

HIV-Positive Women Report More Lifetime Partner Violence: Findings From a Voluntary Counseling and Testing Clinic in Dar es Salaam, Tanzania

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There is growing evidence linking the epidemics of HIV and violence against women.¹ Women are the fastest-growing population to become infected with HIV in most regions of the world. In 1999, it was estimated that there were 15 000 new infections per day, 95% of which occurred in developing countries and more than 40% of which occurred in women.² In many sub-Saharan African countries, more females than males are infected with HIV. HIV prevalence rates among young (aged 15–24 years) women and men is 27.13% and 15.11% in South Africa, 16.04% and 8.00% in Malawi, and 9.27% and 5.28% in Tanzania, respectively.² The most common form of violence against women globally is abuse by intimate male partners.³ In general, from 10% to 50% of women worldwide have been physically assaulted by a male partner in their lifetime.⁴ Table 1 provides estimates of violence against women from sub-Saharan Africa and North America.^{4–9}

Increasingly, violence and threats of violence are emerging as important factors fueling the rapidly increasing HIV epidemic among women. There are different ways in which the epidemics of HIV and violence overlap in the context of women's lives. Violence may increase a woman's risk for HIV infection through forced or coercive sexual intercourse^{10–13} and by limiting her ability to negotiate HIV-preventive behaviors.^{14–17} Physical and sexual abuse during childhood has also been associated with high-risk sexual behavior in adolescence and adulthood.^{18–20}

Previous studies have found the following factors to be positively associated with women's risk for violence: lack of financial autonomy, control of household income by a partner, partners' other relationships, women's negotiated condom use, partners' alcohol consumption, shorter duration of relationship

Objectives. Experiences of partner violence were compared between HIV-positive and HIV-negative women.

Methods. Of 340 women enrolled, 245 (72%) were followed and interviewed 3 months after HIV testing to estimate the prevalence and identify the correlates of violence.

Results. The odds of reporting at least 1 violent event was significantly higher among HIV-positive women than among HIV-negative women (physical violence odds ratio [OR]=2.63; 95% confidence interval [CI]=1.23, 5.63; sexual violence OR=2.39; 95% CI=1.21, 4.73). Odds of reporting partner violence was 10 times higher among younger (<30 years) HIV-positive women than among younger HIV-negative women (OR=9.99; 95% CI=2.67, 37.37).

Conclusions. Violence is a risk factor for HIV infection that must be addressed through multilevel prevention approaches. (*Am J Public Health.* 2002;92:1331–1337)

(years), lower education of partner, lower household income, drug use, women's multiple sex partners, lack of a steady male partner, women's positive HIV status, and CD4 count over 350.^{16,18,21,22}

This report describes the meaning of partner violence in the Tanzanian context, and the forms this violence assumes, and it identifies the prevalence and correlates of violence against women who use HIV voluntary counseling and testing (VCT) services in Dar es Salaam, Tanzania.

METHODS

Design

The study was conducted in 1999 at the Muhimbili Health Information Center, 1 of 6 free-standing voluntary HIV counseling and testing clinics in Dar es Salaam.

The goal of the first phase of research was to define violence in the local context; to describe the HIV testing and serostatus disclosure decision-making process among men, women, and couples (findings have been reported elsewhere²³); and to develop the survey instruments for use in the second phase. The first phase consisted of in-depth interviews with 15 women (13 HIV positive, 2

HIV negative), 17 men (6 HIV positive, 11 HIV negative), and 15 couples who had been through the HIV counseling and testing process at the Muhimbili Health Information Center.

The second phase of research measured the prevalence and identified the correlates of violence among 340 women enrolled immediately after their HIV pretest counseling session and before receiving test results in the posttest counseling session. To be enrolled in the study, women had to be at least 18 years of age, have a primary sexual partner for at least the past 3 months, and plan to reside in Dar es Salaam for at least the next 3 months. On average, women were 32 years old and had 9.23 years of education; 29.8% were infected with HIV, 48.3% were married, and the average duration of relationships was 7.5 years (Table 2). A total of 245 of these women (72%) were followed and interviewed 3 months after enrollment and testing. The only factor that was statistically different between women who were followed up and those lost to follow-up was the baseline report of violence with their current partner before the past year (47.6% and 61.8%, respectively; $P=.068$), suggesting that our final estimate of violence may be an underestimate of the ac-

