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Sex Trade Behavior Among Heterosexually Active Homeless Men

Joan S. Tucker^{1,3}, Suzanne L. Wenzel², David P. Kennedy¹, Daniela Golinelli¹, and Brett Ewing¹

¹ RAND Corporation, Santa Monica, CA

² School of Social Work, University of Southern California, Los Angeles, CA

Abstract

Sex trade behavior is fairly common among homeless adults and may contribute to higher rates of HIV/AIDS in this population. This study provides a detailed examination of the sex trade-related attitudes and behaviors of homeless men by: (1) determining the prevalence of sex trade-related behaviors, including sex with female sex workers (FSWs); (2) identifying risk factors for having sex with FSWs; and (3) comparing men's relationships with FSWs and non-FSWs in terms of relationship qualities and HIV-related risk behaviors, such as condom use. Structured interviews were conducted with a probability sample of 305 heterosexually active homeless men recruited from meal lines in Los Angeles. Recent sex with a FSW was reported by 26% of men, and more likely among those who were older, used crack cocaine, had more sex partners, believed that sometimes men just need to have sex no matter what, and were embedded in networks that were denser and where risky sex was more normative. Compared to non-FSW partners, men with FSW partners felt less emotionally close to them, were more likely to believe the partner had never been tested for HIV, and were more likely to have sex with them under the influence of drugs or alcohol; however, they were not more likely to talk about using condoms or to use condoms with FSWs. Whether the relationship was considered "serious" was a stronger correlate of condom use than whether the partner was a FSW. Implications of these findings for HIV prevention efforts among homeless adults are discussed.

Keywords

homeless; men; HIV/AIDS; sex trade

INTRODUCTION

The rate of HIV infection among homeless adults is substantially higher than in the general U.S. population (e.g., Robertson et al., 2004; Zolopa et al., 1994) and stemming the spread of HIV among the most disenfranchised individuals in society continues to be an important public health priority. Heterosexual contact is a key route of HIV transmission in the United States (Centers for Disease Control and Prevention, 2008) and sex trade appears to be an important contributor to transmission in certain heterosexual subgroups, such as drug users (Edlin et al., 1994; Tortu et al., 2000). Given that sex trade is a well-established correlate of homelessness (Elwood, Williams, Bell, & Richard, 1997; Jenness et al., 2011; Logan, Leukefeld, & Farabee, 1998; Weiser et al., 2006), it may contribute to the spread of HIV in

³ To whom correspondence should be addressed at RAND Corporation, 1776 Main Street, Santa Monica, CA 90407-2138; jtucker@rand.org.

this population. Sex trade is defined as the exchange of sexual favors for materials goods, such as money, drugs, or shelter. It can take various forms ranging from informal bartering and quid pro quo arrangements, to the commercial sex work or prostitution which is the main focus of the current study. Although several studies of homeless adults have investigated sex trade from the perspective of the female sex worker (FSW) (Carroll & Trull, 2001; Surratt & Inciardi, 2004), much can be learned by investigating the reasons why homeless men have sex with FSWs and the nature of these relationships.

Better understanding why homeless men have sex with FSWs can help inform strategies to reduce their engagement in this high-risk behavior. A number of studies using less disadvantaged samples have explored the reasons why men seek out FSWs. Some of these studies have highlighted the appeal to men of being able to purchase different kinds of sexual experiences than they could otherwise obtain, with little regard for the sexual preferences of their female partner (McKeganey, 1994; Monto, 2001). For homeless men with mostly casual partners, having sex without a condom may be one type of sexual experience that they are more likely to obtain from a FSW than their other sex partners. FSWs may also be an easy target for coercive men and may be less insistent on practicing safe sex both due to a fear of losing business and of violent retribution if they request condom use. This appears to be particularly the case for homeless FSWs, the type most likely to be approached by men who are homeless, in that they are more likely than stably housed FSW to report having clients who perpetrate violence against them (El-Bassel, Witte, Wada, Gilbert, & Wallace, 2001) and who refuse to use condoms (Surratt & Inciardi, 2004). Together, these studies suggest that homeless men may be more likely to seek out sex with FSWs if they hold more negative attitudes towards condoms or desire to subordinate their female sex partners.

