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Intimate Partner Violence among Female Sex Workers in Two Mexico-U.S. Border Cities: Partner Characteristics and HIV Risk-behaviors as Correlates of Abuse

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Abstract

Intimate partner violence (IPV) has been associated with greater vulnerability to HIV infection among women. We examined prevalence and correlates of IPV among female sex workers (FSWs) in Tijuana and Ciudad Juarez, two large Mexico-U.S. border cities where HIV prevalence is rising. Participants were 300 FSWs with a current spouse or a steady partner. Participants' mean age was 33 years, and mean number of years as a sex worker was 6 years. The prevalence of IPV in the past 6 months among participants was 35%. Using multivariate logistic regression, factors independently associated with IPV included having experienced abuse as a child, a partner who had sex with someone else, and lower sexual relationship power. Our findings suggest the need for previous abuse screening and violence prevention services for FSWs in the Mexico-U.S. border

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region. Careful consideration of relationship dynamics such as infidelity and relationship power is warranted when assessing for IPV risk.

Keywords

Intimate partner violence; Female sex workers; HIV risk; Mexican women

The association between intimate partner violence (IPV) and HIV risk has been documented among heterosexual women in various international settings such as the Ukraine (Dude, 2007), South Africa (Jewkes, Levin, & Penn-Kekana, 2003), and India (Silverman, Decker, Saggurti, Balaiah, & Raj, 2008), and among Latina,¹ African-American, and Caucasian women in the U.S. (Beadnell, Baker, Morrison, & Knox, 2000; El-Bassel, Gilbert, Rajah, Foleno, & Frye, 2000; Gonzalez-Guarda, Peragallo, Urrutia, Vasquez, & Mitrani, 2008; Raj, Silverman, & Amaro, 2004). The relationship between history of abuse in general (e.g., history of childhood abuse, IPV, and client-perpetrated abuse) and HIV risk among female sex workers (FSWs) has been well documented (Sanders, 2001; Shannon, Kerr, Bright, Gibson, & Tyndall, 2008; Wechsberg, Luseno, & Lam, 2005). However, few studies have specifically focused on IPV, which may yield important information relevant to the development of treatment and prevention strategies that target this unique population.

HIV prevalence among FSWs in Tijuana and Ciudad (Cd.) Juarez, two Mexico-U.S. border cities, is significantly higher than the Mexican national average. In 2005, HIV prevalence among FSWs in Tijuana was estimated to be 6%, and 14% among FSWs who inject drugs (Strathdee, et al., 2008), whereas the national rate of HIV prevalence for Mexican adults was 0.3% (CENSIDA, 2006). FSWs are considered a “bridge” population who may transmit HIV to the general population through having sex and injecting drugs with their male clients (Strathdee, et al., 2008). Already, HIV surveillance studies suggest the HIV epidemic in Tijuana has transitioned from low-level to concentrated, and may become generalized if current trends remain consistent (Brouwer, et al., 2006; Viani, et al., 2006).

FSWs can practice sex work legally within specific areas of the city referred to as ‘*Zonas Rojas*’ (red light districts) in Tijuana and Cd. Juarez by obtaining permits from the cities’ Municipal Health Services; however, only about 5,000 out of an estimated 9,000 FSWs have these permits (Patterson, Semple, Fraga, Bucardo, De La Torre, Salazar, et al., 2006). Like FSWs in other countries (Panchanadeswaran, 2008), those living in Tijuana and Cd. Juarez have multiple roles such as wives/intimate partners, sex workers, and mothers, are often low-income, and many report entering sex work out of economic necessity to support their family (Bucardo, Semple, Fraga-Vallejo, Davila, & Patterson, 2004). Living and working in Tijuana and Cd. Juarez where rates of drug trafficking, violence, prostitution, and HIV are high (CENSIDA, 2006; Secretaria de Salud, 2002; U.S. Department of State, 2009) exposes these women to a variety of environmental- and individual-level risks.

