Correlates of HIV Testing among Abused Women in South Africa

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Abstract

Objectives: The relationship between intimate partner violence (IPV) and HIV risk is well documented, but there is little evidence on factors which affect testing behaviors in these women at increased risk for infection. To determine the correlates of HIV testing in abused women we conducted interviews of women seeking abuse-related services from a community-based NGO.

Methods: 97 women seeking IPV services from an NGO in Johannesburg, South Africa participated in the study. Women completed an assessment of demographic, behavioral, and psychological variables. The interview also ascertained whether the women had previously been tested for HIV.

Results: Roughly half the sample had been tested for HIV (n=46, 47%). Women who tested were younger and had more education. They were less likely to have spoken to their partners about HIV, but more likely to have a partner who had tested and to report stronger risk reduction intentions. Fewer of those women who tested cared for children and more had sought help from police. Multivariate logistic regression revealed that caring for children (OR 0.266, 95% CI 0.071-0.998) and having conversations with a partner about HIV (OR 0.125, 95% CI 0.02-0.845) decreased a woman's odds of testing for HIV, whereas reporting stronger risk reduction intentions (OR 1.3, 95% CI 1.01-1.60) and seeking help from the police (OR 5.51, 95% CI 1.2-25.76) increased her odds of testing.

Conclusion: The study demonstrated the complex relationship between violence and a woman’s decision to get tested for HIV. The need for comprehensive and integrated services for women victims of violence in South Africa is discussed and recommendations for increasing testing by decreasing barriers for these women are made.

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Gender based violence (GBV) is defined as a range of harmful customs and behaviors directed towards girls and women, including intimate partner violence (IPV), domestic violence (DV), assaults against women, child sexual abuse, and rape.[1] GBV is increasingly gaining recognition as a serious threat to the health of women worldwide and may result in injury, psychological trauma, sexually transmitted infections (STI), and death[2]. With the increase in HIV infection worldwide, the relationship between HIV and GBV deserves careful consideration.

Current estimates are that one in three women worldwide will be victims of rape or attempted rape while equal numbers will experience abuse of some kind[2]. The current study was conducted in South Africa where prevalence estimates of physical abuse by a sexual partner are reported to range between 20 and 55%[3]. Rape and sexual assault rates are even harder to quantify given low reporting rates. South African crime statistics for 1996 showed 44,222 cases of reported rape, equal to 210 incidents per 100,000 women, more than double that for the U.S. More alarming, is that only 15% of women even report forced sexual encounters.[4] Low rates or reporting may arise from widespread acceptability of sexual violence or fear of negative consequences. A large survey of young people in South African revealed that 30% of all students said that women do not have the right to say no to sex, while half reported when a girl says “no” she actually means “yes”. Fully 60% of all respondents did not consider forced sex to be sexual violence[5]. The beliefs of the young are seen in the actions of adults as nearly 66% of men in a community sample in Cape Town endorsed perpetrating physical violence in an intimate relationship[6].

Supporters of survivors of GBV have long promoted the idea that such violence cuts across race, class and ethnicity. Recent evidence suggests that while GBV can, in fact, be found in any level of society, there are certain characteristics that make some women particularly vulnerable. Prior history of sexual assault and sexual assault in childhood are associated with higher levels of assault in adulthood. Further, abused women are often left isolated and disempowered by their abuser, both emotionally and financially, creating barriers to seeking help and a situation in which violence can be perpetuated[7, 8]. Such barriers may also prevent a woman from learning her HIV serostatus and taking measures to protect herself.

Women who experience GBV are at increased risk for injuries, STIs, pregnancy complications, and death. Of many STIs a woman may experience as the result of GBV, HIV is the most prevalent in South Africa at 21% among adults[9]. Strong data support the association of HIV risk among women experiencing GBV. In a group of adolescent girls diagnosed with STI or HIV, more than half (58%) reported experiencing dating violence[10]. A study of women conducted while attending voluntary counseling and testing (VCT) in Nairobi, Kenya found that 42% reported experiencing violence of any kind, 67% of whom subsequently tested positive for HIV[11]. Maman et al reported a 10 fold increase in partner violence among young HIV positive women in Tanzania[12].