Some men who have sex with FSWs report the appeal of having brief, uncomplicated sexual encounters (McKeganey, 1994; Plumridge, Chetwynd, & Reed, 1997). In the case of homeless men, qualitative research suggests that pursuing relationships with women on the street is often perceived as fraught with a myriad of emotional, financial, and physical risks that men are not willing to take (Brown et al., 2012). Sex with FSWs may be more likely among homeless men who believe that they face considerable barriers to establishing relationships with women and that it does not matter much with whom they have sexual encounters. A recent study of men in Tijuana, Mexico on their reasons for buying sex resonates with the situation of many homeless men as well: a desire for intimacy, combined with feelings of social isolation, were perceived as contributing to their decisions to seek sexual encounters with FSWs (Goldenberg et al., 2011). Men in this study also mentioned the perceived inevitability of HIV risk that comes from living in a high-risk environment that normalizes sex work and drug use and where they felt trapped, overwhelmed, and unable to control the risks inherent in their environment. This speaks to the context in which many homeless men reside, suggesting that these men may be more likely to have sex with FSWs if they are socially isolated and lacking in support, as well as if they are experiencing co-occurring problems, such as substance use and depression.

In addition to identifying factors that may increase homeless men's likelihood of having sex with FSWs, there is virtually no information on the nature of these relationships that might inform prevention efforts. Studies of FSWs and their clients indicate a permeability of boundaries that sometimes exists between sex work and private relationships. In some cases, relationships that begin as sex work encounters evolve into more stable, committed, and non-commercial relationships (Dalla, 2001; Jackson et al., 2009). Even within commercial relationships, real desire and love may be present (Brewis & Linstead, 2000). Stronger relationship commitment and considering a partner to be "serious" increase the likelihood having unprotected sex among both homeless and non-homeless individuals (Macaluso,

Demand, Artz, & Hook, 2000; Tucker et al., 2010; 2012), and the same appears to be true of FSWs (El-Bassel et al., 2001; Pyett & Warr, 1997). Men who are in a serious relationship with a FSW may be inclined to have unprotected sex, not considering the risk posed by the FSW's engagement in unprotected sex with her clients. When it comes to deciding about condom use, whether the relationship is "serious" may be a more important consideration than whether the female partner is involved in sex work.

This study sought to better understand the sex trade-related behaviors of homeless men in Los Angeles and the nature of their relationships with FSWs. Los Angeles County has one of the largest homeless populations in the country, with an estimated 39,000 adults being homeless on any given night (LAHSA, 2011). In contrast to most previous studies in this area that have relied on small convenience samples of men, we recruited a probability sample of over 300 heterosexually-active homeless men to address the following research aims as part of a larger study: (1) to determine the prevalence of different sex trade-related attitudes and behaviors, including sex with FSWs; (2) to examine demographic and resource characteristics, depression, negative condom attitudes, relationship and sex trade beliefs, substance use, and network characteristics as potential risk factors for having sex with FSWs; and (3) to compare men's relationships with FSWs and non-FSWs in terms of relationship qualities and HIV-related behaviors such as condom use.

METHOD

Participants

Participants were 305 homeless men recruited for a larger mixed-methods study investigating how homeless men's engagement in heterosexual HIV risk behavior was associated with their personal network characteristics, gender-related attitudes and beliefs, and other factors. Men were eligible if they were age 18 years or older, could complete an interview in English, and experienced homelessness in the past 12 months (defined as spending at least one night on the street, or in a shelter, mission, vehicle, public or abandoned building, or voucher hotel because they did not have a home of their own or of a family member or friend to stay in). In addition, as this sample was collected as part of a study of heterosexual risk behavior, all participants reported having vaginal or anal sex with a female partner in the past 6 months. Participants were 45.6 years old on average, 72% were African American, and 86% reported not currently having a regular place to stay (for further sample description, see Table 1). Computer-assisted structured interviews were conducted by trained male interviewers between July and October 2010. Men were paid \$30 for participation in the interview, which lasted an average of 83 minutes. The research protocol was approved by the institutional review boards of the University of Southern California and the RAND Corporation.

Procedure

Men were recruited from the Skid Row area of Los Angeles, which is home to the highest concentration of homeless persons in Los Angeles County. To obtain as representative a sample as possible of heterosexually active homeless men in the study area, we implemented a probability sample of homeless men recruited from meal lines in the study area. The list of meal lines in Skid Row was developed using existing directories of services for homeless individuals and performing interviews with service providers. Our final list contained 13 meal lines (5 breakfasts, 4 lunches, and 4 dinners) offered by five different organizations. Each meal line was investigated extensively to obtain an estimate of the average number of men served daily, which was then used to assign an overall quota to each site which was approximately proportional to its size. The second stage of the adopted sampling design consisted of drawing a probability sample of homeless men from the 13 distinct meal lines.

