AIDS related knowledge and sexual behaviour among commercial farm residents in Zimbabwe

J CHIKOVORE, MT MBIZVO

Objective: To describe sexual behaviour among residents of commercial farms in Zimbabwe, their gender-specific differences; to examine implications of these for HIV/AIDS transmission.
Design: A cross sectional descriptive study.
Setting: Three commercial farming communities near Harare, Zimbabwe.
Subjects: Convenience sample of 218 adult (age 18+, or ever married) farm residents.
Main Outcome Measures: Number of sexual partners, secondary sexual relationships outside marriage, condom ever-use, first sexual partner, sexually transmitted disease (STD) experience, unprompted knowledge of HIV.
Results: Knowledge of HIV transmission was high, with eight to 88% of respondents reporting various correct means of transmission. Males reported engaging in riskier behaviour than females, with 60% of currently married males (n=81) reporting extra marital affairs compared to 4% of currently married females (n=91) (OR: 4.02; 95% CI: 1.8 to 9.04). Males were more likely than females to report a second or further marriage (OR: 37.9; 95% CI:16.01 to 92.1). Females were more likely than men to report first sexual partner as spouse. Fourteen percent of respondents had children of various ages outside their current union. Reported STD experiences under various circumstances were negligible with no differences by sex.
Conclusion: While HIV/AIDS prevention measures largely rely on individual behavioural change, preventive efforts should also encompass differences in sexual behaviour between categories like male and female. Importantly, this will determine composition of preventive policy, but also allow a clearer determination of trends based on the gender-specific behaviours. There is also need for more research work that attends to determinants of reporting behaviour beyond aspects of reported behaviour *per se*.

Introduction

The advent of the HIV pandemic has witnessed a shift in the conceptualisation of social and economic issues. This change has been accompanied by the growth of a more vigorous thrust towards understanding issues pertaining to sex, sexuality and the nature of the human being, especially because the majority of HIV transmissions are sexually transmitted.[1]

The first case of HIV in Zimbabwe is reported to have been in 1985.[2] By the early 1990s it was estimated that eight to 12% of pregnant women were infected with HIV, the virus that causes AIDS.[1] A study in Harare found HIV prevalence of up to 30% among women attending antenatal care at a hospital.[4] The Ministry of Health and other organisations embarked on campaigns aimed at reducing the rate of transmission. Due to the predominantly heterosexual nature of HIV transmission, the major thrust of policy was to encourage less risky practices by promoting condom use, discouraging multiple sexual partnerships, and encouraging abstinence before entry into a stable relationship.

The concept of risk also witnessed a re-definition of groups who are at elevated risk for HIV as risk groups. Among risk groups identified in previous studies are male STD clinic attenders,[5] homosexuals,[6] users of non-injectable drugs and individuals who have multiple sexual partners,[7] as well as antenatal care attenders.[4,8] In the antenatal studies in Zimbabwe, HIV prevalence rates of 18 and 30% were identified.

Knowledge of HIV/AIDS in Zimbabwe has been rated at 85% and 84% for women and men respectively before probing, after which it rose to 99% and 100% for the respective sexes.[3] Since the onset of the HIV/AIDS pandemic, several studies have been carried out to investigate sexual behaviours and to establish changes towards safer behaviours with time. However, documentation hardly exists on the comparative risk presented by behaviours among men and women in Zimbabwe. In this paper we raise issues about the sexuality of farm residents which represents a step towards understanding differences in practices between men and women, and their implication for the transmission of HIV/AIDS.

Department of Obstetrics and Gynaecology
University of Zimbabwe
P O Box A178, Avondale
Harare, Zimbabwe
Fax: 263-4-791995
Telephone: 791631 ext 251

Correspondence to:
Mr Jeremiah Chikovore

Materials and Methods

A non-representative purposive selection of three commercial farms within 35 kms of Harare was conducted. The farms were included in the study based on co-operation of farm owners and management. The farm setting presents an opportunity to study a group of people with diverse ethnic backgrounds and amongst whom the phenomenon of migrant labour can be witnessed. Migrant labour is likely to be associated with risk behaviours due to absence of social ties and separate living with spouse. In a case control study in Zimbabwe, 67% of STD patients reported being migrant labourers.[2]

Respondents were eligible if they resided on the farms, were over 18 years of age, or were ever-married regardless of age. Interviews were conducted on a house to house basis. For those who agreed to participate, an interview schedule was administered to them in a private setting. A female assistant interviewed female respondents, and the same procedure was followed for the male respondents. All interviews were done in the vernacular. The interview instrument was a structured and semi-structured questionnaire that took between 25 and 30 minutes to complete. Eligible respondents could decline to participate in the survey; they could also decline to answer questions during the interview or terminate the interview at any stage.

