalent gender stereotypes that emphasise women's role in caring for and nurturing children and which, perhaps, serve to diminish male educators'

sense of responsibility for providing essential information about HIV/AIDS to learners. The fact that male educators held less favourable perceptions of their interactions with learners suggests that male educators may not feel as comfortable and competent in engaging with learners about these issues. This finding with regard to male educators needs to be understood within the broader South African context of the so called 'crises' surrounding male sexuality (Walker, 2005).

A further interesting finding was that educators in younger age groups, $r = -.09$, $p<.05$; $\beta = -.09$, $t = -2.03$, $p<.05$, and lower job categories, $r = -.15$, $p<.01$; $\beta = -.09$, $t = -1.94$, $p<.05$, reported better quality interactions with learners in regard to sexuality and HIV/AIDS. However, it should be noted that the younger and lower job category cohort also presented with a higher sexual risk profile. While we can be hopeful that the new generation of educators entering the education system are beginning to challenge the discourse of silence around sexual practice and HIV/AIDS, risky sexual identities may impede their role of HIV prevention and education agents in their schools.

Conclusion

This study identified significant individual and psycho-social factors that were associated with educators' interactions with learners about HIV/AIDS and sexual practice. Participants, in general, reported feeling comfortable and confident in their ability to communicate and assist learners with issues related to HIV/AIDS and sexual health matters. The findings suggest that this sample of educators were frequently communicating about HIV/AIDS with family, friends, colleagues, and learners. Favourable educator-learner interactions were associated with factors such as: the ease with which HIV/AIDS information was obtained and spoken about, a good level of HIV/AIDS knowledge, personal experience with HIV/AIDS, low stigmatising attitudes, positive efficacy beliefs, and beliefs about the severity of the HIV/AIDS epidemic.

The findings also suggest that younger educators and those in lower job categories may be more willing to engage with learners about issues related to HIV/AIDS and sexual practice than their older counterparts. Younger educators feel more comfortable and competent discussing such issues because they are part of the new generation of people who are more willing to talk about HIV/AIDS. They are also more likely to have been exposed to HIV

prevention and education messages and interventions whilst growing up. Favourable educator-learner interactions were more prevalent amongst educators in lower job categories possibly due to the greater amount of time and closer proximity that classroom educators have with learners, which can facilitate more opportunities for discussion around HIV/AIDS and sexual health. Furthermore, the lower degree of stigmatizing attitudes found amongst younger educators may increase their comfort in talking about HIV/AIDS with their learners and may encourage learners to approach them with questions about such issues. These findings highlight that constructive interactions with learners about sensitive topics require a meaningful relationship to exist between the learner and educator. Whilst we understand the huge teaching responsibilities that classroom educators face on a daily basis, this study suggests that HIV/AIDS education and prevention may prove more effective if undertaken by classroom educators rather than Heads of Department, Principals, and deputies who have fewer interactions and less proximal relationships with learners. The central role of the class room educator should be borne in mind by schools that employ external agencies to conduct HIV/AIDS education and prevention programmes.

Despite these positive findings, an important caveat is that some student educators were engaged in high risk sexual behaviours that included multiple sexual partners in the past three months and a low degree of condom use, while a portion of qualified educators had been treated for an STI in the past year. In addition, the fact that some qualified educators were less forthcoming than other educators about information regarding their sexual history and condom use practices, and more likely to report not knowing their HIV status is a point of concern in this study. This suggests that this particular cohort of educators may feel uncomfortable about disclosing such sensitive information, which will most likely inhibit their role as effective HIV prevention and sex educators.

Given the above findings, the Department of Health and school governing bodies ought to provide pre-service and regular and ongoing in-service training designed to develop the capacity and skills of educators to implement school-based HIV prevention and education in their schools. This is supported by Kelly's sentiments (2004) regarding the importance of education in overcoming the HIV/AIDS epidemic and the apparent lack of formal training being afforded to educators. Consistent with Clarke's argument (2008), we also realize, that educators cannot be viewed solely as vehicles for the delivery of knowledge. We should therefore support promising partnerships between

schools, class room educators and external agencies involved in HIV/AIDS and sexuality education.

In terms of structural support, this study, therefore, highlights the need for South Africans to invest in educator development that includes formal training programmes for educators that extend beyond knowledge improvement to include efforts aimed at enhancing their personal development and HIV prevention skills. Meaningful interventions in this context should go beyond HIV/AIDS education and attempt to address risky sexual identities that are a consequence of the gendered nature of the AIDS epidemic. Teacher training institutions need to create spaces for teachers to critically reflect on how their personal and professional roles impact on learners' educational and social development. Educators are our ground troops in the education system, therefore, educator development interventions, should also address lifestyle and sexual health issues that serve to promote them as HIV education and prevention agents in their schools.

Training programmes should more specifically aim to increase educators' HIV/AIDS knowledge and self-efficacy for preventing HIV infection and address stigmatising attitudes towards HIV positive individuals. Effective training programmes need to help educators to become comfortable with discussing issues about HIV/AIDS and sexuality. Further, educators need to understand the severity of HIV infection as well as their responsibility for providing learners with crucial information to prevent HIV infection. The findings also suggest that encouraging personal interactions with HIV positive people may enhance educators' perceived ability and confidence in interacting with learners about HIV and AIDS. Lastly, and most importantly, training programmes should include strategic efforts to encourage and equip male educators to play an equally important role in HIV/AIDS education and prevention among learners.

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