Men were selected for eligibility screening by their position in line using random number tables. Ninety-one percent of sampled men completed an interview.

Measures

Demographics and resources—Demographic variables included age, ethnicity, race, and self-described sexual orientation (heterosexual vs. bisexual/homosexual). Resource variables included employment status (employed vs. unemployed), educational attainment (less than high school graduate, high school graduate [reference group], more than high school graduate), monthly income (above vs. below the sample median), and number of years homeless. Men were classified on race/ethnicity as: African American, Hispanic, non-Hispanic White, and Other. White and Other were combined and treated as the reference group in the analyses.

Depression—A dichotomous measure of probable depression in the past year was derived from a screening instrument (Rost, Burnam, & Smith, 1993) that has been previously used to assess depression in homeless persons (Tucker et al., 2009; Wenzel et al., 2011). The four items are: (A) In the past year, have you had 2 weeks or more during which you felt sad, blue or depressed; or when you lost all interest or pleasure in things that you usually cared about or enjoyed? (B) Have you had 2 years or more in your life when you felt depressed or sad most days, even if you felt okay sometimes? (C) Have you felt depressed or sad much of the time in the past year? (D) How much of the time during the past week did you feel depressed (0, 1-2, 3-4, or 5-7 days)? Individuals screen positive for probable depression if they either endorse item A, or both items B and C, in addition to reporting feelings of depression in the past week (item D).

Negative attitudes towards condoms—Four items from existing measures asked whether condoms can be difficult to use, make sex less enjoyable, interfere with sexual performance, and break too often (Mutchler et al., 2008; Stall, Paul, Barrett, Crosby, & Bein, 1999; $\alpha = .74$). Items were rated on a 4-point scale (1 = *strongly disagree* to 4 = *strongly agree*).

Relationship and sex trade beliefs—A measure of barriers to having relationships with women consisted of 9 items developed based on our qualitative research with men who were homeless (Brown et al., 2012). Sample items include: “It’s almost impossible to have a serious, long-term relationship with a woman if you’re homeless” and “Having a serious relationship on the street is worth the effort.” Men indicated whether they agreed or disagreed with each item. Items were reverse coded, as necessary, so that a higher score indicated greater perceived barriers. The percentage of endorsed items was used in all analyses. Sexual relationship power was assessed with five items from a validated scale for women (Pulerwitz, Gortmaker, & DeJong, 2000), which were reworded to capture the man’s perspective. The items were asked with reference to what typically happens in the man’s relationships with women. Sample items were: “I always need to know where she is when she isn’t with me” and “I tell her who she can spend time with” (1 = *strongly disagree* to 4 = *strongly agree*; $\alpha = .62$). Homeless men who score higher on this scale were more likely to hold negative attitudes about women and relationships, and pessimism about having a relationship with a woman while living on the streets (Kennedy et al., 2012). These relationship belief items were included in analyses examining the correlates of having sex with a FSW.

We also developed two items to assess men’s attitudes relevant to sex trade, based on our qualitative study of homeless men (Brown et al., 2012) (rated as 0 = *disagree*, 1 = *agree*): “It is less trouble for men to pay for sex than to have a relationship with a woman” and

“Sometimes men just need to have sex, no matter how they get it or who it's with.” The first item was used to describe men's attitudes about paying for sex and the second was included in analyses examining the correlates of having sex with a FSW.

Substance use—We included two indicators of substance use during the past 6 months: any crack cocaine use and any binge drinking (defined as 5 or more drinks within a two hour period). In terms of drug use, we focused specifically on crack given its known association with sexual risk behavior and the fact that 80.3% of men who reported hard drug use were crack users. The substance use items have been previously vetted with a population of homeless women (Wenzel et al., 2009).

Network characteristics—We used personal network data collected as part of the larger study to explore the idea that homeless men might be more likely to seek out sex with a FSW if they have a more sparsely connected personal network, if they receive relatively little emotional support from others, or if sexual risk behavior is more normative within their network. Personal network characteristics were measured using established procedures (Campbell & Lee, 1991; McCarty, 2002; McCarty, Bernard, Killworth, Johnsen, & Shelley, 1997) that have also been employed in studies of homeless women and youth (Tucker et al., 2009; Wenzel et al., 2012). We asked participants to provide the first names of 20 individuals that they knew, who knew them, and with whom they had contact (in person or by phone, mail or internet) during the past six months. Network members (“alters”) had to be at least 18 years or older. It has been shown that eliciting 20 alters produces unbiased measures of network structure and captures compositional variability present in personal networks (McCarty, Killworth, & Rennell, 2007; Tucker et al., 2009). Four men who were not able to name 20 alters were excluded from the sample to maintain comparability across cases. Men were asked a series of questions about each of the 20 network members that they named, as well as whether each pair of network members had contact with each other during the past year. In this study, we focused on three network characteristics: the number of network members who were isolated from (i.e., never had contact with) any of the other network members; the number of platonic network members who were perceived to care about the participant; and the number of platonic network members who were perceived to engage in risky sex (dummy-coded as 1 or 2 vs. 0, 3 or more vs. 0). These network items were included in analyses examining the correlates of having sex with a FSW.