TABLE 1—Population-Based Estimates of Physical Partner Violence in Africa, Compared With Estimates From Canada and the United States

| Country | Sample | Recent IPV | Adult Lifetime IPV |
|---------------------------------|---------------------------------|-----------------------------------|--|
| Ethiopia, 1995 ⁵ | 673 partnered women, ≥ 15 years | 10% in previous 3 mo | 45% ever with any partner |
| South Africa, 1998 ⁶ | 5077 partnered women, 15–49 y | 6% in previous 1 y | 13% ever with any partner |
| Uganda, 1995–1996 ⁷ | 1660 partnered women, 20–44 y | ... | 41% ever with current partner |
| Kenya, 1984–1987 ⁴ | 612 married women, ≥ 15 y | ... | 42% ever with current partner |
| Zimbabwe, 1996 ⁴ | 966 women, ≥ 18 y | ... | 17% ever with any partner ^a |
| Canada, 1993 ⁸ | 12 300 women, ≥ 18 y | 3% in previous 1 y ^{a,b} | 29% ever with any partner ^{a,b} |
| USA, 1993 ⁹ | 8000 women, ≥ 18 y | 1.3% in previous 1 y | 22% ever with any partner |

Note. IPV = interpersonal violence.

^aAmong women with partners only.

^bIncludes physical and sexual abuse.

tual level of violence experienced by women who seek VCT services.

Measurement of Violence

In phase 1 of data collection, we asked informants to define violence in Kiswahili, to identify situations in which violence may be justified, to describe how violence is used by people in the community, and to narrate personal experiences with violence in their intimate partnerships. In-depth interviews lasting approximately 1 hour were conducted, tape-recorded, and transcribed in Kiswahili by a Tanzanian university graduate trained in qualitative research methodology. A semistructured field guide that outlined general topics for discussion and suggested probes was used. Interviews were conducted in a private room. The audiotape transcriptions were translated by an independent translator and computerized for data analysis. The elicitation of local terms for violence and of norms surrounding violence was used in the phase 2 survey instrument.

In phase 2, women were asked about their personal experiences with violence since childhood through the following questions: How many times before the age of 12 did someone older than you force you to have sex or force you to do something sexual? How many partners have you had that have hit, slapped, kicked, pushed, shoved, or otherwise physically hurt you?²⁴ How many partners have you had who have yelled at you or called you names at least once a week? How many partners have you had who have physically forced you into sexual activity against your will?

To measure violence with a current partner, we adapted the Conflict Tactics Scale for use in the Tanzanian context.²⁵ This scale has been used extensively in the United States to measure violence in intimate partnerships but has not been widely applied in international settings.^{25–29} We asked about the frequency of specific behavioral experiences during 2 different referent periods: during the past 3 months (time since HIV testing) and prior to the past 3 months. The Conflict Tactics Scale's subscales of physical violence ($\alpha=.949$) and verbal abuse ($\alpha=.8013$) demonstrated good internal consistency with this population.

RESULTS

Analysis of the qualitative data began with reviewing for main themes and coding for retrieval and analysis.³⁰ Matrices were then created on the basis of the data to facilitate comparison of text across different categories of informants.³¹

Definition of and Norms Related to Violence

From the Kiswahili terms used to describe violence (*fujo*, *kudhalilishwa*, *ugomvi wa ndani*, *kutukana*, *kupigana*, *kudhalilishwa rohoni*), the distinction between the occurrence of violence in public and private contexts and the gendered nature of certain forms of violence was clear. The term *fujo* relates to general chaos or disorder occurring in public spaces and is often associated with men. *Kudhalilishwa*, a term that is close in meaning to “insult,” was often associated with women. The

use of insults was particularly egregious when done publicly, where other people could overhear. *Ugomvi wa ndani*, roughly equivalent to violence in the home, was associated with both men and women. A few informants indicated that this form of violence, when perpetrated by women, implied a denial of sex. *Kutukana* refers to verbal insults that are often uttered publicly. *Kupigana* is the term that comes closest to the meaning of physical violence. Informants described it as an argument that crossed a threshold into physical violence. When trying to identify a term for psychological violence, we asked informants to tell us the meaning of *kudhalilishwa rohoni*. The term was translated to mean insults that are intended to hurt one's soul. Several informants said that this implied taking intimate secrets and making them public. This term was often associated with women but could also be perpetrated by men.