Issues covered in the questionnaire included, knowledge about HIV/AIDS transmission, sexual behaviour of respondents, and respondents, background characteristics. Knowledge of HIV transmission was ways in which respondents believed HIV/AIDS to spread. During analysis, this knowledge could be classified as correct or incorrect. Other issues were respondents' beliefs about wife inheritance, marriage, use of condom in marriage, and infertility. The latter will be presented in a separate report.

Responses were coded and entered onto a computer using statistical software Epi Info. Data were displayed using frequencies. Odds ratios (OR) and 95% confidence intervals (CI) were applied to determine levels of significance of association.

Results

Background Characteristics of Respondents.

Two hundred and eighteen men and women took part in the survey (53% male, 47% female) (Table I). Participants were aged 15 to 70 years old (mean 32.1; SD: 11.9). Seventy nine percent of respondents were in a current marriage, 9% were divorced, separated or widowed. Of those respondents in a first marriage (n=122), the majority (62%) were women. On the other hand, men represented 70% of those in a re-marriage (n=50). Respondents also differed by sex and occupation, with 64% of casual farm labourers being men, and all unemployed respondents (n=33) being female. The highest academic level reported was 13 years of formal education, although three quarters had between one and nine years of formal school.

Table I: Background features of respondents, by sex.

Background feature	Male (Total=116) n (%)	Female (Total=102) n (%)
Age		
15-24	31 (27)	32 (31)
25-34	30 (26)	48 (47)
35-44	30 (26)	15 (15)
45-54	16 (14)	4 (4)
55+	9 (10)	3 (3)
Marital status		
Single (never married)	26 (23)	1 (1)
Married (first time)	46 (40)	76 (75)
Divorced/widowed	9 (8)	16 (10)
Remarried	35 (30)	15 (14)
Occupation		
Unemployed	0 (0)	33 (32)
Agricultural labourer	103 (89)	58 (57)
Driver	4 (3)	0 (0)
Professional	8 (7)	11 (11)
Formal education attained		
None	17 (15)	20 (20)
Grade 1-7	52 (46)	53 (52)
ZJC and above	40 (30)	27 (26)

Knowledge about HIV Transmission.

Ninety seven percent of all respondents pointed out at least one correct and one incorrect avenue of HIV transmission without prompting. The knowledge ranged between eight and 88% for each correct avenue reported by all respondents. Slight differences were observed by sex with knowledge of correct means ranging between seven and 97% for the male respondents and between 10 and 85% for females. Wrong channels mentioned by both male and female respondents ranged from 1 to 3%, and from one to 6% respectively (Table II).

Table II: Unprompted knowledge about means of HIV transmission, by sex.

Avenue of transmission	Male Total=116 n (%)	Female Total=102 n (%)	Total Total=218 n (%)
Sexual contact	104 (97)	87 (85)	191 (88)
Blood transfusion	8 (7)	13 (13)	21 (10)
Open wounds contacting	9 (8)	10 (10)	19 (9)
Sharp objects	39 (34)	50 (49)	89 (41)
Toilets	1 (1)	2 (2)	3 (1)
Facility sharing	2 (2)	6 (6)	8 (3.5)
Bush thorns	0 (0)	1 (1)	1 (1)
Saliva	4 (3)	3 (3)	7 (3)
Toothbrush sharing	4 (3)	3 (3)	7 (3)
Handshake	0 (0)	3 (3)	3 (1)
Don't know	4 (3)	3 (3)	7 (3)

Sexual Behaviour.

Table III shows some aspects of sexual behaviour for the participants in the study. More females (89%, n=101) reported first sexual partner as spouse compared to males (19% n=110) (OR: 37.9; 95% CI: 16.01 to 92.1. Twenty eight percent of all ever-married respondents (n=191) reported

having had an extramarital affair at some point during their marriage, and of these (n=55), 90% were males.

Table III: Aspects of sexual behaviour for respondents, by sex. Different values of n represent respondents eligible to answer that particular question.

