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Behavioral and Psychosocial Correlates of Anal Sex Among Male Clients of Female Sex Workers in Tijuana, Mexico

Shirley J. Semple · Steffanie A. Strathdee · Eileen V. Pitpitan · Claudia Chavarin · Thomas L. Patterson

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Abstract Most studies of heterosexual sex risk practices have focused on condomless vaginal sex despite evidence that condomless anal sex has a significantly higher risk of HIV transmission. The present study focused on male clients' anal sex practices with female sex workers (FSWs) in Tijuana, Mexico, where an HIV epidemic is growing among high-risk groups. Logistic regression analyses were used to identify psychosocial and behavioral correlates of anal sex among male clients. Our sample of HIV-negative men ($N = 400$) was predominantly Latino (87.5 %), born in Mexico (78.8 %), never married (36.8 %) or in a regular or common-law marriage (31.5 %), and employed (62.8 %), with an average age and education of 37.8 and 9.2 years, respectively. Eighty-nine percent identified as heterosexual and 11 % as bisexual. By design, 50 % of the sample resided in Tijuana and the other 50 % in San Diego County. Nearly half (49 %) reported at least one incident of anal sex with a FSW in Tijuana in the past 4 months; of those participants, 85 % reported that one or more of their anal sex acts with FSWs had been without a condom. In a multivariate model, anal sex with a FSW in the past 4 months was associated with bisexual identification, methamphetamine use with FSWs, repeat visits to the same FSW, higher scores on perceived stigma about being a client of FSWs, and sexual compulsivity. Prevention programs are needed that address the behavioral and psychosocial correlates of heterosexual anal sex in order to reduce HIV/STI transmission risk among male clients, FSWs, and their sexual network members.

Keywords Sex workers · Clients of sex workers · Anal sex · HIV and STI risk practices · Mexico · HIV prevention

S. J. Semple · C. Chavarin · T. L. Patterson (✉)
Department of Psychiatry, University of California, San Diego, 9500 Gilman Drive, Mail Code 0680, La Jolla, CA 92093-0680, USA
e-mail: tpatterson@ucsd.edu

S. A. Strathdee · E. V. Pitpitan
Division of Global Public Health, Department of Medicine, University of California, San Diego, La Jolla, CA, USA

Introduction

Mexican cities along the U.S. border are experiencing a growing HIV epidemic that is concentrated among such high-risk groups as female sex workers (FSWs), men who have sex with men (MSM), and injection drug users (Iniguez-Stevens et al., 2009; Strathdee & Magis-Rodriguez, 2008; Strathdee, Magis-Rodriguez, Mays, Jimenez, & Patterson, 2012). To date, little attention has been paid to the role of male clients of FSWs in the spread of HIV/STIs in the region. In a recent study of male clients in Tijuana, 4 % were HIV-infected, and 50 % had had condomless vaginal or anal sex with a FSW in the past 4 months (Goldenberg et al., 2010; Patterson et al., 2009). The extent to which male clients engage in anal sex with FSWs in Tijuana has not been examined separately from vaginal sex, and the correlates of anal sex in this subgroup are unknown.

Most studies of heterosexual risk practices, including those of male clients of FSWs, have focused on condomless vaginal sex (Risser, Padgett, Wolverton, & Risser, 2009), despite evidence that anal sex without a condom has a significantly higher risk of HIV transmission (Halperin, 1999; Varghese, Maher, Peterman, Branson, & Steketee, 2002; Voeller, 1991). Anal sex also carries increased risk for contracting rectal gonorrhea, chlamydia, herpes simplex virus, human papilloma virus (HPV), hepatitis B, and syphilis (McBride & Fortenberry, 2010; Topping et al., 2011). The risks associated with heterosexual anal sex are