Forty-one percent of women surveyed identified at least 1 situation in which partner violence was justified, including disobedience, infidelity, and noncompletion of household work. Forty-four percent of women also felt that a woman was not justified in denying her partner sex after he had beaten her, and 16.8% felt that fear of HIV infection was not adequate justification for refusing sex. According to a 29-year-old female informant:

Angepigwa [his beating] is justified if he has come from work hungry and you haven't cooked and when he asks you, your answers aren't good. She deserves to be punished. If she goes out without her husband's consent he is justified to *akimpiga makofi mawili au akim-*

TABLE 2—Demographic Characteristics of Women in the Sample: Dar es Salaam, Tanzania

| Characteristic | HIV-, % (n = 172) ^a | HIV+, % (n = 73) ^b | Overall, % (n = 245) | P |
|---|-----------------------------------|----------------------------------|-------------------------|------|
| Age, y | | | | |
| 18–29 | 54.7 | 35.6 | 49.0 | .000 |
| 30–39 | 25.6 | 52.1 | 33.5 | |
| 40–55 | 19.8 | 12.3 | 17.6 | |
| Education, y | | | | |
| 0–7 | 45.9 | 65.8 | 51.8 | .004 |
| 8–13 | 40.1 | 31.5 | 37.6 | |
| 14–22 | 14.0 | 2.7 | 10.6 | |
| Religion | | | | |
| Catholic | 32.6 | 31.5 | 32.2 | .108 |
| Protestant | 39.5 | 26.0 | 35.5 | |
| Muslim | 26.7 | 41.1 | 31.0 | |
| Other | 1.2 | 1.4 | 1.2 | |
| Marital status | | | | |
| Married (mono/polygamous) | 47.9 | 50.0 | 48.3 | .714 |
| Not married/living with partner | 11.5 | 14.5 | 12.3 | |
| Not married/not living with partner | 40.0 | 35.5 | 39.2 | |
| Employment status | | | | |
| Employed | 72.1 | 60.3 | 68.6 | .068 |
| Not employed | 27.9 | 39.7 | 31.4 | |
| Socioeconomic status (ownership of household items) | | | | |
| Low (0–2 items) | 26.7 | 46.6 | 32.7 | .005 |
| Medium (3–5 items) | 42.2 | 38.4 | 42.4 | |
| High (6–8 items) | 29.1 | 15.1 | 24.9 | |
| Duration of relationship, y | | | | |
| 0–4 | 54.5 | 44.4 | 51.8 | .024 |
| 5–11 | 20.6 | 38.1 | 25.4 | |
| 12–34 | 24.8 | 17.5 | 22.8 | |
| Prior HIV testing | | | | |
| First-time tester | 72.7 | 77.8 | 74.2 | .428 |
| Tested before | 27.3 | 22.2 | 25.8 | |
| Couple/individual testing | | | | |
| Tested as individual | 85.0 | 92.0 | 86.9 | .149 |
| Tested as couple | 15.0 | 8.0 | 13.1 | |

^a70.2% of total.^b29.8% of total.

gomba tu kwa maneno [give her 2 slaps or warn her verbally].

Violence that is considered mild or moderate and does not leave a physical mark on a woman may also be justified. According to a 29-year-old male informant:

There were slaps, that is all. It is often that I have lifted a hand. She has insulted me until she angers me. That is when I decide I should

beat her by hand. The normal beatings are acceptable, those when you beat your partner without injuring her, without putting a defect on her.

Scope and Severity of Violence

We cross-tabulated HIV serostatus with demographic and descriptive variables using χ^2 statistics to examine potential confounders of the relationship between violence and HIV. We examined and tested the associations of

the different experiences of violence with women's HIV serostatus using unadjusted and adjusted logistic regression models.