Aspect of behaviour	Male n (%)	Female n (%)
First sexual partner	**Total=110**	**Total=101**
Spouse	21 (19)	90 (89)
CSW	15 (14)	0 (0)
Steady partner	65 (59)	11 (11)
Unspecified	4 (4)	0 (0)
Casual partner	3 (3)	0 (0)
Do not remember	2 (2)	0 (0)
STD in first encounter	**Total=110**	**Total=101**
	n (%)	n (%)
Yes	1 (1)	4 (4)
No	108 (98)	97 (96)
Do not remember	1 (1)	0 (0)
Last used condom with	**Total=55**	**Total=25**
	frequency	frequency
Spouse	9	24
CSW	27	0
Current steady partner	14	1
Casual partner	1	0
Partners outside marriage in past year		
	Total=81	**Total=91**
	n (%)	n (%)
0	50 (62)	87 (96)
1-2	13 (16)	4 (4)
3+	8 (9.2)	0 (0)

Of the men in a current marriage 26% (n=81) reported other sexual partners in the previous 12 months ranging from one to 20. Of all men who had secondary relationships, including those previously married (n=52), 38% had never used a condom in their lives, suggesting that they did not use condoms either when engaging in sexual intercourse outside marriages. By contrast, only 4% of women in a current marriage (n=91) reported having secondary relationships and they reported a maximum number of sexual partners in the previous 12 months as two. Fourteen percent of all respondents in a current marriage had children outside the union, supporting a high prevalence of premarital sex, re-marriage, extra-marital relationships, and low condom use.

Of all the respondents who had previously engaged in sexual intercourse (n=211), 38% had ever used a condom in their lives. The majority (63%) of these (n=80) were women. Of those who had used the condom last with a spouse (n=33), the majority (63%) used it for birth control, and out of these two thirds were women (Table IV). By contrast, 77% of men who ever used a condom (n=55) had last used it for protection from HIV/STD. Fourteen percent of men who had been sexually active (n=110) had engaged in their first sexual act with a commercial sex worker (CSW). Of these (n=15), the majority[12] had never used a condom in their life. Reported experience of STD in first sexual encounter was low, at 2% of all sexually active respondents. Of these (n=5), four were women who reported having been infected by their spouses, and one was a man who had sexual intercourse with a CSW.

Table IV: Reasons for use of condom in last usage, by relationship and sex.

Reason for use	Frequency Male Total=55	Female Total=25
Spouse		
Birth control	7	14
HIV/STD prevention	0	4
During menstruation	1	6
Wanted feel of condom	1	0
CSW		
HIV/STD prevention	26	0
Steady partner		
Birth control	3	0
HIV/STD	12	1
Casual partner		
Protection	5	0

Discussion

HIV/AIDS presents a serious challenge to the medical and behavioural disciplines in Zimbabwe and world wide in the modern age. The global AIDS prevention strategy is based on encouraging people to reduce their number of sexual partners, promoting condom use, and treating concurrent sexually transmitted disease.[9] It is important in seeking to halt the spread of HIV to understand not only changes in individual behaviours, but also differences in sexual behaviours between certain groups of people. The predominantly sexual nature of HIV transmission calls for such an approach towards understanding male and female behaviours.

Our findings indicate a difference in reported behaviours between the male and female sexes. As reported in previous studies,[10,11] male sexual behaviours are shown to be riskier than female, although some risk behaviours are shown to be pertinent to both genders. For instance, remarriage among all respondents was high. Serial relationships are crucial to capture because they go beyond the admission of partners to having secondary relationships within marriages. Our findings also show that men are less likely than women to engage in first sexual act with a spouse; they also show a high prevalence of extra marital relationships, which differ by sex with males being more likely than females to have affairs.

A sizeable number of men are also shown to initiate sexual activity with a CSW and without protection. A study which described risk factors for infection with HIV showed that 49% of men who were HIV positive reported having paid a woman for sex at some time.[11] Respondents with this combination of behaviours in the previous 12 years were therefore at risk of infection with HIV, and this affected 30% of men who had first sexual intercourse with a CSW.