Partnership characteristics and behavior—Men were asked about their number of female and male sex partners during the past 6 months and how many of these partners they: (1) had given something to (e.g., money, drugs) in exchange for sex; (2) had received something from in exchange for sex; and (3) considered to be a prostitute at the time of their last encounter. A prostitute was defined for men as someone who regularly traded sex for money, drugs, or other things with different men and negotiated a price before engaging in sex with them. When we refer to FSWs heretofore, we are specifically referring to female partners identified by men as being prostitutes (which, as discussed below, is somewhat distinct from whether men reported being in a sex exchange relationship with the partner). We also collected detailed information on men's (up to) four most recent female sex partners during the past 6 months. Follow-up questions about each of these partners included whether: (1) she was a serious (e.g., girlfriend, fiancé, ex-wife/fiancé/girlfriend) or casual (e.g., acquaintance, friend, stranger) partner; (2) she was a prostitute; (3) he ever gave her anything in exchange for sex; (4) he felt emotionally close to her; and (5) he thought she had been tested for HIV. In addition, men reported on how long they had known each partner. Items on sexual behavior with each partner during the past 6 months included the number of times they had intercourse, the number of times they used a condom, whether he ever wanted to use a condom with this partner, whether they had ever talked about using a

condom, and whether either of them ever drank or used drugs before having sex together (four separate items).

Statistical Analysis

All analyses incorporated design and differential nonresponse weights (to represent the target population from the sample of participants) and account for the modest design effect that they induce, using the linearization method (Skinner, 1989). We conducted three sets of analyses for this study. First, to identify factors that differentiated men who had sex with FSWs and those who did not (Table 2), we used logistic regression analysis based on all 305 men. We initially examined bivariate associations between each predictor variable with the outcome of having sex with a FSW. All predictor variables associated with this outcome at $p < .10$ were then included in a multivariate model (Hosmer & Lemeshow, 2000).

Second, to address the difference between FSW and non-FSW partners in terms of relationship characteristics and HIV-related behaviors, we conducted a propensity score weighted multilevel model (McCaffrey, Ridgeway, & Morral, 2004) where the outcomes were defined at the partner level and the partners were nested within the participant (Table 3). Propensity score weights were used to adjust effectively for differences between men with FSW partners and men without FSW partners on a number of individual characteristics (demographic and resource characteristics, probable depression status, negative condom attitudes, substance use, and total number of partners in the past 6 months). The observed differences in relationship characteristics and HIV-related behaviors between FSW and non-FSW partners were likely to be biased if we did not adjust appropriately for these individual characteristics. The propensity score (Rosenbaum & Rubin, 1983) was defined as the conditional probability that a participant had a FSW partner. To test the difference between FSW and non-FSWs on the outcomes shown in Table 3, we present the p -value for the indicator of FSW status. We fit the propensity score using the TWANG R package (Ridgeway, McCaffrey, & Morral, 2006).

Third, to further address whether condom use differed as a function of partner type, we used a multilevel modeling approach since the outcome was defined at the partner level and partners were nested within participants. This analysis was based on all 305 men who reported a total of 665 sex partners. At the lowest level (Level 1, partnership level), we analyzed variables measuring characteristics of the relationship between the participants and their partners. Specifically, we included an indicator for serious partners (vs. casual partners) and an indicator for FSW partners (vs. non-FSW partners). Also at the lowest level was the dependent variable, an indicator of unprotected sex with the partner during sex in the past 6 months. At the highest level (Level 2, individual level), we analyzed variables measuring the men's demographic and resource characteristics, probable depression status, total number of partners, negative condom attitudes, and substance use.

