

Global Health Matters

As pointed out by Couture et al., patrons of sex workers are at high risk for contracting human immunodeficiency virus (HIV)/sexually transmitted infections (STIs) and contribute to the spread of infection in the general population through unprotected sex. In fact, clients are considered a bridge population, potentially transmitting infection between the sex workers and women from the general population. This transmission makes the wives, girlfriends, and casual sex partners of sex worker patrons especially vulnerable to HIV infection. What is particularly interesting in this article is the examination of the relationship between HIV risk behaviors and intimate partner violence (IPV) among men in Haiti.

The results of this study support previous findings suggesting that men perpetrating IPV engage in sexual behaviors that increase the risk of STI and HIV for intimate partners, in particular, non-condom use. As a result, abusive men may put their intimate partners at higher risk of contracting HIV/STIs. This finding is a cause for concern among clients of sex workers who are at higher risk of HIV and spreading the disease in the general population. The findings by Couture et al. highlight the importance of culturally adapted interventions addressing both violence and HIV risk behaviors. Other studies^{1,2} have also demonstrated that HIV prevention programs integrating IPV can reduce negative attitudes and violence.

Intervention programs in Haiti should take into consideration societal norms concerning violence against women, considering the high occurrence of violence in this culture. Community-wide prevention programs are key to dealing with this major public health challenge, which has only been exacerbated by the other extraordinary stressors on the people of Haiti.

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VIOLENCE AGAINST INTIMATE PARTNERS AND ASSOCIATIONS WITH INCONSISTENT CONDOM USE AMONG CLIENTS OF FEMALE SEX WORKERS IN HAITI

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Haiti is the poorest country in the Americas, and the majority of the population lives in extreme poverty.¹ Although the human immunodeficiency virus (HIV) epidemic is considered “generalized” (i.e., a prevalence of >1% among pregnant women) in Haiti,² the prevalence of HIV is highest within specific groups, such as female sex workers (FSWs). Clients of FSWs are also at high risk for contracting HIV/sexually transmitted

infections (STIs) and may play an important role in spreading the infection in the general population through unprotected sex. In fact, clients are considered a “bridge” population, potentially transmitting infection between FSWs and women from the general population.³ This transmission makes their wives and girlfriends particularly vulnerable to HIV infection.

Results from several studies conducted in different contexts suggest that violence is an important risk factor for HIV infection.⁴⁻⁷ Violence can be perpetrated by strangers, but intimate partner violence (IPV) is more common. Several mechanisms have been hypothesized for increased risk of transmission of HIV to women experiencing violence:⁴ (1) direct transmission of HIV during coercive sexual intercourse with an infected partner; (2) violence that may diminish women’s control of sexual behaviors, such as negotiation of condom use; (3) experiences of violence during childhood and adolescence, which may promote adoption of risky sexual behaviors later in life; and (4) disclosure of HIV-positive serostatus, which may put women at risk

of violence from their partners. An alternative and complementary hypothesis is that male perpetrators of violence may adopt frequent sexual risk behaviors, such as unprotected sexual intercourse.^{8–12}

Violence against women is a major public health problem that is ubiquitous throughout the world.¹³ The prevalence of violence against women in Haiti is difficult to estimate, as it is not always reported. In a recent study, 54% of women attending a health clinic in rural Haiti reported experiencing forced sex in their lifetime.¹⁴ Another study conducted among pregnant women reported a 12-month prevalence of physical violence (9%), emotional violence (37%), and forced sex (39%).¹⁵ Research in prostitution sites of St-Marc, Haiti, has shown that 16.5% of the FSWs had ever experienced physical violence and 28.8% had ever been forced to have sex.¹⁶

To date, no studies have examined the relationship between HIV risk behaviors and IPV among men in Haiti. Because clients of FSWs are at high risk of contracting HIV, it is essential to learn more about the possible role of violence in HIV transmission to their intimate partners. The objectives of this study were to (1) estimate the lifetime prevalence of emotional, physical, and sexual violence toward intimate partners among clients of FSWs in Haiti; and (2) examine the association between lifetime perpetration of IPV and inconsistent condom use.