exacerbated by low rates of condom use among heterosexual men and women (Gorbach et al., 2009a; Leichliter, Chandra, Liddon, Fenton, & Aral, 2007; Lescano et al., 2009; Maynard, Carballo-Dieguez, Ventuneac, Exner, & Mayer, 2009; Tian et al., 2008). In a U.S. sample, 63 % of heterosexual men and women reported never using condoms for anal sex (Tian et al., 2008). Other studies show that anywhere from 50 to 84 % of men and women engaging in heterosexual anal sex report that they use condoms inconsistently (Gorbach et al., 2009a; Roye, Krauss, & Silverman, 2010; Tian et al., 2008; Yarber, Graham, Sanders, & Crosby, 2004). Moreover, using condoms for anal sex carries its own special risks: condoms break and slip off more often during anal sex than they do during vaginal sex (McBride & Fortenberry, 2010; Silverman & Gross, 1997), while delayed application, removal of the condom before completion of the sex act, and use of the same condom when switching between vaginal and anal sex can further increase the HIV/STI transmission risk (Bradley et al., 2013; Topping et al., 2011).

Several studies have documented an association between anal sex and the exchange of sex for money or drugs (Gorbach et al., 2009a; Javanbakht et al., 2010; Tucker, Krishna, Prabhakar, Panyam, & Anand, 2012). Studies of FSWs indicate that anal sex is most often initiated by male clients (Tucker et al., 2012) and is more common among men who are substance users (Risser et al., 2009). Studies in the general population suggest that anal sex is increasing in prevalence among heterosexual adults in developed countries (Aral, Patel, Holmes, & Foxman, 2005; Mosher, Chandra, & Jones, 2005; Satterwhite et al., 2007). In the U.S., 30–40 % of heterosexual adults report ever having had anal sex (Gorbach et al., 2009a; Mosher et al., 2005; Stulhofer & Bacak, 2011). Ethnic differences in the prevalence of heterosexual anal sex have been rarely studied. However, in one study, Javanbakht et al. (2010) reported that heterosexually-identified Latino males were more likely to engage in anal sex compared to Whites and African Americans. It has also been suggested that heterosexual Latino males may underestimate the risk of HIV/STI transmission associated with anal sex without a condom (Martinez-Donate et al., 2010). Thus, Latino clients of FSWs may act as a bridge from a high-risk to low-risk populations by having condomless anal sex with both FSWs and non-paid sexual partners (Gorbach, Murphy, Weiss, Hucks-Ortiz, & Shoptaw, 2009b).

The purpose of this study was to identify psychosocial and behavioral factors associated with anal sex among male clients of FSWs in Tijuana, Mexico. Developing a profile of the "high-risk" client will help to guide the development of HIV/STI prevention and intervention programs that target clients who are at the greatest risk for acquiring and transmitting HIV/STIs within their sexual networks. The development of such programs has important public health implications for both Mexico and the United States.

Method

Participants

Our analyses used baseline data gathered from a sample of 400 male clients of Tijuana-based FSWs between September 2010 and October 2012. The clients were enrolled in a sexual risk reduction intervention known as *Hombre Seguro* ("Safe Men") (Pitpitan et al., 2014), whose development was informed by data from a large-scale survey of this population that was conducted in 2008 (Patterson et al., 2009). Eligible participants were biologically male, at least 18 years of age, HIV-negative, a resident of either Tijuana or San Diego County, and reported having had condomless vaginal or anal sex with a FSW in Tijuana in the previous 4 months. Time-location sampling (Stueve, O'Donnell, Duran, San Doval, & Blome, 2001) was used to recruit male clients who solicited bar, brothel, and street-based FSWs in the *Zona Roja* (red light district) of Tijuana. Trained outreach workers approached men in targeted locations to solicit their participation in the study. Clients were also recruited by *jaladores* (men who procure clients for FSWs), who were paid $5 U.S. for each eligible client they referred. Participants were paid $20 for a 90-min computer assisted personal interview (CAPI), which covered sociodemographics, substance use, sexual risk behaviors, mood, social cognitive factors, and other factors associated with clients' risk behaviors. Interviews were conducted in either Spanish or English by trained, bilingual, female interviewers. Participants also underwent rapid testing for HIV, syphilis, gonorrhea, and chlamydia with pre- and post-test counseling and point-of-care treatment. The research protocol was reviewed and approved by the UCSD Human Research Protections Program (#091302) and the Ethics Committee of Tijuana General Hospital.