The increased risk of HIV among women experiencing GBV remains even once a woman's own risk behaviors are taken into account. Dunkle et al found that among women who presented for routine antenatal HIV testing, IPV (OR 1.48) and high levels of male control in a woman's current relationship (OR 1.52) were significantly associated with HIV seropositivity once controlling for age, current relationship status, and women's risk behaviors[13].

Given that a woman in a violent relationship or otherwise experiencing violence is at greater risk for HIV infection, it follows that testing for HIV in this population is crucial to improving health outcomes. Various studies in sub-Saharan Africa have looked at barriers to and indicators for testing generally. These studies were set in VCT and antenatal clinics or were population-based. Low education[14-15], lack of ready access to testing[14-18], concerns of privacy[14, 19-21], stigmatizing attitudes towards HIV/AIDS[14-15, 22], and lack of perceived risk have all been reported as barriers to testing[14, 21]. Fears of retribution from a partner, stigmatization within a community or discrimination from healthcare workers were additional barriers in two studies[19, 23]. In rural Zimbabwe fear of violence, stress and stigma also prevented testing[19]. However, data suggest women who perceive themselves to be at increased risk for infection[14], care for children[24], and are older[15] are more likely to test.

The purpose of this study was to examine factors associated with HIV testing among a sample of women within community based clinics and shelters providing support to abused women. In contrast to previous studies, which are set in VCT and antenatal clinics or are population based, the present research surveyed women who were seeking abused related services from a nongovernmental community based organization (NGO). Based on the current literature, we hypothesize that age, caring for children, and level of education will be associated with these women's decision to get tested. Women with stronger intentions to reduce risk, who have a partner who has tested for HIV, and are able to discuss HIV with a partner are expected to be more likely to test. Recent sexual activity and previous acts of seeking assistance with regard to relationship violence are also hypothesized to be associated with higher rates of HIV testing.

Methods

Procedures

Women were told of the study by counselors in the NGO and offered a brochure in Zulu, Sotho or English. Written informed consent was obtained and trained interviewers administered an assessment in Zulu, Sotho or English in a private setting. Data presented here are the results of baseline interviews conducted prior to participation in a pilot HIV prevention intervention for abused women.

Measures

Demographic Characteristics. Each participant indicated her age, race/ethnicity, educational level, employment status, income, number of children in her care, and current relationship status.

Relationship Characteristics. Each participant was asked if her partner had tested for HIV and whether she had spoken with her partner about HIV and AIDS concerns. These were categorical questions and participants were also allowed to answer "I don't know" or "Refused" to the first.

Sexual behavior. Each respondent was asked whether or not she had been sexually active in the past year.

Risk Reduction Intentions. Participants completed a seven-item modified risk reduction intention scale[25]. Each question offered a 4 point likert scale for response and scores for all seven questions were summed for analysis. Questions examined condom use intentions and willingness to refuse participation in unsafe sexual practices (alpha=0.74).

Help Seeking Behavior. Women were asked whether they had ever sought help from the police for abuse or domestic violence.

HIV testing. Women were asked whether they had ever been tested for HIV.

Statistical Analysis. The statistical analysis involved two steps. First, a series of univariate analyses were conducted to identify significant relationships between eight predictor variables and HIV testing. These included age, education, presence of children (having biologic children or caring for other children), risk reduction intentions (continuous variable based on the sum score of a 7 item scale), having a partner who tested for HIV, being able to converse with partner about HIV, if sexually active in the past year, and seeking help from the police prior to seeking services based at the NGO.

In the second step, all the variables that were significant ($p<.10$) in the univariate analysis were used in multivariate logistic regression. The odds ratio was used to assess the strength of bivariate association. SPSS version 15.0 was used for all statistical analysis.