Although the causal links between IPV and HIV risk have not been established, some correlates of IPV and HIV have been identified in other settings (El-Bassel, et al., 2007; Panchanadeswaran, et al., 2008; Wu, El-Bassel, Witte, Gilbert, & Chang, 2003). For example, among women receiving care in a U.S. inner city emergency department, those who experienced physical IPV in the past 6 months were more likely to report engaging in

¹The terms *Hispanic* and *Latino/a* are used for all people originating from or having heritage related to Latin America (e.g., Mexican, Cuban, Central, Puerto Rican Americans) Comas-Diaz (2001) provides an in-depth explanation of the origins and utilization of the terms. Social sciences literature utilizes these terms interchangeably; however, for consistency this article utilizes *Latino/a* where appropriate. *Mexican* is a term used to denote the nationality of the inhabitants of Mexico and is used to describe the women in this study who are of Latin American decent and currently live in Mexico.

sex with an HIV-infected partner or injection drug user (IDU), having multiple partners in the past 12 months, and injection drug use (El-Bassel, et al., 2007). In another study of IPV and HIV among predominantly minority women (African American and Latina) in an urban primary care setting in the U.S., women who reported IPV were more likely to report having multiple sexual partners, a past or current sexually transmitted infection (STI), inconsistent or nonuse of condoms, and a partner with known HIV risk factors (Wu, et al., 2003). In a study of street-based FSWs in India, women who reported abuse from clients and intimate partners were less likely to use condoms, resulting in increased sexual risk for HIV (Panchanadeswaran, et al., 2008). Although these studies have identified several HIV risk behaviors associated with IPV, few studies on IPV have focused on FSWs. Further research in this area could provide essential information about mediating variables amenable to change that can be targeted in HIV prevention interventions for FSWs and their sexual partners.

Gender-based power imbalances may also play a role in HIV risk by constraining women's abilities to negotiate condom use out of fear of violent retribution. When male perpetrated violence occurs in the context of a romantic relationship, this violence is often used as a means of establishing, asserting, or protecting their power (Marin & Russo, 2003). Some have defined relationship power as economic status of women (e.g., higher education, higher paying job) (Babcock, Waltz, Jacobson, & Gottman, 1993), whereas others emphasize control and decision-making dominance in sexual relationships (Billy, Grady, & Sill, 2009; Pulerwitz, Gortmaker, & DeJong, 2000). In the study herein, we utilized the Pulerwitz et al. definition based upon the Theory of Gender and Power (Connell, 1987; Wingood & DiClemente, 2000) applied to the context of HIV risk, which posits that gender-based inequities in society and in heterosexual relationships can reduce women's control over their sexual relationship and use of condoms, thus increasing their risk for HIV.

Lack of relationship power has been shown to preclude some women's ability to avoid physical and sexual IPV (Pulerwitz, et al., 2000), and is associated with inconsistent condom use with their partners (Pulerwitz, Amaro, De Jong, Gortmaker, & Rudd, 2002). More recently, in a study of the effects of an integrated trauma, mental health, and substance abuse treatment intervention among low income African American and Latina women based in part on the Theory of Gender and Power, Amaro et al. (2007) found that high relationship power was a protective factor against engagement in unprotected sex. Thus, relationship power may be an important modifiable factor to target when designing HIV prevention interventions for heterosexual women.

The prevalence of psychological distress among FSWs has been well documented among various international samples (Farley, Baral, Kiremire, & Sezgin, 1998; Farley & Barkan, 1998; Jayasree, 2004). Furthermore, higher levels of depression (Alegria, Vera, Freeman, & Robles, 1994; Burgos, et al., 2003; Surratt, Kurtz, Weaver, & Inciardi, 2005) and childhood sexual abuse (Dickson-Gomez, Bodnar, Gueverra, Rodriguez, & Mauricio, 2006; Vaddiparti, et al., 2006) have been associated with greater risk of HIV infection among FSWs in El Salvador, Puerto Rico, and the U.S. Given that history of child abuse and life stressors are predictors of major depressive disorder in other populations (De Marco, 2000; Kessler & Magee, 1994), these issues likely play an important role in the overall mental health and well-being of FSWs, especially since they are often the victims of violence perpetrated by their clients (Romero-Daza, Weeks, & Singer, 2003; Surratt, Inciardi, Kurtz, & Kiley, 2004) as well as their spouses or steady partners (El-Bassel, Witte, Wada, Gilbert, & Wallace, 2001; Wechsberg, et al., 2005). Previous research with this sample of FSWs noted depressive symptoms were significantly associated with FSWs' reports of experiencing emotional, physical, or sexual abuse during their lifetime (Ulibarri, et al., 2009).