Our sample of male clients of FSWs was predominantly Latino (87.5 %), born in Mexico (78.8 %), never married or in a regular or common-law marriage (36.8 % and 31.5 %, respectively), and employed (62.8 %). The average age was 37.8 years (SD = 10.7, median = 37.0, range 18–73) and the average years of education was 9.2 (SD = 3.4, median = 9.0, range 0–20). Thirty-eight percent lived alone, and 31 % lived with another adult who was not a sexual partner. Eighty-nine percent self-identified as heterosexual; 11 % identified as bisexual. Sixty-nine percent had at least one child. By design, 50 % of the sample resided in Tijuana and the other 50 % in San Diego County.

Measures

Demographic characteristics that were assessed included age, education, marital status, sexual orientation, employment status, living situation, and place of residence.

Substance use was defined as the use of alcohol or illicit drugs with FSWs during the past 4 months. Participants were

presented with a list of 13 drugs (e.g., marijuana, cocaine, crack, ecstasy, methamphetamine, Mexican speedball) and asked how often they had used each with a FSW in the past 4 months. Frequency of use was rated on a scale from 1 (*never*) to 6 (*every day*), and responses were recoded as either 1 (*does use*) or 0 (*does not use*). Clients were also asked whether they had been intoxicated with alcohol during sex with a FSW at any time in the past 4 months. Responses were coded 1 (*yes*) or 0 (*no*).

Contextual factors included the types of locations in Tijuana and the strategies that clients used to solicit FSWs' services. Items queried participants' use of *jaladores*, after-hour clubs, word-of-mouth, street corners, bars, and strip clubs. The practice of engaging the same FSW's sexual services more than once was also assessed. Responses were coded 1 (*yes*) or 0 (*no*).

Sexual risk behavior was defined as anal sex with a FSW in Tijuana in the past 4 months. Male clients were asked to report the number of times that they had engaged in anal sex with a FSW in Tijuana during this time frame, and a dichotomous variable was created to represent the occurrence of any such act, coded as 1 (*yes*) or 0 (*no*). For purposes of analysis, we defined this item as our dependent variable (DV).

Psychosocial factors were assessed for possible correlation with anal sex. *Depressed mood* was measured using the 10-item Center for Epidemiologic Studies Depression Scale. Scale items are clinically derived and have undergone extensive reliability and validation testing (alpha = 0.78) (Radloff, 1977). *Anxiety and hostility symptoms* were measured using subscales of the Brief Symptom Inventory (BSI) (Derogatis & Melisaratos, 1983). Participants were asked 11 questions to assess *anxiety* symptoms (alpha = 0.87) and *hostility* symptoms (alpha = 0.84). Items were rated on a scale ranging from 0 (*not at all*) to 5 (*extremely*). The 10-item UCLA Loneliness Scale was used to measure feelings of loneliness or social isolation. Items were measured on a scale ranging from 1 (*I never feel this way*) to 4 (*I often feel this way*) (alpha = 0.93) (Russell, Peplau, & Cutrona, 1980). *Attitudes toward male sexuality* were assessed using 24 items from the Stereotypes About Male Sexuality Scale (SAMSS) (Snell, Hawkins, & Belk, 1990), which measures participants' agreement or disagreement with certain stereotypic beliefs about males and their sexuality. Response categories ranged from 1 (*disagree*) to 5 (*agree*) (alpha = 0.87). *Sexual compulsivity* was measured using a 10-item scale that assesses "obsessive preoccupations with sexual acts and encounters" (Kalichman & Rompa, 1995). Scores on items ranged from 1 (*not at all like me*) to 4 (*very much like me*) (alpha = 0.86). The 6-item *Misogyny* scale measured dislike or strong prejudice against women simply because they are female (e.g., "Women are only good for one thing, and that is sex"). Items were rated on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*) (alpha = 0.71). The scales for perceived *stigma surrounding being a male client of FSWs* and for *guilt* were developed for use in this research. The 3-item *Stigma* scale measures the extent to which the client believes that his interactions with FSWs are associated with discrimination, ostracism, and mistreatment by others (e.g., "Most people look down on men who go to prostitutes"). Items were rated on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*) (alpha = 0.78). Clients' guilt feelings surrounding their use of FSWs' services were assessed using a 7-item scale (e.g., "I feel guilty about having sex with prostitutes"). Response categories ranged from 1 (*strongly disagree*) to 4 (*strongly agree*) (alpha = 0.76). (For details of the Misogyny, Guilt, and Stigma scales, see "Appendix" section.)

