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**SAHARA Journal Mission Statement**

The journal publishes contributions in English and French from all fields of social aspects of HIV/AIDS (care, support, behaviour change, behavioural surveillance, counselling, impact, mitigation, stigma, discrimination, prevention, treatment, adherence, culture, faith-based approaches, evidence-based intervention, health communication, structural and environmental intervention, financing, policy, media, etc.)

**Déclaration de la mission du journal SAHARA**

Le journal publie des articles en anglais et en français dans tous les domaines sociaux du VIH/SIDA (soins, traitement et counselling, soutien et prise en charge, changements de comportements, surveillance sociocomportementale, mitigation des impacts, stigmatisation, discrimination, prévention, adhésion au traitement, culture, approche basée sur la foi et la religion, interventions basées sur des succès documentés, communication en matière de santé, interventions structurales et environnementales, financement, politiques et médias).
HIV/AIDS and Indian youth – a review of the literature (1980 - 2008)

Anita Nath

Abstract

The main objective of this article is to provide a comprehensive overview of the situation regarding HIV/AIDS among youth in India, and explore the possible strategies that could be effective in combating the spread of this disease. India is in the grip of the HIV/AIDS epidemic, with an increasing number of infections being reported among youth, who comprise a quarter of the population but account for almost one-third of the HIV/AIDS burden. The prevalence in young women appears to be on the rise. Although the majority of youth are aware of the disease, a number of myths and misconceptions still prevail. Furthermore, or as a consequence, a higher percentage of young males report engaging in premarital sexual activity compared with females. Even though condom awareness is fairly high, condom usage is low. Of late, sex tourism and its implications for the HIV/AIDS epidemic present an increasing concern. Indian youth appear to hold negative attitudes towards HIV testing and people living with HIV/AIDS. Although a number of preventive and control programmes and policies exist, these need further strengthening and evaluation.

Keywords: Youth, HIV/AIDS, knowledge, sexual behaviour, condom.

Résumé

L’objectif principal de cet article est de fournir une synthèse détaillée de la situation relative au VIH/SIDA chez les jeunes en Inde, et d’étudier les stratégies possibles pouvant s’avérer efficaces pour lutter contre la propagation de cette maladie. L’Inde est en proie à une épidémie de VIH/SIDA, un nombre de plus en plus important d’infections étant rapporté chez les jeunes, qui représentent le quart de la population, mais quasiment le tiers des personnes touchées par le fléau du VIH/SIDA. La prévalence chez les jeunes femmes est en augmentation. Bien que la majorité des jeunes aient conscience de la maladie, de nombreux mythes et opinions fausses prévalent toujours. De plus, ou en conséquence, un pourcentage plus important de jeunes hommes que de jeunes femmes indiquent prendre part à une activité sexuelle avant mariage. Bien qu’ils soient conscients de l’importance du préservatif, son utilisation est relativement faible. Depuis peu, le tourisme sexuel et ses implications pour l’épidémie de VIH constituent une préoccupation de plus en plus importante. La jeunesse indienne semble adopter des attitudes négatives à l’égard du dépistage du VIH et des personnes vivant avec le VIH/SIDA. Bien qu’un nombre important de programmes et de politiques de prévention et de contrôle existe, il est nécessaire de les renforcer davantage et de les évaluer.

Mots clés: Jeunesse, VIH/SIDA, savoir, comportement sexuel, préservatif.
current reports from the National AIDS Control Organisation. National Behavioural Surveillance Survey among youth, and which include the National Family Health Survey-3, the findings from the official websites of the national level surveys, a thorough literature review has been conducted by retrieving dreadful epidemic in the country's future productive age group. It has been projected that an estimated 2.5 billion HIV-infected people in India would be likely to lead to an annual cost of 20.16 billion rupees (US $ 386 870 407). This emerging pandemic in people in India would be likely to lead to an annual cost of 20.16 billion rupees (US $ 386 870 407). This emerging pandemic in people in India would be likely to lead to an annual cost of 20.16 billion rupees (US $ 386 870 407). This emerging pandemic in people in India would be likely to lead to an annual cost of 20.16 billion rupees (US $ 386 870 407).

In India, young people in the age group 15 - 24 years comprise almost 25% of the country's population; however, they account for 31% of the AIDS burden. (NACO; MOHFW 2007). Well-known factors such as peer pressure, increasing levels of social interaction with the opposite sex, and even household factors like broken homes and poverty, contribute to increased sexual activity and promiscuity (Jessor, 2000; Kirby, 2002; Romer, Black, Ricardo, Feigelman, Kaljee, Galbraith et al.,1994). In a conservative society where sex-related issues constitute a taboo for discussion, young people are hindered from actively seeking counselling regarding sexual health. Social ostracism and disease-associated stigma have created an attitude of negativity and shame in the minds of especially young people. This results in lack of knowledge about self-protection measures, leading to a silent spread of the disease. Despite these worrisome statistics, some Indian states have banned sex education in schools, following protests from legislators that it would have a negative impact on the vulnerable minds of school students. Widespread ignorance about the disease is still prevalent, even among youth belonging to the affluent sections of society. According to an evaluation by Anand, Pandav and Nath (1999), it has been projected that an estimated 2.5 billion HIV-infected people in India would be likely to lead to an annual cost of 20.16 billion rupees (US $ 386 870 407). This emerging pandemic in the young, who comprise the most productive age group, will certainly have an adverse impact on the country's economy.

The present paper aims to review the situational analysis of HIV/AIDS among youth in India regarding epidemiology, knowledge and behaviour regarding HIV/AIDS, the programmes and policies which address HIV/AIDS in the young, as well as recommend programme strategies to combat the spread of this dreaded epidemic in the country's future productive age group. A thorough literature review has been conducted by retrieving related studies using a Medline search and extracting the latest findings from the official websites of the national level surveys, which include the National Family Health Survey-3, the National Behavioural Surveillance Survey among youth, and current reports from the National AIDS Control Organisation.

Trends of HIV infection among youth
There are 2.5 million HIV-infected people in India, with the overall prevalence being 0.36%. The high-prevalence states include Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu. The highest HIV prevalence among these states is found in Manipur and Karnataka for young women, and in Andhra Pradesh and Manipur for young men (NACO; MOHFW, 2007). One youth is reported to be infected with HIV/AIDS almost every 15 seconds (Population Foundation of India, 2003). HIV prevalence in the 15 - 19-year age category is 0.04%, while it is 0.18% in the age group 20 - 24 years (National Family Health Survey, 2005-2006). HIV prevalence among youth is highest (1.9%) among the small number of women who are divorced, separated, or widowed. The credibility of these data figures is very high because the sources of data included an expanded and upgraded sentinel surveillance, spread over 1 122 sentinel surveillance sites and covering all districts in the country, as well as a household survey with a sample size of over 102 000 people for HIV testing. Thus, this new composite methodology represents probably one of the most recent and accurate systems in the world. A final estimation using the above data sources was made by means of the WHO/UNAIDS Workbook, which has been developed to estimate and build future scenarios of HIV prevalence in countries with low-level and concentrated epidemics. This Workbook consists of a series of Excel spreadsheets composed of point prevalence worksheets and epidemic curve worksheets (WHO/UNAIDS, 2007).

Women too are becoming increasingly vulnerable to HIV/AIDS. Of the 2.5 million infected with HIV, 1 million are women (NACO, 2007). Factors which contribute to this trend include socio-economic reasons, such as early marriage, violence and sexual abuse, and biological factors which make them more susceptible. According to a study by Gupta, Gupta and Singh (2007), on HIV sero-prevalence among pregnant women attending the antenatal clinic at a tertiary care hospital in New Delhi, it was observed that the majority of the sero-reactive pregnant women (41.9%) were in the age group 20 - 24 years. However, this was a hospital-based study and does not reflect a community-based trend of infection. The age of the spouse appears to influence the risk of HIV. According to the NFHS-3 findings, it was seen that young women whose first sexual partner was 10 or more years older than them were almost twice as likely to be HIV positive than other women. These figures represent a significant source of data, since the National Family Health Survey-3 was a nationwide community-based household survey. Even in high-risk groups it is the young who are more prone to infection. According to Sarkar, Bal, Mukherjee, Saha, Chakraborty, Niyogi et al. (2006), in West Bengal, HIV prevalence among young (under 20 years) brothel-based commercial sex workers was more than twice as high as among their older counterparts (13% compared with 5.4%). In contrast to the rising trend of infection among women, some studies report a decline in HIV seropositivity among women over the
years. The age-standardised HIV-1 prevalence in women aged 15 - 24 years in southern states declined from 1.7% to 1.1% from 2000 to 2004 (Kumar, Jha, Arora, Mon, Bhatia, Millson et al., 2006). Even among primigravid pregnant women in Pune, HIV prevalence seems to have declined from 2.2/100 PYs (person-years) in 2002 - 2003 to 0.73/100 PYs (person-years) in 2006 (Gupte, Sastry, Brookmeyer, Phadke, Bhosale, Bollinger, 2007). Once again, these were clinic-based studies, with a specific focus on pregnant women. The overall pattern of the disease may have been different had the study been conducted in the general population of women.

Knowledge and behaviour pertaining to HIV/AIDS

Knowledge, myths and misconceptions

Various studies report differing findings about the youth's knowledge with regard to the existence of HIV/AIDS. According to the Behavioural Surveillance Survey 2006 (NACO, 2007), as many as 86% of youth surveyed had heard about either HIV or AIDS, or both. The Behavioural Surveillance Survey included 25 sampling units covering a total of 97 240 respondents, with equal representation given to urban and rural participants. However, according to the National Family Health Survey 2005 - 2006 reports, only 36% of male youths and 20% of females had a 'comprehensive knowledge about HIV/AIDS', which includes knowledge about condoms as a preventive measure, knowing that an AIDS-afflicted person can still look healthy, and rejecting two AIDS-related misconceptions.

While the above-mentioned statistics are derived from nationwide surveys, different studies conducted in different settings report varying results, which could be attributed to the variation in socio-cultural and socio-economic conditions across different states which characterise the nation's diversity. Some studies report an awareness level of more than 90% among college youth (Aggarwal & Kumar, 1996; Kumari, 2004; Lal, Vasan, Sarma & Thankappan, 2000). Other studies report an awareness level of as low as 5% (Mahajan & Sharma, 2005). Also, urban youth are better informed, compared with rural youth (Aggarwal & Kumar, 1996; Lal, Kumar, Ingle & Gulati, 1994; Sodhi & Mehta, 1997). Females display lower knowledge levels in comparison to males (Lal et al., 2000; NACO, 2007; Pramanik, Chartier & Koopman, 2006; Bhende, 1994).

Several disease-related misconceptions have been encountered. Many students do not even know that AIDS is incurable (Aggarwal & Kumar, 1996; Agrawal, Rao, Chandrasekhari & Coulter, 1999; Banerji & Mattle, 2005; Lal et al., 2000; Sodhi & Mehta, 1997). A number of false notions in relation to modes of transmission have been elicited. These include modes of transmission of the virus, such as drinking water, sharing utensils, using common swimming pools and insect/ mosquito bites (Aggarwal & Kumar, 1996; Ganguli, Rekha, Gupte, & Charan, 2002; Meundi, Amma, Rao, Shetty & Shetty, 2008; Pramanik et al., 2006). Another common misconception is that an HIV-positive person cannot have a healthy appearance (Sodhi & Mehta, 1997).

Studies indicate that for Indian youth, the mass media, especially television, constitutes a major source of information about HIV/AIDS (Banerji & Mattle, 2005; Ramachandran, 2004; Roth, Krishnan & Bunch, 2001; Sodhi & Mehta, 1997). Other studies have shown that the majority of youth have received knowledge from their teachers and peers, especially older friends (Banerji & Mattle, 2005; Mehra, Savithri & Coutinho, 2002; Patil, Chaturvedi & Malkar, 2002). For those residing in rural areas, textbooks constitute a major source of information (Aggarwal & Kumar, 1996).

Sexual behaviour and condom use

With the advent of globalisation and western acculturation, premarital sex is rapidly becoming common among Indian youth. Different research studies on sexual behaviour and condom usage report an array of findings. The median age for sexual intercourse for males as well as females is 18 years, with only 3% of the respondents acknowledging sexual intercourse before the age of 15 years (National AIDS Control Organisation, 2006). From the National Family Health Survey-3 reports, 10% of young men and 2% of young women admitted to having had sexual intercourse before age 15 years (National Family Health Survey, 2005-06). Similarly, 11.5% of boys and 1.5% of girls who were secondary school students in Kolkata stated to have had premarital penetrative sexual exposure without using condoms (Chakrovartty, Nandy, Roy, Sengupta, Chatterjee & Chaudhuri, 2007). In several surveys, 20 - 25% of Indian youth have expressed favourable attitudes towards premarital sex, with the rate being substantially higher among males, urban youth, and the more highly educated (Bhatt & Dhoundiyal, 1996). Out of 966 college students in the metropolitan city of Mumbai, 47% of male students and 13% of females reported ever having had any sexual experience with a member of the opposite sex, while 26% and 3%, respectively admitted to having had intercourse (Abraham & Anil, 1999). The lesser prevalence of premarital sexual activity in females can be attributed to the cultural importance given to virginity and the stigma associated with an out-of-wedlock pregnancy. Moreover, girls are subjected to stricter parental control (Mehra, Savithri & Coutinho, 2002; Ramakrishna, Kort & Murthy, 2003, Bhende,1994). The trend of premarital sexual activity is as high in smaller/lesser
developed towns and rural areas as it is in larger urban areas, as observed from the proportion of adolescent girls from Ajmer, a small town in Rajasthan, reporting premarital sex to be as high as 23.3% (Goyal, 2005). Early sexual activity is prevalent in tribal communities as well. To cite an example, the age at marriage is very low among a migrant tribe from Eastern India, where 54% of women have had first intercourse before the age of 15 years, with the mean age being 15.8 years, and 19.5 years for men (Mishra, Swain & Babu, 2008). Pre- and extramarital relations, including multi-partnered sex is prevalent in this tribal community, and safe sexual practices are not reported, while the risk perception is very low.

At a national level, 83.8% of the youth were aware of condom use for protection against HIV/AIDS (NACO, 2006). Only 4 in 10 students from Delhi University used a condom sometimes during sexual intercourse (Sachdev, 1998). An awareness level as low as 11% regarding the preventive action of condoms has been recorded among married female youth in the state of Tamil Nadu (Ramachandran, 2002). More alarming is the reported condom usage rate of 7% by sexually active youth in a town in Assam state (Sen, 2007). Most notably, the lack of privacy in stores and the social stigma associated with condom use comprise the most significant barriers to condom usage (Roth, Krishnan & Bunch, 2001). A survey carried out among male urban slum youth in Delhi, which employed qualitative techniques such as focus group discussions, in addition to quantitative evaluation, revealed that boys as young as 17 years were found to be visiting brothels. It was also seen that sexual relationships tended to be secretive with limited condom usage (Mehra et al., 2002). This is despite the fact that 92% of the youth indicated that there was easy availability of condoms in their respective areas, but once again, the low usage rate was attributed to lack of privacy in acquiring condoms. Sexual activity was found to be very high in homeless street children, putting them at risk of HIV/AIDS (NACO, 2006). In Bangalore, out of 121 street boys aged 9 - 23 years, 61% were sexually active, and 36% of them had initiated sex between 10 and 12 years of age (Ramakrishna et al., 2003). The findings reported from this study give a projection of the rise in sexual activity among street youth in metropolitan cities.

Data on homosexuality among Indian youth are limited. According to the BSS-2006 findings, 3% of male youth have experience of having sex with men (NACO, 2006). Among a group of Chandigarh college students, 15% admitted to being sexually active, of whom 7.3% were homosexual. Among those who were homosexual, only 7% reported condom use (Kaur, Sahni, Bambery, Kumar, Chauhan, Chawla, Dilawari et al., 1996). In Bangalore, 62% of the sexually active street boys indulged in anal sex (Ramakrishna et al., 2003).

Yet another cause of concern is the emergence of sex tourism, in which the youth involved cater specifically to the needs of tourists. This social development appears to be especially prevalent in Goa, as evident from the finding that of 57 youth in the age group of 15 - 34 years who were involved in various types of tourism jobs in Goa, 23 claimed to be involved in sex tourism (Ram & Bhat, 2007). An important factor contributing to this practice is rural poverty and responsibility to support the family. Many of them engaged in very risky sexual behaviour, ranging from homosexual to group sex to multiple partners, or anal sex. Many of them also reported symptoms suggestive of a sexually transmitted infection, and often did not seek any treatment for the condition. The observations from this study may be representative of just the tip of an iceberg owing to the small sample size. Since the youth participating in this study were from the tourism sector, it is possible that youths outside this sector could also be involved in sex tourism.

Attitudes towards HIV testing and people living with HIV/AIDS (PLWHA)

As a result of the stigma associated with HIV/AIDS, there are unfavourable attitudes towards HIV testing. Only 3% of Indian youth reported to have ever undergone HIV testing (National Family Health Survey, 2005-06). Attitudes of Indian youth towards HIV testing appear to differ from those in other nations. When compared with university students from the USA and South Africa, American students had a significantly more positive attitude towards HIV testing and stronger intentions to go for HIV testing than South African and Indian students. The reason for this could be the importance given to HIV prevention and testing on US university campuses. Only 10% of Indian university students, compared with 25% of American students, claimed to have ever undergone an HIV test (Mehra et al., 2002). It is also possible that, given lower HIV prevalence in the USA, students were answering a hypothetical question, while in India and South Africa HIV is far more of a reality. Alarming results, which reflect upon the severely discriminatory attitude of Indian youth, were elicited from a group of students from the state of Jharkhand, where 95.8% said that they would prefer not to have medical treatment in a hospital where HIV/AIDS patients are treated, while 76.4% said that they would like to terminate a friendship with a person found to be HIV positive (Kumari, 2004). Rural-urban differences also exist (Lal et al., 1994). According to Mehra and colleagues (2002), a higher proportion of American and South African students held a positive attitude towards PLHWA compared with Indian students. Among college students in the state of Kerala (in South India), those from urban areas demonstrated a more favourable attitude towards AIDS (Lal et al., 2000).
Attitudes may also be determined by educational background and medium of educational instruction. Thus it was observed that students pursuing science from Nagpur University in Central India held a fairly positive attitude towards people with AIDS compared with the arts and commerce students (Deshmukh, Wadhva & Zodpey, 1998); and a significantly higher number of female students from English-medium schools in the city of Chandigarh seemed to hold a favourable attitude when compared with males from Hindi medium schools (Girish, Singh, Kohli & Kumar, 1998). An appreciable change in attitude has been documented in the latest youth behavioural surveillance study performed in 2006. According to the survey, 67.5% of youth were of the opinion that PLWHA should be allowed to stay in the community/village while 60.5% said that they were willing to share their food with PLHWA (NACO, 2007).

