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Sex Work and Motherhood: Social and Structural Barriers to Health and Social Services for Pregnant and Parenting Street and Off-Street Sex Workers

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Abstract

Our study documents the correlates of barriers to pregnancy and mothering among sex workers in Vancouver, Canada. We used baseline data from *An Evaluation of Sex Workers' Health Access* (AESHA), a prospective cohort of sex workers. Among the 399 sex workers that had ever been pregnant or had a child, 35% reported ever experiencing a barrier, with lower education, homelessness, and history of injecting drugs significantly correlated with pregnancy and mothering barriers. Our findings highlight a critical need for tailored and non-judgmental services and supports, including improved programs to address intersecting aspects of poverty, health literacy, stigma and substance use.

Sex work is often regarded as the world's oldest profession, and one many women continue to engage in today. However, due to the criminalized nature of sex work in most settings, the

prevalence of sex workers globally remains unknown. The criminalization of sex work has also led to numerous health and human rights violations, including threatening sex workers' relationships with family and impeding their ability to parent (Global Commission on HIV and the Law, 2012).

In general, very little is known about sex workers as parents or the challenges they face as pregnant/parenting women (Beard et al., 2010), with most researchers historically focusing on HIV/STI prevention among this population. A handful of researchers have suggested that sex work and motherhood are strongly entwined: researchers studying sex work in non-industrial countries documented high pregnancy rates, with many sex workers (up to 90% in some cases) having dependent children (Elmore-Meegan, Conroy, & Agala, 2004; Feldblum et al., 2007). Moreover, a number of qualitative researchers have indicated that many women enter and continue sex work to support their families (Basu & Dutta, 2011; Bucardo et al., 2004). This is true in the Canadian context where researchers have found that sex work was among the few economically viable options to support indoor sex workers' families, particularly impoverished women and migrant workers with limited training and English proficiency (Bungay, Halpin, Atchison, & Johnston, 2011). Contrary to popular opinion, American researchers have documented sex workers to have a strong desire and dedication to raising their children (Basu & Dutta, 2011; Sharpe, 2001).

While some sex workers' accounts reveal various benefits of sex work while mothering, including flexibility, higher incomes and economic independence from intimate partners (Basu & Dutta, 2011; Bucardo et al., 2004; Bungay et al., 2011), numerous barriers have also been reported by sex workers, including: exposure to STIs; violence and stigma (Sharpe, 2001; Sloss & Harper, 2004). Qualitative researchers have documented stigma to be ubiquitous among sex workers, and have linked it to stress, depression (Benoit, Jansson, Millar, & Phillips, 2005), and avoidance of health care services (Kurtz, Surratt, Kiley, & Inciardi, 2005; Lazarus et al., 2011). In several settings, researchers have documented that stigma can result in the severing of social ties with family and friends for marginalized sex workers and women who use drugs (Maher, 1997; McClelland & Newell, 2008; Roberts & Pies, 2011). This in turn may limit sex workers' ability to parent, not least of all due to an ensuing reduction in access to services and supports. This is particularly true for lost connections with non-drug using family and friends, who may represent an important resource for families (e.g., providing child care, informational support) (Maher, 1997).

Qualitative researchers have also suggested that sex workers who use drugs avoid prenatal services and child care due to sex work- and drug-related stigma by health care providers (McClelland & Newell, 2008; Sloss & Harper, 2004). Women who use injection drugs may also find it difficult to keep appointments, and/or manage their parental duties (Sharpe, 2001; Christine Sloss & Harper, 2004). Researchers studying mothers who use drugs found that both drug use, as well as factors related to drug use (i.e., external locus of control, fear of reporting to police, and doubt about the efficacy of services) acted as barriers to prenatal care (Schempf & Strobino, 2009). Despite the challenges associated with parenting and illicit drug use, most drug-using sex workers are highly dedicated to caring for their children (Sharpe, 2001), and see pregnancy/parenting as a strong motivator to manage their addictions (Greaves et al., 2002). Finally, given the high levels of homelessness among

sex workers (Duff, Deering, Gibson, Tyndall, & Shannon, 2011), qualitative accounts of homeless women not involved in sex work may shed light on the challenges faced by pregnant and parenting sex workers. This includes qualitative research documented that many homeless mothers feel a sense of powerlessness and loss (Meadows-Oliver, 2005), and reported their authority as parents were undermined when staff interfered with disciplining their children (Kissman, 1999).