Statistical Analyses

Statistical analyses compared clients who reported anal sex with a FSW in Tijuana in the past 4 months with those who did not. *t* tests and contingency-table analysis were used to examine group differences in continuous and categorical variables, respectively. Univariate logistic regressions were used to examine the associations between correlates (IVs) and anal sex with a FSW in the past 4 months (DV). A multivariate logistic regression was used to identify factors independently associated with anal sex with FSWs. Variables that were significant at the 5 % level in univariate logistic regressions were considered for inclusion in the multivariate model.

Results

Nearly half (49 %) of the sample reported having had anal sex with a FSW in Tijuana in the past 4 months (n = 196). Of those, 85 % reported that at least one of their anal sex acts with FSWs during this time period was condomless. The average number of condomless anal sex acts with FSWs in the past 4 months among the anal-sex group was 4.0 ($SD = 6.28$, median = 2.0, range 0–50). The average number of condomless vaginal sex acts with FSWs in the past 4 months among this group was 5.7 (SD = 13.9, median = 2.0, range 0–190). Twenty-five percent of this group reported ever having had anal or oral sex with another male. Men in this group had significantly more years of education (9.5 vs. 8.9, $t = 1.96$, $p < .05$) and were more likely to self-identify as bisexual (16.3 % vs. 6.4, $\chi^2 = 10.3$, $p < .01$) than were men in the non-anal sex group. Table 1 compares background characteristics, contexts of clients' solicitations of sex from FSWs, and substance-use characteristics of the two groups, while Table 2 compares scores on psychosocial factors.

Univariate Logistic Regressions

Table 3 shows the results of univariate logistic regressions that examined associations between independent variables (psychosocial and behavioral correlates) and the dependent variable (anal sex with a FSW in the past 4 months). Compared to clients who did not have anal sex with FSWs, clients who had

Table 1 Background characteristics, contexts of sex work solicitation, and substance use practices with FSWs

	Had anal sex with a FSW in past 4 months?	
	Yes ($N = 196$) N (%)	No ($N = 204$) N (%)
Background characteristics		
Born in United States	47 (24.0)	35 (17.2)
Born in Mexico	149 (76.0)	166 (81.4)
Hispanic or Latino	172 (87.8)	178 (87.3)
Speaks Spanish (vs. does not speak Spanish)	182 (92.9)	191 (93.6)
Speaks English (vs. does not speak English)	137 (69.9)	141 (69.1)
Lives in Tijuana (vs. United States)	97 (49.5)	106 (52.0)
Mean age (*SD*)	37.4 (10.4)	38.1 (11.1)
Sexual orientation (bisexual vs. heterosexual)**	32 (16.3)	13 (6.4)
Married or common-law (vs. other marital status)	67 (34.2)	59 (28.9)
Mean years of education* (*SD*)	9.5 (3.4)	8.9 (3.3)
Employed (vs. not employed)	132 (67.3)	119 (58.3)
Contexts for soliciting a FSW in Tijuana[a]		
Used *jalador***	23 (11.7)	8 (3.9)
Used an after-hours club***	58 (29.6)	32 (15.7)
Used "word-of-mouth"***	42 (21.4)	17 (8.3)
Used street corner	160 (81.6)	166 (81.4)
Used a bar	127 (64.8)	129 (63.2)
Used a strip club	114 (58.2)	109 (53.4)
Used the same FSW***	109 (55.6)	59 (28.9)
Substance use with a FSW in Tijuana[a]		
Marijuana*	81 (41.3)	65 (31.9)
Heroin	35 (17.9)	29 (14.2)
Methamphetamine***	121 (61.7)	82 (40.2)
Cocaine*	44 (22.4)	31 (15.2)
Ecstasy	3 (1.5)	1 (0.5)
Amyl nitrates ("poppers")	2 (1.0)	0 (0.0)
Speedball (heroin and cocaine)	13 (6.6)	11 (5.4)
Mexican speedball (heroin and methamphetamine)	28 (14.3)	22 (10.8)
"Drunk" during sex	122 (62.2)	112 (54.9)