**HIV/AIDS youth programmes and policies**

India has taken an aggressive step towards HIV/AIDS control by implementing the third phase of its National AIDS Control Programme, which is designed to reverse the spread of HIV/AIDS by 2012. Its thrust areas include treatment of sexually transmitted infections, voluntary counselling and testing, and condom promotion. NACO has collaborated with Hindustan Latex Limited (HLL) on a Condom Vending Machine (CVM) Project. Under this initiative, it has been proposed to set up 11,025 vending machines in 42 districts in the six high-prevalence states and 24 districts of the four Empowered Action Group (EAG) States. An impressive condom gallery displaying all kinds of prophylactics along with their information has been set up in Ranchi in the state of Jharkhand. Recently, churches have co-operated with NACO’s efforts by reaching out to youth and sensitising religious leaders.

School education has been described as a ‘social vaccine’, and it can serve as a powerful preventive tool. Initiatives to spread awareness among the youth are being vigorously undertaken by government, private and non-government organisations. In spite of all this, there is still a gap between the amount invested in developing a curriculum and the actual education that is imparted. Until now, most of the HIV/AIDS education has been ‘scientific in nature’, i.e. discussed in the biological context by teachers of science. However, for AIDS education to have a realistic impact, it is important that instruction be imparted in a straightforward, easy to grasp manner, keeping cultural issues in mind. In a spearheading effort, the NACO collaborated with UNICEF to scale up the school-based adolescence programme across 144,409 schools, with the objective to reach out to some 33 million students. Despite the challenge posed by the HIV/AIDS epidemic, sex education programmes have been banned in six states in India, including Maharashtra, Gujarat, Rajasthan, Madhya Pradesh, Chattisgarh and Karnataka (Voice of America, 2007). Incidentally, HIV prevalence is highest in the Mumbai-Karnataka corridor and in the Nagpur area of Maharashtra (Population Foundation of India, 2003). In the conservative state of Uttar Pradesh, teachers have protested against the programme by burning copies of the new syllabus.

Non-governmental organisations are playing an increasingly important role in spreading AIDS awareness. The Centre for Development and Population Activities (CEDPA) runs a programme known as ‘UDAAN: Towards a Better Future’ which strengthens AIDS education in the state of Jharkhand, by providing technical assistance and training for master trainers and teachers, and adding comprehensive life-skills curriculum to the existing AIDS education programme for schoolchildren (CEDPA, 2007). A number of help lines which provide counselling on reproductive and sexual health matters are in current operation, such as TARSHI (Talking About Reproductive and Sexual Health Issues) and JSK (Jansankhya Stirtha Kosh or National Population Stabilisation Fund). Street children and school dropouts are also being reached out to actively through the commendable works of institutions like Chetna (Gujarat), CARE (Madhya Pradesh), Sakshi (Kerala), the Butterflies Programme and Salaam Balak Trust.

Peer education is being given due importance. Some on-campus programmes, supported by the State AIDS Control Societies under NACO, include ‘YUVA – Youth Unite for Victory on AIDS’ and Red Ribbon Club (NACO, 2007). In collaboration with UNFPA, NACO has released a book titled *Quest on HIV & AIDS: A Handbook for Young People*, which deals with HIV/AIDS-related myths and misconceptions. Plans are underway to introduce HIV/AIDS education to children as young as five in pre-schools/nurseries (Pelzer, Nzewi & Mohan, 2004; Reuters, 2006). UNICEF (2007) has joined hands with health authorities and non-governmental partners to establish a cadre of HIV/AIDS peer educators in villages in different parts of the country. These peer educators are playing an important role in challenging the social myths and misconceptions associated with HIV/AIDS. With the revolution of technology, the Internet is increasingly being employed as a portal for disseminating information, through discussion forums, e-mail counselling and web information. Corporate companies and call centres have joined hands in the fight against HIV/AIDS by organising in-house AIDS awareness programmes for their employees, almost all of whom are young. The initial lead in this direction was taken up by the Confederation of Indian Industry (CII),
which began to incorporate HIV/AIDS prevention activities into its social development activities in the work place (Bhalla, 1997). A unique initiative has been undertaken by the West Bengal State AIDS Control Society, which has linked up with a DJ from Britain, who distributes messages on HIV/AIDS to the youngsters in Kolkata’s discotheques (NACO, Nov 2005 - Feb 2006).

Conclusion and future considerations

The available literature indicates that although the overall awareness level about HIV/AIDS among Indian youth is fairly high (although individual studies show varying results depending upon study setting), high-risk sexual behaviour without condom use and the presence of certain misconceptions constitute a major area of concern. A small proportion of youth appear still to hold negative attitudes toward HIV voluntary testing and HIV-positive people. Even though an appreciable number of intensive HIV/AIDS-related programmes and policies are in existence, the effectiveness of these still needs to be evaluated. Youth stand at the centre of the HIV/AIDS pandemic in India regarding transmission, impact, vulnerability and potential for change – they also represent the window of hope and opportunity. Since most of the new infections occur in youth, any intervention in this age group is likely to have an impact on the disease trend. The key to HIV/AIDS control among youth lies in health education, behavioural change communication (BCC), and ensuring safe sex practices. Mass media, especially imparting HIV/AIDS education through TV spots, reality shows and drama, have been found to be most cost effective in bringing about desired behavioural change (Sood & Nambiar, 2006). The Government needs to respond to the desire for formal sex education, which has been expressed by the majority of students and teachers (Agrawal et al., 1999; Indian Express, 1996). Teachers, who are crucial for the success of any sex education programme, need to be adequately trained to handle delicate and sensitive queries from students. HIV/AIDS related stigma may be overcome at the school level by laying down guidelines that no children be excluded from school or discriminated against in school because of their or their caregivers’ HIV status.

Peer education is an effective and culturally appropriate way to disseminate comprehensive information on HIV/AIDS, especially in rural areas. It is not only the students, but also the parents and guardians and the community at large, who need to be sensitised towards sexual behaviour and HIV related issues. Programmes directed at convincing parents about the dire need for sex education need to be designed and strengthened. Setting up adolescent-friendly health services (AFHS) in schools/colleges/ neighbourhoods, which would provide high-quality care is of paramount significance, since this would facilitate proper treatment-seeking behaviour. The concept of AFHS is relatively new in India, with only a few such health services concentrated in the urban areas.

Efforts to diminish stigma will play a vital role in removing disease fear and its associated feelings of shame. This would enable the removal of obstacles which hamper voluntary testing and access to condoms, along with changing attitudes towards HIV-positive people. Innovative programmes targeted at out-of-school youth need intensive implementation, since these are the most neglected sections of society. Another significant step would be empowerment of female youth and making them aware of their sexual and reproductive health rights. This would go a long way toward curbing disease spread, especially to the unborn child. It is hoped that control of HIV/AIDS in the youth, who comprise tomorrow’s future, would contribute to combating the spread of this dreaded disease, and thereby lower India’s position of being the country with the third highest number of PLWHA.

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Correlates of condom use among sexually experienced secondary school male students in Nairobi, Kenya

M Yotebieng, CT Halpern, EMH Mitchell, AA Adimora

Abstract

This study aimed to examine perceptual factors associated with condom use, and the relationship between condom use and the timing of sexual debut among male secondary school students in Nairobi, Kenya. Data are from the TeenWeb study, a school-based project that used the World Wide Web to assess the health needs of secondary school students, and tested the web’s utility as a teaching and research modality. Analyses are based on 214 sexually experienced males aged 14 - 20 years who completed web-based questionnaires about their sexual attitudes and behaviour. Results indicate that students did not see themselves as susceptible to HIV/AIDS and believed condom effectiveness in preventing HIV to be low. Consequently, only a marginal association was found between agreeing that buying condoms is embarrassing and condom use at first sexual intercourse. However, contrary to expectation, agreeing that condoms often break (almost half of participants) was associated with a higher likelihood of condom use at first sex. Each year of delay in sexual debut increased the likelihood of using a condom at first sex by 1.44 times. In turn, having used a condom at first sex increased the likelihood of using one at the most recent sex by 4.81 times, and elevated general condom use (‘most or all the time’) by 8.76 times. Interventions to increase awareness about the role of condoms in preventing HIV, delay sexual initiation, and teach proper condom use among secondary-school students in Nairobi are needed.

Keywords: Adolescents, HIV/STDs, condom use, Kenya, Africa, Internet.

Correlates of condom use among sexually experienced secondary school male students in Nairobi, Kenya

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**Introduction**

According to UNAIDS estimates, today some 38.6 million people worldwide live with HIV/AIDS. With less than 10% of the world population, sub-Saharan Africa is the home of two-thirds of people living with HIV worldwide. Here, more than elsewhere, young people between the ages of 15 and 24 are the most threatened, accounting for 62% of people living with HIV/AIDS (UNAIDS, 2006). Kenya, with an HIV prevalence of 6.7% (MEASURE DHS+, 2003), has one of the highest HIV infection rates in the world. Today in Kenya, the HIV epidemic is at the beginning of its third and perhaps most critical stage, which involves spread of the virus to and among youth. It is estimated that, at the present time, youth under 20 years of age account for 40% of new infections among males and 60% of new infections among females (Toroitch-Ruto, 1997). Heterosexual contact is the primary mode of HIV transmission in Kenya (National AIDS and STDs Control Programme, 2001). Sexual risk factors include having multiple, concurrent sex partners and being infected with other sexually transmitted diseases (STDs). However, consistent use of condoms, irrespective of other risky sexual behaviour, has been demonstrated to be an effective means of preventing the acquisition and transmission of HIV and other STDs (Davis & Weller, 1999; Pinkerton & Abramson, 1997; Weller & Davis, 2002).

The vulnerability of Kenyan youth to HIV infection necessitates the development of interventions that reduce sexual risk behaviour. To develop such interventions, knowledge of factors that lead to sexual risk-taking is indispensable. Multiple studies from sub-Saharan Africa have analysed factors associated with condom use. Two studies of 15 - 24-year-olds, one based on a representative sample of young people in urban Cameroon and another on a community-based sample of 601 young males in rural Ghana, found a strong positive association between perception of personal risk of HIV and a high level of condom use (Adih & Alexander, 1999; Meekers & Klein, 2002). In addition, findings from Kenya’s 1998 Demographic Health Survey (DHS) showed a strong association between personal perception of HIV risk and risky sexual behaviour. Men who perceived their risk as high were less likely to report risky behaviour such as not using condoms with casual sex partners or having multiple sex partners. However, the association was weak among 15 - 19-year-olds (Akewara, Madise & Hinde, 2003).

Believing that condom use can protect against HIV and STDs, and a sense of self-efficacy about condom use, have also been reported to be associated with increased use. For example, findings from a study of males and females attending secondary schools and colleges in Tanzania showed that the belief that condoms prevent HIV infection was associated with high reported use of condoms (Maswanya et al., 1999). In the studies of young urban Cameroonians and rural Ghanaians described earlier, the authors also reported an association between high levels of condom use and perceived ability to negotiate and use condoms (Adih & Alexander, 1999; Meekers & Klein, 2002). Similar findings were reported by Taffa et al. in a sample of in and out of school youth (males and females) aged 15 - 24 years in Addis Ababa, Ethiopia (Taffa, Klepp, Sundby & Bjune, 2002). Perceived barriers to condom access and use have also been associated with level of use. In a survey of 223 patients at 6 governmental and private clinics in Kisumu, Kenya, perceived barriers were the only components of an evaluation of the Health Belief Model (HBM) that were significantly associated with condom use. Greater perceived barriers were associated with less condom use (Volk & Koopman, 2001).

In addition to perceptions, socio-demographic factors have been associated with levels of condom use. Results from surveys of representative samples of males and females ages 15 - 49 years in four African cities (Yaoundé, Cameroon; Cotonou, Benin; Ndola, Zambia; and Kisumu, Kenya) indicated that greater education and single marital status are associated with more consistent condom use (Lagarde et al., 2001). Later sexual debut and having only one sex partner have also been associated with increased use (Lugoe, Klepp & Skutle, 1996; Volk & Koopman, 2001).

Most studies to date have used the large age interval of 15 - 24 years to define adolescence, and usually do not consider boys and girls separately. Because associations between risk and protective factors and condom use are likely to vary by age, gender, community, and other characteristics, substantial heterogeneity in factors affecting condom use may be obscured.

In this study we examine perceptual factors that may be associated with condom use, as well as the relationship between condom use and the timing of sexual debut among sexually experienced urban adolescent male students in Nairobi, Kenya. There were not enough sexually experienced females to permit analysis; however, some studies suggest that Kenyan males’ attitudes may have more bearing on couples’ condom behaviour than women’s. We control for multiple socio-demographic characteristics. We hypothesised that students who perceived themselves to be at greater HIV risk, perceived condoms to be effective in preventing HIV/AIDS, and perceived fewer barriers to condom use, would be more likely to use condoms. We also expected, based on existing literature, that students who transitioned to first sex at a later age would be more likely to use condoms and to use them consistently.
Methods

This is a cross-sectional analysis of data from the Nairobi, Kenya site of the TeenWeb study. TeenWeb is a longitudinal school-based feasibility study conducted in Kenya and in Brazil that seeks to understand better the social, educational and sexual health needs of urban secondary school students, and to test the utility of the World Wide Web as a teaching and research modality. In Nairobi, three large public schools – a boys’ school, a girls’ school, and a mixed-sex school were randomly assigned to the ‘Web’ (experimental) group. Two additional schools were randomly selected to be control schools – a boys’ and a girls’ school. The need for a control group was to allow stronger statements about whether web students’ changes in reproductive health attitudes over time were attributable to exposure to the educational web pages or to other unmeasured factors. All students in the selected schools were included in the study. A total of 1 024 students entered the study as participants in the web group and an additional 496 students entered the study as participants in the control group. Students in the two groups did not differ in their socio-economic characteristics (Mitchell, Halpern, Farhat, Kamathi & Steibelt, 2004).

In the selection of those schools, a comprehensive public school sampling frame, with the goal of randomly selecting from among strata of non-denominational, large schools that included substantial proportions of low-income students and a mix of males and females, was constructed. In Nairobi, this essentially means using day schools instead of boarding schools. In addition, because of the non-random distribution of Internet access in Nairobi and the need to install high-speed Internet leased lines in the three experimental schools, the sampling frame was reduced to 13 out of 19 neighbourhoods, most of which tended to be in the higher income group. However, we were still able to recruit a large public school within the Kibera slum (Africa’s largest slum). More details on the design and implementation of TeenWeb in Nairobi and Brazil can be found at the TeenWeb website (http://www.cpc.unc.edu/projects/teenweb/), and in a publication by Halpern, Mitchell, Farhat and Bardsley (2008).

Data collection extended across two school years (April 2002 - September 2003). Students in all schools first completed a self-administered paper module (Module #1) tapping socio-demographic information and baseline knowledge and attitudes related to condoms, HIV testing, emergency contraception, and Kenyan abortion law. In addition to this first paper module, students in the three experimental schools completed five modules using the web. Students in control schools completed a second (and final) paper module at the end of the study, at about the same time that web students were completing their final web-based module (Module #6). The final paper (control) and web modules repeated questions related to knowledge and attitudes about condoms, HIV testing, emergency contraception, and abortion legislation, to examine changes over time in knowledge and attitudes. Questions about students’ own sexual behaviour were included only in Module #4 of the web questionnaire.

Web students completed one web-based module approximately every 6 - 8 weeks, and in return had access to the Internet for at least 30 minutes after completing each module. When a student finished a web module, he or she was automatically forwarded to the project’s educational pages, which included age-appropriate health information developed for African youth that was tied to the topics addressed in the questionnaire module (e.g. what is emergency contraception). Students could choose to access this information and/or other websites not related to TeenWeb. Privacy screens were constructed around each computer. Responses to web-based questionnaires were encrypted and transmitted directly to a secure SQL server at the Carolina Population Center at the University of North Carolina at Chapel Hill. The research team in Chapel Hill who received students’ individual responses to questionnaires did not have access to their identification information (which was kept in Nairobi) beside their ID number. Students who reported specific experiences (e.g. sexual violence) were directed to community resources for those experiences. Only students with written parental consent responded to questions regarding their own behaviour. The Kenya Ministry of Education and the University of North Carolina School of Public Health Institutional Review Board for the Protection of Human Subjects (IRB) approved the study design and all protocols.

Respondents and sample

Of the 1 024 students enrolled in the web group, 783 (76%) completed Module #4. Of those, 239 (31%) reported to be sexually experienced, only 24 (10%) of whom were female. Because questions about students’ own behaviour were only included in Module #4 of the web questionnaire, only sexually experienced participants could report on their condom use, and there was a small number of sexually experienced girls, the present analysis was limited to 214 sexually experienced males in Web schools who had complete data for analysis variables.

Measures

All survey questions included ‘don’t know’ and ‘refuse to answer’ options, which were recoded to missing in the analysis.

Dependent variables – condom use

Condom use at first sex: This was derived from the question
The first (or only) time you had sex, did you use a condom? The response options were ‘yes’ or ‘no’.

**Condom use at most recent sex:** This was derived from the question ‘Did you use a condom the most recent time you had sex?’ with ‘yes’ or ‘no’ response options. This question was asked only of respondents who reported having sex more than once.

**Consistent condom use (most or all of the time):** This measure was derived from the question ‘Thinking of all the times you have had sexual intercourse, about what proportion of the time have you used a condom?’ The response options were: ‘none of the time, some of the time, half the time, most of the time, and all of the time’. Those who chose ‘most of the time’ or ‘all of the time’ were coded as the index category in the analysis and other answers were coded referent category. This question was asked only of respondents who reported having sex more than once.

**Independent variables**

**Perceived susceptibility to HIV:** This was measured with the question ‘Imagine that sometime soon you had sexual intercourse with someone just once, without using any protection. What is the chance that you would get the HIV virus?’ Response choices were ‘I’m sure this would not happen’, ‘this probably would not happen’, ‘there is about a 50-50 chance this would happen’, ‘this would probably happen’, and ‘I’m sure this would happen’. Respondents who thought their chances of getting the virus were greater than 50-50 were coded as the index category.

**Perceived prevalence of HIV:** This variable was measured with the question ‘Is HIV/AIDS a problem in Nairobi?’ The response options included ‘not a problem at all’, ‘somewhat of a problem’, ‘this would probably happen’, ‘there is about a 50-50 chance this would happen’, ‘this probably would not happen’, and ‘I’m sure this would not happen’. Answers of ‘it is a problem’ and ‘it is a very serious problem’ were coded as the index category.

**Perceived effectiveness of condoms:** This was constructed from two questions, each considered separately: ‘Condoms are useful to prevent pregnancy’ and ‘Condoms are useful to prevent infections like HIV’. Response options were strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree. Agree and strongly agree were coded as the index category.

**Perceived barriers to condom use:** These measures were based on degree of agreement with the following statements: ‘Condoms are too expensive to buy’, ‘condoms often break’, ‘condoms are difficult to use’, ‘talking about condoms is embarrassing’, and ‘buying condoms is embarrassing’. The response options were the same as for ‘Perceived effectiveness’ and were coded in the same manner. Items are considered separately in analyses.