METHODS

Background

We conducted a cross-sectional survey in commercial sex sites in St-Marc (population 62,200) and Gonaives (population 104,825), two port cities located in the Artibonite region in Haiti. The study is part of the Project to Support the Fight Against STI/HIV-AIDS in Haiti (also known as *Projet D'Appui à la Lutte contre les ITS/VIH/SIDA en Haiti*), which supports local efforts to promote STI/HIV transmission control, reinforce a network of STI services, prevent mother-to-child HIV transmission, and organize education and behavior change campaigns.

Study population and sampling

The study population consisted of male clients of FSWs, aged ≥ 18 years, recruited from various sites in St-Marc and Gonaives. Local FSWs and field workers collaborating with this study identified commercial sex sites (e.g., brothels, dance clubs, bars, restaurants, and street locations). The choice of sites was based on size (≥ 5 clients per night), security profile, accessibility, diversity, and geographic location. A client was defined

as a male who was present at the commercial sex site during fieldwork and who had had a sexual encounter in the last three months with an FSW for which he had paid in money or goods.

Data collection and study procedure

We collected data in December 2006 and January 2007, in the evenings (6 p.m. to 10 p.m.). During fieldwork, it was difficult to register and count each person who refused to participate; interviewers estimated non-response at $< 5\%$. Three field teams, consisting of one supervisor, four interviewers, a collaborating local FSW, and a nurse, collected data in each city. We mapped the sites through visits to estimate the number of clients of FSWs present. Owners were informed about the project, and we obtained their permission to conduct the study. Collaborating local FSWs approached clients, explained the purpose of the study, and invited them to participate. After giving their verbal informed consent, clients of FSWs were interviewed for 20–30 minutes in a quiet place. As the study was anonymous, only an identification number was assigned. The data collection instrument was a structured questionnaire, translated into Creole, that inquired about sociodemographic characteristics, sexual behaviors, and violence.

The outcome variable was condom use (consistent or inconsistent) with the different partners: intimate (wife, girlfriend), occasional (other than intimate or FSW), and FSW. For the frequency of condom use, a respondent was classified as “consistent” if he reported always using a condom with that partner (intimate, occasional, and FSW). We assessed violence perpetration using questions based on the World Health Organization violence against women instrument.¹³ We measured lifetime perpetration of emotional IPV by asking participants the following question: “Have you ever insulted or threatened your intimate partner?” We ascertained lifetime perpetration of physical IPV with the question: “Have you ever hit or slapped your intimate partner?” Finally, to measure lifetime perpetration of sexual IPV, we asked, “Have you ever forced an intimate partner to have sexual intercourse?” A positive response indicated any lifetime perpetration of IPV (emotional, physical, or sexual).

Age of participants was categorized for descriptive purposes as 18–20, 21–25, 26–30, and > 30 years of age. Religion was classified as Catholic, Protestant, Voodoo, and other (mostly atheist); education as none or primary, and secondary or higher; and occupation as student, driver, and other. Other background variables included living with a partner (yes/no) and violence during childhood (yes/no). The numbers of sexual partners and visits to FSWs in the last three months

were also measured as possible correlates or deterrents of IPV. Lifetime history of STI was measured with the question, “Have you ever had an STI?”

Free condoms, information on STI/HIV/acquired immunodeficiency syndrome, and T-shirts were offered to clients of FSWs for participating in the study. This study was completely anonymous and approved by the Ethics Committee of the University of Montreal, the Public Health Ministry of Haiti, and the Sanitary Department of Artibonite.

Statistical analysis

We used descriptive analyses to describe the population and to estimate the prevalence of emotional, physical, and sexual violence in this population. We performed Chi-square tests to examine associations between the diverse forms of perpetrated IPV and the outcomes of interest. We constructed logistic regression models to assess independent associations between perpetration of IPV and inconsistent condom use with the different partners (intimate, occasional, and FSW). Other potential explanatory variables based on the bivariate analysis and on the literature were included in the models. We used Epi Info™ version 3.3.2¹⁷ and SPSS® version 11.0¹⁸ for data collection and statistical analysis. Associations were considered significant at $p < 0.05$.