* $p < .05$; ** $p < .01$; *** $p < .001$

[a] Recall period is past 4 months

anal sex had greater odds of self-identifying as bisexual (OR 2.87; 95 % CI 1.46–5.65), returning to the same FSW in a 4-month period (OR 3.08; 95 % CI 2.04–4.66), and reporting using the following ways to meet FSWs: *jaladores* (OR 3.26; 95 % CI 1.42–7.47), after-hours clubs (OR 2.26; 95 % CI 1.39–3.67), and "word-of-mouth" (OR 3.01; 95 % CI 1.64–5.48). Clients who had anal sex also had greater odds of having used the following substances with a FSW in the past 4 months: marijuana (OR 1.51; 95 % CI 1.01–2.27) and methamphetamine (OR 2.40; 95 % CI 1.61–3.59). In addition, men in the anal-sex group had greater odds of obtaining higher scores on perceived client stigma (OR 1.62; 95 % CI 1.09–2.40) and sexual compulsivity (OR 2.48; 95 % CI 1.48–4.17) compared to men in the non-anal sex group. No other psychosocial factors were significantly associated with anal sex.

Factors Independently Associated with Anal Sex with Tijuana-based FSWs

In a multivariate model, five factors were independently associated with a male client's having had anal sex with a FSW in Tijuana in the past 4 months. Clients who self-identified as bisexual had two times the odds of having had anal sex with a FSW compared to clients who did not self-identify as bisexual (AOR = 2.17; 95 % CI 1.02–4.59). Also, clients who reported going back to the same FSW had two and one-half times the odds of having had anal sex compared to those who did not return to the same FSW (AOR = 2.59; 95 % CI 1.65–4.04). Male clients who used methamphetamine with a FSW in the past 4 months had twice the odds of having had anal sex with a FSW (AOR = 2.19; 95 % CI 1.37–3.50). Anal sex with FSWs was also associated with perceived stigma of being a client and with sexual compulsivity. For every unit increase in perceived client stigma, the odds of having had anal sex with a FSW almost doubled (AOR = 1.95; 95 % CI 1.24–3.08). Similarly, every unit increase in the sexual compulsivity score was associated with almost twice the odds of having had anal sex with a FSW (AOR = 1.91; 95 % CI 1.09–3.35) (see Table 3). In a sub-analysis, we examined correlates of anal sex without a condom with FSWs by excluding data from the 30 participants who reported anal sex with a condom only. The correlates of condomless anal sex were identical to those reported in the model that compared any anal sex (i.e., with or without a condom) with no anal sex.