RESULTS

Sex Trade-Related Behaviors and Attitudes

Considering all partners in the past 6 months, 30.3% of men reported giving a female partner something in exchange for sex, 17.6% received something from a female partner in exchange for sex, and 12.7% engaged in both types of sex trade. One-quarter (25.8%) of men identified at least one of their female sex partners as a prostitute. Focusing on their (up to) four most recent female sex partners, 41.2% of the partners who were given something by the men in exchange for sex were *not* described as prostitutes and 30.1% of the partners described as prostitutes had *not* been given anything by the men in exchange for sex. In total, 171 female partners were described as a prostitute; of these, 25 were characterized by

men as being a serious partner (e.g., girlfriend) and 146 were characterized as being a casual partner (e.g., stranger, friend, acquaintance). In terms of sex trade-related attitudes, 50.6% of men thought it was less trouble for men to pay for sex than to have a relationship with a woman and 34.9% endorsed the idea that sometimes men just need to have sex no matter how they get it or who it is with.

Correlates of Having Sex with a FSW

Table 2 shows results from logistic regression analyses to identify factors associated with having sex with a FSW during the past 6 months. Bivariate analyses indicated that having sex with a FSW was more likely among men who were older, African American (vs. White/other), Hispanic (vs. White/other; $p = .09$), and unemployed, but unrelated to heterosexuality, educational status, monthly income, or years homeless. Men with probable depression in the past year, as well as crack users and binge drinkers, were 2.2-3.3 times more likely to have sex with a FSW. Sex with a FSW was also more likely among men with a greater number of sex partners, as well as those who held more negative attitudes about condoms. In terms of relationship- and sex trade-related attitudes, men were more likely to have sex with a FSW if they perceived more barriers to relationships with women, had greater power in their relationships with women ($p = .06$), and believed that men sometimes just need to have sex no matter what. Social norms also appeared relevant in that men were more likely to have sex with a FSW if they had 3 or more individuals in their network (not counting their sex partners) whom they perceived to engage in risky sex. Men were more likely to have sex with a FSW if they had fewer isolates in their network; however, the provision of emotional support within the network was not relevant. When all variables associated with the outcome at $p < .10$ were included in a multivariate model, six variables remained significantly associated with having sex with a FSW: being older, having more sex partners, believing that men sometimes just need to have sex no matter what, using crack, having three or more network members who engaged in risky sex, and having fewer isolates in their network.

Comparing FSWs and Non-FSWs on Relationship Characteristics and HIV-Related Risk Behaviors

Table 3 shows the results of the propensity score weighted multilevel model comparing relationship characteristics and HIV-related risk behaviors with FSW and non-FSWs. Of the 305 men in our sample, 221 men did not identify any of their four most recent partners as a FSW ($n = 415$ partners) and 84 men identified a total of 171 of their recent female sex partners as a FSW. After participants with only non-FSW partners were weighted to look like those with FSW partners, results indicated that men reported significantly greater emotional closeness with non-FSWs and more substance use during sex with FSWs (although the difference was only marginally significant for participant drinking). Men were also more likely to believe that their FSW partners had never been tested for HIV and were somewhat more likely to have wanted to use a condom with FSW partners during the past 6 months ($p = .07$), yet there were no partner type differences in whether they had talked about using condoms or the percentage of sexual events that were unprotected. Relationships with FSW and non-FSW partners did not significantly differ in terms of relationship length or the number of times they had sex.

Correlates of Unprotected Sex: The Role of Partner Type

Although Table 3 showed no significant difference between men's FSW partners and non-FSW partners in terms of condom use, we wanted to further explore the role of partner type in men's condom use behavior by taking the seriousness of the relationship into account. We used multilevel modeling to determine if men's engagement in unprotected sex differed as a function of partner type, controlling for individual-level characteristics (i.e., the

demographic and resource variables, depression, negative attitudes towards condoms, number of partners, and alcohol and crack use). We coded partnerships into one of four categories: serious non-FSWs (reference group), serious FSWs, casual non-FSWs, and casual FSWs. Compared to partners who were serious non-FSWs, men were less likely to have unprotected sex with casual non-FSWs ($OR = 0.18$, 95% $CI = 0.08, 0.40$, $p < .001$) and casual FSWs ($OR = 0.12$, 95% $CI = 0.04, 0.35$, $p < .001$). However, there was not a significant difference in unprotected sex between the serious partners who were non-FSWs and FSWs ($OR = 3.37$, 95% $CI = 0.43, 26.54$).