**Socio-demographic variables**

Socio-demographic variables included age, marital status, form (grade) in school, religion, and socioeconomic status. Age was self-reported by respondents in years. **Marital status** was dichotomised as single (index category) and married or cohabiting. **Grade** was grouped in two categories: forms 2 (9th and 10th grade) as the referent category and forms 3 and 4 (11th and 12th grade) as the index category. **Religion** was also dichotomised as Christian (index category) and other. **Socio-economic status (SES)** was measured by a simple count of the following 21 household assets: lantern or tin candle, electricity, running water, indoor bathroom, refrigerator, gas or electric stove, metal or wooden bed, sofa, bicycle, car (motor vehicle), motorcycle, new (current) newspapers, old newspapers, dictionary, radio, television, telephone (land line), cell (mobile) phone, stereo (record, CD, or tape player), computer, and access to Internet. Respondents were grouped in three categories of roughly similar size: low SES (0 - 7 assets count), middle SES (8 - 14 assets count), and high SES (referent category) (15 - 21 assets). The use of a proxy measure for SES, an unweighted commodity scale is a simple technique that captures relative wealth well (Bollen, Glanville & Stecklov, 2001).

**Sexual timing and experience**

**Age at first sex** was self-reported by respondents in years.

**Lifetime number of sex partners** was also considered in the analysis. Respondents were grouped in two categories: those who reported one partner were coded as the index category.

In analyses of **condom use** at most recent sex and consistent condom use, condom use at first sex was included as a predictor. These analyses were limited only to students who reported having had sex more than once.

**Analysis strategy**

Data were analysed using SAS (SAS Institute, Cary, NC, USA). Crude associations between condom use variables and the explanatory factors were examined using Mantel-Haenszel chi-square. Unadjusted odd ratios (OR) from Mantel-Haenszel estimator (for categorical factors) or from simple logistic regression (for continuous variables: age and age at first sex) were used to measure the strength of the associations. To estimate the adjusted OR, all the perceptual factors plus age and age x perceptual factors interaction terms were entered in a first model to evaluate possible interactions. Significant interaction terms were retained and entered in a general model with all the predictor and the socio-demographic variables. The sequence of covariate removal from the model was determined by likelihood ratio testing to ensure that the covariate that contributed the
least to the fit of the model would be removed first. Socio-demographic variables were forced to remain in the final model as controls. The significance level for all statistical tests was 5% or otherwise specified.

**Results**

**Descriptive analysis**

At study entry, the median age of participants was 17 years (interquartile range (IQR): 16 - 17). Half of the students were sexually experienced by the age of 14 (IQR: 10 - 16) years (see Table 1). No form 1 students appeared in the analysis sample of sexually experienced males; 45.3% were in form 2 (see Table 1). About two-thirds were single. Most were Christian (86.4%) and 27.9% were in the high SES category. The percentages of participants who reported having used a condom at their first vaginal sex, at their most recent sex, and ‘most or all the time’ were 30.1%, 51.2% and 33.5%, respectively.

Perception of personal susceptibility to HIV was quite low. Only one participant in ten perceived the risk of acquiring HIV infection from one unprotected sexual encounter as greater than 50%, although about 6 in 10 students perceived HIV as a problem in Nairobi. Furthermore, the perceived effectiveness of using condoms to prevent HIV was also relatively low. Only 39.7% of these sexually experienced students agreed that condoms can help prevent HIV, compared with 77.9% who agreed they can help prevent pregnancy. Relatively few participants agreed

<table>
<thead>
<tr>
<th>Table 1. Characteristics of sexually experienced secondary school adolescent male students who participated in the TeenWeb survey in Nairobi, Kenya</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characteristic</strong></td>
</tr>
<tr>
<td><strong>Grade level</strong></td>
</tr>
<tr>
<td>Form 2</td>
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<tr>
<td>Forms 3 &amp; 4</td>
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<tr>
<td><strong>Marital status</strong></td>
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<tr>
<td>Single</td>
</tr>
<tr>
<td>Other</td>
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<tr>
<td><strong>Religion</strong></td>
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<tr>
<td>Christian</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td><strong>Socio-economic status</strong></td>
</tr>
<tr>
<td>Low</td>
</tr>
<tr>
<td>Middle</td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td><strong>Condom use</strong></td>
</tr>
<tr>
<td>Used condom first vaginal sex</td>
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<tr>
<td>Used condom most recent sex</td>
</tr>
<tr>
<td>Use condom most or all the time</td>
</tr>
<tr>
<td><strong>Lifetime number of sex partners</strong></td>
</tr>
<tr>
<td>2 or more</td>
</tr>
<tr>
<td><strong>Perceived susceptibility to HIV</strong></td>
</tr>
<tr>
<td>Chance of getting HIV = 50% or less</td>
</tr>
<tr>
<td>Chance of getting HIV &gt; 50%</td>
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<tr>
<td><strong>Perceived prevalence of HIV</strong></td>
</tr>
<tr>
<td>HIV is a problem in Nairobi</td>
</tr>
<tr>
<td><strong>Perceived benefits of using condoms</strong></td>
</tr>
<tr>
<td>Condoms prevent HIV</td>
</tr>
<tr>
<td>Condoms prevent pregnancy</td>
</tr>
<tr>
<td><strong>Perceived barriers to condom use</strong></td>
</tr>
<tr>
<td>Condoms often break</td>
</tr>
<tr>
<td>Condoms difficult to use</td>
</tr>
<tr>
<td>Condoms too expensive</td>
</tr>
<tr>
<td>Talking about condoms is embarrassing</td>
</tr>
<tr>
<td>Buying condoms is embarrassing</td>
</tr>
<tr>
<td>Age in years, mean (SE)</td>
</tr>
<tr>
<td><strong>Age in years at first sex, mean (SE)</strong></td>
</tr>
</tbody>
</table>

*Denominators may vary due to missing values.
SE = standard error.
that condoms are difficult to use, are expensive to use, or are embarrassing to talk about. However, one-third of students felt that buying condoms is embarrassing and almost half agreed that condoms often break.

**Factors associated with condom use**

None of the perceptual factors examined was statistically associated with condom use in bivariate analysis (see Table 2). However, later sexual debut was significantly associated with higher odds of condom use at first sex and at most recent sex: OR = 1.33 (95% confidence interval [95%CI] 1.18 - 1.51) and 1.15 (95%CI 1.05 - 1.25), respectively. In turn, using a condom at first sex was statistically associated with use at most recent sex [OR = 7.93 (95%CI 3.22 - 19.53)], and with consistent condom use [OR = 8.82 (95%CI 3.91 - 19.92)]. Reporting only one sexual partner during their lifetime and Christian religion were also associated with condom use at most recent sex [OR = 4.36 (95%CI 1.38 - 13.85) and 2.92 (95%CI 1.05 - 3.57), respectively]. Unmarried males were 2.16 (95%CI 1.07 - 4.38) times more likely to report having used a condom at first sex.

After adjusting for socio-demographic variables, only agreeing that condoms often break and that buying condoms is embarrassing were statistically associated with condom use at first sex (see Table 3). Participants who agreed that buying condoms is embarrassing were 0.30 (95%CI 0.09 - 0.94) times less likely to report having used a condom at first sex. However, contrary to our hypothesis, participants who agreed that condoms often break were 3.41 (95%CI 1.25 - 9.30) times more likely to report the use of a condom at their first intercourse experience. The associations between these perceptions and condom use did not vary by age. In addition to perceptions that buying condoms is embarrassing and about condom breakage, age at first sex remained statistically associated with condom use at first sex. Each year of delay in sexual debut increased the odds of using a condom at first sex by 1.44 (95%CI 1.17 - 1.77) times. Perceptions about condoms were not associated with consistent condom use or their use at most recent sex. However, having used a condom at first vaginal sex increased the odds of using condoms at most recent sex by 4.81 (95%CI 1.47 - 15.77) times and increased the odds of using condoms ‘most or all the time’ by 8.76 (95%CI 2.64 - 29.07).

**Table 2. Unadjusted odds ratios (OR) of condom use among sexually experienced secondary school adolescent male students who participated in the TeenWeb survey in Nairobi, Kenya**

<table>
<thead>
<tr>
<th></th>
<th>Condom use at first sex</th>
<th>Condom use at the most recent sex†</th>
<th>Condom use most or all the time†</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR (95%CI)</td>
<td>OR (95%CI)</td>
<td>OR (95%CI)</td>
</tr>
<tr>
<td>Age (years)</td>
<td>1.16 (0.86, 1.56)</td>
<td>0.92 (0.66, 1.27)</td>
<td>1.00 (0.71, 1.40)</td>
</tr>
<tr>
<td>Age at first sex (years)</td>
<td>1.33 (1.18, 1.51)*</td>
<td>1.15 (1.05, 1.25)*</td>
<td>1.08 (1.00, 1.20)</td>
</tr>
<tr>
<td>Number of lifetime sex partners (1 v.&gt;2)</td>
<td>1.87 (0.94, 3.70)</td>
<td>4.36 (1.38, 13.85)*</td>
<td>1.55 (0.59, 4.07)</td>
</tr>
<tr>
<td>Perceived susceptibility to HIV</td>
<td>1.38 (0.57, 3.38)</td>
<td>0.91 (0.35, 2.33)</td>
<td>1.56 (0.60, 2.57)</td>
</tr>
<tr>
<td>Perceived HIV prevalence in Nairobi</td>
<td>1.23 (0.61, 2.48)</td>
<td>1.4 (0.72, 2.70)</td>
<td>1.3 (0.65, 2.59)</td>
</tr>
<tr>
<td>Perceived benefits of using condoms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condoms prevent pregnancy</td>
<td>0.95 (0.45, 1.99)</td>
<td>1.24 (0.56, 2.75)</td>
<td>0.8 (0.35, 1.83)</td>
</tr>
<tr>
<td>Condoms prevent HIV</td>
<td>1.58 (0.85, 2.93)</td>
<td>1.29 (0.67, 2.47)</td>
<td>1.68 (0.85, 3.34)</td>
</tr>
<tr>
<td>Perceived barriers to using condoms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condoms are difficult to use</td>
<td>0.61 (0.21, 1.72)</td>
<td>0.43 (0.16, 1.16)</td>
<td>0.9 (0.34, 2.42)</td>
</tr>
<tr>
<td>Condoms often break</td>
<td>1.76 (0.95, 3.26)</td>
<td>1.24 (0.65, 2.36)</td>
<td>0.99 (0.50, 1.96)</td>
</tr>
<tr>
<td>Condoms are expensive</td>
<td>0.69 (0.22, 2.22)</td>
<td>0.89 (0.27, 2.89)</td>
<td>0.84 (0.24, 2.92)</td>
</tr>
<tr>
<td>Talking about condoms is embarrassing</td>
<td>0.57 (0.23, 1.40)</td>
<td>0.54 (0.22, 1.29)</td>
<td>0.61 (0.24, 1.57)</td>
</tr>
<tr>
<td>Buying condoms is embarrassing</td>
<td>0.64 (0.30, 1.36)</td>
<td>0.63 (0.29, 1.40)</td>
<td>0.63 (0.28, 1.46)</td>
</tr>
<tr>
<td>Use a condom at first vaginal sex</td>
<td>-</td>
<td>7.93 (3.22, 19.53)***</td>
<td>8.82 (3.91, 19.92)***</td>
</tr>
<tr>
<td>Socio-demographic factors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade (forms 3 &amp; 4 versus form 2)</td>
<td>1.56 (0.83, 1.29)</td>
<td>1.22 (0.63, 2.24)</td>
<td>1.14 (0.57, 2.26)</td>
</tr>
<tr>
<td>Low SES (v. high SES)</td>
<td>0.45 (0.19, 1.09)</td>
<td>0.61 (0.26, 1.43)</td>
<td>0.56 (0.24, 1.30)</td>
</tr>
<tr>
<td>Middle SES (v. high SES)</td>
<td>0.67 (0.30, 1.51)</td>
<td>0.46 (0.20, 1.04)</td>
<td>0.72 (0.32, 1.65)</td>
</tr>
<tr>
<td>Marital status (single v. other)</td>
<td>2.16 (1.07, 4.38)*</td>
<td>1.8 (0.91, 3.57)</td>
<td>1.61 (0.76, 3.40)</td>
</tr>
<tr>
<td>Religion (Christian v. other)</td>
<td>1.81 (0.64, 5.12)</td>
<td>2.92 (1.05, 3.57)*</td>
<td>1.84 (0.63, 5.43)</td>
</tr>
</tbody>
</table>

OR = odds ratio; CI = confidence interval; SES = socio-economic status.
*Statistically significant at p<0.05
** Statistically significant at p<0.01
† Only participants who have reported having had sex more than once were included in these two models.
We examined multiple factors related to perceived HIV susceptibility and condom use in sexually experienced adolescent males. Although the majority of students perceived HIV/AIDS to be a problem in Nairobi, they did not perceive themselves as particularly susceptible. In addition, relatively few agreed that condoms are effective in preventing HIV. This perception is likely to be key to the general absence of associations between condom use and perceived susceptibility to HIV/AIDS in this sample. The absence of an association is contrary to previous studies from sub-Saharan Africa (Adih & Alexander, 1999; Akwara et al., 2003; Maswanya et al., 1999; Meekers & Klein, 2002).

The Health Belief Model proposes that an individual will take preventive action if he or she regards him or herself as susceptible to a condition such as HIV/AIDS, believes that a course of action available to him/her (i.e. condom use) would be beneficial in reducing his or her susceptibility, and if he/she believes that the anticipated barriers to taking the action are outweighed by the benefits (Rosentock, 1990). Although most of our in-school population did not generally perceive themselves as vulnerable and did not perceive condom use as an effective preventive action, we did find that those who perceived that buying condoms is embarrassing were less likely to report having used one during their first sexual intercourse.

Despite the negative view of condom effectiveness in HIV prevention, 30% of our sample reported using a condom at first vaginal sex, 51% at most recent sex, and 34% reported condom use most or all the time. The level of condom use at most recent sex was relatively high compared to the 40% figure reported by the last Kenyan DHS for the same age group (MEASURE DHS+, 2003). This is probably partly a function of sampling differences. The DHS included a nationally representative sample, and 60% of adolescent boys under the age of 20 in Kenya are either in primary school or not in school at all (Lagarde et al., 2001; MEASURE DHS+, 2003). Our secondary school sample is therefore not typical of Kenyan adolescents regarding education.

Some associations in these analyses were unanticipated. For example, almost half of our participants agreed that condoms often break, yet those who agreed condoms break were more likely to have used condoms at first sex. Given the relatively young age of our participants at first sex, we speculate that many of the students who used a condom on that first occasion did not know how to use it properly, and may have been more likely to experience condom breakage. Thus, experience may be driving the perception rather than the reverse.

Being older at first sex was strongly associated with the use of a condom at first sex. In turn, the use of a condom at first sex was significantly correlated with condom use at most recent sex and on a consistent basis thereafter. This pattern is consistent with findings documented in other studies (WHO, 2000), and underscores the potential health benefits of delaying sexual transition.

### Table 3. Adjusted odds ratios (OR) for condom use among sexually experienced secondary school adolescent male students who participated in the TeenWeb survey in Nairobi, Kenya

<table>
<thead>
<tr>
<th></th>
<th>Condom use at first sex</th>
<th>Condom use at most recent sex</th>
<th>Condom use most or all the time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
</tr>
<tr>
<td>Age (years)</td>
<td>1.11 (0.67, 1.85)</td>
<td>0.64 (0.36, 1.15)</td>
<td>1.09 (0.59, 1.99)</td>
</tr>
<tr>
<td>Grade (forms 3 &amp; 4 v. form 2)</td>
<td>1.12 (0.38, 3.33)</td>
<td>2.01 (0.58, 6.94)</td>
<td>0.80 (0.22, 2.98)</td>
</tr>
<tr>
<td>Religion (Christian v. others)</td>
<td>0.81 (0.18, 3.77)</td>
<td>3.53 (0.77, 16.23)</td>
<td>2.41 (0.44, 13.10)</td>
</tr>
<tr>
<td>Low SES (v. high)</td>
<td>0.39 (0.10, 1.49)</td>
<td>0.69 (0.16, 2.98)</td>
<td>0.49 (0.10, 2.30)</td>
</tr>
<tr>
<td>Middle SES (v. high)</td>
<td>0.59 (0.18, 1.90)</td>
<td>0.87 (0.24, 3.10)</td>
<td>0.44 (0.12, 1.67)</td>
</tr>
<tr>
<td>Marital status (single v. married/ cohabiting)</td>
<td>1.14 (0.35, 3.75)</td>
<td>1.18 (0.36, 3.83)</td>
<td>0.80 (0.21, 3.05)</td>
</tr>
<tr>
<td>Condoms often break†</td>
<td>3.41 (1.25, 9.30)*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Buying condoms is embarrassing†</td>
<td>0.30 (0.09, 0.94)*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Age at first sex (years)†</td>
<td>1.44 (1.17, 1.77)**</td>
<td>-</td>
<td>8.76 (2.64, 29.07)**</td>
</tr>
<tr>
<td>Use a condom at first sex</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Statistically significant at p<0.05  
** Statistically significant at p<0.01  
†Variables not retained in the final model for condom use at the most recent sex and condom use most or all the time (see methods)  
‡ Only participants who reported having had sex more than once were included in these two models  
CI = confidence interval; OR = odds ratio; SES = socio-economic status.
Possible biases might have affected the results of this study. First, all measures were self-reported. Thus, responses may have been biased by recall errors or intentional misreporting of behaviour. However, the privacy conditions around the study and the use of web-based questionnaires should have minimised purposeful misreporting. Second, although health content available on the project’s web page prior to Module #4 did not specifically address condom use, it is possible that access to general health information on the TeenWeb website before completing Module #4 questions on sexual behaviour contributed to the relatively high level of condom use at most recent sex. However, this seems unlikely, given that perceived susceptibility to HIV and perceived effectiveness of using condoms to prevent HIV were consistently low, despite exposure to educational content. In general, the relationship between most of the perceptual factors examined and condom use was in the direction hypothesised. But the associated confidence intervals were relatively wider, suggesting the need for a larger study.

In conclusion, the 2005-2015 Kenyan national plan of action for adolescent reproductive health and policy (National Coordinating Agency for Population and Development, 2005) has little focus on condom use. However, present findings emphasise the need for interventions to increase awareness about the role of condoms in preventing HIV/AIDS among adolescents in Nairobi, and the need to reach them with health education messages before they become sexually experienced. Findings also stress the importance of encouraging adolescents to delay their sexual debut.

Acknowledgements

TeenWeb is a research-practice collaborative project conducted by the Carolina Population Center at the University of North Carolina at Chapel Hill and Ips. Teenweb was funded by the Andrew W. Mellon Foundation. Marcel Yotebieng is an NIH Fogarty Fellow sponsored by grant No. DHHS/NIH/FIC 5 D43 TW01039-08 AIDS International Training and Research Program at the University of North Carolina at Chapel Hill.