Discussion

This study found a high prevalence of anal sex with FSWs among their male clients in Tijuana, Mexico. Half of our sample reported anal sex with a FSW in the past 4 months, which exceeds estimates for anal sex prevalence in the general heterosexual population of the U.S. (Gorbach et al., 2009b; Javanbakht et al., 2010; Mosher et al., 2005). Moreover, 85 % of clients who had anal sex with FSWs in the past 4 months reported that one or more of those acts was condomless. Factors independently associated with anal sex were bisexual self-identification, using methamphetamine during sex with FSWs, return visits to the same FSW, perceived stigma associated with being a male client, and sexual compulsivity. Our prevalence findings alone suggest that HIV/STI prevention programs that target male clients of FSWs in the

Table 2 Mean scores on psychosocial factors

	Had anal sex with a FSW in past 4 months?	
	Yes ($N = 196$) M (SD)	No ($N = 204$) M (SD)
Depressive symptoms	9.2 (5.0)	8.5 (4.7)
Anxiety symptoms	10.5 (4.9)	9.7 (3.7)
Hostility symptoms	8.5 (4.2)	8.1 (3.3)
Loneliness	11.0 (8.5)	10.5 (8.1)
Traditional male values	2.7 (0.30)	2.7 (0.28)
Misogyny	13.5 (1.7)	13.7 (1.1)
Perceived client stigma*	2.8 (0.48)	2.7 (0.53)
Sexual compulsivity***	2.4 (0.42)	2.3 (0.37)
Guilt	2.6 (0.42)	2.6 (0.34)

* $p < .05$; *** $p < .001$

US-Mexico border region should pay greater attention to heterosexual anal sex as a risk behavior. Interventions should aim to educate male clients about the risks of anal sex, promote consistent and proper use of condoms for anal as well as vaginal sex, increase knowledge and awareness of STI symptoms, and advise regular HIV/STI testing.

Male clients who self-identified as bisexual had twice the odds of reporting anal sex with a FSW in the past 4 months. Several other studies have linked bisexual identity and being a man who has sex with both men and women (MSMW) to multiple risks, including anal sex with female partners (Gorbach et al., 2009b; Javanbakht et al., 2010), increased risk for HIV seropositivity compared to men who have sex either exclusively with men or exclusively with women (Martinez-Donate et al., 2010; Munoz-Laboy & Dodge, 2007; Prabhu, Owen, Folger, & McFarland, 2004), and the potential for bridging of HIV/STIs into the heterosexual population (Gorbach et al., 2009b; Hernandez et al., 1992). In Latino culture, factors such as homophobia, stigma, the influence of religious beliefs, and sexual conservatism may prevent bisexual men from being open about their same-sex involvements (Martinez-Donate et al., 2010). In a study in Mexico City, bisexual men had a high prevalence of HIV seropositivity and were more likely to be married and to have a history of sex with FSWs (Hernandez et al., 1992). It has been suggested that Latino MSMW may use substances with opposite-sex partners to reduce anxiety or facilitate sexual interest with women (Martinez-Donate et al., 2010). Also, most Latino MSMW have been found to identify with traditional male heterosexual values (Martinez-Donate et al., 2010), which may make it difficult to interest bisexual Latino male clients of FSWs in HIV/STI prevention programs or recruit them into interventions. Interventions and prevention programs alike need to acknowledge traditional heterosexual self-identity along with hidden same-sex behaviors. Targeted prevention messages should appropriately incorporate cultural beliefs, values, religious influences, and community involvement.

Male clients who reported methamphetamine use during sex with a FSW had twice the odds of reporting anal sex with a FSW in the past 4 months. This finding was consistent with literature that reports a relationship between heterosexual anal sex and the use of methamphetamine by male–female couples. Reynolds, Fisher, Napper, Fremming, and Jansen (2010) found that Latinas who engaged in methamphetamine use in the past 6 months had three times the odds of reporting heterosexual receptive anal sex in the same period. In another study of heterosexuals, methamphetamine use during sex by either or both partners was associated with an increased likelihood of anal sex on those occasions (Zule, Costenbader, Meyer, & Wechsberg, 2007). Our findings confirmed the interconnectedness of high-risk sex and substance use as reported in other studies of heterosexual risk behavior (Topping et al., 2011). Male clients who use drugs, particularly methamphetamine, are likely to have FSW partners who also use this powerful stimulant (Maher et al., 2011). The co-occurrence of methamphetamine use and anal sex is most likely the explanation for our finding that male clients who had anal sex with a FSW had almost three times the odds of returning to the same FSW compared to clients who did not engage in anal sex. More research is needed to establish whether FSWs' willingness to engage in anal sex with male clients is motivated by increased sexual desire associated with methamphetamine use or whether anal sex with clients facilitates access to this highly addictive drug (Javanbakht et al., 2010).