Despite high rates of pregnancy and live births among sex workers (Duff et al., 2011; Feldblum et al., 2007) and researchers' findings suggesting many women enter sex work to support their families (Basu & Dutta, 2011; Bucardo, Semple, Fraga-Vallejo, Davila, Patterson, 2004), few researchers have conducted epidemiological studies examining barriers while pregnant and parenting amongst sex workers, particularly in the Canadian context. Therefore, we undertook the current analysis to describe the barriers that pregnant and parenting sex workers face, and elucidate factors associated with experiencing the impact of these barriers.

METHODS

Study Design

We conducted a cross-sectional analysis drawing on data from An Evaluation of Sex Workers Health Access (AESHA), a prospective cohort study of sex workers in Metro Vancouver (2010- present). Researchers developed AESHA based on well- established partnerships with sex work and community agencies dating back to 2005 (Shannon et al., 2007). Briefly, female and transgender women sex workers, aged 14 or older were recruited by interviewers/outreach staff using time-location sampling. Participant were recruited through day and night times outreach at off-street sex work venues (i.e., massage parlours, micro-brothels, in-call locations), off-street self-advertising spaces (e.g. online, newspapers) and out-door venues (i.e., streets, alleys). Interviews were conducted at one of the project offices or a safe place as located by participants. Following informed consent, participants completed an interviewer-administered questionnaire by trained community interviewers (both experiential and non-experiential), and brief nursing questionnaires. The main questionnaire asked questions related to: socio-demographics, (e.g., age, sexual minority), sex work patterns (e.g., number of clients, condom use), injection and non-injection drug use patterns, workplace factors (e.g., street, bar, massage parlours, micro-brothels, in/out call locations, online solicitation, threatened with violence in the workplace). Macro-structural factors such as migration status (born in Canada versus abroad), homelessness and education were also included. Nursing staff also administered a health questionnaire eliciting sex workers' experiences with health providers, institutional barriers to care, and broader sexual, reproductive and physical health needs of women to support health education, support and referral. This included asking sex workers questions on pregnancy history, contraceptive usage and barriers to pregnancy and mothering. At each biannual visit, participants received \$40 CAD remuneration for their travel expenses, time (approximately 1.5- 2.0 hours) and expertise. This research was monitored through ongoing ethical approval with Providence Health Care/University of British Columbia Research Ethics Review Board. We had extensive protocols in place for addressing reports of violence and abuse safely and ethically

for participants, including supports and referrals. As previously in this study(Shannon et al., 2007), and others (Wood, Stoltz, Montaner, & Kerr, 2006), we have held ethical approval since 2004 to include self-supporting youth 14-18 years who are not living with parents and guardians under the emancipated minor clause, given the critical importance of understanding the needs of vulnerable youth.

Dependent Variable

Our outcome of interest was whether or not sex workers had ever experienced any barriers to health/social services or supports while pregnant or parenting. This was defined as participants having answered 'ever' to at least one of the following: 'geographic barriers (e.g., distance, travel)'; 'restrictions on housing with children'; 'age cut-off for infant services'; 'lack of drug treatment support for moms/pregnant women'; 'fear of accessing services because of Ministry involvement (e.g., fear of having a child taken by child protection services)'; 'lack of support for HIV+ moms/pregnant women'; 'lack of social support from family'; 'fear of partner violence'; 'lack of services for pregnant/parenting women experiencing partner violence'; 'lack of trauma/violence counseling'; 'fear of police'; 'lack of access to programs for parenting women'; 'lack of non-judgmental education on FASD/infant narcotic withdrawal'; 'fear of community stigma as pregnant/parenting mom'.