The same sex practices that place an individual at risk for HIV are the same that place individuals at risk for syphilis, hepatitis B, *Chlamydia* and even unwanted pregnancy, among

other things. Ironically the low rate of reported STD experience does not support the high prevalence of reported multiple partnerships amongst our study sample. A study in Kenya[12] showed that being an unmarried STD patient was associated with having many sex partners. The risk of contracting HIV has also been shown to be as high as 67 % for STD patients,[2] whilst in another study of HIV risk factors 34 % of women and 50 % of men had been treated for STD in the previous 10 years.[7]

The low reported STD experience can be attributed to a reluctance to report having had an STD which carries a stigma, or to fear by spouses that such information would be known to their partners. Other reasons for possible under reporting of STD have been assumed to be concerned with respondents experiencing less obvious symptoms, or having sought no health care, or having been mis-diagnosed during health care seeking.[3] This possibly indicates a need to approach the study of the sensitive issues of sexuality by going beyond surveys, and this call has been made elsewhere.[13,14]

Conclusion.

This study highlights behaviours of men and women with respect to HIV/AIDS risk. The results indicate that efforts to fight the transmission of the disease should encompass differences in the behaviours, and a challenge for further work on sexuality to find out how these differences are structured, legitimised and reproduced with the social milieu is presented. Male behaviour is shown to be riskier, and men should therefore form a special target group with respect to HIV prevention messages if their female counterparts are to be protected. However, since differences in behaviour have been noticed in this and other studies at levels broader than individual, the causes of such behavioural differences must be addressed at the same time that changes in behaviour at individual level are being encouraged.

Acknowledgements

Thanks are due to Zimbabwe Public Health Association for providing financial support, the University of Zimbabwe's department of Obstetrics and Gynaecology for institutional support, and to the farm administration for allowing their workers time to talk with the research team. We are also grateful to Mr B Olayinka and Mr L Nystrom for their invaluable comments on the manuscript.

References

1. Roper WL, Peterson HB, Gurran JW. Commentary: condoms and HIV/STD prevention clarifying the message. *Am J Pub Health* 1993;(8394):501-3.
2. Mbizvo MT, Danso AP, Tswana S, Bassett M, Marowa E, Mbengeranwa. Reduced semen quality and risky behaviours amongst men consulting a referral STD clinic. *Cent Afr J Med* 1994;40:294-9.
3. Central Statistical Office. Zimbabwe Demographic and Health Survey. Harare, 1995.
4. Mbizvo MT, Mashu A, Chipato T, Makura E, Bopoto E, Fottrell PF. Trends in HIV-1 and HIV-2 prevalence and risk factors in pregnant women in Harare, Zimbabwe. *Cent Afr J Med* 1996;42:14-21.
5. O'Campo P, Deboer M, Faden RR, Kass N, Gielen AC, Anderson J. Prior episode of sexually transmitted disease and subsequent risk-reduction practices: a need for improved risk-reduction interventions. *Sex Trans Dis* 1992;19:326-30
6. Dicks BA. African American women and AIDS: a public health /social work challenge. *Soc Work Health Care* 1994;19:123-43.
7. Diaz T, Chu SY, Conti L, Sorvillo F, Checko PJ, Hermann P, *et al.* Risk behaviours of persons infected with heterosexually acquired HIV infection in the United States: result of a multiple state surveillance project. *J Acq Imm Def Syndromes* 1994;9:958-63.
8. Mahomed K, Kasule J, Makuyana D, Moyo J, Mbidzo M, Tswana S. Sero-prevalence of HIV infection amongst antenatal women in Harare, Zimbabwe. *Cent AfrJ Med* 1991;37:322-5.
9. Heise II, Elias C. Transforming AIDS prevention to women's needs: a focus on developing countries. *Soc Sci Med* 1995;40:931-43.
10. Largade E, Pison G, Enel C. A study of sexual behaviour change in rural Senegal. *J Acq Imm Def Syndromes & Human Retrovirology* 1996;11:282-7.
11. Dolcini MM, Catanacia JA, Coates TJ, Stall R, Hudes ES, Gagnon JH, *et al.* Demographic characteristics of heterosexuals with multiple partners: the national AIDS behavioural surveys. *Fam Plann Persp* 1993;25:208-14.
12 Moses S, Muia E, Bradley JE, Nagelkerke NJ, Ngugi ED, Njeru EK, *et al.* Sexual behaviour in Kenya: implications for sexually transmitted disease transmission and control. *Soc Sci Med* 1994;39:1649-56.
13. Ahlberg BM. Is there a distinct African sexuality? A critical response to Caldwell. *Africa* 1994:64:220-41.
14. Seal DW, Agostinelli G. Individual differences associated with high risk sexual behaviour. *AIDS Care* 1994;6:393-7.