Male clients with higher client-related stigma scores had about twice the odds of reporting anal sex with a FSW in Tijuana in the past 4 months. Although little is known about stigma associated with transactional sex with FSWs, studies with other populations suggest that men may develop feelings of shame associated with a negative perceptions of what it means to be a client of FSWs (Smolenski, Ross, Risser, & Rosser, 2009). Clients may also experience loss of reputation or discrimination associated with being seen in the *Zona Roja* of Tijuana, where solicitations and transactional sex are open to public view. Stigma has also been found to promote secretive behavior (Lieber, Li, Wu, Rotheram-Borus, & Guan, 2006), which creates a greater challenge for prevention programs and interventions designed to reduce HIV transmission risk behaviors. Stigma associated with going to FSWs may also adversely affect care-seeking behaviors of male clients who develop HIV/STI symptoms (Lieber et al., 2006).

Male clients of FSWs may experience stigma from additional sources if they use illicit drugs, are bisexual, or engage in heterosexual anal sex, which despite the gender of the partner is stigmatized by some cultures that consider it to be a male homosexual practice or deviant behavior (Carter, Henry-Moss, Hock-Long, Bergdall, & Andes, 2010; Halperin, 1999). Male clients who engage in anal sex with FSWs but refuse to disclose or discuss it, particularly with health care professionals, are unlikely to increase their knowledge about the risks of anal sex and thus are likely to persist in their risky practices (Lieber et al.,

Table 3 Univariate and multivariate logistic models examining correlates of anal sex with FSWs

	OR	95 % CI	*AOR* (95 % CI)
Background characteristics			
Born in United States (yes vs. no)	1.52	0.93–2.49	
Hispanic or Latino (vs. other ethnicity)	1.05	0.58–1.89	
Speaks Spanish (vs. does not speak Spanish)	0.89	0.41–1.93	
Lives in Tijuana (vs. the United States)	0.91	0.61–1.34	
Age (per 1 year increase)	0.99	0.98–1.01	
Sexual orientation (bisexual vs. heterosexual)	2.87**	1.46–5.65	2.17* (1.02–4.59)
Married or common-law (vs. other marital status)	1.28	0.84–1.95	
Years of education (per 1 year increase)	1.06	0.99–1.13	
Employed (vs. not employed)	1.47	0.98–2.22	
Contexts for soliciting a FSW in Tijuana[a]			
Used *jalador*	3.26**	1.42–7.47	
Used an after hours club	2.26***	1.39–3.67	
Used "word-of-mouth"	3.01***	1.64–5.48	
Used street corner	1.02	0.61–1.69	
Used a bar	1.07	0.71–1.61	
Used a strip club	1.21	0.82–1.80	
Used the same FSW	3.08***	2.04–4.66	2.59*** (1.65–4.04)
Substance use with a FSW in Tijuana[a]			
Marijuana	1.51*	1.01–2.27	
Heroin	1.31	0.77–2.24	
Methamphetamine	2.40***	1.61–3.59	2.19*** (1.37–3.50)
Cocaine	1.62	0.97–2.69	
Speedball (heroin and cocaine)	1.25	0.55–2.85	
Mexican speedball (heroin and methamphetamine)	1.38	0.76–2.50	
"Drunk" during sex	1.35	0.91–2.02	
Psychosocial factors[b]			
Depressive symptoms	1.03	0.99–1.07	
Anxiety symptoms	1.04	0.99–1.09	
Hostility symptoms	1.02	0.97–1.08	
Loneliness	1.01	0.98–1.03	
Traditional male values	1.92	0.96–3.82	
Misogyny	0.91	0.79–1.04	
Perceived stigma	1.62*	1.09–2.40	1.95** (1.24–3.08)
Sexual compulsivity	2.48***	1.48–4.17	1.91* (1.08–3.35)
Guilt	1.17	0.69–1.96	