Explanatory Variables

To guide our variable selection, we drew on the Structural Determinants Framework specific to sex work (Shannon, Goldenberg, Deering, & Strathdee, 2014). This heuristic posits that the macro-structural factors (e.g. laws, policies, stigma) and the social, physical and policy features of the work environments they engender interact with interpersonal/partner-level factors to promote or constrain negotiation of health risks and outcomes (Shannon et al., 2014). Guided by a Structural Determinants Framework, we chose independent study variables operating at macro-structural, work environment, interpersonal and individual levels based on their *a priori* or hypothesized relationship with barriers to pregnancy and parenting or access to health/social services and supports. Sex workers' socio-demographic and individual-level characteristics examined included: age (years) as a continuous variable; HIV seropositivity; English proficiency (Yes versus No); Sexual minority (defined as self-identifying as gay, lesbian, bisexual, transgender, transsexual, two-spirited (an indigenous term referring to a person possessing both feminine and masculine gender identities) or other). Given high levels of drug use among street-involved sex workers in our setting, we also considered history of injection and non-injection illicit drugs (excluding cannabis). While cannabis use is not legal in Canada, its use is highly prevalent and relatively tolerated, with over half of the population in the province of BC using cannabis. As such, cannabis was not considered alongside other 'harder' illicit non-injection drugs (e.g., non-injection crystal meth, crack-cocaine, ecstasy). Macro-structural factors included: English as primary language, education (completed high school versus less than high school education), lifetime homelessness, having a child removed by child protection services. A number of interpersonal variables were included, such as intimate and partner-violence.

Statistical Analyses

In total, 510 biologically female sex workers completed baseline interviews. Of these, 399 sex workers reported a history of pregnancy and provided a valid response to our dependent variable and were considered eligible for our cross-sectional analysis. We conducted bivariable and multivariable analyses and generated Odds Ratios (ORs) with 95% Confidence Intervals (CIs) used to indicate the strength of association of each independent variable with barriers to pregnancy and mothering. Variables with p values of <0.10 were considered for inclusion in the multivariable model, and we used Akaike's Information Criterion selection to arrive at the final model. We checked the final model for multicollinearity.

RESULTS

Of the 399 sex workers who reported a history of pregnancy, just over one third of our sample (38.8%) were of Indigenous/ Aboriginal ancestry and 25% were new immigrant/ migrant workers (See Table 1). Just over half (51.4%) had graduated high school or had completed some post-secondary education. The median age of participants reporting barriers while pregnancy and mothering was 36.0 (IQR= 29.0-43.0).

Of the total of 399 sex workers, one third or 34% (n=132) reported one or more barriers to health/social and support services while pregnant/parenting (see Table 2). The most common barriers cited were lack of financial support (16.3%), fear of partner violence (15.3%), lack of social support from family members (15.1%), avoidance of services for fear of punitive measures regarding their children (e.g., child apprehension by child protection services) (13.0%) and fear of community stigma (e.g., negative judgment towards mothers engaged in sex work or drug use)(10%). (Please see Table 3).

In bivariate analysis, older age (Odds Ratio (OR= 2.00; 95% Confident Interval (CI) 1.50-3.00), less than high school education (versus high school graduate), ever used injection drugs (OR=2.58; 95%CI 1.67-3.98) or non injection drugs (OR=3.28; 95%CI 1.83-5.88) were among the individual-level factors associated with barriers while pregnant/ parenting. Ever homeless (OR=3.20; 95%CI 1.93-5.30) and removed from their home as a child (OR=3.72; 95%CI 2.36-5.84) were among the structural factors associated with increased odds of experiencing barriers to health and social services and supports while pregnant/parenting. In multivariable analysis, less than high school education (versus high school graduate) (Adjusted Odds Ratio (aOR=0.59; 95%CI 0.38-0.93), ever homeless (aOR=1.97; 95%CI 1.07-3.64) and ever used injection drugs (aOR=1.65; 95%CI 0.98-2.77) remained independently associated with increased odds of with experiencing barriers to health/social services or supports while pregnant or parenting.

DISCUSSION

Our results demonstrate that many sex workers experience at least one barrier to health/ social supports and services while pregnant or parenting. Participants reported a wide range of social and structural barriers, with social (i.e., stigma, lack of social support, homelessness, education) and structural factors (i.e., poverty, child protection services,

policing, lack of support services) topping the list of barriers. Participant's history of injection drug use further compounded these risks. We suggest that many sex workers have mitigated access to enabling environments that support them as pregnant women/parents, underscoring a need to better understand how sex workers' contexts shape their ability to exercise their reproductive rights.