This study utilized cross-sectional data to examine the prevalence and correlates of IPV among FSWs in Tijuana and Cd. Juarez, two Mexico-U.S. border cities where HIV prevalence is rising. Potential correlates included history of child abuse, relationship and partner characteristics such as infidelity and sexual relationship power, symptoms of psychological distress, and HIV risk behaviors. We hypothesized that FSWs: 1) with a history of child abuse; 2) who have a partner who had sex with another partner; 3) who have lower sexual relationship power; 4) who have greater psychological distress symptoms; and 5) who are HIV-positive would be more likely to report experiencing IPV.

Methods

Participants

Data were obtained from baseline interviews administered as part of an ongoing randomized trial of a safer sex intervention for FSWs in four Mexico-U.S. border cities (Patterson, Semple, Fraga, Bucardo, De la Torre, Salazar-Reyna, et al., 2006). Baseline interview data from two of the four cities (Tijuana and Cd. Juarez) were available for use in this study. Eligibility criteria for the intervention study were: age ≥ 18 years; traded sex for money, drugs, or other material benefits in the previous two months; and had unprotected sex with at least one client during the same time frame. Because one of the outcomes of the intervention was HIV incidence, FSWs who self-reported being HIV-positive at baseline were excluded from the intervention study. There were a total of 924 FSWs participants from Tijuana and Cd. Juarez. Of the 924 FSWs, 300 reported having a spouse or steady partner. Because the main focus of this study was IPV, analyses were restricted to the 300 FSWs who reported having a current spouse or steady partner.

Procedures

FSWs residing in Tijuana and Cd. Juarez were recruited through street outreach, community and municipal health clinics, and referrals from participating FSWs. Interviews were conducted between January 2004 and March 2006. Women who completed the 60-minute, interviewer-administered survey received \$30 U.S. dollars for their time. Study protocols were reviewed and approved by institutional review boards in San Diego, Tijuana, and Cd. Juarez.

Measures

Special consideration for cultural appropriateness and validation with Spanish-speaking, low income, or FSW populations was taken into consideration when choosing measures for use in this study. Our bi-lingual, bi-cultural, and bi-national team of Latina and Mexican researchers reviewed all measures and provided guidance on issues relating to gender and cultural sensitivity before items were translated into Spanish and back-translated into English. In addition, all measures were piloted with Mexican FSWs in Tijuana before use in this study. More details about this process are available elsewhere (Patterson, et al., 2005).

Demographic Characteristics—Participants were asked a series of questions about their background such as age, marital status, years of school completed, length of time working as a FSW, and whether or not they have any children (yes/no item).

History of childhood abuse variable was constructed using three “yes/no” items assessing lifetime emotional, physical, and sexual abuse derived from the family/social relationships section of the fifth edition of the Addiction Severity Index (ASI) (McLellan, Kushner, Metzger, & Peters, 1992). Examples included: “In your lifetime, has anyone ever abused you physically?”; “In your lifetime, has anyone ever abused you sexually?”; and “In your lifetime, has anyone ever abuse you emotionally?” FSWs who responded “yes,” were then

asked how old they were when they first experienced that type of abuse. FSWs who first experienced emotional, physical, or sexual abuse before age 18 were classified as experiencing child abuse.