References


Attitude of health care workers to patients and colleagues infected with human immunodeficiency virus

A E Sadoh, W E Sadoh, A O Fawole, A Oladimeji, O Sotiloye

Abstract

Discrimination against persons living with HIV/AIDS in hospital settings has been documented. This study examined the attitude of health care workers (HCWs) to nurses, doctors and patients infected with HIV. A total of 345 respondents selected by multistage sampling techniques were surveyed, using a semi-structured questionnaire, which explored respondents’ attitude to HIV-infected patients and colleagues with HIV/AIDS. HCWs were unwilling to accept that medical procedures be carried out on them by HIV-infected doctors and nurses, with almost 80% refusing surgery or assistance at surgery on them by an HIV-infected doctor or nurse. They were also significantly more unwilling to accept that medical procedures be carried out on them by an infected colleague, compared with their carrying out the same procedure on an HIV-infected patient. Thus, HCWs seemed to believe that the risk of contracting HIV was higher if an infected HCW were to perform medical procedures on them, and fear of contracting HIV seemed to be the driving force for their negative attitudes. Education on occupational risks of HIV, provision of a safe working environment with enforcement of universal precautions, as well as provision of post-exposure prophylaxis are suggested as ways to enable HCWs to change their attitudes.

Keywords: Attitude, health care workers, HIV-infected colleagues, HIV-infected patients.

Résumé

La discrimination à l’encontre des personnes vivant avec le VIH/SIDA en milieu hospitalier a été étudiée. Cette étude porte sur l’attitude des membres du personnel soignant envers les infirmières, les médecins et les patients infectés par le VIH : 345 répondants sélectionnés au moyen d’une technique d’échantillonnage à plusieurs degrés ont été interrogés, en utilisant des questionnaires semi-structurés visant à étudier l’attitude des répondants vis-à-vis des patients infectés par le VIH et des collègues vivant avec le VIH/SIDA. Les membres du personnel soignant étaient réticents à l’idée d’accepter que des procédures médicales leurs soient administrées par des médecins et des infirmières infectés par le VIH, et quasiment 80% refusaient qu’une intervention chirurgicale ou qu’une assistance lors d’une intervention chirurgicale soit pratiquée sur eux par un médecin ou une infirmière infecté par le VIH. Ils étaient beaucoup plus réticents à l’idée d’accepter que des procédures médicales soient pratiquées sur eux par un collègue infecté, qu’à l’idée d’accepter la procédure inverse. Il semblerait ainsi que les membres du personnel soignant pensent que le risque de contracter le VIH est plus élevé si un membre du personnel soignant infecté pratique des procédures médicales sur leur propre personne, et la peur de contracter le VIH semble être l’élément moteur de leurs attitudes négatives. Une éducation aux risques professionnels du VIH, la création d’un environnement de travail sûr où les mesures de précaution universelles sont pratiquées ainsi que la mise à disposition d’une prophylaxie après une exposition sont les moyens qui sont proposés pour permettre aux membres du personnel soignant de changer leurs attitudes.

Mots clés: Attitude, membres du personnel soignant, collègues infectés par le VIH, patients infectés par le VIH.

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Introduction

HIV/AIDS has many physical effects, but perhaps some of the most profound effects are in the psychological, social and economic health of the HIV-positive person, his or her loved ones and the community (Bachmann & Booyzen, 2003; Hilhorst., van Liere, Ode & de Koning, 2006; Hosegood, Preston-White, Busza, Moïse & Timaeus, 2007). Fear, stigma and discrimination have continued to accompany the HIV pandemic (UNAIDS, 2000). Consequently, actions to reduce or protect against discrimination and stigma may be the most significant step that can be taken to improve the psychosocial wellbeing of people living with HIV/AIDS (PLWHA).

The health sector has been identified as one of the areas in which discrimination occurs (Mahendra, et al., 2007). Studies have documented negative attitudes to PLWHA in health care settings in Nigeria and elsewhere (Adelekan et al., 1995; Fido & Al Kamezi, 2002; Hentgen, Jaureguiberry, Ramilariaso, Andrianantoandro & Belec, 2002; Quach, Mayer, McGarvey, Lurie & Do, 2005; Reis et al., 2005). Physicians and nurses have been reported to be uncomfortable when administering medical procedures to HIV-infected patients (Oyeyemi, Oyeyemi & Bello, 2006; Oyeyemi, Oyeyemi & Bello, 2008), while in one study (Fransman, McCulloch, Lavies & Hussey, 2000) more than half of respondents were found to be reluctant to perform invasive procedures on HIV-infected children. Stigma and discrimination in the health care setting could jeopardise HIV prevention efforts and HIV care, especially if infected health care workers (HCWs) are unsupported. Negative attitudes may also engender fear in HCWs, such that they are reluctant to be screened for HIV, and put themselves at risk by delaying initiation of treatment in themselves. The HIV-infected HCW may also be at risk of acquiring infections such as tuberculosis from patients. The possibility of discrimination from hospital authorities and stigma from colleagues and patients also exists.

Voluntary screening for HIV is one of the major means of preventing the spread of HIV. Several studies on HIV screening have explored attitudes of different groups of people to HIV screening (pregnant women, undergraduates, youths), with over 75% expressing positive attitudes towards being screened (Daniel & Oladapo, 2006; Ikechebelu, Udugwe, Ikechebelu & Imoh, 2006; Iliyasu, Kabir, Galadanci, Abubaker & Aliyu, 2005; Pool, Nyanzi & Whitworth, 2001). Investigators have reported HCWs supporting various approaches to HIV testing such as mandatory testing of all patients, testing of all surgical patients, and testing as part of routine medical investigations (Ganczak & Barss, 2007; Li et al., 2007; Obi, Waboso & Ozomba, 2005). Few studies however have examined the attitude of HCWs towards being screened for HIV. In one such study (Tarwirevi & Majoko, 2003) 77% of respondents were unwilling to undergo screening, and in another (Kiragu, Ngulube, Nyumbu, Njobvu, Eerens & Mwaba., 2007) only 33% of respondents had been screened. Moreover, few studies have evaluated attitudes of HCWs to their colleagues infected with the virus in Nigeria, a country reported to have more people living with HIV than any other country in the world, save for South Africa and India. This study was carried out to assess the attitudes of HCWs to doctors and nurses infected with HIV in comparison to HIV-infected patients. The attitudes of HCWs to HIV screening were also evaluated.

Subjects and methods

Nigeria has 36 states, and each state is subdivided into local government areas (LGA) that are administered by the third level of government (the others being the state governments and the federal government). The official language is English and training of health care personnel is done in English. This cross-sectional study was conducted in September 2003 in Abeokuta north and south local government areas of Ogun state in Nigeria. At the time of the study seroprevalence of HIV was 1.5% in Ogun state (Federal Ministry of Health, 2004) and there were no organised HIV programmes in the state.

Respondents were selected using a multistage sampling technique. The LGA were the first stage of sampling. A list of all registered health institutions (public and private) from the primary, secondary and tertiary levels of care in both LGA was obtained from the Ogun state Ministry of Health. There were 67 health care facilities in Abeokuta north local government area, consisting of 22 primary health centres, 2 secondary health facilities, 1 tertiary health facility and 42 private health care facilities. In Abeokuta south LGA there were 83 health facilities, consisting of 19 primary health care facilities, 3 secondary care facilities, 1 tertiary facility and 60 private health facilities. One quarter of the health facilities in each LGA were selected randomly. The selected health institutions formed the second stage of sampling.

The list of all HCWs in the selected institutions was obtained from the administrative authority. The list was arranged according to cadres. The respondents were health care workers of various cadres who had direct contact with patients. Random selection of at least a quarter of the personnel in each cadre was done. Where a selected individual was not available or declined to participate in the study, the next person in the same cadre on the list was picked.

A two-part pre-tested self-administered semi-structured questionnaire was employed to evaluate attitudes of respondents
towards HIV-infected colleagues and HIV screening. The first part contained seven items seeking information on biodata, type of profession and practice of the respondent. The second part had 21 items, the first 10 of which evaluated the attitudes of HCWs to colleagues and patients infected with HIV. The questions required 'yes' or 'no' answers to whether the respondents would be willing to take vital signs, carry out a physical examination, give an injection, and operate/assist to perform a surgical operation on an HIV-infected patient. Another set of questions required respondents to indicate their willingness to accept the outlined procedures to be carried out on them by an HIV-infected doctor or nurse. The other items sought information on whether respondents had been screened for HIV, and their reactions while awaiting the results of their test. For those who had not been screened, their willingness to accept HIV testing was ascertained, while exploring the reasons for refusing testing.

Reliability and validity of the study instrument were ensured by adequate review of related literature. The instrument was further pre-tested in two non-participating private hospitals on 30 HCWs prior to commencement of the study, and necessary adjustments were made. It took about 15 minutes to complete the questionnaire. The questionnaires were distributed by three research assistants who were trained for the purpose of the study.

Ethical approval for the study was obtained from the ethical review committee of the Federal Medical Centre Abeokuta. Permission was obtained from the administrative authority of each study site. Verbal consent was obtained from each respondent, after thorough explanation of the study objectives and assurance of confidentiality of responses.

Completed questionnaires were edited daily. Data entry was done using a microcomputer and data analysis was performed with SSPS version 15. Comparisons and associations were evaluated using the Chi-squared test and Fischer’s exact test as appropriate. Significance level was set at 0.05. HCW attitudes were further analysed by awarding one point for each procedure accepted from an HIV-infected colleague. The maximum score was 5. Similarly, 1 point each was awarded for each procedure HCWs were willing to perform on an HIV-infected patient. The maximum score here was also 5. Attitudes were adjudged negative if the score was 3 or less and positive if 4 or 5. Multivariate logistic regression was used to assess independent predictors of attitudes to colleagues infected with HIV.

Results
A total of 345 HCWs were surveyed. Of these, 290 (84.1%) were females while 55 (15.9%) were males. The profession and type of practice of the respondents is shown in Table 1. The majority (68.4%) were trained nurses, followed by auxiliary nurses (17.9%) and medical doctors (10.1%). Trained nurses undergo a more intensive training (in content and skill acquisition) than auxiliary nurses. Various aspects of HIV are included in the nursing curriculum. Trained nurses also receive some in-service training, which may include HIV training.

Few HCWs were willing to accept that medical procedures be carried out on them by an infected doctor or nurse. Almost 80% would refuse surgery or assistance at surgery on them by an HIV-infected doctor or nurse. The more invasive the procedure, the higher the tendency to refuse (Table 2). Compared with accepting a non-invasive procedure, such as taking vital signs, HCWs were significantly more likely to refuse invasive procedures being carried out on them by an HIV-infected colleague: accepting injections [Odd's ratio (OR) 4.12, 95% confidence interval (CI) 2.97, 5.7]; accepting the setting up of an infusion [OR 5.65, CI (4.06, 7.8)], and accepting surgery or assistance at surgery on them [OR 10.29, CI (7.20, 14.68)].

HCWs were significantly more willing to carry out medical procedures on HIV-infected patients than accepting similar procedures being carried out on them by an HIV-infected colleague (Table 2). Whereas 72.5% and 71.3% of HCWs respectively were willing to give injections and set up an infusion on an HIV-infected patient, only 38.3% and 31.9% respectively

| Table 1. Distribution of HCWs by profession and type of practice |
|-----------------------------------|---|---|
| **Profession** | **N** | **%** |
| Medical doctors | 35 | 10.1 |
| Trained nurses | 236 | 68.4 |
| Auxiliary nurses | 62 | 17.9 |
| Laboratory scientists | 5 | 1.5 |
| Others* | 7 | 2.1 |

<table>
<thead>
<tr>
<th><strong>Practice</strong></th>
<th><strong>N</strong></th>
<th><strong>%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Private hospital</td>
<td>154</td>
<td>44.6</td>
</tr>
<tr>
<td>General hospital</td>
<td>75</td>
<td>21.7</td>
</tr>
<tr>
<td>Tertiary hospital</td>
<td>71</td>
<td>20.6</td>
</tr>
<tr>
<td>Government owned maternity</td>
<td>20</td>
<td>5.8</td>
</tr>
<tr>
<td>Primary health centre</td>
<td>12</td>
<td>3.5</td>
</tr>
<tr>
<td>No response</td>
<td>13</td>
<td>3.8</td>
</tr>
</tbody>
</table>

*Others – physiotherapists 3, dental therapist 1, records officer 1.
would accept the same procedures from an HIV-infected doctor or nurse. The difference in their willingness to carry out medical procedures on HIV-infected patients and accepting the same procedures to be performed on them by an HIV-infected colleague reached statistical significance for both invasive and non-invasive procedures (Table 2).

There were statistically significant differences between professional groups in their willingness to accept all procedures, except taking vital signs from HIV-infected colleagues (Table 3). Doctors (85.7%) were more willing to accept that a physical examination be carried out on them by an infected doctor or nurse than trained nurses (63.3%) and auxiliary nurses (64.5%). They were also more willing to accept injections and infusions from an infected HCW. They were similar to trained nurses in refusing surgery or assistance at surgery on them by an infected HCW. Auxiliary nurses were less likely to reject surgery or assistance at surgery on them by an infected HCW.

The mean attitude score towards HIV-infected HCWs was 2.29±1.8, with a median score of 2.0, whereas the mean attitude score towards patients infected with HIV was 3.7±1.5, with a median score of 4. The respondents’ attitude towards patients and colleagues with HIV infections and their attitude scores are shown in Table 4. Less than two-fifths of respondents had a positive attitude towards colleagues with HIV infection. On the contrary, however, their attitude towards patients with HIV infection was the exact opposite, with only about two-fifths showing a negative attitude. There was a statistically significant difference between the mean attitude scores towards patients compared with the mean attitude score towards HCWs with HIV infection (p<0.01).

Table 5 shows the comparison of respondents according to their attitude. A greater proportion of male respondents significantly displayed a positive attitude compared with females (χ²=6.68, p>0.05). Marital status, religion, the setting of care and age group did not significantly influence their attitude. However, the professional group significantly influenced respondents’ attitude. A greater proportion of medical doctors exhibited a positive attitude compared with other professional groups.

Multivariate regression analysis was used to assess independent predictors of attitude to colleagues with HIV infection. When entered into the regression model with positive attitude as the dependent variable (Table 6), sex and professional cadre, although significant with univariate analysis, were however not independently predictive of HCWs’ attitude.

---

### Table 2. Comparison of willingness of HCWs to carry out procedures on HIV-infected patients with acceptance of same procedures from HIV-infected HCWs

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Willingness to carry out on HIV-infected patient</th>
<th>Willingness to accept from HIV-infected HCW</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes (N%)</td>
<td>No (N%)</td>
<td></td>
</tr>
<tr>
<td>Take vital signs</td>
<td>292(84.6)</td>
<td>48(13.9)</td>
<td>&lt;0.005</td>
</tr>
<tr>
<td>Physical examination</td>
<td>296(85.8)</td>
<td>44(12.8)</td>
<td>&lt;0.005</td>
</tr>
<tr>
<td>Give injection</td>
<td>250(72.5)</td>
<td>88(25.5)</td>
<td>&lt;0.005</td>
</tr>
<tr>
<td>Set up intravenous infusion</td>
<td>246(71.3)</td>
<td>86(24.7)</td>
<td>&lt;0.005</td>
</tr>
<tr>
<td>Perform/assist in surgery</td>
<td>180(52.2)</td>
<td>152(44.1)</td>
<td>&lt;0.005</td>
</tr>
</tbody>
</table>

### Table 3. Willingness of different cadres of HCWs to allow HIV-infected HCWs to carry out medical procedures on them

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Doctors</th>
<th>Nurses</th>
<th>Auxiliary nurses</th>
<th>Others</th>
<th>χ² / p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes N(%) No N(%)</td>
<td>Yes N(%) No N(%)</td>
<td>Yes N(%) No N(%)</td>
<td>Yes N(%) No N(%)</td>
<td>χ² / p-value</td>
</tr>
<tr>
<td>Take vital signs</td>
<td>32(91.4) 3(8.6)</td>
<td>164(69.5) 67(28.4)</td>
<td>44(71.0) 18(29.0)</td>
<td>7(70.0) 3(30.0)</td>
<td>χ² =6.68 p&gt;0.05</td>
</tr>
<tr>
<td>Physical examination</td>
<td>30(85.7) 4(11.4)</td>
<td>150(63.6) 81(34.3)</td>
<td>40(64.5) 22(35.5)</td>
<td>4(40.0) 6(60.0)</td>
<td>χ²=10.72 p=0.01</td>
</tr>
<tr>
<td>Give injection</td>
<td>21(60.0) 13(37.1)</td>
<td>79(33.5) 151(66.0)</td>
<td>29(46.8) 33(53.2)</td>
<td>3(30.0) 7(70.0)</td>
<td>χ²=11.37 p=0.01</td>
</tr>
<tr>
<td>Set up infusion</td>
<td>20(57.1) 14(40.0)</td>
<td>58(24.6) 171(72.5)</td>
<td>28(45.2) 34(54.8)</td>
<td>4(40.0) 6(60.0)</td>
<td>χ²=20.77 p&lt;0.001</td>
</tr>
<tr>
<td>Perform/assist in surgery</td>
<td>8(22.9) 27(77.1)</td>
<td>36(15.3) 193(81.8)</td>
<td>25(40.3) 37(59.7)</td>
<td>2(20.0) 8(80.0)</td>
<td>χ²=17.80 p&lt;0.001</td>
</tr>
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</table>
Table 4. Respondents’ attitude scores and attitude towards HCWs and patients with HIV infection

<table>
<thead>
<tr>
<th>Scores</th>
<th>HCWs with HIV infection</th>
<th>Patients with HIV infection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>0</td>
<td>92</td>
<td>26.7</td>
</tr>
<tr>
<td>1.0</td>
<td>25</td>
<td>7.2</td>
</tr>
<tr>
<td>2.0</td>
<td>95</td>
<td>27.5</td>
</tr>
<tr>
<td>3.0</td>
<td>26</td>
<td>7.5</td>
</tr>
<tr>
<td>4.0</td>
<td>39</td>
<td>11.3</td>
</tr>
<tr>
<td>5</td>
<td>68</td>
<td>19.7</td>
</tr>
</tbody>
</table>

Attitude

<table>
<thead>
<tr>
<th></th>
<th>Negative</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>212</td>
<td>61.4</td>
</tr>
<tr>
<td></td>
<td>133</td>
<td>38.6</td>
</tr>
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</table>

Table 5. Respondent characteristics and their attitude towards HIV-infected colleagues

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Attitude</th>
<th>χ²/p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>25</td>
<td>45.5</td>
</tr>
<tr>
<td>Female</td>
<td>187</td>
<td>64.5</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>79</td>
<td>59.0</td>
</tr>
<tr>
<td>Married</td>
<td>127</td>
<td>62.3</td>
</tr>
<tr>
<td>Religion</td>
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<tr>
<td>Christianity</td>
<td>186</td>
<td>62.2</td>
</tr>
<tr>
<td>Islam</td>
<td>26</td>
<td>61.9</td>
</tr>
<tr>
<td>Setting of practice</td>
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<td></td>
</tr>
<tr>
<td>Private</td>
<td>95</td>
<td>61.7</td>
</tr>
<tr>
<td>Public</td>
<td>109</td>
<td>61.2</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
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<tr>
<td>&lt; 20</td>
<td>14</td>
<td>51.9</td>
</tr>
<tr>
<td>21 - 30</td>
<td>87</td>
<td>66.9</td>
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<td>31 - 40</td>
<td>57</td>
<td>56.4</td>
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<tr>
<td>41 - 50</td>
<td>47</td>
<td>61.8</td>
</tr>
<tr>
<td>&gt;50</td>
<td>7</td>
<td>63.6</td>
</tr>
<tr>
<td>Professional group</td>
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<td></td>
</tr>
<tr>
<td>Medical doctors</td>
<td>14</td>
<td>40.0</td>
</tr>
<tr>
<td>Nurses</td>
<td>156</td>
<td>66.1</td>
</tr>
<tr>
<td>Laboratory scientists</td>
<td>3</td>
<td>60.0</td>
</tr>
<tr>
<td>Physiotherapists</td>
<td>2</td>
<td>66.7</td>
</tr>
<tr>
<td>Auxiliary nurses</td>
<td>33</td>
<td>53.2</td>
</tr>
</tbody>
</table>

S = significant; NS = not significant.

