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HIV testing men in the antenatal setting: understanding male non-disclosure

David A. Katz^a, James N. Kiarie^e, Grace C. John-Stewart^{a,b,c}, Barbra A. Richardson^{d,f}, Francis N. John^e, and Carey Farquhar^{a,b}

^aDepartment of Epidemiology, University of Washington, Seattle, USA

^bDepartment of Medicine, University of Washington, Seattle, USA

^cDepartment of Global Health, University of Washington, Seattle, USA

^dDepartment of Biostatistics, University of Washington, Seattle, USA

^eDepartment of Obstetrics/Gynaecology, University of Nairobi, Nairobi, Kenya

^fDivision of Public Health Sciences, Fred Hutchinson Cancer Research Cancer, Seattle, USA

Summary

Prevention of infant HIV is a powerful incentive for maternal HIV diagnosis and an opportunity to increase male HIV testing and disclosure of HIV status within couples. We examined male HIV disclosure in couples who attended a Nairobi antenatal clinic (ANC), had individual HIV testing, and were counseled to disclose to their partner. At 2-week follow-up, males and females independently reported HIV disclosure. Of 2,104 women, 1,993 requested partner attendance; 313 male partners came, of whom 183 chose individual HIV testing. Of 106 couples who followed-up, 93% of both partners reported disclosure by females vs. 71% by males ($p < 0.0001$); 27% of men reported disclosure while their female partner reported not knowing partner HIV status. In these couples, male ANC HIV testing did not result in shared knowledge of HIV status. Couple counseling models that incorporate disclosure may yield greater HIV prevention benefits than offering individual partner HIV testing services at ANC.

Keywords

HIV counseling and testing; Africa; men; serostatus disclosure; couples

Introduction

Disclosure of HIV infection status to sexual partners facilitates risk reduction within the partnership and access to healthcare and social support for people living with HIV/AIDS.¹ Sharing HIV test results with a partner may increase risk reduction behaviors, regardless of

Corresponding author: David A. Katz, MPH International AIDS Research and Training Program University of Washington 325 Ninth Avenue, Box 359909 Seattle, WA 98104 Telephone: 206-543-4278 Fax: 206-543-4818 dkatz7@u.washington.edu.

Requests for reprints should be addressed to corresponding author.

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an individual's serostatus, by increasing communication about HIV and sexual health, and this has been associated with increased condom use and HIV testing by sexual partners.²⁻⁴

The rates and consequences of HIV serostatus disclosure by men to their female partners in the developing world are less understood than those of women to their partners. Most studies of men have described disclosure by HIV-seropositive men attending voluntary counseling and testing (VCT) clinics or receiving HIV/AIDS services, reporting rates of disclosure from 7% to 84%.⁵⁻¹⁰ Increasing numbers of men may be tested for HIV in other settings, including antenatal clinics, as programs attempt to expand VCT coverage for men, and previously reported rates may not be representative of these men. In addition, previous studies have not had reports from both individuals in a partnership regarding male serostatus disclosure. We examined male self-disclosure of HIV serostatus from the perspective of both male and female partners within a prospective study of men presenting with their female partners at a Nairobi antenatal clinic for VCT.

Methods

Between September 2001 and December 2002, women attending a Nairobi City Council antenatal clinic were enrolled into a study of antenatal couple counseling and encouraged to return with their male partners for VCT, as described elsewhere.¹¹ Men were enrolled into the study after providing written informed consent at initial presentation to the clinic. VCT was conducted individually or as a couple with the female partner, depending on both partners' preferences. After pre-test counseling, a rapid assay was performed for HIV and results were available within 30 minutes. Couples who received counseling together shared their HIV test results as part of the counseling session, whereas partners who were counseled individually were advised to do so on their own after the session. Men and women were asked to return to the clinic two weeks after receiving their results for additional post-test counseling.

Questionnaires addressed pre-test intentions regarding serostatus disclosure, as well as sociodemographics, HIV/AIDS knowledge, attitudes towards VCT, sexual and reproductive histories, and partner relations, at baseline and disclosure behaviors at follow-up. Correlates of both partners reporting that the male partner had shared his HIV test results were determined using Wilcoxon rank-sum tests for continuous variables and Pearson χ^2 and Fisher's exact tests for categorical variables. Female partner reports regarding male serostatus disclosure were compared by whether men returned for follow-up using the Fisher's exact test. Data were analyzed using Stata statistical software version 9.2 (College Station, USA).