Childhood sexual abuse. Among the 245 surveyed women, 8.5% reported that they had been forced to have sex or to do something sexual by someone older at least once before the age of 12. Childhood sexual abuse was not significantly associated with HIV status when other variables were controlled for (Table 3). The greater proportion of HIV-positive than HIV-negative women who reported childhood sexual abuse (11.7% vs 7.6%) was not large enough to allow detection of significance at this sample size (19% difference required at 80% power). This difference is, however, large enough to suggest that further studies with larger numbers of women are warranted.

Lifetime adult violence. In their lifetimes, 45.7% of women had 1 or more verbally abusive partner; 37.6% had 1 or more physically abusive partner, and 16.3% had 1 or more sexually abusive partner. When we controlled for other confounders, HIV-positive women had a larger number of physically violent partners in their lifetimes than did HIV-negative women (odds ratio [OR]=1.65; 95% confidence interval [CI]=1.02, 2.67) (Table 3).

Current partner violence. Over one quarter (27.2%) of all women agreed or strongly agreed with the statement that "Violence is a major problem in my life"; 11.4% of women reported at least 1 physically violent event with their current partner in the past 3 months, and 30.2% reported at least 1 physically violent event with their current partner before getting tested. As Table 3 illustrates, HIV-positive women were more than twice as likely to report physical and sexual violence with their current partner than were HIV-negative women (OR=2.42; 95% CI=1.20, 4.87 and OR=2.39; 95% CI=1.21, 4.73, respectively). HIV-positive women also had more violent events with their current partner than did HIV-negative women (OR=1.02; 95% CI=1.00, 1.04).

Individual, Relational, and Environmental Predictors of Violence

To examine in more detail the possible predictors of physical violence with a current partner, variables were initially grouped into

TABLE 3—Prevalence of Lifetime Violence by HIV Serostatus Among Sample Women: Dar es Salaam, Tanzania

| Violence Measure | HIV- (n = 172) | HIV+ (n = 73) | Model 1, OR (95% CI) | Model 2, OR (95% CI) | Model 3, OR (95% CI) | Model 4, OR (95%) |
|--|-------------------|------------------|-------------------------|-------------------------|-------------------------|----------------------|
| Sexual violence before 12 y, % | 7.6 | 11.0 | 1.50 (0.59, 3.78) | 1.66 (0.63, 5.06) | 1.78 (0.62, 5.06) | 1.60 (0.56, 4.58) |
| Physical violence with current partner in last 3 mo, % | 9.3 | 16.4 | 1.91 (0.80, 4.56) | 1.67 (0.67, 4.12) | 1.53 (0.58, 4.03) | 1.56 (0.59, 4.13) |
| Physical violence ever with current partner, % | 28.3 | 52.2 | 2.68** (1.47, 4.89) | 2.07* (1.10, 3.90) | 2.47** (1.24, 4.96) | 2.42** (1.20, 4.87) |
| Sexual violence ever with current partner, mean | 23.0 | 44.1 | 2.63** (1.39, 4.98) | 2.24* (1.16, 4.35) | 2.30* (1.17, 4.51) | 2.39** (1.21, 4.73) |
| No. verbally abusive partners, mean | 0.5116 | 0.6986 | 1.36 (0.95, 1.93) | 1.23 (0.86, 1.78) | 1.25 (0.85, 1.83) | 1.27 (0.86, 1.87) |
| No. physically abusive partners, mean | 0.3663 | 0.6114 | 1.81** (1.19, 2.76) | 1.58* (1.02, 2.44) | 1.61* (1.00, 2.58) | 1.65* (1.02, 2.67) |
| No. sexually abusive partners, mean | 0.1773 | 0.2260 | 1.24 (0.71, 2.18) | 1.18 (0.66, 2.13) | 1.27 (0.69, 2.34) | 1.33 (0.72, 2.47) |
| No. physically violent episodes with current partner, mean | 4.05 | 10.53 | 1.02* (1.00, 1.04) | 1.01 (1.00, 1.03) | 1.02* (1.00, 1.03) | 1.02* (1.00, 1.04) |

Note. Model 1: unadjusted logistic regression; Model 2: adjusted for age and education; Model 3: adjusted for age, education, marital status, and duration of relationship; Model 4: adjusted for age, education, marital status, duration of relationship, and socioeconomic status.