DISCUSSION

Homeless men's involvement in sex trade behaviors deserves further attention given its potential for contributing to the spread of HIV. Developing strategies to reduce sex trade behaviors or the risks associated with these behaviors requires a better understanding of its prevalence, why men have sex with FSWs, and the nature of these partnerships. Although a few previous studies have focused on the sex trade experiences of homeless women, to the best of our knowledge, this is the first study to report detailed information on sex trade behavior from the perspective of homeless men. Thus, the first goal of this study was to determine the prevalence of different sex trade-related attitudes and behaviors. Attitudes conducive to sex trade behavior were common, with half of men endorsing the idea that it was less trouble for men to pay for sex than to have a relationship with a woman, and one-third believing that sometimes men just need to have sex no matter the circumstances.

In light of these attitudes, it is perhaps not surprising that so many of the men reported engaging in sex trade behavior. Nearly one in three men had recently given a woman something in exchange for sex and, although sex trade is typically thought of as men purchasing sex from women, nearly one in five men reported *receiving* something from a woman in exchange for sex. Further, most of the men who reported that they sometimes received things from women in exchange for sex were involved in bidirectional sex trade, which has been associated with a particularly high risk of unprotected sex with both exchange and non-exchange partners (Jenness et al., 2011). The heterogeneity of men's sex trade-related partnerships is underscored by the fact that many of the sex trade partners were not considered to be prostitutes and some of the partners described as prostitutes had not been given anything by the participant in exchange for sex. Clearly, efforts to reduce HIV risk among homeless men must address the heterogeneity in men's sex trade-related partnerships. It may be necessary to develop distinct strategies for different types of partnerships—approaches that are effective in deterring men from purchasing sex from commercial sex workers, for example, may not necessarily be effective in reducing their engagement in informal bartering arrangements with women or encouraging them to practice safer sex if they are in a serious relationship with a commercial sex worker.

The second goal of the study was to better understand why homeless men might choose to have sex with FSWs. Of these various factors that we examined, six emerged as most relevant to having sex with a FSW: being older, using crack, having more sex partners, believing that sometimes men just need to have sex no matter what, having more network members who engage in risky sex, and having fewer isolates in the network. In terms of age, we do not know whether this effect was due to a relative lack of other partner options for older homeless men, the tendency for older men to seek out younger sexual partners, or other factors. Regardless, there is a concern that age asymmetry in sexual partnerships may facilitate the spread of HIV and other STIs by mixing low prevalence cohorts with high prevalence cohorts, particularly given that condoms are less likely to be used at first sex in partnerships with age asymmetry relative to those with partners of a similar age (Mercer et al., 2009). Being a crack user may be associated with having sex with FSWs because crack

is a currency for sex exchange among the homeless men who use it. This idea is consistent with prior research indicating that sex-for-crack exchanges are more common among female crack users who are homeless than housed (Sterk, Elfson, & German, 2000).

In terms of network influences, it should be noted that all of the homeless men in this study were exposed to some extent to a larger social environment that normalized high-risk behavior. Given this context, it is particularly noteworthy that men were more likely to have sex with a FSW if they had peers within their personal network who they believed engaged in risky sex. Although we cannot rule out that men who engage in risky sex seek out friendships with peers who engage in similar behavior (i.e., homophilous network selection), homeless men's engagement in sex with FSWs may be at least partially influenced by the perceived risk behavior of those around them. This may also explain why, contrary to expectations, men were more likely to engage in sex with FSWs if they had fewer social isolates in their network: being embedded in a denser network, with more connections among network members, may serve to amplify the impact of social norms on sexual risk behavior. Together, these findings suggest that adapting evidence-based social network interventions (e.g., Wang, Brown, Shen, & Tucker, 2011) for this population may hold promise in terms of shifting social norms and reducing men's engagement in sex trade behavior. Such interventions should particularly focus on the role of crack use and availability in encouraging sex with FSWs, as well as address men's attitudes about the acceptability of having indiscriminant sex as a means of fulfilling their sexual needs.

Some of our hypotheses about why homeless men have sex with FSWs were not confirmed. For example, although homeless men may generally feel pessimistic about their ability to have serious, long-term relationships on the streets (Brown et al., 2012), this was not necessarily a risk factor for having sex with FSWs when other factors were taken into account. It was also not the case that men who lacked emotional support from others were more likely to seek out FSWs, despite some qualitative research suggesting that this might be the case (Goldenberg et al., 2011). Further, although there is evidence from other studies that homeless FSWs (the type most likely to be approached by homeless men) are especially likely to report that their male clients refuse to use condoms and are prone to violence (El-Bassel et al., 2001; Surratt & Inciardi, 2004), we did not find that men's attitudes about condoms or their tendency to exert power within their sexual relationships played an important role in their decision to have sex with FSWs. Finally, to the extent that the provision of crack or a nominal amount of money is sufficient to buy sex on Skid Row, this may explain why the various indicators of socioeconomic status examined in this study (i.e., employment, education, income) were irrelevant to whether men sought sex from FSWs.