Table 6. Multivariate logistic regression analysis with positive attitude as dependent variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>p-value</th>
<th>Odds ratio</th>
<th>95% CI for odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>*Female</td>
<td>0.116</td>
<td>1.86</td>
<td>0.89</td>
</tr>
<tr>
<td>Male</td>
<td>0.116</td>
<td>1.86</td>
<td>0.89</td>
</tr>
<tr>
<td>Professional group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Doctors</td>
<td>0.189</td>
<td>0.54</td>
<td>0.21</td>
</tr>
<tr>
<td>Nurses</td>
<td>0.577</td>
<td>0.57</td>
<td>0.08</td>
</tr>
<tr>
<td>Laboratory scientists</td>
<td>0.428</td>
<td>0.36</td>
<td>0.03</td>
</tr>
<tr>
<td>Physiotherapists</td>
<td>0.951</td>
<td>0.97</td>
<td>0.34</td>
</tr>
<tr>
<td>Auxiliary nurses</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Female and doctors were used as reference, hence the odds ratio of 1.00.
Of the HCWs surveyed, 74.2% (256) had been screened for HIV; and of these 56.7% (144) reported being calm while awaiting the result of the screening. Apprehension and dread were reported in 31.5% (81) and 6.3% (16) respectively. Reasons for having not been screened included fear of breach of confidentiality in 50.6% (45), fear because there is no cure in 49.4% (44), fear of discrimination in 44.9% (40) and fear of watching oneself die in 41.6% (37). Other reasons were fear of being positive in 42.6% (38), fear of rejection by society in 37.1% (33) and fear of loss of job in 33.7% (30). About 49% (44 of 89) of those who had not been screened were unwilling to be screened.

Discussion

The occupational risk of becoming HIV infected from patients in a health care setting is low, estimated to be approximately 0.3% with percutaneous exposure to HIV-infected blood, and 0.09% after a mucous membrane exposure (Baggaley, Sulwe, Kelly, MacMillan & Godfrey-Faussett, 1996). Although transmission of HIV from infected HCWs to patients has been documented, the risk is much lower than in the reverse situation (CDC, 2001). Despite the fact that transmission is more likely from patient to HCW than the reverse, we observe more discriminatory attitudes toward infected HCWs compared with infected patients. It can be deduced that the studied HCWs believed that the risk of getting infected was higher if they had clinical contact with an HIV-infected HCW than if the contact was with an HIV-infected patient. The implication of such a myth is grave, as these may include that HIV-infected HCWs receive very little support from their colleagues, and may consequently delay HIV testing and initiation of treatment for themselves.

It is reasoned that HCWs probably feel they have better control over avoiding HIV transmission in situations where they administer procedures to HIV-infected patients than situations where they have to accept procedures administered to them by HIV-infected colleagues. These negative attitudes are similar to those of Chinese medical professionals and students, who were unwilling to sit or work with an HIV-infected person (Buskin, Li, Yin, Yu & McGough, 2002). Negative attitudes towards HIV-infected colleagues were also noted in previous studies in Nigeria, in which 43.6% of the HCWs studied were uncomfortable being assisted by an infected colleague, and 51.1% were uncomfortable sharing a bathroom with an infected colleague (Aisien & Shobowale, 2005). In another study (Reis et al., 2005), 40% of HCWs believed that infected HCWs should not be allowed to work in any area of health care that requires patient contact.

The nurses in this study were more discriminatory than doctors and auxiliary nurses, based on univariate analysis, though this is not borne out by multivariate analysis. This suggests that the discriminatory attitudes exhibited by the respondents are of multifactorial aetiology and not confined to any group of HCWs. However, the tendency of nurses and auxiliary nurses to be more discriminatory, which has previously been reported (Adelékan et al., 1995), may be due to their poorer knowledge of HIV transmission in comparison to physicians, as has been shown in previous studies (Adelékan et al., 1995; Ezedinachi et al., 2002). The importance of this finding is that in the current roll-out programmes a lot more HIV care is provided through nurses than doctors. Thus specific efforts to deal with negative attitudes towards HIV among HCWs should focus primarily on nurses.

The reluctance of the HCWs to carry out more invasive procedures or accept them indicates the fact that they know that the risk of transmission of infection is higher with more invasive procedures, where there is a higher likelihood of exposure to blood and blood products. These findings are similar to those in other Nigerian studies (Adelékan et al., 1995; Oyeyemi et al., 2006).

The fear of contracting HIV and its associated difficulties, such as stigmatisation, discrimination and loss of jobs may be a major contributor to the negative attitudes towards PLWHA among HCWs. More than a third of those who had not been screened expressed various fears, for example job loss, discrimination, rejection etc., as to why they had not been screened. Also close to half of those who had not been screened were unwilling to be screened. Similar findings have been reported among Zambian HIV counsellors and Zimbabwean HCWs (Erridge, 1996; Tarwirevi 2003). These negative attitudes are detrimental to the prevention of HIV transmission both within and outside the health care setting, as it may result in a pool of undiagnosed HIV-positive HCWs (Chesney & Smith, 1999). Fewer HCWs would voluntarily come forward for HIV testing if it is perceived that a positive HIV status would attract stigmatisation from colleagues. The tendency of non-disclosure of possible positive HIV status to the authorities or colleagues would be high (Chesney & Smith, 1999; Herek et al., 1998). It may be instructive to find out why HCWs were more unwilling to be screened compared with other groups of persons (pregnant women, undergraduates) who have shown more positive attitudes towards screening (Daniel & Oladapo, 2006; Ikechibelu et al., 2006; Iliyasu et al., 2005; Pool et al., 2001). Perhaps a higher perceived risk (occupational) may be responsible for such negative attitudes of HCWs.

Recommendations

Education on the risks of HIV transmission in the health care setting and means of reducing such risks (universal precaution, post-exposure prophylaxis) should be conducted. Educational
programmes have been shown in previous studies to reduce fear and increase knowledge amongst nurses (Ezedinachi et al., 2002; Pisol et al., 2007), and perhaps among other HCWs. Provision of the wherewithal to maintain universal precautions as well as post-exposure protocols should be facilitated in health care settings. Policies that support HIV-infected HCWs, such that their rights are protected (confidentiality, job security), should be put in place. This should include access to specific HIV counselling and testing for HCWs, and prioritisation of HCWs for antiretroviral therapy. With these in place, workshops to deal with attitudes towards HIV/AIDS among HCWs in the health care setting and society at large should be carried out to enable HCWs to change their attitudes.

Limitation/strengths
This study was carried out in only one of the states in Nigeria – a larger study involving more states and more HCWs may better identify some of the associations observed in this study. The strengths of this study include the fact that the questionnaires were self-administered and respondents were not required to write their names, thus assuring anonymity. Under the circumstances responses were likely to have indicated the respondents' true practices and attitudes. This study also included various cadres of HCWs from the major settings of health care practice (public and private) in Nigeria.

References
Challenges impacting on the quality of care to persons living with HIV/AIDS and other terminal illnesses with reference to Kanye community home-based care programme

S M Kang’ethe

Abstract

HIV/AIDS has been found to be a challenging disease to humanity, its challenge spin-offs falling especially on to the caregivers of those infected and affected by the virus. This paper aims to discuss the challenges influencing the state of caregiving in the Kanye community home-based care (CHBC) programme in Botswana. The study was qualitative in design and explorative in nature, involving 82 primary caregivers in focus group discussions, and 5 CHBC nurses in individual interviews. Caregivers were found challenged by lack of community networks support, inadequate sanitary and care packages, poor shelter compromising privacy, inadequate income and food for their clients, inadequate care motivation as their volunteerism does not attract any payment, inadequate health personnel to offer psychosocial support like counselling, and an unconducive caring environment generally. Putting in place policies to redress caregivers’ poverty, helping caregivers start income-generating projects, increasing community assistance and caregiving facilities are recommended as factors to address caregiver challenges.

Keywords: Poverty, community home-based care programme, HIV/AIDS clients, income-generating activities, incentives and motivation, quality of caregiving.

Résumé

Le VIH/SIDA s’avère être une maladie posant un défi à l’humanité, ce défi reposant tout particulièrement entre les mains des donneurs de soins aux personnes infectées et affectées par le virus. L’objectif de cet article est de discuter des défis influençant l’administration de soins dans le programme communautaire de soins à domicile de Kanye au Botswana. Il s’agissait d’une étude de conception qualitative et de nature exploratoire, impliquant 82 soignants principaux en réunions de groupe, et 5 infirmières de soins communautaires à domicile en entretiens individuels. Les donneurs de soins étaient confrontés à un manque de soutien de la part des réseaux communautaires, à de mauvaises conditions d’hygiène et à de mauvaises offres de soins, à des abris précaires, compromettant l’intimité, à des revenus et de la nourriture inadéquats pour leurs clients, à une motivation à soigner inadéquate étant donné que leur volontariat n’est pas rémunéré, à un personnel de santé inadéquat pour proposer un soutien psychosocial comme les consultations psychosociales et, d’un point de vue général, à un environnement de vocation sociale peu favorable. Il est recommandé de mettre en place des politiques visant à remédier à la pauvreté des donneurs de soins, d’aider les donneurs de soins à initier des projets rémunérateurs, de développer l’aide communautaire et les structures d’administration de soins, afin de répondre aux défis auxquels les donneurs de soins se trouvent confrontés.

Mots clés: Pauvreté, programme communautaire de soins à domicile, clients souffrant du VIH/SIDA, activités rémunératrices, mesures d’incitation et motivation, qualité de l’administration des soins.
Study rationale

The rationale of the broad study from which this paper is drawn was to assess the contributions of the caregivers in community home-based care (CHBC) programmes in Botswana, looking at the Kanye CHBC programme as a case study. The paper seeks to discuss the challenges influencing the current state of caregiving. The findings will suggest recommendations that will help bolster the state of caregiving, policy changes, and therefore improvement in the way people living with HIV/AIDS (PLWHA) and other terminal illnesses are taken care of.

Operational definition

Operationally, the word caregiver refers to both the primary caregiver (family caregiver who stays with the sick person most of the time) and the community caregiver, also referred to as ‘volunteer’ in the Botswana context, who moves from house to house to help the primary caregiver discharge her/his caring duties. The researcher (and by extension the paper) does not wish to make any difference, as they are both out to assist in caregiving. However, only primary caregivers were interviewed (primary unit of analysis). The author also uses any of the three words ‘client’, ‘sick’ or ‘patient’ to refer to PLWHA and other terminal illnesses interchangeably. The researcher has operationalised the meaning of the word ‘quality’ by borrowing from Vuori (1982) (quoted by Ovretveit, 1992). According to Vuori, quality in care services (medical, social and psychological) refers to adequacy, which is supply in relation to needs. Therefore the quality of care is deemed to be adequate if sufficient of the necessary supplies as recommended by the Botswana Government care package is supplied to PLWHA and other persons with terminal illnesses, or vice versa (NACP 30, 1996).

Introduction

Since the institutionalisation of the CHBC programme in Botswana (NACP 31, 1996), the caregiving programme has been elevated to complement the mainstream health system. Therefore, the issue of quality discharged by the programme has been a big issue. Since several studies have indicated poor performance of the programme, with a high death toll (DMSAC, 2004, 2005; Jacques & Stegling, 2001; Kang’ethe, 2004, 2006), it has therefore been found necessary to study the challenges impeding or influencing the quality of caregiving in the programme. This paper discusses these challenges in the hope of impacting on policy and thereby improving the future operationalisation of the programme, and also the quality of the services.

According to Townsend (1979), the challenges of poverty manifest themselves as a multifunction of many factors, like starvation, diseases, inability to achieve subsistence or minimum basic needs, deteriorating and deplorable living conditions, and inability to share and enjoy a decent standard of living. The United Nations indicates poverty or the state of being poor when one’s living standards are below one dollar per day (UNDP, 1995). In caregiving contexts in Botswana, most of these characteristics of poverty are shared by most of the caregivers and their clients in the country. Even though many countries have generally had a period of economic and social growth since World War II, in many areas poverty and deprivations have remained persistent and important features of daily life (Forge & Miller, 1987). While many areas of social development succumb to poverty and factors associated with it, one such conspicuous area is in caregiving, where poverty is largely the result of the impact of HIV/AIDS (Jackson, 2002; UNAIDS, 2005). This has been found to negatively compromise the quality of caregiving.

According to a BBC world news broadcast (2005), Africa’s farming has progressively continued to deteriorate since the start of the HIV/AIDS epidemic. This is because HIV/AIDS has eroded the working capacities and productivity of communities, thereby threatening the food requirements of those living with the virus. This is because one of the requirements for a client in the care process to achieve positive living is the availability of a good diet. As HIV/AIDS takes an increasingly heavy toll on the lives of breadwinners, more and more families are affected by shortages of food and other necessities. This falls heavily on the primary caregivers who take care of the sick. The Food and Agriculture Organization (FAO, 2001) argues that people’s nutritional status is determined by various factors, such as household food security, health and care. These are affected by HIV/AIDS. Page & Davies (1999), and the Food and Nutritional Technology Assistance Project (FANTA, 2000) suggest that HIV/AIDS aggravates the problem of poverty among households. This is attributed to the fact that morbidity and mortality reduce the time and human capital available to households (Ainsworth, 1993). A survey by Hope Worldwide NGO, South Africa, found that lack of food was the most pressing need besetting the caregiving process, the situation being exacerbated by the fact that the sick person may not desire what is available, but the body may demand that he be given special meals (UNAIDS, 1999).

In Botswana, most of the CHBC clients and their caregivers have been made poor and vulnerable by the HIV/AIDS phenomenon, and are therefore insecure as far as food is concerned. However, HIV/AIDS clients are entitled to a government basket of food. This is a food package given to vulnerable groups, like people living with the virus, the destitute and orphans, to complement their food needs and therefore mitigate the impact...
of their vulnerability. The food basket is usually collected and administered by the caregiver. However, not all HIV/AIDS clients receive this benefit (Kang’ethe, 2004; NACP 30, 1996). There are many problems associated with the provision of these food baskets, such as lack of awareness by most clients and their families about the provision, stigma associated with the provision, and the long queues in the appointment system of the social workers to assess the socio-economic and ill health conditions of a client (Kalanke, 2004; Kang’ethe, 2004). Furthermore, the food basket, even when it is provided, is usually inadequate, given the ever-escalating rate of inflation in Botswana. The value of the basket at the time of research (December 2005 and January 2006) was P 233 (approximately $ 40). In addition, the clients who get the basket sometimes complain of imbalance or over-representation of some food items over others. This is especially true if the contracted supplier does not have some food items at the time of collection. Poverty affects the caregivers of many clients but, ironically, no part of the food basket is set aside to help the caregiver, who may be just as vulnerable economically as the client (Kang’ethe, 2006).

The quality of most care programmes is dependent on their management. In Botswana it is usually elderly caregivers who manage most caregiving programmes. Most of these caregivers have a low or no educational background, yet the dynamism and challenges associated with caring for HIV/AIDS clients call for some relevant skills. With little or no skill, due to inadequate or no training, most of these caregivers are not able to ensure good-quality care (Kang’ethe, 2004; NACP 30, 31, 1996; Phorano, Ngwenya & Nthomang, 2005; UNAIDS, 2001).

Many research findings on the quality of caregiving in Botswana have found the quality compromised by inadequate care packages in the clinics. This is because of inadequate and unreliable supply of the resources. This has left many caregivers desperate, with no gloves, sanitation towels, bleach or incontinence sheets to adequately handle their clients. This also exposes the caregiver to contagion (Kang’ethe, 2004, 2006; NACP 30, 31, 1996). This, coupled with inadequate staffing to offer psychosocial support like counselling to both the client and their caregiver, only compounds the problem, further impacting negatively on the quality of care (UNAIDS, 2001).

Methodology

A qualitative design was used in the study, including all the 140 registered primary caregivers in the programme, and the 4 CHBC nurses and their co-ordinator. Therefore, while registered primary caregivers formed the sampling frame, the primary caregiver formed the unit of analysis (Neuman, 1997; Rubin & Babbie, 1997). The response rate was 59%, with 82 volunteer primary caregivers constituting 10 focus group discussions. The focus group discussions were conducted with the help of an interview guide. The 4 CHBC nurses and their co-ordinator were interviewed individually, using an interview guide that differed only slightly with the one for the caregivers. The role of the CHBC nurses was to corroborate, cross-check and confirm the responses of the caregivers.

To effect data analysis, the information from the focus group discussions with the primary caregivers and the one-on-one interviews with the nurses was audiotaped and then transcribed. The huge mountain of primary data was reduced to manageable categories and themes, forming the basis of analysis. This was made possible using quotes, analogies and proverbs, while tables and graphs were used to present the data and therefore infer the findings. To reduce data bias and ensure data reliability and validity, results from the pilot study findings acted as baseline data. There was double translation of the instruments, that is translation from English to Setswana and then from Setswana to English by two independent translators, the two parties coming together to settle any discrepancies. In addition, the 4 nurses and their co-ordinator answered more or less the same questions as the primary caregivers. The two interview guides differed only slightly, and the two sets of responses confirmed and cross-checked each other.

The caregivers’ interview grouping selection was based on the clinic’s proximity and point of service delivery, with some clinics having more than one focus group discussion. While caregivers’ selection was done irrespective of their age and gender, the nurses’ selection was based on their supervisory role to the caregivers. All appropriate ethical issues were taken into consideration: informed consent, maintenance of confidentiality, adequate debriefings before commencement, no coercion, and treating the respondents with due respect to maintain their integrity and their human rights. Withdrawal from the research was voluntarily allowed (Neuman, 1997; Salkind, 2000). Application by the researcher to carry out the research was made and approved by the Health Research and Development Committee (HRDC) board of the Ministry of Health’s research unit.