RESULTS

Of the 333 clients of FSWs interviewed, 172 were from St-Marc and 161 were from Gonaives. Men were young (mean age = 24, standard deviation = 5.94), 71.5% had at least a secondary education, and more than half (64.8%) were living with a partner (married or common-law). Twenty-five percent were students, 14.4% were drivers (taxi, truck, or bus), and 60.7% worked at other occupations. Most were Catholic (55.0%), with Protestants (21.7%) and Voodoo practitioners (15.9%) comprising most of the remainder of the study population. Most participants were recruited in brothels (69.7%), others on the streets (20.7%), and still others at commercial sex sites (9.6%) (mostly bars and discos). Twenty-seven percent of the clients had experienced violence during childhood. Twenty-one percent reported lifetime perpetration of emotional IPV and 16.5% reported physical IPV (Table 1). Almost one-third (28.8%) had ever forced their intimate partner to have sexual intercourse. Thirty-eight percent of the clients reported ever perpetrating any form of IPV, and 6.1% reported a history of all forms of IPV (data not shown).

As shown in Table 1, sociodemographic variables were not associated with perpetration of emotional,

physical, or sexual IPV, except for religion. However, clients of FSWs practicing Voodoo were less likely to have perpetrated emotional and physical IPV. Associations were observed among all three forms of perpetrated IPV and history of STI. Participants who reported perpetration of sexual IPV had fewer partners and less frequent visits to FSWs in the last three months compared with men who did not report sexual violence.

Inconsistent use of condoms with all partners was more frequent among clients of FSWs with a history of perpetrated physical IPV (Table 2). Among clients reporting perpetration of emotional IPV, the same trend of inconsistent condom use was seen with intimate and occasional partners, but not with FSWs. The frequency of inconsistent condom use with intimate partners was higher among clients of FSWs reporting a history of perpetrated sexual IPV (75.8%) than among clients who did not report it (63.6%). However, we did not observe this trend for inconsistent condom use with occasional partners or FSWs.

In logistic regression models, having a history of perpetrated emotional and physical IPV was independently associated with inconsistent condom use with intimate partners (odds ratio [OR] = 2.63; 95% confidence interval [CI] 1.33, 5.19; and OR=2.40; 95% CI 1.15, 5.04, respectively) (Table 3). We observed a similar trend with reported perpetration of sexual IPV, but the association was nonsignificant. Participants who had perpetrated emotional (OR=3.61, 95% CI 1.79, 7.23) and physical (OR 3.06, 95% CI 1.47, 6.37) IPV were also less likely to use condoms consistently with occasional sex partners. No association was observed between perpetration of sexual IPV and condom use with occasional partners. Finally, history of perpetrated physical IPV was also a predictor of inconsistent condom use with FSWs (OR=1.92, 95% CI 1.05, 3.52). However, we saw no association between emotional or sexual IPV and condom use with FSWs.

DISCUSSION

In this study of clients of FSWs in Haiti, we found that self-reported history of perpetrated emotional IPV was strongly and independently associated with inconsistent condom use with intimate and occasional partners, but not with FSWs. Perpetration of physical IPV was associated with inconsistent condom use with all kinds of partners. Men may decide to use condoms during sexual relationships with occasional partners and FSWs to protect themselves from the infections that these “free” women could transmit to them, while condom use with their wives may be motivated by the desire to

Table 1. Sociodemographic characteristics, sexual behaviors, STI history, and associations with forms of IPV in a study of male clients of FSWs in Haiti, December 2006 to January 2007