* $p < .05$; ** $p < .01$; *** $p < .001$

[a] Recall period is past 4 months

[b] Odds ratios and adjusted odds ratios are per unit increase

2006). Prevention interventions for male clients of FSWs in Tijuana need to develop culturally appropriate social-cognitive and behavioral strategies for coping with the threat of multiple stigmas faced by male clients.

Sexual compulsivity was associated with almost twice the odds of reporting anal sex with FSWs in the past 4 months. In recent years, literature on sexual compulsivity has burgeoned, focusing primarily on gay and bisexual men. Among the results of these studies are that sexual compulsivity is associated with a number of co-occurring psychosocial and behavioral risk factors, including illicit drug use, polydrug use, methamphetamine use before or during sex, high-risk sexual behavior, depression, childhood sexual abuse, and consumption of pornography (Parsons, Grov, & Golub, 2012; Parsons, Kelly, Bimbi, Muench, &

Morgenstern, 2007; Schwartz, 2008; Semple, Zians, Grant, & Patterson, 2006). In a recent study, Parsons et al. (2012) found that as the number of psychosocial health problems increased, the odds of engaging in high-risk sexual behaviors, including anal sex, also increased. It was concluded that sexual compulsivity should be addressed as a risk factor that overlaps with other psychosocial health problems to influence HIV/STI risk behaviors. Our data support a similar conclusion.

This research had several limitations. Male clients who volunteered for this study may differ from non-participating clients in being more willing to discuss their sexual practices as well as in the frequency and range of their sexual activities, including anal sex. For these reasons, our sample cannot be considered representative of all male clients of FSWs in Tijuana nor of their counterparts in other cities and countries. Also, some participants' discomfort with the topic of anal sex may have decreased their willingness to report it, resulting in possible underestimation of the prevalence of this risk behavior. The cross-sectional nature of these data further limits our ability to establish causality in the relationships between anal sex and the correlates identified in this study.

The HIV/STI risk profile of male clients of FSWs in Tijuana involves several interrelated psychosocial and behavioral factors. Our findings warrant at least two specific conclusions. First, interventions should target male clients with the highest risk profile so that the maximum number of new HIV/STI infections can be averted. Second, there is a need for comprehensive programs that address the multitude of factors that influence heterosexual anal sex practices. Focusing more public health attention on HIV/STI transmission risks associated with heterosexual anal sex and overcoming barriers to discussing this often secretive sexual practice is imperative for the health of FSWs, male clients of FSWs, and the sexual network members of both populations.

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Appendix: New Measures*

Misogyny

1. In my opinion, women are bad news.
2. Women are only good for one thing, and that is sex.
3. I avoid women except when it comes to sex.
4. It wouldn't bother me to hurt a woman physically.
5. Women have never treated me well.
6. Sex is the only reason why I pursue women.

Stigma

1. People will treat me differently if they find out that I go to prostitutes.
2. Most people look down on men who go to prostitutes.
3. Most people think that men who go to prostitutes are bad people.

Guilt

1. I feel bad about spending money on prostitutes.
2. Having sex with a prostitute conflicts with my religious beliefs.
3. I feel guilty about having sex with prostitutes.
4. I feel badly for my (wife/steady) when I have sex with a prostitute.
5. I feel guilty if I have unprotected sex with a prostitute.
6. I worry that my (wife/steady partner) will find out about my going to prostitutes.
7. It bothers me that I have a secret life of going to prostitutes.

* Response categories on all these measures ranged from 1 (strongly disagree) to 4 (strongly agree).

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