IPV—Emotional, physical, and sexual abuse by a current spouse or steady partner was assessed using three items selected from the family and social relationships section of the fifth edition of the ASI (McLellan, et al., 1992). Participants responded either “yes” or “no” to whether they had experienced emotional, physical, and sexual abuse by a spouse or steady partner in the past 6 months. FSWs who reported experiencing any type of abuse were then combined into one IPV variable (i.e., any IPV in the past 6 months).

Relationship Characteristics and Relationship Power—Three yes/no questions assessed characteristics of the FSW’s spouse or steady partner and current relationship. The items were: whether or not their spouse/steady partner had ever injected illegal drugs; since they had been together, had their spouse/steady partner had sex with another partner; and if their partner had an STI in the past 6 months.

Sexual relationship power was assessed using 8 items from the Relationship Control subscale of the Sexual Relationship Power Scale (SRPS; Pulerwitz, et al., 2000). Items of the SRPS measure the degree to which FSWs feel they have control over sexual behaviors in their relationship (i.e., “If I asked my spouse/steady partner to use a condom, he would get angry”). Response were on a 4-point scale ranging from 1 (strongly agree) to 4 (strongly disagree). Thus, a higher score indicated greater relationship power. Cronbach’s alpha for the modified SRPS in this study was .76.

Psychological Distress and Social Support—Symptoms of psychological distress were assessed using 28 items from the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983). These items were chosen from the somatization, interpersonal sensitivity, depression, anxiety, and hostility subscales of the BSI. Participants were asked to rate how bothered they were in the past week by each of the symptoms listed. Responses ranged from 1 (not at all) to 5 (extremely). Cronbach’s alpha for the 28 items of the BSI in this study was .92.

Social support was assessed using a modified version of the Schaefer, Coyne, & Lazarus Inventory (Schaefer, Coyne, & Lazarus, 1981). Seven items measuring satisfaction with network and social support were selected. Answer choices were on a four-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). Sample items included, “You have a friend or relative in whom you can confide your opinions;” “You have at least one friend or relative with whom you can be with when you are sad or depressed.” Coefficient alpha for the social support scale in this study was .85.

HIV Risk Behaviors—To assess drug-risk behavior, FSWs were asked if they had injected any drugs in the past month, and if so, whether they had ever shared needles or injection equipment. Sexual risk behavior was assessed by the number of times participants had unprotected vaginal and anal sex with their spouse/steady partner in the past month.

HIV seropositivity—HIV serostatus was determined using the Determine rapid HIV antibody test (Abbott Laboratories; Abbott Park, Illinois, U.S.A). Reactive samples were confirmed by EIA and Western blot. Pre- and post-test counseling was provided; participants with positive test results were referred to municipal health clinics for free medical care. Confirmatory HIV tests were conducted at either the San Diego County Health Department (for Tijuana samples) or the El Paso County Health Department (for Cd. Juarez samples).

Statistical Analyses

The first step focused on comparisons between FSWs who reported IPV in the past 6 months to FSWs who did not, using Wilcoxon rank sum tests for differences in group distributions or Chi square tests for categorical data. Next, univariate and multiple logistic regressions were performed to identify factors associated with IPV. In multivariate regressions, the final model was developed using a manual procedure where all the variables of interest that attained a significance level $\leq 10\%$ in univariate analyses were considered from most to least significant. The likelihood ratio statistic was used to compare models, retaining variables that were significant at the $\leq 5\%$ level.

Results

Of the 300 FSWs with a current spouse or steady partner, 145 (48%) lived in Tijuana and 155 (52%) lived in Cd. Juarez; 105 (35%) reported experiencing IPV in the past 6 months. The mean age of participants was 32.9 years ($SD = 8.3$), average length of time as a FSW was 6.1 years ($SD = 6.7$), and highest years of school completed was 6.3 years ($SD = 3.1$). In our sample, 16 (5%) women tested HIV-positive, and 54 (18%) reported injecting drugs in the past 30 days.