Results

Between September 2001 and December 2002, 3,137 women presented to the Nairobi antenatal clinic and 2,104 (67%) enrolled into the study and accepted HIV testing. Among these women, 1,993 (95%) reported informing male partners of the availability of HIV testing. Of the 1,993 men informed of HIV testing availability, 313 (16%) accompanied their partners to the antenatal clinic. Among these 313 men, 297 (95%) received HIV testing, of whom 183 (62%) were counseled individually and 31 (10%) were HIV-seropositive. Of the 183 men who accepted HIV testing and were counseled individually, 106 (58%) returned with their female partners for follow-up at two weeks. Most (92%) of the 183 individually-counseled men reported at baseline that they would share their HIV test results with their partner if they tested positive.

Individually-counseled men for whom serostatus disclosure information was reported by both male and female partners were aged 19 to 53 years (median = 30), had completed at least primary school (100%), and were employed (97%). The majority were in monogamous marriages (94%) and lived with their partners (97%), and the median duration of their relationships was 2 years (interquartile range (IQR) 1–5). Eleven (10%) men reported current condom use with their partner and 18 (17%) reported previous HIV testing.

At the two-week follow-up visit, male disclosure of HIV test results to the female partner was reported by both partners in 75 of the 106 (71%) couples (Table 1). In the majority of the remaining couples (29; 27% of total), men reported sharing their test results with the female partner while the female partner stated that he had either not been tested ($n = 27$) or did not share his results ($n = 2$). Two men (2%) indicated that they had not shared their test results with their partner, but planned to do so in the future. Similar patterns of male disclosure were reported by women whose male partners were tested but did not return for follow-up ($p > 0.99$). Men who, according to both partners, disclosed their serostatus within the partnership had had fewer lifetime sexual partners than men who did not disclose (median (IQR) = 4 (2–5) vs. 5 (3–6), respectively; $p = 0.014$) (Table 2). Men who tested seropositive were less likely to disclose their results than those who tested seronegative but this difference did not reach statistical significance (57% vs. 72%, respectively; relative risk = 0.80, $p = 0.41$).

At follow-up, female disclosure of HIV test results to the male partner was reported by both partners in 99 of the 106 (93%) couples, including in 4 of the 5 seropositive women who returned. Rates of confirmed disclosure by women were significantly higher than by men (93% vs. 71%, respectively; $p < 0.0001$). Three (3%) women reported not having shared their results, and 4 (4%) women reported sharing their results but had partners who thought that they had not been tested ($n = 1$) or reported that they had not disclosed ($n = 3$).

Discussion

More than two thirds of men who were individually-counseled and followed for 2 weeks in a Nairobi antenatal clinic shared their HIV test results with their female partners within two weeks of testing according to both partners. This level of serostatus disclosure is among the highest reported in the literature for men^{5–10} and may be particularly high for disclosure at two weeks, as previous reports have suggested that disclosure is often delayed.^{9,12} In a separate paper, we report that men in this cohort accompanying their female partners to antenatal clinic appeared to have stronger relationships with these partners than those not coming to clinic.¹³ Men tested in the antenatal care setting may have a greater likelihood of disclosing HIV test results than men receiving VCT in other settings because a greater investment in the partnership and an interest in the health of their child may increase their motivation to disclose. In addition, men were advised to share their test results with their female partners during VCT, potentially increasing disclosure to partners.

Although almost all men reported having shared their test results with their partners, these reports were only corroborated by 72% of their female partners. In the majority of discordant reports, women indicated that their male partners had not been tested, suggesting a lack of communication between partners regarding HIV testing even when women have requested that their partners attend the clinic for VCT. The use of indirect methods for disclosure such as dropping hints^{7,12,14} or the social desirability for men to report that they shared results, created at least in part by counselors encouraging disclosure, may explain part of this discrepancy.