* $P < .05$; ** $P < .01$ (significance of regression coefficient).

categories that represented individual-level characteristics of the woman, individual characteristics of the partner, characteristics of the relationship, and characteristics of the living environment (Table 4). The dependent outcome was the report of at least 1 physically violent event with a current partner. We used backward stepwise logistic regression techniques that incorporated variables from each category to adjust for potential confounders and formally test interactions. The same statistically significant variables were identified when we reestimated the regression equation using the simultaneous entry of all variables.

Individual characteristics of woman. The odds of reporting violence was 5 times higher among women who had a secondary school education or less than among those with a post-secondary school education (OR=5.15; 95% CI=1.06, 25.05) (Table 4). Women who were not married and not living with their current partner were significantly less likely to report physical violence (OR=0.12; 95% CI=0.04, 0.35). The interaction of women's age and HIV status was significant and improved the fit of the final model. The odds of reporting violence was 10 times higher among younger (<30 years) HIV-positive women than among younger HIV-negative women (OR=9.99; 95% CI=2.67, 37.37). Older women, both HIV positive and HIV negative, were significantly more likely to report violence than were younger HIV-negative women (OR=11.66

and 9.59, respectively). This suggests that the effect of HIV serostatus on women's experiences with violence is salient at younger ages. As women age, the likelihood of experiencing a physically violent event with a partner increases; therefore, HIV serostatus becomes less relevant as a determinant of violence.

Individual characteristics of partner. Women with older partners were significantly less likely to report violence than were women with younger partners, even when women's age and the age gap between partners were controlled for. Women who reported that their partners were currently having other relationships were 5 times more likely to report violence (OR=5.09; 95% CI=1.85, 13.99) than were women who reported that their partners had never been involved in other relationships.

Interpersonal influences. The odds of reporting violence was 4.7 times higher among women whose partners were 6 to 15 years older than themselves than among women with younger or only slightly older partners (95% CI=1.95, 11.40). This association did not hold true for women whose partners were more than 16 years older than themselves.

Environmental influences. Informants from the first phase of data collection suggested that crowded living conditions contributed to marital stress that may ultimately lead to physical violence. However, shared housing was not significantly associated with current partner violence in our analysis.

DISCUSSION

The major finding highlighted in this study is the strong association between prior history of violence and women's HIV status. Women infected with HIV were significantly more likely to have had a physically violent partner in their lifetime and to have experienced physical violence, sexual violence, or both with their current partner.

There are a number of limitations to the study that must be acknowledged. Asking women to recall physically violent events presents some of these limitations, including female minimalization of experiences of violence^{3,32} and inaccurate recall of past events. To minimize recall bias, we limited the time of recall of violence to 3 months rather than the 1-year period used by many studies. However, it is possible that this bias may have caused an underestimation of the actual level of violence experienced by women in this study.

In addition, the population of women who received HIV VCT services from the Muhimbili Health Information Center are not representative of all women living in sub-Saharan Africa. Compared with the wider population of women living in urban areas of Tanzania, women in our sample were better educated (52.2% vs 25.4% completed primary school), had a higher socioeconomic status (95.1% vs 63.4% reported cement flooring), and had higher rates of HIV infection (30% vs 18.3% HIV positive).^{33,34} Our findings, therefore, can

TABLE 4—Correlates of Ever Experiencing Physical Violence With Current Partner, Dar es Salaam, Tanzania: Univariate and Multivariate Logistic Regression