Characteristics of FSWs who reported experiencing IPV versus those who did not are presented in Table 1. For the demographics, there were no significant differences between groups in age, education, marital status, or whether or not they have children. FSWs who reported experiencing IPV were significantly more likely to report having been abused in childhood than FSWs without IPV (67.6% vs. 45.6%, respectively). In regards to relationship and partner characteristics, FSWs who reported experiencing IPV were more likely to have a spouse/steady partner who had injected illegal drugs and who had sex with another partner. FSWs who reported experiencing IPV had lower scores on the sexual relationship power scale compared to FSWs without IPV ($M = 2.38$ vs. $M = 2.61$, respectively).

In terms of psychological distress, FSWs who reported IPV had greater mean BSI scores, and lower mean social support scores. There were no significant differences between the groups in reported risk behaviors. Lastly, HIV prevalence was significantly higher among FSWs who reported IPV compared to those who did not (9.5% vs. 3.1%, respectively).

We examined correlates associated with IPV in univariate logistic regression models (see Table 2). FSWs who reported experiencing IPV were more likely to have experienced abuse as a child (Odds Ratio[OR] = 2.49, 95% Confidence Interval [CI] 1.52–4.10), have a spouse/steady partner who injected illegal drugs (OR = 1.78, 95% CI 1.04–3.05), have a spouse/steady partner who had sex with another partner (OR = 2.55, 95% CI 1.46–4.45), and have a lower mean score on the sexual relationship power scale (OR = 0.39, 95% CI 0.23–0.67). FSWs who reported experiencing IPV had lower mean social support scores (OR = 0.53, CI 0.34–0.83) and higher mean BSI scores (OR = 1.68, 95% 1.23–2.30). Lastly, FSWs who reported experiencing IPV were more likely to test HIV-positive than FSWs without IPV (OR = 3.28, CI 1.16–9.30).

In the final multivariate model (Table 3), three factors remained independently associated with IPV. FSWs who reported experiencing IPV in the past 6 months had more than two-fold greater odds of experiencing abuse in childhood (OR = 2.23, 95% CI 1.21–4.09) and having a spouse/steady partner who had sex with another partner (OR = 2.40, 95% CI 1.32–4.37). FSWs who had lower mean sexual relationship power scores were also more likely to have experienced IPV in the past 6 months (OR = 0.35, 95% CI 0.18–0.66).

Discussion

In this study of the prevalence and correlates of IPV among FSWs in Tijuana and Cd. Juarez, approximately one in three FSWs in our sample had experienced IPV in the past 6 months which is comparable to estimates of IPV reported in Latina samples in the U.S. (Gonzalez-Guarda, et al., 2008). As we hypothesized, women in our study who reported IPV were significantly more likely to report experiencing abuse as a child than their FSW counterparts who did not report any IPV. Moreover, history of abuse as a child was independently associated with recent IPV among the FSWs. This is consistent with previous research with street-based FSWs in the U.S. (Nabila El-Bassel, et al., 2001a). The prevalence of childhood abuse and IPV among FSWs in this sample demonstrates the importance of screening for history of abuse and IPV. Having a history of child abuse may be a critical marker in identifying FSWs who are at increased risk for violence re-victimization through IPV.

Next, as was hypothesized, FSWs who reported IPV were significantly more likely to report having partners with known HIV risk factors such as injection drug use and having had sex with another partner while in the current relationship than FSW who did not report IPV. In addition, having a partner who had sex with someone else was independently associated with more than two-fold increased odds of IPV. These results were consistent with other studies of heterosexual African American and Latina women in the U.S. (El-Bassel, et al., 2007; Wu, et al., 2003). However, having a partner with a STI, unprotected sex with partners, and HIV serostatus were not significant correlates of IPV in this study. It is possible this was because of the low awareness of any STI diagnoses among their partners, and the lack of variance in reported unprotected sex acts for the sample, as a consequence of the eligibility criteria. Also, since the data were from an HIV prevention intervention study, women who were knowingly HIV-positive at baseline were excluded, likely under-estimating the odds. Nonetheless, these results demonstrate the importance of considering partner- as well as individual-level factors when assessing HIV risk among FSWs. For example, a recent study of Indian husband and wife dyads showed that IPV functioned as both a risk marker and a risk factor for women's HIV infection (Decker, et al., 2009). Future HIV prevention and intervention research with Mexican FSWs should include intimate partners in order to address issues such as monogamy, and gender-based relationship power which may be indirectly related to HIV risk.