The final goal of this study was to compare homeless men's relationships with FSWs and non-FSWs in terms of relationship qualities and HIV-related behaviors. In general, the men in our sample seemed to acknowledge to some extent the riskiness of their FSW partners: they not only identified each of these women as prostitutes who sold sex to other men, but in most cases indicated that these women used drugs during sex and had probably never been tested for HIV. Men were also somewhat more inclined to report that they had ever wanted to use a condom with FSWs compared to non-FSWs. However, they were not more likely to talk about condoms or actually use condoms with FSWs compared to non-FSWs. A contributing factor may be that many of their partnerships with FSWs were not strictly commercial transactions. Men often reported relatively long-term relationships with FSWs, with 22% of men feeling emotionally close to their FSWs partners and 15% describing them as a "serious" partner. The seriousness of the relationship, rather than whether the partner was a FSW, was the stronger correlate of having unprotected sex.

Homeless men may turn a blind eye to HIV risk when it comes to FSWs whom they feel they know well or consider to be serious partners, perhaps due to a combination of factors such as their desire for intimacy or belief that they can ascertain the HIV status of potential partners through visual inspection or use of other heuristics (Brown et al., 2012; McKeganey, 1994). In turn, these FSWs may be more willing to have unprotected sex with men who they consider to be boyfriends rather than clients (El-Bassel et al., 2001; Pyett & Warr, 1997). The blurred boundaries between sex work and private relationships, which have been documented in other populations (Brewis & Linstead, 2000; Dalla, 2001; Jackson et al., 2009), were found in the sex trade relationships of homeless men on Skid Row and must be considered in HIV risk reduction efforts. Educational campaigns that simply instruct men to use condoms with casual or “high risk” partners, for example, will likely not resonate with homeless men who are in longer-term and emotionally close relationships with FSWs.

An important strength of this study was the large probability sample of homeless men that was systematically recruited from meal lines. This allowed us to capture a broad cross-section of homeless men who can be found on Skid Row. Another strength was the rich information that was collected on different aspects of men's sex trade behavior, both in general and within specific sexual partnerships. The study also had several limitations that should be noted. First, our results may not generalize to homeless men in other geographic areas or circumstances. Second, we did not recruit the female partners of these men and thus our analyses did not take into account their perspectives and experiences. Finally, the study would have been strengthened by the collection of qualitative data to obtain a deeper and more nuanced understanding of men's relationships with different types of sex trade partners, including partnerships in which the men themselves provided sex in exchange for the things they needed.

By collecting detailed information on homeless men's sexual activities at both the individual and dyadic levels, this study highlights the diversity and complexity that characterizes their sex trade relationships and behaviors. Studies of sex trade often focus on female commercial sex workers or their male customers. It is clear from this study, however, that many of their sex trade activities did not fit neatly into these roles. Future research that provides a richer understanding of partner selection heuristics, relationship dynamics, condom use decision-making, and HIV testing behavior in different types of sex trade partnerships can help inform strategies to reduce the spread of HIV among homeless individuals living in environments such as Skid Row. Studies that obtain complementary information from the perspectives of both homeless men and their female sex partners will be particularly useful in this effort. In addition to focusing on strategies to reduce the health risks associated with sex trade activities, assisting homeless men and women in obtaining housing and addressing other barriers to maintaining stable sexual relationships may serve to reduce their engagement in sex trade activities.

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Table 1

Descriptives of Main Study Variables

Variables	M	SE
Demographics and resources		
Age (in years)	45.56	0.66
Length of homelessness (in years)	5.31	0.39
Total number of partners, past 6 months	3.67	0.29
Negative condom attitudes (1 = <i>strongly disagree</i> to 4 = <i>strongly agree</i>)	2.10	0.05
Relationship-related beliefs (1 = <i>strongly disagree</i> to 4 = <i>strongly agree</i>)		
Barriers to having relationships with women	63.44 ^a	1.62
Sexual relationship power	2.02	0.04
Network characteristics		
No. of platonic ties who care about participant	5.09	0.34
No. of isolates in network	5.04	0.40
	Percent	
Demographics and resources		
African American	71.69	
Hispanic	10.43	
White/Other	17.88	
Heterosexual	91.95	
Employed full- or part-time	18.01	
Education: less than high school graduate	26.69	
Education: high school graduate	37.17	
Education: more than high school graduate	36.14	
Monthly income (median = \$299.37)	52.56	
Probable depression in past 12 months	46.36	
Substance use in past 6 months		
Any crack use	39.66	
Any binge drinking	38.09	
Network characteristics: No. of platonic ties who engage in risky sex		
None	41.53	
1 or 2	23.86	
3 or more	34.61	
Sex trade-related beliefs		
Sometimes men just need to have sex, no matter how they get it or who it's with.	34.88	
It's less trouble for men to pay for sex than to have a relationship with a woman.	50.56	

Note.