Variables	N	Violence perpetrated against intimate partners					
		Emotional		Physical		Sexual	
		Percent	P-value	Percent	P-value	Percent	P-value
City			0.381		0.904		0.785
St-Marc	172	19.1		16.3		29.5	
Gonaives	161	23.0		16.8		28.1	
Age (in years)			0.731		0.874		0.487
18–20	126	19.0		15.1		25.4	
21–25	116	21.4		18.1		32.8	
26–30	53	20.8		15.1		24.5	
>30	36	27.8		19.4		33.3	
Education			0.786		0.581		0.666
None or primary	95	20.0		14.7		30.5	
Secondary or higher	238	21.3		17.2		28.2	
Occupation			0.744		0.399		0.910
Student	83	18.1		16.9		30.5	
Driver	48	22.9		22.9		27.1	
Other	202	21.7		14.9		28.6	
Living with a partner			0.594		0.403		0.251
Yes	208	22.0		17.8		31.1	
No	113	19.5		14.2		25.0	
Religion			0.018		0.069		0.573
Catholic	180	26.7		20.0		26.3	
Protestant	71	14.1		12.7		35.2	
Voodoo	52	9.6		5.8		28.8	
Other	24	16.0		20.8		28.0	
Violence experienced during childhood			0.175		0.159		0.536
Yes	89	25.8		21.3		31.5	
No	236	19.0		14.8		28.9	
STI history			0.044		0.007		0.003
Yes	55	30.9		29.1		45.5	
No	275	18.8		14.2		25.8	
Number of partners (in last 3 months)			0.542		0.382		0.012
1–4	100	23.8		18.0		26.7	
5–9	105	21.9		12.4		39.4	
≥10	128	18.0		18.8		21.9	
Number of visits to FSW (in last 3 months)			0.542		0.991		0.004
1–4	87	25.0		16.1		37.5	
5–9	95	20.0		16.8		35.1	
≥10	151	19.2		16.6		19.9	
Total	333	21.0		16.5		28.8	

STI = sexually transmitted infection

IPV = intimate partner violence

FSW = female sex worker

protect them from the infections that they may have acquired through extramarital contacts.

Previous research conducted among women has shown associations between being a victim of violence and non-condom use, which could be related to women's inability to negotiate safe sex behaviors.^{19–24} Others have suggested that violent men may have riskier behaviors, including refusing to use condoms. In

their longitudinal study of men on methadone, Gilbert et al. showed that men reporting non-condom use had an increased likelihood of subsequent perpetration of violence against their intimate partners.¹² Finally, another study found that men reporting perpetration of IPV were more likely to report inconsistent or non-condom use.¹¹

We also found a high prevalence of lifetime

perpetrated IPV among clients of FSWs in Haiti. Almost one-fifth reported perpetration of emotional or physical violence and more than one-quarter had ever forced their intimate partners to have sexual intercourse. These findings support previous studies reporting similar prevalence among Haitian women.^{14,15,25} Violence against the different types of partners was highly correlated. For example, clients of FSWs from our study reported perpetrating violence not only against their intimate partners, but also against their occasional partners and FSWs. Furthermore, we found no associations between perpetration of IPV and sociodemographic characteristics of clients, suggesting that violence against intimate partners is widespread in Haiti. Poverty, political instability, and traditional gender norms and patriarchal beliefs are driving structural violence in Haiti, and it has been shown that structural violence influences all kinds of social relationships, including intimate ones.^{26,27}

Moreover, bivariate analysis indicates that clients of FSWs who have ever perpetrated IPV were more likely to report a history of STI. Previous studies have shown associations between experiences of violence, mostly sexual, and higher risk of STI among women.^{15,19,24,28–32} A recent study in Bangladesh found that men who reported violence against their wives were more likely to report STI symptoms or diagnosis in the past years.¹⁰ Another study reported that Indian men who had STI symptoms were more likely to abuse their wives.⁸ The fact that these abusive men were more likely to be infected with an STI and to be inconsistent condom users puts their sexual partners at high risk of infection, including potentially HIV.

The literature has shown that men involved in IPV

are more likely to have had more sexual partners or extramarital sex.^{8–12} Interestingly, we found the opposite in this Haitian population of clients of FSWs: those reporting perpetration of sexual IPV reported fewer sexual partners and fewer visits to FSWs. Consequently, the higher the frequency of sexual intercourse with another sexual partner or FSW, the less likely they are to force their intimate partner to have sex.

Limitations

This study was subject to several limitations. For one, the data collected were cross-sectional; thus, the sequence of events cannot be ascertained. We believe that violent behavior against intimate partners predisposes them to other types of behaviors, manifested by a lack of concern for the sexual risk of partners. However, a longitudinal study design would be needed to test this hypothesis.

Secondly, the nonresponse rate could only be estimated, as it was not possible to determine the exact number of invited clients who declined to participate. Thirdly, data on violence and sexual behaviors based on self-reporting may be subject to recall bias, and underreporting of IPV due to social desirability bias. In both cases, this would lead to potential underestimation of the associations between IPV and the outcomes of interest. Furthermore, confounding by variables not taken into consideration in this study (e.g., alcohol consumption) may also have affected our results.