Research was carried out in December 2005 and January 2006 in Kanye village, the biggest village in the Southern District of Botswana which, according to the Central Statistics Office (CSO) (2001), has a population of 40 628 persons. The village was chosen because it has numerous health facilities, including a big Seventh Day Adventist (SDA) hospital, which is used as a district referral hospital, 5 clinics and 2 health posts. (A clinic is bigger in terms of size of human resource and facilities, and serves a bigger population than a health post.) The Southern
District in which the programme lies had high HIV prevalence (25.8%) and the programme was experiencing a high death rate (DMSAC Report, 2004, 2005). The researcher was also the head of the HIV/AIDS programme for almost 5 years, and it was therefore necessary to document his experience and lessons learned.

Findings
Profile of the volunteer caregivers

Age, gender and educational dimension of the caregivers
The caregivers’ ages ranged from 18 to 85 years. Forty-six caregivers (constituting 56% of the total caregivers) were older and obviously poor people of 50 years and above. A total of 28 caregivers (34%) were 60 years and above, 17 (21%) were aged between 60 and 69, while 10 (12%) were between 70 and 79 years old. Only 1 female caregiver was 85 years of age. The study revealed that most caregivers were women, and especially those above 60 years displayed characteristics of poverty – 88% of the caregivers had no any income to support themselves and were physically not strong enough to meet the caregiving demands, leading to their disillusionment with the caregiving role. Some caregivers broke into tears as they explained the circumstances of deprivation in which they worked. The relatively elderly caregivers especially indicated that they were psychologically drained by caregiving and that they needed to be assisted.

Regarding literacy, 74% of the caregivers had either never been to school or had only primary level education. Only 5% of the caregivers had tertiary education. Illiteracy was found to contribute to a low level of care, low productivity and poverty. This was psychologically disabling, as most of those who had never been to school were also elderly and had problems of accessing education on caregiving, following the medical and hygiene protocol, and following the disease progression of their clients (Atta & Fidzani, 1996; Kangéthe, 2006). Findings indicate that the programme faces serious gender imbalances, with 80 (98%) being women and only 2 men (2%). Since women have other domestic chores, caregiving presented additional burdens and societal exploitation, further contributing to their poverty (Finch, 1984; Kelesetse, 1998; UNDP, 1995).

Inadequate sources of income and food
Findings confirmed that many caregivers were poor, had no source of income, and therefore were not able to afford what their clients required or demanded. As many as 88% of the caregivers in the Kanye programme had no source of income, and they attributed their state of poverty and low quality of caregiving to lack of engagement in any income-generating activity or any form of employment. The food basket, for those lucky enough to get it, was not adequate, as it had some food items over-represented while some were under-represented. Even for those scheduled to receive it, the social worker’s assessment results took too long that caregivers were left with the challenge of looking for more income to supplement the food package. Lack of adequate food, therefore, presented one of the greatest stressors in caregiving, driving the caregivers further into poverty and compromising the quality of care, as they struggled to look for adequate food. This was exacerbated by the fact that the clients mostly required special and expensive food that caregivers could not afford. Caregivers, therefore, were frequently left with no alternative but to painfully watch their clients suffer, seeing them become weaker and more emaciated, not responding to ARV drugs due to food deficiency, and often succumbing to an array of opportunistic diseases (Kangéthe, 2004). This scenario could partly explain the high death toll experienced in many CHBC programmes in Botswana, with the Kanye programme worst affected (DMSAC Report, 2005).

The quotes below were by caregivers demonstrating their desperation at their lack of income and food:

- We are poor and have nothing else to do except caregiving.
- A patient does not understand. You give him/her the food you have, she/he refuses, yet you have no money to buy her/him what he/she wants as you are unemployed.
- It is not all the sick clients who get a food basket. Some of our clients have been waiting for the assessment results of the social workers for a long time in vain.
- Food is inadequate and does not meet the needs of the clients.
- The client wants good food, you give him/her thick sorghum porridge (motogo) (one of the common staple food for an ordinary Motswana), she/he vomits.

Inadequate sanitary facilities and shelter
Study findings confirmed that 41 (50%) caregivers had problems with sanitary facilities to provide a good and hygienic caring environment. This was because of poverty of the caregiver, the client and family members. Availability of water was especially important for caregivers of clients who were incontinent, but some caregivers did not have water in their compound, posing a big problem when washing clients and their clothing. This was a source of stress, and meant that the psychosocial support system was compromised, and the environment was not attracting people to come and give help because of the unhygienic conditions. Most caregivers confirmed that in such
circumstances, the CHBC volunteers (caregiver volunteers who are supposed to move from house to house assisting the clients) were even avoiding such clients. Some caregivers had the following to say:

- We have no water in the compound because we have no money to connect because of lack of money.
- The volunteers (community caregivers) refuse to help some families, especially those with serious problems.

As many as 70 caregivers (85%) complained that lack and unavailability of care package facilities like napkins, pads, cotton wool, bandages and gloves was a great stressor, especially to those caregivers who had incontinent clients. This increased the risk of contamination. Caregivers indicated having knowledge that some of them had succumbed to the virus through their caregiving, due to lack of caregiving knowledge and lack of care package facilities. The following quote attest to the inadequacy of care packages:

- We are all going to die from contagion. We do not even know our status.
- How are we going to protect ourselves if the programme does not have protective facilities like gloves, napkins and many other things?
- The care package components are not adequate. Sometimes there is nothing.

Lack of adequate space for caring was reported by 45 (54%) of the caregivers to be a stressor for both the primary caregiver, who was always with the client, and the volunteer (community caregiver), who usually visited the client and the family for any assistance:

- Taking care in an environment where one does not have enough private space and privacy is really very stressful.

This is because caring requires privacy. For the caregivers and their clients with inadequate space due to poverty, lack of toilets and other necessities, caregiving was an uphill and a very overwhelming exercise, which compromised the quality of care greatly.

Lack of material and financial provision

All the caregivers in the Kanye programme complained of not being considered for any incentive or any form of payment for their caregiving assignments. The majority said their only source of motivation was the fact that they worked for their blood relatives and community members they knew well, as indicated by the following quotes:

- We have accepted caring job because we take care of our relatives and members of our communities.
- No one else can do it. It is my community responsibility.
- It is my responsibility to take care of my son/daughter.
- It is my child. I bore him/her and have brought him/her up.

Their caring strength, the majority of caregivers said, could be described by the proverb ‘blood is thicker than water’. Caregivers said their poverty emanated from lack of a government policy to consider caregiving as an emotionally draining activity that should attract some form of incentives or payments.

Inadequate community support

Sixty-five (79%) of the Kanye caregivers reported getting inadequate support, either materially, emotionally or financially from their relatives and families, neighbours, private individuals, grassroots traditional and political leaders, and other service delivery networks like NGOs and CBOs, and the community at large:

- We do caregiving alone. Community members, relatives and family members only help a little.

Caregivers therefore suffer the psychological problem of being neglected and abandoned to do caregiving with very little assistance. One caregiver indicated she was neglected by all the family members to go it alone:

- I cannot get time to go and look for a job, as I’m alone caring for my father. They all [brothers and sisters] went for good, leaving me to struggle with caregiving [crying].

This excessive and overwhelming burden, coupled with the number of clients per caregiver and lack of many other caregiving facilities, has driven many CHBC caregivers into dire poverty, and thus unable to provide quality care (Kang¢ethé, 2004).

Discussion and recommendations

Other research in Botswana complements the findings of this study that most CHBC programmes are gender skewed, mainly offered by elderly women who are usually challenged by poverty. A study carried out in Botswana by Munodawafa (MOH/NACP 41, 1998) found that all caregivers except one in Tutume were women, while in Molepolole, all caregivers were women. A study by Atta and Fidzani (1996) indicated that over 50% of caregivers in most of the Botswana CHBC programmes are elderly and poor women, the majority of whom have little or no education, making it difficult to follow the hygiene protocol in the care process or providing quality
care. It would seem that caregiving responsibilities in Botswana, as in many other developing countries, fall into the hands of the grandparents, particularly poor grandmothers. This explains the low standards found during the research study, with the situation being exacerbated by lack of care facilities (Ntozi & Nakayiwa, 1999; UNAIDS, 1999, WHO, 2002). The gender disparity, though a common phenomenon in many caregiving programmes in Africa and elsewhere, is a result of socialisation and needs to be dismantled so that both genders can support one another, as the burgeoning cases of AIDS are leaving female caregivers overwhelmed with little or no assistance. Education and advocacy targeting to achieve sharing of roles by both genders in caregiving need to be encouraged by government, civil society bodies and communities generally.

Findings that care programmes face income challenges and therefore resultant poverty is not a phenomenon faced by Kanye caregivers alone. In a study in Kweneng on caregiving by Mojapelo, Ditirafalo, Tau and Doehlie (2001), 85% of the caregivers were not employed and often cited poverty as a stumbling block towards provision of good care. The situation was made worse because most of the clients did not work. For instance, of the 30 clients interviewed in the above study, none was employed at the time of research, while in another study, still in Kweneng by Khan and Stegling (2000), glaring poverty was found among the caregivers, as evidenced by the lack of even the most basic necessities, with lack of food being the gravest. Of the 29 clients interviewed in this study, 24 had been employed before falling ill, but at the time of the study, only 2 were in paid employment. The main concern and anxieties of the clients was the future of their parents or young children after their death, while some were worried about the burden of care which they presented to their families, and the detrimental effect the disease had on the economy of their households.

The picture above in the study by Khan and Stegling (2000) and Mojapelo and colleagues (2001) is a demonstration of how HIV/AIDS impoverishes communities, the prevalent situation posing a serious challenge to the quality of care. However, thanks to current access and scale-up of free ARVs in Botswana, it is anticipated that many clients will hopefully recover and continue with their daily routine activities. Nevertheless, access to ARVs in Botswana is still faced with the challenge of poverty and lack of food among the beneficiaries, to ensure effectiveness of the drugs (Agrinews, 2006, NACA, 2005). The government of Botswana, through its poverty reduction measures, needs to intervene and to introduce strategies that will ensure directing resources to the caregivers. The caregivers need to receive food packages alongside those of the clients. Empowering the clients and their caregivers through supporting them to start income-generating activities (IGA) is the direction which the government campaign should be taking, coupled with commitment to ensure availability of care facilities in all health facilities. Currently, this remains a glaring gap, calling for urgent address. Care-of-carers policies need to be developed and implemented, to ensure caregiver assistance in tandem with the assistance package to the clients. The achievement of Botswana in successfully meeting the WHO ‘3x5’ target of providing at least its world quota of 50 000 clients with free ARVs by the year 2005 could be seriously undermined if these clients eventually succumb to death, after the heavy financial investment through ARV access (UNAIDS, 2001, 2005).

HIV/AIDS is poverty friendly, and many families beset by the scourge have been rendered poor as they struggle to give the clients what they require to continue living (Kang’ ethe, 2004). Poverty has a deep psychological impact to the lives of caregivers, taking away their caregiving productivity, self-esteem and dignity (Nurses Association of Botswana [NAB], 2004). The socio-economic environment and frustration of the caregivers usually spills over to their clients, with the duo sometimes getting involved in conflicts and wrangles that further throw the caregiving arena into confusion with resultant low productivity (Dant & Gully, 1994; Kang’ ethe, 2004). This is why professional counselling and debriefings need to be intensified in the caregiving arena (NAB, 2004). However, donors in the caregiving field, in collaboration with the government of Botswana, need to equip caregivers with income-generating projects to keep them busy and able to afford food for their clients. Advocacy by leaders of faith-based organisations should be increased, challenging communities to assist their sick people. This is one of the demands of Botswana’s vision 2016, and societies and communities should aspire to achieve the vision tenets (UNAIDS, 2000; Vision 2016, 1997). NGOs and donors in the campaign field need to complement government efforts by helping the caregivers in nutritional education, finance, and starting nutritional gardens to grow food for themselves and their clients.

Lack of or inadequate food has contributed greatly to the poverty of caregivers and low-quality care generally. Research by Mojapelo and colleagues (2001) in Kweneng in Botswana found lack of food as one of the major factors impacting on quality of caregiving. Other research, also in Kweneng, Botswana, by Stegling and Jacques (2001) found food to be one of the problems negatively affecting caregiving. Driving and reinforcing the same food inadequacy concern for ARV clients, SADC Executive Secretary, Dr Salomoa stated that the ARV roll-out would not achieve desired results if food security was not adequately addressed. He commented that “There is no

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point in giving people ARVs on an empty stomach’ (Agrinews Magazine, October, 2006). Across the board in many countries, especially of the developing world, lack of food has been found to negatively affect caregiving. In Namibia, for instance, a common complaint by community caregivers was that many families they attended to do not have food, making the caregivers feel obliged to share their own (UNAIDS, 2000). The government, NGOs in the caregiving field, the private sector and community members need to develop a strategy to meet the food demands of the clients. This is important, especially to clients taking ARVs that require special food. Thus, the heavy investment by the government of Botswana in ARVs could come to nought if the food concerns of the caregivers and their clients do not receive adequate attention.

Water to maintain cleanliness and an hygienic environment for the client is a basic human right, and a determinant of quality of care in the caregiving process. Lack of water, therefore, is a source of discomfort to the client and the caregiver and compromises the client’s health, the healing process and the quality of care. This can lead to rapid progression of the disease. A study by Mojapelo and colleagues (2001) on caregiving revealed that some caregivers and their clients had neither piped water nor a toilet. The government, through poverty reduction funds, should connect water pipes free of charge to the homes of poor caregivers/clients without access to water, in order to ensure a good and hygienic caregiving process. Inadequate caring space due to poverty immensely affects the state of caregiving, thereby compromising the psychosocial and social support system to the clients. In the above study by Mojapelo et al. (2001), two of the clients lived in old derelict houses while one lived in a plastic shack, lacking in virtually all basic life conditions. The following are quotes from the Mojapelo study:

- **I am suffering because I am poor. I do not have anything to support my patient and myself with.**

- **We need more food and soap. I do not have any clothes for myself as well as my patient. We do not have a toilet, so we use our neighbour’s.**

In circumstances like these, the fulfilment of the objectives of the CHBC programme in Botswana, of having the CHBC programme complement the hospital services in achieving decongestion of the sick, is cast in doubt, and calls for a wider debate on the place and quality of the CHBC programme. This situation could partly explain the circumstances and environments resulting in the high death toll experienced by clients in the Kanye programme (DMSAC Report, 20005) and low quality of care in the programme. In a human rights context, shelter, and by extension adequate sanitary facilities are basic, and in the context of sickness, their provision needs to be prioritised to warrant some degree of privacy and care environment to the client and the caregiver (NAB 2004; UNAIDS, 2000, 2001; WHO, 1993). The government should have a fund to ensure that caregiving is handled in a decent environment that does not compromise the quality of care.

Unavailability of care packages and sanitation amenities, with the resultant risk of contamination and infection to caregivers, poses a human rights dilemma, as those who sacrifice to take care of others are themselves sacrificed by their volunteering activities. Other researchers have found that clinical waste management and disposal in many care programmes have also been problematic for the caregivers. This is due either to the lack of a viable policy, or failure to operationalise it, inadequate community education on the subject and neglect, and lack of adequate facilities leading to unprofessional and ineffective ways of disposal and handling. This has given rise to subsequent hazards that compromise the quality of care in the programmes (Mokgwaru, 2001). A number of diseases and infections, including HIV infections, have been documented to be transmitted by mere contact with body fluids, secretions of patients and hospital wastes. Improper disposal of clinical or hospital waste could be catastrophic to the health and well-being of the community as well (Panos Institute, 1990; Singh, Tabish & Malviya, 1990; Norvish, 1987). This is especially due to lack of proper government machinery to ensure availability of care package facilities in medical health institutions, and also due to lack of money to provide these (Jacques & Stegling, 2001; NACP 30, 31 1996).

Lack of material and financial provision to motivate and incentivise caregivers to provide quality caregiving has been responsible in many instances for the poverty of the caregivers. Ironically, when community support programmes are developed to serve people who are terminally ill, especially in Botswana, they tend to rely on women as unpaid caregivers, who may be poor or poorer than the people they are assisting. They receive neither stipends nor incentives, despite the overwhelmingly difficult duties, the situation reflecting on the quality of care they are able to supply (UNAIDS, 2000, 2001). The report of the United Nation’s Secretary General’s Task Force on women, girls and HIV/AIDS in South Africa points out that there is little recognition or compensation for caregivers who may be subjects of exploitation and severe stress (http:www.unfpa.org/hiv/women/report/chapter4.html).

In Botswana, the issue of supporting the caregivers has not been appropriately addressed. While the government has instituted programmes to assist HIV/AIDS clients, no coherent programmes exist to assist the caregivers, in the form of
financial or material resources. Therefore, lack of the material resources necessary to help clients and caregivers has been a great stress for the caregiving process. Frequently, there are insufficient resources, such as medication and supplies, to meet the needs of the clients. This no doubt affects the work of the caregiver and renders him/her ineffective (Kang’ethe, 2004; NAB, 2004). Feminists have expressed their dissatisfaction with women caring for the sick without any remuneration, throwing them into a deeper pit of poverty and exploitation (Finch, 1984; Kelesetse, 1998). Kelesetse (1998), for example, sees women working in CHBC programmes as a process of gender exploitation, making them ever poorer. Mathebula (2001), in a seminar paper examining the experiences and needs of caregivers in Botswana, revealed that caregivers in Botswana experience many difficulties and have many needs that are related to lack of finance, professional support and assistance. This has compromised the caregivers’ output in many respects. Caregivers frequently cited lack of money for transport to visit sick clients, or to fetch and pay for drugs, or buy paper and pens for record-keeping, or rubber gloves for handling sick clients, as some of the principle causes of stress, undermining their ability to do their work adequately (UNAIDS, 2000).

The author sees the provision of incentives as one of the ways to raise caregiving morale to improve the conditions in caregiving. According to Huczynski (1987), the purpose of an incentive or reward is to facilitate positive changes or behaviour that result in increased productivity. However, making rewards consistent with the caseload is one of the major organisational challenges for caregiving programmes. While an appropriate reward system contributes to organisational health and productivity, inappropriate reward systems sabotage and kill morale, resulting in lowered productivity. Lack of incentives, the research respondents reported, was a pivotal reason why caregiving does not attract young women and men. Botswana needs to learn from neighbouring countries that have addressed this issue. In Namibia, for instance, caregivers are given minimum support through Christmas and Easter bonuses, a funeral policy, ongoing training, and the allocation to each caregiver of N$100 per month, as a token of reimbursement for whatever the caregiver has spent in performing caregiving duties. Most caregivers pool these payments in order to bulk-purchase washing soap or staple foods to be divided equally among the members (UNAIDS, 2000).