Having had fewer lifetime sexual partners was associated with male disclosure, suggesting that attitudes associated with sexual activity may be similar to those that affect disclosure of HIV serostatus to sexual partners. HIV-positive men in other contexts who have disclosed their HIV serostatus to sexual partners also engage in fewer sexual risk behaviors, including unprotected vaginal or anal intercourse and having multiple partners;^{8,10} however, this is likely due to the fact their potential partners will either refuse to engage in sexual activity or insist on using a condom. Preparing for the future was also mentioned as a motivation for disclosing HIV test results to partners in a qualitative study in Nairobi.⁷

The high proportion of individually-counseled men who disclosed HIV test results in the context of antenatal VCT is encouraging. However, disclosing HIV test results to female partners appears more problematic for seropositive men. Because of the high rate of discordance within couples in Kenya and other developing countries¹⁵ and the increased risk of HIV infection in infants born to women acutely infected with HIV,¹⁶ antenatal clinic staff conducting individual HIV counseling for men may wish to spend additional time or develop targeted messages for HIV-seropositive men for the sake of both women and their children. Couple counseling, which ensures bilateral disclosure, is an attractive model to increase communication within partnerships. Antenatal care is an ideal setting in which to promote couple counseling of young adults who may not otherwise seek HIV testing. Efforts to increase male involvement in antenatal care would be necessary to take advantage of the opportunities afforded by antenatal VCT, and couple counseling should be encouraged in other settings where VCT is offered.

This study had several strengths. We were able to utilize reports from both individuals in the partnership regarding disclosure to construct a potentially more accurate measure of disclosure; relying on male reports alone may be sensitive to social desirability bias and either male or female reports alone may be subject to potential misunderstandings in communication regarding HIV testing within the partnership. In addition, it is the first study to address correlates of male HIV serostatus disclosure in the antenatal setting and one of few to include the behaviors of HIV-seronegative men. Potential limitations of our study included the relatively small sample size for addressing correlates of disclosure, especially with respect to HIV serostatus, and the potential for men to underreport sexual history and behaviors, which may have biased the observed associations with disclosure.

This study suggests that offering individual counseling in conjunction with couple counseling for male partners of women attending antenatal clinics may be an effective method for allowing both partners to learn their HIV serostatus and to initiate conversations regarding HIV testing and serostatus within partnerships. The discordance between male and female reports regarding male disclosure to female partners, however, indicates that disclosure by men is complicated, even when a man is seronegative and the female partner has requested he seek testing, and highlights the benefits of couple counseling, in which disclosure is ensured. In addition, it suggests that caution should be used when relying on male reports regarding disclosure to partners. Further research is necessary to examine potential barriers to disclosure by men, communication within partnerships regarding HIV testing, and methods for increasing uptake of couple counseling.

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Table 1

Male and female partner reports regarding male HIV serostatus disclosure within the partnership

Male reports disclosing results to partner	Female reports regarding male disclosure			
	<i>Yes</i>	<i>No</i>	<i>Not tested</i>	<i>Total</i>
<i>Yes</i>	75	27	2	104
<i>No</i>	0	1	1	2
<i>Total</i>	75	28	3	106

Table 2

Comparison of men who disclosed their HIV serostatus to their female partners and those who did not^a

Characteristics	Disclosed			Did not disclose			p-value ^b
	N	Median (IQR) or Number (%)	N	Median (IQR) or Number (%)	N	Median (IQR) or Number (%)	
Age (y)	75	30 (27–33)	31	29 (27–35)			0.93
Education	75		31				0.78
Primary		28 (37%)		9 (29%)			
Secondary		34 (45%)		16 (52%)			
College		13 (17%)		6 (19%)			
Duration of relationship (y)	75	2 (1–5)	31	3.5 (1.3–6)			0.12
Number of living children	68	1 (0–2)	28	1 (0.5–2)			0.18
Plans to have more children	75	56 (75%)	29	19 (65%)			0.35
Lifetime sexual partners	75	4 (2–5)	31	5 (3–6)			0.01
Ever used condom	75	32 (43%)	31	17 (55%)			0.25
Has other sexual partners	74	8 (11%)	31	2 (6%)			0.72
HIV seropositive	75	4 (5%)	31	3 (10%)			0.42
Previously discussed HIV testing with female partner	74	55 (74%)	31	22 (71%)			0.72
If tests HIV positive, will confide in female partner	75	72 (96%)	31	29 (94%)			0.63

^aMen were considered to have disclosed their HIV serostatus to their female partners only if both partners reported male disclosure at two week follow-up. Men were considered not to have disclosed if neither or only one partner reported male disclosure.

^bMen who disclosed and those who did not disclose were compared using Wilcoxon rank-sum tests for continuous variables and Pearson χ^2 or Fisher's exact tests for categorical variables.