Consistent with previous research among a primarily Latina sample of women in the U.S. that found lower sexual relationship power to be associated with increased IPV (Pulerwitz, et al., 2000), FSWs in this study who reported IPV had lower levels of sexual relationship power than FSWs who did not report IPV. Furthermore, lower sexual relationship power was independently associated with recent IPV. It is possible low levels of sexual relationship power preclude some women's abilities to avoid IPV as in the Pulerwitz et al. (2000) study, and that men are using IPV as a means of establishing their dominance. Applied to the context of condom use behavior, intimate partner perpetrated violence may increase a woman's feelings of powerlessness by increasing her feelings of fear, thus limiting her ability to negotiate safe sex practices and increasing the risk of HIV acquisition. Amaro et al, (2007) showed that improving relationship power reduced unprotected sex at 6 month and 12-month follow up among women low income African American and Latina women in the U.S. Therefore, relationship power may be an important modifiable factor to target when designing HIV prevention interventions for Mexican FSWs. However, more in-depth qualitative research is needed to examine exactly how the construct of relationship power is expressed within the Mexican population along the Mexico-U.S. border region, especially among FSWs and their intimate partners, before appropriate interventions can include this construct. Future studies should examine how individual- and societal-level components of

relationship power such as gender role ideology, societal gender norms, education and income influence sexual decision making among Mexican FSWs and their partners. In addition, the analysis of central values of Latino culture such as *machismo* (a traditional gender role orientation that accepts male dominance as a proper form of male conduct), *marianismo* (a traditional female role orientation that accepts motherly nurturance and the demure and pure identity of a virgin as a proper form of female conduct), *respeto* (emphasis on respect and attention to issues of social position in interpersonal relations), and *simpatia* (a deferential posture toward family members and others in efforts to maintain harmony in family and in interpersonal relationship) should be included in order to assess how these cultural factors influence gender-based attitudes and behaviors about IPV and HIV risk (Castro & Hernandez, 2004). For example, traditional gender roles and gender stereotypes may serve to block communication about sexual practices between partners. These cultural variables may not necessarily operate as direct-effect causal factors of IPV or HIV risk behavior but may instead operate as amplifiers or buffers of the direct influence of other causal variables of violence and risk behavior (Castro & Hernandez, 2004).

Future interventions with Mexican FSWs may want to include treatment for psychological distress symptoms that may be the consequence of violence victimization. Although causal inferences about psychological distress cannot be drawn from this study, FSWs who experienced IPV reported significantly more symptoms of psychological distress than those who did not experience IPV. This is consistent with a previous study of FSWs in Mexico, in which lifetime history of emotional, physical and sexual abuse were associated with higher levels of depressive symptoms (Ulibarri, et al., 2009). Higher levels of depression (Alegría, et al., 1994; Burgos, et al., 2003; Surratt, et al., 2005) and childhood sexual abuse (Dickson-Gomez, et al., 2006; Vaddiparti, et al., 2006) have been associated with greater risk of HIV infection among FSWs in El Salvador, Puerto Rico, and the U.S. The inclusion of treatment for violence victimization trauma could be useful for interventions designed to reduce HIV risk among FSWs. For example, Amaro et al. (2007) found that an integrated approach to substance abuse treatment among women with co-occurring trauma and mental disorders was also beneficial to reducing HIV risk behavior. Future HIV prevention research with Mexican FSWs should explore the cultural adaptation of existing successful programs such as this, utilizing a culturally focused approach in which research questions are examined according to the specific life experiences of Mexican FSWs. In doing so, future research may yield effective intervention programs that respond effectively to the unique needs of this population.