In Zimbabwe, Chirumhanzi CHBC caregivers receive as an incentive, a year’s pocket money in a lump sum. Workshops and monthly meetings where they get a good meal and an opportunity to interact with one another also serve as an incentive to their work. Caregivers working at the Hillcrest AIDS Centre on the outskirts of Durban, South Africa, receive a monthly supply of basic foods, including mealie meal, beans, rice, sugar and tea after 6 months’ satisfactory service (UNAIDS, 1999).

Inadequate community support has greatly contributed to caregivers being overwhelmed and downtrodden. Studies done in Kweneng, Botswana on caregiving by Khan and Stebling (2000) and by Mojapelo et al. (2001) found that caregivers felt unsupported by their families, relatives and the community at large, and were working in a sea of poverty, while research findings in Zimbabwe on caregiving suggest that care programmes are not supported by their communities. For example, the Chirumhanzu CHBC in Zimbabwe is not supported by community chiefs (UNAIDS, 1999). The current call by the Botswana government for communities to cherish and work to fulfil Botswana’s vision 2016 through one of the vision pillars ‘being a just, caring and compassionate society’ is a call for people to value and inculcate the spirit of helping one another (Vision 2016, 1997). This could reduce the poverty inherent in today’s caregiving process, and therefore raise the quality of care. However, according to Mensah (1994) and Broud (quoted in UNAIDS, 2000), lack of community assistance presents a departure from past practice, when community networks afforded material, financial and emotional help to their sick people. In Botswana, the concept of working together, i.e. letsema was well embraced, and involved participation and encouragement from traditional leadership structures. Advocacy and lobbying need to be strengthened to return to these values (WHO, 2002).

Conclusion
HIV/AIDS has impoverished communities, with a heavy load falling especially on the caregivers. Policies and programmes need to be put in place to address the poverty of the caregivers if the CHBC programme is to deliver good-quality care. Putting in place income-generating projects, ensuring adequate provision of care facilities, and considering incentives through government, NGOs or donor communities, as is done in many other caregiving settings in other countries, could help redress the challenging environment of the caregivers. Community assistance by all could serve as a means of reducing the poverty of the caregivers. Ample education to ensure that the gender gap and disparities are reduced would go along way towards easing the burden on female caregivers.
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Military men and sexual practices: Discourses of ‘othering’ in safer sex in the light of HIV/AIDS

Nyameka Mankayi

Abstract

Despite recent reports that there is increasing condom use, generally resistance to condom use is still high. This paper focuses on factors inhibiting condom use and explores issues of responsibility for safe sex practices to prevent infection among a group of 14 South African male soldiers. Military men are particularly vulnerable to HIV because of their working conditions; for example, working far from home and being among communities where they have greater economic and political power, as well as in relation to their identities and sexualities as men, and how that is exaggerated by the institutional framework of the military. The data in this paper were drawn from a larger qualitative study exploring a group of military men’s narratives on their masculinity, sexuality, sexual relationships and HIV/AIDS. Semi-structured interviews were the main data collection method, and the interview transcripts were analysed primarily through interpretive discourse analysis. Findings of this study show that most participants used the socially desirable discourse that safe sex practices (specifically condom use) should be everybody’s responsibility. However, there was also the discourse of the ‘other’ responsible person, which was linked to gender, race, ethnicity, education and rank. The paper concludes with a recommendation that tackling HIV in the military needs to involve the rigorous examination of social factors such as gender, race and ethnicity.

Keywords: Military, masculinity, safe sex, HIV/AIDS.

Résumé

En dépit des rapports récents indiquant que l’utilisation du préservatif est en hausse, la résistance à l’utiliser est généralement toujours élevée. Cet article se concentre sur les forces qui inhibent l’utilisation du préservatif et étudie les questions de responsabilité dans les pratiques sexuelles à moindre risque afin d’éviter l’infection dans un groupe composé de 14 soldats sud-africains de sexe masculin. Les militaires sont particulièrement vulnérables au VIH du fait de leurs conditions de travail; par exemple, le fait de travailler loin de chez eux et de se trouver dans des communautés où ils disposent d’un pouvoir économique et politique plus important, ainsi que le rapport à leurs identités et sexualités en tant qu’hommes, et la manière dont cela est exagéré par le cadre institutionnel de l’armée. Les données de cet article sont tirées d’une importante étude qualitative étudiant les récits d’un groupe de militaires de sexe masculin sur leur masculinité, leur sexualité, leurs relations sexuelles et le VIH/SIDA. La principale méthode de collecte des données a consisté en entretiens semi-structurés, dont les transcriptions ont été essentiellement analysées par une analyse du discours interprétatif. Les conclusions de cette étude révèlent que la plupart des participants ont utilisé le discours socialement accepté selon lequel les pratiques sexuelles à moindre risque (en particulier l’utilisation du préservatif) doivent être de la responsabilité de chacun Cependant, le discours ‘désignant l’autre’ personne responsable, discours qui était lié au sexe, à la race, à l’ethnicité, à l’éducation et au rang, est également apparu. L’article conclut en recommandant que pour s’attaquer au VIH dans l’armée, il est nécessaire de faire intervenir une étude rigoureuse des facteurs sociaux tels que le sexe, la race et l’ethnicité.

Mots clés: Militaire, masculinité, sexe à moindre risque, VIH/SIDA.

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Introduction

Hegemonic masculinity and associated traditional male sexual practices have been identified as a key area of challenge for HIV/AIDS interventions (Lloyd, 1995; Primary Health Care Group, 1996; Strelbel, 1993). Several authors have concurred that there is a close link between dominant constructions of masculinity and male sexual practices (Lindegger & Durrheim, 2001; Lindegger & Maxwell, 2005; Shefer & Ruiters, 1998). For example, the enactment of masculinity and heterosexual men’s sexuality is seen to be against condom use (Flood, 2000). Yet, in South Africa and other African countries, HIV/AIDS is more prevalent among women than men, who are reported to be the initiators of unsafe sex (Deacon, 2005; Wassenaar & Barsdorf, 2007). Therefore, a complete examination of current HIV/AIDS interventions requires that we explore constructions of masculinity and sexuality in regard to the constructions and dysfunctions of male identity, sexual identity and cultural and other social factors such as age, race, ethnicity and generation (Dowsett, 2003).

Young people, especially women, are reported to be at high risk of HIV/AIDS infection (Dowsett, 2003; Gupta, 2005 in Wassenaar & Barsdorf, 2007; Heinecken, 2003; Shisana, 2004; Shisana & Simbayi, 2002). Even if young women are known to be more at risk, young men too have HIV risk. Moreover, while overt, active sexual practices are socially accepted and even rewarded in men, the same behaviour by women is frowned upon. The social or cultural expectation is that women do not display overt sexual desires. Yet, the same high-risk sexual practices by men are said to confirm and enact masculinity. In a study conducted by Flood (2000) among Australian men, he found that penetration was the most defining practice constituting sex. Men rely on notions of trust and women’s sexual histories to abandon condoms, which suggests that trust means sex without condoms. This implies that the HIV pandemic cannot be tackled without examining issues of masculine identity and sexuality. Despite the lack of South African research on masculinity and sexuality, it is important to acknowledge that in the past 15 years, much work has been done in the area of masculinity (Morrell, 2004). There seems to be little evidence of work attempting to specifically address the agency of South African male soldiers in HIV/AIDS.

In this paper, an exploration of the articulation of these factors (masculinity and sexuality) in the military milieu will be investigated. The reason for focusing on military men is because soldiering and masculinity constitute ideals of manhood. Moreover, there is an association between work in the military and high-risk sexual activity (Okee-Obereng, 2001). UNAIDS (1998, p. 3) reported that ‘the military professional ethos tends to excuse or even encourage risk-taking’. Aggression is valued and is associated with ‘conquest’. Willingness to accept and take risks is the key feature in a soldier’s preparation for combat, but off the battlefield it might vicariously motivate soldiers’ willingness to engage in needlessly risky behaviour, such as unprotected sex.

There are grounds to believe that soldiers serving in their country’s defence force are particularly vulnerable to HIV infection and transmission. They are frequently away from their families (Heinecken, 2002), and, as young adults, are often separated from their loved ones, subject to peer pressure and operate in risky, disrupted and tense environments (Achery, 2004; Bujra, 2002; Kristofferson, 2004). Moreover, during deployment soldiers are paid well and can afford to pay for sex (Bujra, 2002; Heinecken, 2002). What this study aims to explore is the underlying value system in military organisational culture as a possible component facilitating risky sexual practices. The main focus is on forces inhibiting condom use, and issues of responsibility for safe sex practices that prevent infection. This paper attempts to answer a difficult question raised by Campbell (2001): ‘Why do people who know about HIV risks, still take such risks?’ Given the masculinist, macho culture that prevails in military settings, a study of men in this sub-culture can offer a unique understanding of hegemonic male sexual practices. Participants in this study were closely questioned on their ideas, thoughts and feelings about the pandemic, and about constructions of masculinity that may promote sexual risk-taking.

Methodology

This paper emerges out of a larger qualitative study of 14 South African male soldiers between the ages of 24 - 33 years. This age group is regarded as sexually active and at high risk of HIV infection, not only in the South African National Defence Force (Heinecken, 2001), but in the rest of South Africa as well (Shisana & Simbayi, 2002; UNAIDS, 1998, 2005). All participants were officers enrolled in a tertiary institution pursuing a career in the military. All officers in this academic institution were junior officers, with ranks ranging from lieutenant to captain. Participants had been in the military for more than 4 years. Participants who met the criteria were drawn from the full list of students. Names were randomly selected from the second year, third year and postgraduate students, while ensuring there were both black and white candidates. The sample included 4 whites, 3 ‘coloureds’ and 7 Africans (of these, 1 was TshiVenda-speaking, 1 IsiSwati, 1 IsiXhosa, 2 Isesothe, 1 Setswana and 1 IsiZulu). There were 9 postgraduate and 5 undergraduate students. Twelve participants were single, with only 2 of the 14 being married. Even though representivity during sampling is...
The paper is underpinned by social constructionist and critical men's studies approaches to masculinit/ies. Thus, it breaks with the notion of masculinity as a fixed essence, and strives to open spaces for new ways of theorising the complexities, ambiguities and contradictions that mark the present-day experiences of young male soldiers. All participants participated on the basis of informed consent. Permission to conduct the study was granted by the Defence Intelligence Office and Ethics Committee at Stellenbosch University. Two-hour in-depth individual interviews were the main form of data collection in this study, in order to obtain narratives and stories of participants and how these reflect, reproduce or challenge broader discourses. The interviews were audiotaped and transcribed verbatim by the interviewers (a male clinical psychologist with research expertise on the subject of sex and sexuality, and the female principal researcher). The meanings were drawn through repeated readings of the transcripts and were interpreted primarily on the basis of Hollway (1995) and Edley and Wetherell's (1997) interpretative discourse analysis. The discourses of masculinity, sexuality and risky sexual practices, as well as the positions of participants in relation to them, were identified and described. The possible influence of speech of participants were included. It is acknowledged that the analysis and interpretation of these transcripts was by no means exhaustive. Pseudonyms are used to identify participants.

Findings and discussion
Findings related to forces inhibiting condom use and issues of responsibility for the prevention of HIV/AIDS are presented here. Six discourses emerged from the participants' narratives, which were confirmed to some extent by related literature.

Constructions of other (gender) in safe sex
Heterosexual men are understood to be key role players in driving the HIV/AIDS epidemic (Foreman, 1999; Lindegger & Maxwell, 2005). They are reportedly the sexual initiators and generally tend to have more sexual partners than women. Yet the burden of carrying responsibility for safe sex is located firmly with women (Flood, 2000; Lindegger & Maxwell, 2005). Flood further argues that while the responsibility for contraceptive practice is allocated to women, men are associated with risk-taking. In this study almost all participants used the politically correct discourse that condom use should be everybody’s responsibility (Masibambisane Programme, no date). Some participants felt that men played a major role in impeding or discouraging condom use (Waldby, Kippax, & Crawford, 1990):

John: What I know it’s usually the guys that resist condoms.

Kgao: I have never. I’ve never seen a situation whereby women do not want to use condoms. It is, it is less likely that they will do that.

In contrast to the assumption that men rebuffed condom use in heterosexual sex, women were perceived as resisting condom usage in some cases. A notion of male responsibility emerged strongly:

Johan: Well, I think there are women who don’t sometimes want condoms. I know some women are allergic to condoms, so it’s an attitude. I think it’s a man’s responsibility to make sure that he uses a condom as far as possible.

Mtobeli: Some of them (women) they don’t want to use condoms because I was once in a situation, whereby I went out with a woman, she didn't want to use a condom and we ended up not having sex. [The reason stated by the woman was] she is not having a relationship with anyone.

In the latter excerpt, women were constructed as resisting condom usage if they were involved with one sexual partner at a time. Women's adoption of safe sex practices was seen as determined by a belief in love and trust as factors that frame intimate monogamous relationships. As highlighted, an aspect that hindered the adoption and negotiation of safe sex was the meaning attached to intimate relationships. With regard to the perception of women's negative attitude towards condoms if they valued an intimate relationship they were in, the majority of participants reported the same attitude for men. This is supported by African studies which suggest that condoms are viewed negatively, and are frequently seen as symbolising lack of trust or infidelity (Ayiukweii et al., 2008; Lesch, 2000; Strebel, 1993; Varga & Makubalo, 1996).

Definitions in society of love, trust and loyalty constrain the use of condoms in long-term relationships. Condoms are seen to signify the opposite, i.e. distrust, less love and less commitment (Flood, 2000). Hence, condoms are more likely to be used with casual partners because they are not viewed as long-standing relationships (Galligan & Terry, 1993). Regular partners are...
usually trusted to commit to a monogamous relationship. This results in the abandonment of condoms at an early stage, even in new relationships, if there is the promise of commitment (Flood, 2000; Rosenthal & Reichler, 1994).

There were contradictory views from participants regarding the stage at which sexual partners could legitimately terminate the use of condoms. A sense of trust and sexual safety was established through assumptions about a woman's sexual history, after the relationship had lasted 4 - 6 months. This is similar to Flood's (2000) study, where he found a 3 - 5-month range. Surprisingly, participants did not relate the condom 'window' period to their knowledge of HIV/AIDS. Almost all participants voiced notions of trust and faithfulness as reasons enough to terminate condom use in monogamous relationships (Ayikukwei et al., 2008; Flood, 2000). Only two participants felt that condoms should be used if partners were married. International and national empirical findings support the view that discourses of love and trust are barriers to safe sex for both men and women (Bremridge, 2000; Flood, 2000; Lesch, 2000; Varga & Makubalo, 1996; Wood & Foster, 1995).

It is worth noting that Johan and Mtobeli’s responses (excerpts above) demonstrate that men are in the privileged position to decide whether or not to use condoms (Foreman, 1999; Lesch, 2000; Varga & Makubalo, 1996). Thus, this power could be channelled to facilitate prevention of HIV/AIDS, in that men could be encouraged to introduce condom use:

Simon: You’ll be surprised how many girls don’t want condoms. All the TV adverts always portray guys as being evil shit but plenty times when you want to use it, girls will say ‘you don’t have to use it’ (imitating how girls talk with a soft voice). Condoms are very important. Guys talk about this but it’s amazing how many chicks don’t want to use condoms, and it really is … then of course, as soon as the girl starts to say no, then your head start wondering, why?

This excerpt alludes to the role of the media in reproducing discourses of ‘other’ in relation to the spread of HIV. The media was portrayed as depicting men as not wanting to use condoms. The participant further stated that women also resisted other contraceptives so as to blackmail men:

Simon: There are lot of girls that are weird in the sense that … I know few cases in (name of the unit), like the girls start to fall in love with the guy as soon as the guy starts to threaten to leave her, she leaves the pills and say I am pregnant and shit like that.

It was interesting to find from Jeff that a man:

Would brag that he’s got a box of condoms in his room.

Int: So the intention is there, but whether people use it or not …

Jeff: I wouldn’t say the intention, I would say the flamboyantness thereof. The bragging, the image of having used a condom. It goes back, it goes back to with regard to the boasting … You know, the more condoms I’ve got in my drawer, the more manly I am.

This suggests that using condoms was not always seen as negative, as it could be seen to draw on the traditional male sexual drive discourse. Bragging about having condoms may reflect a more positive discourse on condoms which draws on traditional male sexuality patterns to underwrite the importance of safe sexual practices.

Discourses of resistance to women’s agency in sexual practices

International and local authors emphasise the lack of positive discourses on female sexuality. This means that women are not in a position to express or view their sexuality or their sexual desires and pleasures as positive (Hollway, 1996; Lesch, 2000; Shefer & Foster, 2001). Women are constructed by either men or women as promiscuous if they are sexually active. Similar to what has been discussed above, another interesting othering discourse highlighted how men and women were subject to different versions of morality and power. Ambivalence emerged towards women as initiators of condom use. Some participants expressed anxiety when women began initiating condom use after being in a relationship for a length of time without using them. This was associated with dishonesty and a concern regarding women’s fidelity, reflecting men’s insecurity about women taking over a role that had previously been their domain. This shift evoked discomfort, panic and resistance in men, as it indicated a breaking of the moral codes of fidelity and engagement in a ‘male’ practice. The underlying discourse suggests resistance to women’s agency in sexual practices (Alcántar, 2005; Andil, 2005; Shefer, 1999; Van Wyk, 2004; Waldby, Kippax & Crawford, 1993b):

Tshepo: I’m saying you can’t worry about risk, we are sleeping together here. Suddenly you can’t take out a condom, and [say] ‘now I have to use this’.

Gerhard: The AIDS thing would be a bit more difficult for me to understand because I would like to believe that she is faithful to me and I am faithful to her. So I would immediately ask her, okay, listen I don’t have a problem with the condom thing but the AIDS thing, um er I am faithful to you so you must tell me now if you are having something ‘skelmpie’ on the side or whatever.

Kgao: According to me, yeah it will raise a lot of questions as to why, why is it now. [I] know that she’s the only one, then if she
now come and say let us use condoms … I’ll say why, has she been unfaithful? Or is it a matter of being responsible, but then, even if that is the case, the question is, it has happened after some several occasions.

Thando: For the issue of HIV/AIDS that’s a difficult part because then you need to find out, but the other thing is if we find out that we are both still negative for instance then we are still safe it means we can still continue.

These excerpts support the argument that men are resistant to safe sex under a range of circumstances, but also underline that notions of trust are a concern not only to women, but to men as well. They further show that it is difficult to change behaviour once a routine has been established. Some participants, however, expressed a positive attitude towards condoms, and had no reservations about women initiating condom use.