Results

Participants

Ninety-seven women seeking services at an NGO in Johannesburg were recruited from five out of six sites, including three drop-in clinics and two women's shelters between January 2003 and March 2004. All women were over the age of 18 and had experienced relationship violence of a physical, emotional, or financial nature. The women were primarily of Black ethnicity (94%); median age was 36 with an average of two children. Sixty-five percent had less than a high school education, 72% earned less than R500 (~80USD), and 71% had no formal employment meaning the majority were from a low socioeconomic background. Sixty-five percent reported having a current partner and 63% had been sexually active over the past year. Forty-six women (47%) had been tested for HIV at some point in the past (see Table 1 for descriptive statistics by testing status).

The results of the univariate analysis are summarized in Table 2. Of the eight predictor variables investigated, seven were related ($p < .10$) in the unvariate analysis and were entered in the multiple regression analysis. They were (1) age, (2) education, (3) caring for children, (4) risk reduction intentions, (5) HIV testing by partner, (6) Conversation with partner about HIV, and (7) seeking help from the police. Women who tested were younger and had more education. They were less likely to have spoken to their partners about HIV, but more likely to have a partner who had tested and to report stronger risk reduction intentions. Fewer of those women who tested cared for children and more had sought help from police. Sexual activity in the past year was not associated in the univariate analysis to HIV testing and was not entered in the final regression analysis.

As shown in Table 2, four of the seven variables contributed significantly ($p<0.05$) to the multivariate model. Caring for children and having talked with her partner about HIV were associated with a lower likelihood of a woman having been tested herself. Stronger risk reduction intentions and seeking help from the police for violence in the past made it more likely that a woman would have been tested for HIV.

Discussion

Half of the abused women in this South African sample had sought HIV testing. Correlates to testing behaviors included caring for children, intentions to reduce HIV risk behaviors, ability to discuss HIV testing with a partner, and seeking help for abuse from the police. Not all of these associations were in the direction we hypothesized.

The strongest association with HIV testing was seeking help from the police prior to involvement with an NGO for abused women. Such behavior could be understood at least two ways. This action can signal in some women a proactive decision to change her abusive situation. Such a step might logically precede or follow another positive step such as learning her HIV status. Conversely, seeking help from the police may indicate a higher level of violence requiring law enforcement intervention. Such a level of violence, particularly if it includes sexual violence, may cause a woman to consider her subsequent risk for HIV and prompt testing. In either scenario, contact with police indicates possible readiness of a woman to test and should be considered a potential point for intervention by encouraging or even offering testing to abused women who seek assistance from law enforcement.

Another important finding in our sample was that women who intended to decrease risk behaviors were more likely to test. This relationship was weaker than that seen in women who had sought help from the police. This is a potential demonstration of the transtheoretical model of stages of change. Women who have no intention to decrease risk might be pre-contemplative and unlikely to test. Those who intend to decrease risk, but have not acted yet are more likely to test. However, women who have taken active steps (i.e. seek help from police) are most likely to test.

Presence of children was expected to increase testing among women, considering potential health consequences for a woman's children or planning for her children's future. While children predicted testing in a Los Angeles sample[24], the finding in our sample was association with decreased testing. Despite this difference, maternal desire to protect and care for her children may be the driving factor behind both cohorts. In Los Angeles, availability of services is high while stigma is relatively low. In South Africa, access to services may be less and stigma all too common. This calculus may cause a mother to forgo testing as she may perceive having much less to gain from the knowledge of her illness compared to her developed-world counterpart. Beyond simple lack of services and potential rejection in the community, women in our sample may also fear retribution from a violent partner. Such violence may include her children or jeopardize her care of them, making her less likely to test.

Concerning was our finding that women who had talked to a partner about HIV or AIDS concerns were less likely to have ever tested for HIV. This finding also lends itself to several interpretations. First, the woman may trust her partner if he says he is negative or not at risk and therefore see no need to test herself. Considering the sample is of abused women, this explanation is deeply distressing. Such misplaced trust in a violent partner could lead to more troubling consequences in the future. Second, she may fear retribution should she seek testing and by so doing display doubt of her partner's veracity or be accused of unfaithfulness. This troubling finding can be understood in the light of previous studies that show women who fear retribution are unlikely to test[19, 23].