Although this study adds to the knowledge base on IPV among FSWs, several limitations must be noted. First, the study utilized cross-sectional data therefore causal inferences cannot be drawn. Additional longitudinal studies that assess onset of abuse and correlates such as psychological distress and HIV-seropositivity may further clarify the observed associations. Second, the present study is retrospective and relies primarily on self-report data which can be susceptible to recall bias. However, the recall period for the questions was relatively short (e.g., past 30 days to past 6 months), and previous research has provided self-report data with similar high-risk populations (e.g., IDUs) (Darke, Hall, Heather, & Ward, 1991; De Irala, Bigelow, McCusker, Hindin, & Zheng, 1996; Van Duynhoven, Nagelkerke, & Van De Laar, 1999). A third limitation was the limited, fixed nature of the abuse items selected from the Addiction Severity Index. These items did not assess multiple experiences of IPV or severity of IPV, and therefore it may not reflect the true experiences of IPV for some of the FSWs in our study. Last, the results of this study may not generalize to other ethnic groups of FSWs, or even to other Latina FSWs. The participants in this study constituted a convenience sample from two Mexico-U.S. border cities and may not be representative of FSWs in other cities or of FSWs in either of those cities as a whole. Although there may be some cultural consistencies among Latina women in general (e.g.,

language, customs), the overall social, cultural, and political environment of the Mexico-U.S. border region is unique and FSWs in this region may differ from other Latina women and FSWs as a result. Furthermore, homogeneity of this group should not be assumed. Therefore, caution should be exercised when generalizing the results of this study to other populations. In addition, the present study focused on heterosexual relationships. Therefore, the results may not generalize to the experiences of same-sex relationships.

Further understanding of IPV and FSWs' HIV-risk behavior is important for the development of treatment and prevention strategies that adequately address the both micro- and macro-level risks that FSWs face such as violence victimization, trauma, partners' risk behaviors, and gender, cultural, and economic inequalities. The next logical step is to conduct couples-based research examining both individual and dyad-level factors of HIV risk among Mexican FSWs and their intimate partners, while taking into consideration importance core Latino cultural values. The inclusion of male partners may lead to better HIV and IPV prevention outcomes than addressing Latina women's own risk behaviors alone (Gonzalez-Guarda, et al., 2008). Couples-based HIV prevention research targeting both FSWs and their intimate partners may be especially critical given the high rates of violence in this population, and that standard communication and condom-skills building interventions have been shown to be less effective with women who have a history of abuse (Greenberg, 2001). The inclusion of violence screening and prevention as well as treatment for psychological distress may galvanize HIV prevention interventions serving FSWs in this region and help them avoid potentially violent intimate partners. Ultimately, FSW's overall risk may be influenced by including their intimate partners who may play an important role in shaping their behavior with clients and other casual, non-paying partners beyond the primary relationship. Interceding in the context of a an intimate relationship may be an important point of intervention. Even though relationships and power dynamics are not static and may change over time, protective and communications skills acquired during the context of one relationship may be internalized and then generalized to future intimate relationships (N. El-Bassel, et al., 2001b).

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Table 1

Characteristics of FSWs in Tijuana and Cd. Juarez Who Experienced Recent IPV Compared to Those Who Did Not