| Characteristic | N | % Violence | Unadjusted OR | | | Adjusted OR | | |
|--------------------------------------|-----|------------|---------------|-------------|-------|-------------|-------------|-------|
| | | | OR | 95% CI | P | OR | 95% CI | P |
| HIV status | | | | | | | | |
| HIV- | 172 | 28.9 | 1 | | | | | |
| HIV+ | 73 | 52.2 | 2.68 | 1.47, 4.89 | .0013 | NA | | |
| Woman's age, y | | | | | | | | |
| 18-29 | 119 | 23.4 | 1 | | | | | |
| 30-55 | 126 | 45.7 | 2.75 | 1.55, 4.87 | .0005 | NA | | |
| Status × age interaction | | | | | | | | |
| Young HIV- women | 93 | 14.6 | 1 | | | | | |
| Young HIV+ women | 26 | 58.0 | 9.99 | 2.67, 37.37 | .0006 | | | |
| Old HIV- women | 79 | 44.7 | 11.66 | 3.06, 44.45 | .0003 | | | |
| Old HIV+ women | 47 | 47.5 | 9.59 | 2.69, 34.15 | .0005 | | | |
| Woman's education, y | | | | | | | | |
| 0-13 | 212 | 37.9 | 4.46 | 1.29, 15.41 | .0180 | 5.15 | 1.06, 25.05 | .0423 |
| 14-18 | 26 | 12.0 | 1 | | | 1 | | |
| Marital status | | | | | | | | |
| Married | 110 | 49.1 | 1 | | .0000 | 1 | | |
| Not married, living with partner | 28 | 57.1 | 1.38 | 0.60, 3.19 | .4478 | 2.35 | 0.78, 7.06 | .1293 |
| Not married, not living with partner | 89 | 10.1 | 0.12 | 0.05, 0.25 | .0000 | 0.12 | 0.04, 0.35 | .0001 |
| Partner's age, y | | | | | | | | |
| 18-29 | 38 | 25.0 | 1 | | .1916 | 1 | | |
| 30-39 | 93 | 34.8 | 1.64 | 0.69, 3.88 | .2631 | 0.31 | 0.07, 1.26 | .1015 |
| 40-64 | 97 | 39.8 | 2.17 | 0.93, 5.07 | .0749 | 0.12 | 0.02, 0.70 | .018 |
| Partner's other relationships | | | | | | | | |
| Has never had/DK ^a | 57 | 26.3 | 1 | | .0810 | 1 | | |
| Not now/in past ^b | 101 | 32.7 | 1.36 | 0.66, 2.80 | .4048 | 1.84 | 0.75, 4.52 | .1810 |
| Currently has | 69 | 44.9 | 2.28 | 1.07, 4.87 | .0324 | 5.09 | 1.85, 13.99 | .0016 |
| Duration of relationship, y | | | | | | | | |
| 0-4 | 118 | 22.2 | 1 | | .0002 | | | |
| 5-11 | 58 | 44.8 | 2.84 | 1.45, 5.59 | .0025 | | | |
| 12-34 | 52 | 51.9 | 3.78 | 1.88, 7.59 | .0002 | | | |
| Partner's age - woman's age, y | | | | | | | | |
| (-7)-5 | 101 | 29.7 | 1 | | .0773 | 1 | | |
| 6-15 | 108 | 42.1 | 1.72 | 0.97, 3.05 | .0647 | 4.72 | 1.95, 11.40 | .0006 |
| 16-23 | 19 | 21.1 | .63 | 0.19, 2.06 | .4456 | 1.51 | 0.32, 7.19 | .6069 |

Note. Eighteen cases were excluded because women reported no current partner at the 3-month follow-up visit. The 18 excluded cases were significantly more likely to be HIV infected (61.1% vs 27.3%; $P < .005$). The exclusion of these cases may have caused an underestimation of the actual relationship between history of violence and HIV status. Backward stepwise regression ($P = .10$ to enter and $P = .10$ to remove) was used to identify independent predictors of violence with current partner. Violence was defined as a report of ever having at least 1 physically violent episode with current partner. The final logistic regression model contained 6 significant variables: the interaction of woman's age and woman's serostatus, woman's education, marital status, partner's age, partner's other relationships, and partner's age. The variable duration of relationship was maintained in the final model as a potential confounder. One interaction effect—HIV status × woman's age—was also found to be significant ($P = .0033$) and maintained in the final model. The overall model χ^2 was $P < .0000$.

A combination of individual, interpersonal, and environmental variables were included in this analysis. Individual variables were woman's HIV status, woman's age, woman's education, marital status, socioeconomic status, woman's religion, woman's alcohol consumption, perceived social support, financial autonomy, attitudes toward gender roles and physical punishment, urbanization, partner's age, partner's employment status, partner's education, partner's religion, partner's alcohol use, and partner's other relationships. Interpersonal variables were household decision-making patterns, duration of relationship, and age gap between partners. The environmental variable was shared housing.

^aCategory combining women who reported that partners had never had another relationship with those who reported that they did not know (DK) whether partners had ever had another relationship.