Discourses of other (race, ethnicity) in safe sex

Militaries are not unified or homogeneous structures. They are stratified according to gender, race and class, although they are regarded as masculine institutions. Their ethnic composition, for example, reflects the dominant ideologies and policies of the regime in power. In apartheid days, the South African Defence Force (SADF) was a vehicle for white dominance and was dominated by white men, especially in the higher echelons. ‘Coloureds’ and Indians were recruited and given weapons training purely for self-defence in war times. Africans were recruited and trained for armed guard duty at military installations (Enloe, 1975). It is interesting to note that sexual practices are also intersected by race. Interview data suggest that another inhibitor of condom use was the discourse of the ‘other’ person responsible for spreading HIV/AIDS, which is linked not only to gender, but also to class, race and ethnicity. White participant Gerhard put it like this:

From what I understand, some of the things that I heard is that some black cultures prefer, prefer, and I’m, I’m quoting now directly from what I heard, flesh to flesh, that is what they want, and I don’t know, er I, I’ve never talked to someone that could tell me that, but, maybe I think I’ve read it somewhere that there’s some cultures that believe that, either they don’t believe in AIDS, or they don’t believe in the way that AIDS is spreading or they just think they are immune to the disease. They think maybe if I swallow a bit of garlic and I don’t know what else, then, then I will be cured of this thing and um I think maybe culture has got definitely a role to play in that.

Int: Right, and from the stories that you’ve heard, what happens to other racial groups?

Gerhard: Okay, I think maybe, I think maybe the black culture, and then, once again, you have to make a distinction between Zulus and Xhosas and the Sothos, those people. I’m not, as I say I’m, I’m, I’m not really qualified to say because I haven’t, I don’t have the facts um to prove it or to support, support anything that anyone has said. But I think maybe in in the black culture within those different, different ethnic groups once again, there is probably certain groups that believe, or don’t believe in AIDS. Among the whites and coloureds and maybe to a certain extent the Indians, I would say it’s more a matter or a question of ignorance or alcohol or rape or something in that direction.

As this response was from a participant who did not seem to be sure of what he was saying, it makes it difficult to draw any meaningful conclusion on a black man’s ethnicity in relation to condom use. However, Connell (2000) suggests that researchers should accept the ambivalence and uncertainty the spoken words imply, because the discourses through which individuals construct their meaning are multiple and contradictory and contain residues of many different social and ideological dynamics. In the above extract, the ‘othering’ notion seemed to imply that blacks were more at risk of HIV/AIDS because of their ‘culture’. Stigmatisation of the ‘other’ in relation to safe sex has been shown to be racialised (Whiteside & Sunter, 2000). As documented by a wide range of studies, HIV/AIDS is a politicised disease (Cohen, 1999, 2005; Collins, 2004; Ratele, 2001). It has been illustrated that HIV/AIDS is still strongly characterised as a disease of blacks, of the uneducated, and the poor.

Some white participants placed black soldiers at greatest risk of contracting HIV/AIDS, further associating this racial scale of susceptibility with the rank occupied by individuals in the military. Behaviour patterns evoking this discourse were regarded as particularly apparent during deployment, as this excerpt shows:

Int: Do you think soldiers are more likely to take sexual risks?

Simon: Jesus! (blowing a whistle).

Int: Than other men?

Simon: Oh! Than other men. I don’t know about the civilians if they would or whatever. But guaranteed, soldiers take sexual risks (nodding his head) … Men, shit. The Rwandans sent (most) whores to the hotels. There was a hotel just across (from) the base and the sluts will be there. And God, I wanted to take my troops, I wanted to murder them because they lined up …10 guys and 10 guys will do this girl in one of the rooms and most of them would tell me because most of blacks have a phobia … and especially your older blacks have a phobia about condoms and I will take a
The manner in which soldiers were described as having unsafe and abusive sex was paralleled by the way troops (lowest rank in the military) deployed in Bosnia-Herzegovina, both male and female, were viewed as being desperate for sex, judging from the fact they had sex anywhere they could, from tents to underground bunkers and latrines (Gutmann, 1997):

*Int: But if they go there … if they go and line up, is it both black and white candidates?*

*Simon: No, check, remember there is very few whites … in the Defence Force these days. Look I’m not talking politics now… but there is very few whites and lot of whites have left. It just becomes too difficult to be a white man in the army these days. So a lot of them have left and a lot of …. my generation-type guys and a lot of them do not really want to work with the blacks.*

Simon’s response lends powerful support to Barrett’s (1996) argument that militaries are stratified according to race. White participants expressed difficulty with the change in the military power regime from white to racial diversity (Le Roux, 2003). Considering that participants operate within racial discourses, as Dowsett (2003) points out, an examination of HIV/AIDS must take cognisance of how the complexities of structural indicators such as race intersect with constructions of sexuality and masculinity.

When asked how troops behaved during deployment in the period before transformation to the South African National Defence Force (SANDF), Simon replied:

*We had stricter measures in ’94 and in my experience between 1989 and 1993 you couldn’t let a guy go out to the shebeen or to the prostitutes because … he will be murdered. That was a completely different time in South Africa, you know that. We take them out of our areas of operations and you take them to another area and tell them, you guys have a day and those they can go and have prostitutes and it’s not a secret.*

The above quote refers to the shift in composition of the SANDF from predominantly white to black soldiers. This is based on the South African history whereby during apartheid young white males were conscripted to military service while young black males were mainly used in non-statutory forces (Enloe, 1975; Frankel, 2000). Looking at Simon’s excerpts, both black and white soldiers have engaged in risky sexual practices but in different circumstances. Before 1994 white soldiers were also exposed to and engaged in risky sexual behaviours, but outside their area of operation, whereas post-1994, Simon stated that the hotel for instance, was just across the road from their base.

Both Gerhard and Simon talked about ‘other’ racial groups when they were probed in this respect. In Simon’s excerpt, for example, there was an association between blackness and risky sexual practices during this epidemic era, whereas for Gerhard the association between the two had no reference to a period. This might potentially impact on the sexual practices of white military men who, by this process of projection, may reproduce the assumption that they are sexually safe. Black participants (who were officers, and thus of higher rank) acknowledged the risky sexual practices of fellow officers although they did not racialise this behaviour.

During the interview, Simon stated that in the early 1990s he did not use condoms, but now used them, as he sometimes had ‘purely sexual relationships’ and ‘one-night stands’. He added that before 1994 white soldiers had sex with prostitutes, just as black soldiers were now doing. Simon also mentioned that in his experience condom use decreased penile sensation (Flood, 2000). The implication is that if he perceived condoms negatively, he might also be engaging in, or be tempted to engage in, risky sexual practices.

In addition, participants suggested that there were some benefits to having female sexual partners in the military for men. In particular, having a sexual relationship with a woman of senior rank (especially if it involved other historical power differences such as race) was reported by participants as signifying success for men. It was seen as a sign of masculinity:

*Sam: I was a sergeant (junior rank, non-commissioned officer). I was in love with a captain, and she was white … We have to keep that thing secret. If the bosses ever found out that this white captain was going out with a coloured sergeant, they would have give(n) her gas (a tough time) all the time, you see.*

Keeping the secret was reported as exciting and challenging, because the couple could not be seen in some public places together:

*You really, you … can’t wait for the next time you see her again, you see. So it was actually boosting the ego. It didn’t last for that long. It was, it was … nice.*

Ratele (2005) explains the secrecy of a sexual relationship between a black man and a white woman as developing out of a psychic and social reaction to the apartheid regime. For
Simon to have a sexual relationship with a senior woman was articulated as a challenge which proved his masculinity:

*I was a sergeant and I had a sexual encounter with a major and that was purely a challenge, that was to see if I can sleep with a major.*

**Discourses of other (rank and education) in safe sex**

Findings of this study (as shown in the previous section) and the literature reported that sexual intercourse happens not only between soldiers and civilian women, but also among colleagues within the military. Female recruits in the United States Army are reported to have accused drill instructors of rape and sexual harassment (Gutmann, 1997). Participants in this study also made similar accusations about female recruits, especially those who were studying at the same institution as the participants of this study. The female recruits were reported to have intimate relationships with both undergraduate and postgraduate officers.

As highlighted in the previous section, there was a marked emphasis on the relationship between race, rank, class and sexual practice. Officers were perceived as at less risk than troops, underlining the notion that senior soldiers (more educated) were more responsible than those in junior positions. This perception also appeared to be related to the fact that soldiers were obliged to undergo a medical examination before they could attend an officer's formative course. With regards to the recruits, they were also employed in the military after a medical examination:

*Thando: But I know it's when you look at a certain group and then you start judging ... these people are ... free ... they don't have HIV/AIDS. And I know for instance some of them (girls) ... some of them for instance they look at us for instance ... we officers ... and think that doesn't affect ... you end up now with both parties now engaging in unprotected sex because she saw you as less risky and you see her as less risky.*

*Int: Ok, so for you officers at the (name of the unit), what makes you less risky?*

*Thando: I think it's the education and the fact that when you come to the (name of the unit) there's certain medical classifications and I think its more ... I know for instance in our instance we had to do medical examinations after ... just wanting to become officers.*

The above excerpts show various ways in which perceptions of safety and risk within the military hierarchy could exacerbate unsafe sexual practices. Heterosexual men and women's adoption of condom use was clearly hindered by the identification of some military personnel as being safe from HIV/AIDS infection. This mirrors both international and national findings that class differences play a role in differential stigmatisation of HIV/AIDS. Moreover, men globally have been shown to distinguish between 'clean' and 'unclean' women (Bremridge, 2000; Flood, 2000; Waldby, Kippax & Crawford, 1993a). The 'cleanliness' distinction in the military context was based on participants' understanding of how the military structured occupation and class:

*Thando: I think it's more like looking at a class of people and then say these people are ... negative. Like for instance I know ... most people like look at ... (mentioned a certain category of recruits) girls for instance ... and think; nothing for sure ... ja, nothing for sure ... they are HIV ... negative because they wouldn't have been accepted in the system.*

**Discourses of other (work) in safe sex**

When on deployment soldiers often stay in close proximity to refugees and displaced persons. They are paid well and are therefore in a position to ask for sexual favours in exchange for cash. If soldiers are off duty with money to spend, they are reported to frequently seek sex from women with financial, emotional and sexual needs (Achery, 2004; Foreman, 1999).

Along with the ‘othering’ discourse was one in which participants associated soldiers’ sexual practices with the dictates of their work. Those who worked with refugee communities spoke of the temptation to ask for sexual favours because of their loneliness, the frustration of being far from home and the access to sex. In many instances women were given food parcels in exchange for sex. Some participants further rationalised their unsafe sexual practices by arguing that their jobs ‘forced’ them to sleep with women in the community, especially if these women could provide information which might be useful to the military. This suggests a belief that particularly those men who go on deployment are the ones who should use condoms.

It is worth noting that even though the reported risky sexual practices were mostly said to happen during deployment, participants were also aware that these actions were not supported by military authorities:

*Tulani: We were always told that you are always in the public eye. When you do things like this, then you don't only put yourself in danger but the whole organisation.*

**Discourses of other (sexual orientation) in safe sex**

Although the discussion of sexual orientation as discourse of othering was not referred to in the present study, meaning it was not identified as a barrier to the adoption of safe sex, the
researcher decided to point out what the constructions are with regards to sexual orientation, particularly homosexuality in the military. This is because in the past, gay men have been perceived as the dangerous ‘other’, resulting in those in heterosexual relationships distancing themselves from the HIV/AIDS epidemic (Flood, 2000). As highlighted, in this study homophobia was not constructed as a further barrier to condom use. Instead, discomfort around and anger expressed towards homosexuals in the military was strong. This tension was underscored in the following explanation by Sam:

Sam: In the army, you are part of, the fighting part, fighting corps, soldiers. You can’t be a soldier if you are a homosexual.

Int: Okay. You mean you can’t fight if you love another man?

Sam: Yes. When you go to the field, you work in teams, men, men, mostly men. Say for instance you are a team of six, you sleep in one tent, you drive in one vehicle, everything you do you do in your teams. And if there’s one guy who’s a homosexual, what do you think would be the consequences of the team? You understand? They won’t be that productive as a team as straight men … It’s just logic. There’s also our, our buildings at the (naming the unit), even here, two men sharing a shower, in the other places there’s a communal shower so, thirty men sharing a shower, now with one guy there being a homosexual in that place. It’s chaos. They will, they will, I’m telling you they will chase that guy out or they will hit him.

In line with Agostino’s (2003) work with the Australian Defence Force, participants expressed discomfort with homosexual soldiers, as their presence appeared to question the very foundation of military identity, which is based on traditional constructions of masculinity and the achievement of a successful (hetero)sexual identity.

Conclusion

Risky sex practices appear to persist regardless of people’s knowledge of HIV/AIDS. Participants’ sexual practices seemed to be shaped by the social meanings attributed to the intimate relationships and various categories within which sex occurred. Condom use, for example, was constructed as unnecessary and inappropriate in long–term relationships, which were assumed to be trustworthy. Therefore, notions of trust and faithfulness were sufficient reason for unsafe sex. Stigmatisation of the ‘other’ in relation to safe sex has been shown to be racialised (Cohen, 1999, 2005; Collins, 2004; Ratele, 2001; Whiteside & Sunter, 2000). Senior military women were reported to have intimate relationships with their subordinates, even if subordinates were from different racial groups.

It is recommended that all projects working with men to fight HIV/AIDS, both nationally and internationally, need to acknowledge that constructions of masculinity and sexuality are fluid, and explore the contradictions that may facilitate change. For example, it was found that for some men condoms symbolised masculinity, and that the number of condoms you had and used signalled masculine sexual tendencies. This braggadocio may be a precursor to a more positive discourse on condoms that draws on traditional male sexuality to stress the importance of safe sexual practices, that is, if bragging corresponds to active use.

Acknowledgements

Thanks are due to Professors A V Naidoo and T Shefer, who supervised the doctoral study obtained at Stellenbosch University from which this paper emanated. The study was supported by the National Research Foundation.

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Masibambisane programme (no date) Republic of South Africa (RSA) Department of Defence.


Book Review/Revue de Livre

Living with AIDS in Uganda: Impacts on Banana-Farming Households in Two Districts
By Monica Karuhanga Beraho, African women leaders in agriculture and the environment (AWLAE)

The book is essentially a doctoral thesis and, as such, offers a very detailed study of the impact of AIDS on banana-farming households in two Ugandan districts. Being based on a thesis means that it should not be regarded as a general text on AIDS and livelihoods, but it does offer many insights into the reality of living with AIDS in these specific communities.

Monica Karuhanga Beraho comes from Western Uganda and has a degree in veterinary medicine, a Master’s in agronomy and farming systems and, through this work, a PhD in HIV/AIDS impacts on food and livelihood security.

The book begins with an outline of the importance of AIDS and its potential to impact on agricultural policy. Chapter 2 explores the now somewhat dated sustainable livelihoods approach, but does not do this in an uncritical way, and encourages some debate around its strengths and weaknesses. Chapter 3 is a straightforward methods section, and describes both quantitative and qualitative approaches used in the study. Chapter 4 describes the demographics of the 543 households studied and assesses agricultural production in the study areas. Chapter 5 is entirely qualitative, comprising twenty case studies in which household livelihood strategies are explored and how these are affected by AIDS. These case studies provide an interesting insight into the lives of the people of this area, but the lack of any systematic analysis means that this section provides more of a story than systematic or thematic analysis. Chapter 6 moves away from the central AIDS theme and provides an in-depth analysis of the agricultural economics of the region. It is apparent that this is the area in which the author has a lot of experience, and one sometimes gets the impression that AIDS is less central to the study than the book’s title might suggest. The author concludes in this chapter that ‘HIV/AIDS is not a significant determinant of livelihood strategy’ and that ‘HIV/AIDS is just one of the vulnerability-causing factors … among households that are already vulnerable’. Chapter 7 returns to the AIDS theme and explores livelihood responses to HIV and AIDS. Here again, the author concludes that underlying socio-economic and social capital are strong modifiers of AIDS impact. Chapter 8 expands the analysis to explore community level responses. Chapter 9 consists of the conclusion and discussion.

The book is generally well written and provides substantial insights into the nature of the impacts of HIV/AIDS on agricultural society. There is some evidence of inadequate proofreading, with occasional missing words or incomplete phrases, but these do not seriously detract from a very readable piece of work. The author concludes that households’ socio-economic status and demographic characteristics influence the magnitude of HIV/AIDS-related impacts. The overwhelming majority of households were adversely affected by AIDS yet, for some households, the effects were apparently manageable. Socio-economic status and household demographics were able to influence the HIV/AIDS impacts and the capacity to cope. The book also highlights specific social practices, policies and ideologies that entrench inequality and result in certain groups being marginalised while others are more privileged.

The book is recommended for those wishing to gain a deeper understanding of the realities of coping with HIV/AIDS in agricultural societies, including important gender dimensions.

John Seager, Research Director: Social Aspects of HIV/AIDS and Health, Human Sciences Research Council, South Africa (jseager@hsrc.ac.za)
Submission of papers

The Journal publishes contributions in English and French from all fields of social aspects of HIV/AIDS (care, support, behaviour change, behavioural surveillance, counselling, impact, mitigation, stigma, discrimination, prevention, treatment, adherence, culture, faith-based approaches, evidence-based intervention, health communication, structural and environmental intervention, financing, policy, media, etc.). While the emphasis is on empirical research (qualitative and quantitative), the Journal also accepts theoretical and methodological papers, and review articles, which should not be longer than 8 000 to 10 000 words, in addition, short communications, letters, commentaries and book reviews. Priority is given to articles, which are relevant to Africa and the developing world and which address social issues related to HIV and AIDS. Special issues may deal with a specific topic, region or country. Submission of papers presented at the biannual International Conferences of HIV/AIDS and STI in Africa and biannual Social Aspects of HIV/AIDS Research Alliance (SAHARA) conferences are especially invited.

Authors are requested to submit their original manuscript and figures with two copies and a matching disc to the Editor: Prof Karl Peltzer, Social Aspects of HIV/AIDS and Health, Human Sciences Research Council, Private Bag X9182, Cape Town 8000, South Africa. Manuscripts can also be submitted by email. Please, create one folder (with the name of the corresponding author) for all word and figure files, and email this to the Editor at saharaj@hsrc.ac.za

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Le journal publie des communications en anglais et en français de tous les domaines des aspects sociaux du VIH/SIDA (le soin, le soutien, le changement du comportement, la surveillance comportementale, la consultation, l’impact, la réduction, le stigmate, la discrimination, la prévention, le traitement, l’adhésion, la culture, les approches basées sur la foi, l’intervention évidence-basée, la communication sur la santé, l’intervention structurale et de l’environnement, le financement, la politique, le média, etc).

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Les auteurs sont priés de soumettre leur manuscrit original et leurs données et deux photocopies et le texte sur disquette au rédacteur en chef : Prof Karl Peltzer, Social Aspects of HIV/AIDS and Health, Human Sciences Research Council, Private Bag X9182, Cape Town 8000, South Africa. Les manuscrits peuvent également être soumis par courrier électronique. Veuillez créer un dossier (portant le nom de l’auteur) pour tous les fichiers textes et chiffres et l’envoyer au rédacteur en chef : saharaj@hsrc.ac.za

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