While not statistically significant, a trend suggested that women in our sample whose partners had tested were more likely to test. This could imply that when conversations are accompanied by actions in her partner, a woman may experience increased perception of risk that has elsewhere been shown to drive testing behaviors[14].

Previous data suggest that education is a significant predictor of testing[14-15], however this was not confirmed by our findings. Unlike in other studies, younger age was not a predictor of testing in our sample.[15] The lack of prediction for education and age in our sample may be reflective of its small size and homogeneity. Sexual activity in the past year also showed no relation to testing. This may be a result of the lack of temporal connection between having ever tested and past year sexual activity. The lack of relationship may also be due to the homogeneity of the sample of which over 80% had been sexually active in the past year.

Very few studies have looked at what contributes to testing behaviors in this region, much less in this vulnerable population. Despite this unique advantage to the current study, limitations to our findings are to be acknowledged. Women were asked if they had ever tested for HIV, not when they tested. As such, no causal conclusions can be drawn from these findings. Further, the data are in women seeking help for violence and does not readily generalize to the larger majority of women experiencing violence but not seeking services. The use of self-report measures is not without its problems, though few alternatives exist in this field of study.

The authors wish to acknowledge that data for this study was collected during the early days of the PEPFAR era and while considerable resistance to HIV care existed at a national level in South Africa. It is difficult to predict how the increasing availability of HIV services and care would affect these findings. However, it is important to note that while many women in South Africa may now have better access to HIV care, there has been no comparable concerted effort to address the issues of abuse in these women, of whom our sample represents only a tiny fraction.

The current study examining HIV testing is one of the first to solely focus on women in abusive relationships. Given that women are at increased risk of abuse and HIV in sub-Saharan Africa, understanding the motivators and barriers to testing are crucial for the development of appropriately targeted interventions and services. The need is so great that nearly any intervention has the potential to make an important public health impact. Our findings would suggest that women who seek help from the police may be ready to test for HIV. Providing women a confidential and safe place to test is necessary to protect her from retribution. These women may also be in need of other services, such as child care and legal services. Integrated services would be ideal to minimize barriers to resources. In our sample, less than half of the women seeking services had tested and presenting to such an NGO provides an ideal time for intervention and testing. In the absence of integrated services, referral to appropriate services must be offered to each woman seeking help. More effort should be made to reach the women who do not seek help from the police, estimated to be the vast majority of abused women in South Africa[4]. Such efforts might include community outreach by the police, by women advocacy groups or legal aid groups.

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Table 1. Descriptive Statistics for predictive variables

	N	Tested (N=46) Mean (SD) or %	Didn't test (N=51) Mean (SD) or %
Education	94	9.9 (3.2)	8.9 (3.2)
Conversation with Partner	96	69.6%	84%
Went to police for help	95	80.4%	54.0%
Age of Respondent (yrs)	95	33.1 (9.97)	37.4 (9.91)
Risk Reduction Intentions Sum	96	15.9 (3.0)	14.4 (2.78)
Sexaully active past year	95	78.3%	88%
Presence of children	96	84.7%	92%
Partner tested	96	43.5%	16%

Table 2. Summary of logistic regression analyses predicting HIV testing

	Univariate		Multivariate	
Predictor Variable	OR	CI	OR	CI
Age of Respondent	.96†	(.92-.99)	.932†	(.87-1.004)
Education	1.12†	(.98-1.13)	1.003†	(.92-.99)
Presence of Children	.44†	(.21-.88)	.266*	(.071-.998)
Risk Red Intention Sum	1.2†	(1.03-1.4)	1.3*	(1.01-1.60)
Partner Testing	5.0†	(1.8-13.9)	3.34†	(.92-12.35)
Conversation with Partner	.41†	(.15-1.2)	.125*	(.02-.845)
Went to Police for help	3.4†	(1.3-8.4)	5.51*	(1.2-25.76)
Sexually active past year	.49	(.16-1.5)	-	-

* $p<0.05$
†$p<0.1$