^bWomen who reported that partners did not currently have other relationships but that they had had other relationships in the past.

only be generalized to women who use HIV VCT services in urban areas of Tanzania. This is a particularly important population to study because it represents women who have been motivated to overcome the barriers that they face to accessing HIV VCT services owing to their strong perceived risk for HIV infection.²³ However, replication is needed in a population-based sample of women who may be less aware of their risk for HIV and less empowered to take preventive health actions.

The results from our study have important implications for the prevention of HIV and violence against women. Women in settings like Tanzania are at risk for both HIV infection and violence largely because of the behavior of their male partners. Interviews with male and female VCT clients illuminated the embedded social norms related to sexuality and physical violence. Violence that does not leave sustained marks on women was referred to by some informants as “normal,” indicating that there is a perceived threshold of acceptable violence in the community. Therefore, the foundation of any violence prevention campaign must include efforts to raise community awareness and to develop critical attitudes toward domestic violence. Promoting an ethic of responsibility among men and women for the health and well-being of their intimate partners is needed. Efforts to change norms surrounding conflict resolution and sexual behavior are necessary and important parts of any global women’s health promotion strategy.

The strong interaction effect of age and violence on HIV status has not been found in prior research and is a matter of concern. There is evidence of younger women being more at risk for violence around the world, and perhaps especially in sub-Saharan Africa.^{4,35} Given that we recruited women who were aged 18 years or older, we cannot address the experiences of women younger than this age with our data. The need to examine the experiences of—as well as to develop violence-related education and interventions among—these younger women is of critical importance, given their high risk for HIV infection.

We also recommend structural changes, including legal and policy changes, that may reduce violence by empowering women to

maintain more control over their own lives, ultimately enabling women in violent relationships to extricate themselves without suffering major economic and social losses. Short-term program efforts should complement these structural changes to reduce women’s risk for both HIV and violence. Attempts to promote condom use and monogamous relationships, strategies that have been the cornerstone of HIV prevention efforts, have largely failed among these women, who often do not have the ability to negotiate the terms of their sexual relationships. Community-based interventions that address negative gender norms and new tools, including female-controlled methods of HIV prevention, offer great promise for women.

HIV voluntary counseling and testing also has an important role to play in identifying and supporting victims of violence. Counselors must be aware of existing community-based programs to support women living in violent relationships so that they can screen their clients and make appropriate referrals. Prior history of violence represents an obstacle to the adoption of behaviors that may have positive outcomes on the health of women and their children. As advances in HIV perinatal transmission prevention and treatment regimens for women in developing countries increase, the likelihood also increases that women will be routinely offered screening for HIV infection in antenatal clinics. Women in violent relationships may be reluctant to be tested for HIV and to adopt health behaviors, such as formula feeding, that might expose their positive infection status to their partners.

In regions like Tanzania, where the extent of the HIV epidemic is overwhelming³⁴ and where rates of violence against women are alarming, the need for large-scale, sustained, coordinated, and evaluated interventions to address the problems of HIV and violence requires commitment from all levels—international, national, community, and individual. ■

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Contributors

S. Maman designed the study, developed the instruments, supervised the data collection, conducted the analysis, and wrote the first draft of the manuscript. J.K. Mbwambo, N.M. Hogan, and G.P. Kilonzo contributed significantly to the study design, instrument development, training of research staff, and implementation of the study. J.C. Campbell assisted in the conceptualization of the project and the development of research instruments. E. Weiss assisted with the design of the study, the development of research instruments, and the data analysis. M.D. Sweat contributed to the design and provided ongoing technical support throughout the implementation and analysis. All authors contributed to revisions of the manuscript.

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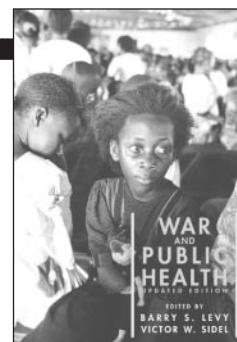
Human Participant Protection

Ethical clearance for research was obtained from institutional review boards at The Johns Hopkins University, the Tanzanian Commission on Science and Technology, and the Muhimbili University College of Health Sciences. Written informed consent was obtained from all participants.

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