^aMean percent of endorsed items.

Table 2

Logistic Regression Analysis Identifying Correlates of Sex With a Female Sex Worker During Past 6 Months
(N = 305)

Variables	Bivariate OR (95% CI)	Multivariate OR (95% CI)
Demographics		
Age	1.03 (1.01, 1.06) **	1.06 (1.02, 1.10) ***
African American (vs. white/other)	2.51 (1.00, 6.30) **	1.31 (0.33, 5.17)
Hispanic (vs. white/other)	2.80 (0.85, 9.22) *	2.23 (0.43, 11.40)
Heterosexual (vs. bisexual/homosexual)	0.79 (0.32, 1.96)	
Resources		
Employed (vs. unemployed)	0.39 (0.16, 0.93) **	0.48 (0.15, 1.54)
Education		
< high school (vs. high school graduate)	0.82 (0.42, 1.63)	
> high school (vs. high school graduate)	0.65 (0.33, 1.28)	
Monthly income (median = \$299.37)	1.39 (0.79, 2.46)	
Years homeless	1.02 (0.98, 1.07)	
Probable depression in past 12 months	2.23 (1.27, 3.93) ***	2.02 (0.91, 4.51) *
Total number of partners, past 6 months	1.26 (1.12, 1.42) ****	1.35 (1.21, 1.50) ****
Negative condom attitudes	1.65 (1.17, 2.33) ***	0.94 (0.59, 1.49)
Relationship and sex trade beliefs		
Barriers to having relationships with women	1.01 (1.00, 1.03) **	1.01 (0.99, 1.04)
Sexual relationship power	1.47 (0.98, 2.21) *	1.44 (0.84, 2.46)
Sometimes men just need to have sex	3.39 (1.91, 6.02) ****	3.92 (1.76, 8.74) ***
Substance use in past 6 months		
Any crack use	3.27 (1.83, 5.85) ****	2.10 (1.00, 4.42) **
Any binge drinking	2.04 (1.16, 3.59) **	1.00 (0.48, 2.10)
Network characteristics		
No. of platonic ties who engage in risky sex		
1 or 2 (vs. none)	1.27 (0.59, 2.75)	1.81 (0.68, 4.81)
3 or more (vs. none)	2.60 (1.34, 5.04) ***	2.38 (1.03, 5.50) **
No. of platonic ties who care about participant	1.02 (0.97, 1.06)	
No. of isolates in network	0.94 (0.90, 0.98) ***	0.89 (0.83, 0.95) ***

Note. Higher scores indicate more of the construct.

*
 $p < .10$.

**
 $p < .05$.

 $p < .01$.

 $p < .001$.

Table 3

Propensity Score Analysis Comparing Partners Who Were Female Sex Workers (FSWs) and Not Female Sex Workers (non-FSWs) on Relationship Characteristics and HIV-Related Behaviors

Characteristics	FSWs (<i>n</i> = 171 Partners, <i>n</i> = 84 Men)		Non-FSWs (<i>n</i> = 415 Partners, <i>n</i> = 221 Men)		Non-FSWs, propensity weighted (<i>n</i> = 415 Partners, <i>n</i> = 221 Men)	
	M	SE	M	SE	M	
Relationship length in months ^a	45.6	12	61.5	6.0		59.0
Number of times had intercourse ^b	9.4	4.5	15.9	3.1		9.8
% times had unprotected sex ^c	42.4	6	42.7	3.7		48.9
Percent						
Felt emotionally close to partner	21.7		56.7		56.6	****
Ever wanted to use a condom with partner	64.1		54.6		47.5	*
Ever talked about using a condom with partner	59.3		64.3		64.6	
Does not think partner has been HIV tested	73.1		52.5		55.0	**
Substance use before sex with partner, past 6 months						
Partner ever drank	76.8		44.4		52.2	***
Partner ever used drugs	85.4		33.7		40.1	****
Participant ever drank	74.1		49.2		60.3	*
Participant ever used drugs	74.3		42.7		53.9	**

Note.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

**** $p < .001$.