	IPV (<i>n</i> = 105)	No IPV (<i>n</i> = 193)	Total (<i>N</i> = 300)	p-value
Demographics				
Mean age	33.08 (sd = 8.24)	32.81 (sd = 8.35)	32.92 (sd = 8.27)	.70
Mean years of school completed	6.08 (sd = 3.27)	6.35 (sd = 3.05)	6.26 (sd = 3.12)	.49
Mean years as FSW	5.85 (sd = 6.55)	6.14 (sd = 6.79)	6.05 (sd = 6.70)	.74
Marital status				.86
Married	6	13	19 (6.3%)	
Living with partner	61	107	169 (56.3%)	
Separated, Divorced, or Widowed	12	30	42 (14.0%)	
Single	25	43	69 (23.0%)	
Have children	96 (91.4%)	178 (92.2%)	276 (92.0%)	.81
FSW experienced abuse as child ^a	71 (67.6%)	88 (45.6%)	161 (53.7%)	<.01
Relationship Characteristics				
Spouse/steady partner ever injected illegal drugs	35 (33.3%)	43 (22.3%)	78 (26%)	.03
Spouse/steady partner had sex with another partner	50 (47.6%)	63 (32.6%)	114 (38%)	<.01
Spouse/steady partner had STD in past 6 months	8 (7.6%)	7 (3.6%)	15 (5%)	.09
Mean SRPS score ^b	2.38 (sd = 0.49)	2.61 (sd = 0.48)	2.52 (sd = 0.50)	<.01
Mental Health				
Mean social support score	2.71 (sd = 0.59)	2.91 (sd = 0.55)	2.85 (sd = 0.58)	<.01
Mean BSI score ^c	1.44 (sd = 0.78)	1.13 (sd = 0.75)	1.24 (sd = 0.78)	<.01
Risk Behaviors				
Injected drugs in the past month	20 (19.0%)	34 (17.6%)	54 (18.0%)	.76
Ever shared needles or injection equipment	27 (25.7%)	41 (21.2%)	68 (22.7%)	.62
Mean number unprotected vaginal sex acts with spouse/steady partner	16.19 (sd = 20.96)	12.17 (sd = 13.54)	13.53 (sd = 16.44)	.37
Mean number unprotected anal sex acts with spouse/steady partner	6.59 (sd = 8.15)	3.56 (sd = 4.41)	4.89 (sd = 6.44)	.18
HIV-seropositivity	10 (9.5%)	6 (3.1%)	16 (5.3%)	.02

Note. Data are no. (%) of women, unless otherwise indicated. Some frequencies do not sum to *n* due to missing values.

^a emotional, physical, or sexual abuse in childhood

^b sexual relationship power

^c psychological distress symptoms

Table 2

Factors Associated with Recent IPV among FSWs in Tijuana and Cd. Juarez

Baseline characteristics	Odds Ratio	95% Confidence Interval	p value
Demographics			
Mean age	1.00	0.98–1.03	.80
Mean years of school completed	0.97	0.90–1.05	.47
Mean years as FSW	0.99	0.96–1.03	.72
Marital status	1.09	0.91–1.29	.36
Have children	0.90	0.38–2.13	.81
FSW experienced abuse as child ^a	2.49	1.52–4.10	<.01
Relationship Characteristics			
Spouse/steady partner ever injected illegal drugs	1.78	1.04–3.05	.04
Spouse/steady partner had sex with another partner	2.55	1.46–4.45	<.01
Spouse/steady partner had STD in past 6 months	2.42	0.85–6.92	.10
Mean SRPS score ^b	0.39	(.23–.67)	<.01
Mental Health			
Mean social support score	0.53	0.34–0.83	<.01
Mean BSI score ^c	1.68	1.23–2.30	<.01
Risk Behaviors			
Injected drugs in the past month	1.10	0.60–2.03	.76
Ever shared needles or injection equipment	1.32	0.44–3.93	.62
Mean number unprotected vaginal sex acts with spouse/steady partner	1.01	1.00–1.03	.07
Mean number unprotected anal sex acts with spouse/steady partner	1.08	1.00–1.18	.09
HIV-seropositivity	3.28	1.16–9.30	.03

^a emotional, physical, or sexual abuse in childhood^b sexual relationship power^c psychological distress symptoms

Table 3

Factors Independently Associated with Recent IPV among FSWs in Tijuana and Cd. Juarez

	Odds Ratio	95% Confidence Interval	p value
FSW Experienced Abuse as Child ^a	2.29	1.24–4.22	<.01
Spouse/steady partner had sex with another partner	2.45	1.34–4.82	<.01
Mean SRPS score ^b	0.35	0.18–0.66	<.01

^a emotional, physical, or sexual abuse in childhood^b sexual relationship power