Additionally, this study sampled primarily clients of FSWs from busy commercial sex venues, such as brothels, streets, and dance clubs. This sampling strategy might have led to underrepresentation of clients of high-class and occasional sex workers. Clients of FSWs

Table 2. Prevalence of inconsistent condom use with different partners by reported perpetration of emotional, physical, and sexual IPV in a study of male clients of FSWs in Haiti, December 2006 to January 2007

Variables	Inconsistent condom use with intimate partners		Inconsistent condom use with occasional partners		Inconsistent condom use with FSWs	
	Percent	P-value	Percent	P-value	Percent	P-value
Emotional violence		0.002		0.000		0.398
Yes	82.6		80.0		44.9	
No	63.1		50.4		39.3	
Physical violence		0.014		0.001		0.028
Yes	81.5		77.6		53.7	
No	64.3		52.1		37.7	
Sexual violence		0.032		0.895		0.705
Yes	75.8		56.9		41.9	
No	63.6		56.8		39.7	

IPV = intimate partner violence

FSW = female sex worker

Table 3. Multivariate regression models showing associations between perpetrated IPV and inconsistent condom use with different sex partners in a study of male clients of FSWs in Haiti, December 2006 to January 2007

<i>Violence perpetrated against intimate partners</i>	<i>Inconsistent condom use with intimate partners</i>	<i>Inconsistent condom use with occasional partners</i>	<i>Inconsistent condom use with FSWs</i>
	OR (95% CI)	OR (95% CI)	OR (95% CI)
Emotional ^a			
Yes	2.63 ^b (1.33, 5.19)	3.61 ^c (1.79, 7.23)	1.24 (0.72, 2.15)
No	Ref.	Ref.	Ref.
Physical ^a			
Yes	2.40 ^b (1.15, 5.04)	3.06 ^c (1.47, 6.37)	1.92 ^b (1.05, 3.52)
No	Ref.	Ref.	Ref.
Sexual ^d			
Yes	1.66 (0.94, 2.92)	0.92 (0.55, 1.58)	1.12 (0.67, 1.87)
No	Ref.	Ref.	Ref.

^aAdjusted for age, education, and history of sexually transmitted infection

^bStatistically significant at $p < 0.05$

^cStatistically significant at $p < 0.01$

^dAdjusted for age, education, history of sexually transmitted infection, and number of sexual partners

IPV = intimate partner violence

FSW = female sex worker

OR = odds ratio

CI = confidence interval

Ref. = referent group

who rarely visit these places had less chance of being included. And because the study was conducted during the early evening hours (until 10 p.m.) and more dangerous commercial sex sites were not visited, clients with more risky behaviors may have been excluded. Finally, the results may not be representative of the entire population of Haitian clients of FSWs, as the study was conducted in two cities of the Artibonite region. Therefore, it is unclear whether these findings can be safely generalized to other settings.

CONCLUSIONS

Despite these methodological constraints, the results of this study support previous findings suggesting that men perpetrating IPV engage in sexual behaviors (in particular, non-condom use) that increase the risk of STI and HIV for intimate partners. Therefore, abusive men may put their intimate partners at higher risk of contracting STIs/HIV. This trend is particularly worrisome among clients of FSWs, who are at higher risk of HIV and, thus, of spreading the infection in the general population of women. Our findings highlight the importance of culturally tailored interventions addressing both violence and HIV risk behaviors in this population. Recent studies have shown that HIV prevention programs integrating IPV can reduce nega-

tive attitudes and violence against women.^{33,34} Thus, IPV and other forms of gender-based violence should be included in HIV/STI prevention programs already existing in Haiti.

Women at risk for contracting HIV should be screened for IPV in hospitals and clinics. Programs should also address social norms concerning violence against women, considering its high prevalence and ubiquity in Haitian society. For example, gender-specific prevention programs for reducing violence against women should target adolescents and young adults, when attitudes and norms are forming. To reduce violence against women, programs need to focus not only on individuals, but on whole communities.

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