Poverty and Homelessness

Though there is limited empirical evidence about barriers to parenting, our findings are aligned with sex workers' qualitative reports of immense challenges and stressors in their parenting lives (Sloss, Harper, & Budd, 2002). Our finding that lack of finances was a major barrier is consistent with sex workers' accounts elsewhere that many impoverished mothers initiate and continue sex work to support their children financially (Bucardo, Semple, Fraga-Vallejo, Davila, Patterson, 2004; Gomez & Delgado, 1999; McClelland & Newell, 2008). Given the undeniable link between poverty and homelessness, it is no surprise that we found absolute homelessness to increase experiencing barriers as a pregnant/parenting woman by almost two-fold. Homelessness is pervasive among sex workers in our setting: 88% of street-based sex workers reporting ever been homeless in our previous study (Duff et al., 2011). Sex workers parenting in shelters may face the additional risk of being identified as sex workers, and having their children apprehended by child protection services, given child welfare laws and regulations that conflate parental sex work with poor parenting (Barnett, 2008).

Given we found that lower levels of education were associated with experiencing barriers, we suggest there is an urgent need for services to better address the health literacy needs of women with lower education; together with improved income and educational policy and programming supports. Recent cuts to Canada's social safety net have resulted in reduced financial support that impoverished women can rely on while pursuing further education or technical training (Bungay, Halpin, Johnston, & Patrick, 2012; Morrow, Hankivsky, & Varcoe, 2004).

While solutions to poverty and homelessness are complex, a number of potentially effective poverty reduction strategies include: continuing to raise minimum wage levels to meet the living wage; increasing welfare rates to the after-tax poverty line; increasing the Canada Child Tax Benefit (to \$5,400 per child); increased access to affordable, high quality child care (Coalition, 2011), particularly for marginalized women, including sex workers. There is also a need to expand access to safe and affordable child-friendly housing options, ranging from low-threshold transition shelters to supportive housing models (Wolitski et al., 2009). These initiatives should be paired with rental subsidies and assistance programs to improve affordability (Chassey, Duff, & Pederson, 2009). Staff of existing shelters and supportive housing should provide parenting services (e.g., child care, parenting education) that are sensitive to the needs of impoverished and homeless sex workers.

Fear of child apprehensions as a barrier to parenting

Our finding that sex workers avoided accessing services for fear of having their children taken away (apprehended) by children protection services is not unwarranted, considering

37% of sex workers in our study reported ever having a child apprehended, and 38% had been apprehended themselves as children (Duff et al., 2014). These high rates of child apprehension may be owing to the multiple vulnerabilities faced by sex workers (e.g., poverty, homelessness, addiction), as well as child protection workers enforcing laws and regulations that associate parental sex work with placing their children at harm for sexual abuse or exploitation (Barnett, 2008).

Lifetime injection drug use as a barrier to parenting

We found that injection drug users may have increased odds of experiencing barriers to health/social services and supports while pregnant/parenting, echoing qualitative studies elsewhere among sex workers and women who use drugs (McClelland & Newell, 2008; Schempf & Strobino, 2009; Sharpe, 2001; Sloss, Harper, & Budd, 2004). Despite this unique window of opportunity for intervention, we found there to be a lack of access to appropriate services and supports for sex workers who use drugs.

We interpret these findings to demonstrate a shortage of accessible and appropriate drug treatment services and supports for sex workers who are mothers, and a child protection program that falls short of adequately protecting children or supporting the integrity of families. To better support the integrity of families, social workers need to modify their assessment criteria to consider parents' strengths (e.g., support networks, coping skills and strategies) in addition to their weaknesses, and link marginalized women, including sex workers, to the services they need (Bennett & Sadrehashemi, 2008). The limited access to appropriate non-judgmental services that support the needs of pregnant and parenting sex workers and drug users may reflect society's misperceptions of sex workers and drug users as inept mothers.

Violence as a barrier while pregnant and mothering

The stigmatized and criminalized nature of sex work in Canada largely contributes to the high prevalence of sexual and physical violence against sex workers, including from police, clients, pimps and intimate partners (Dalla & Kennedy, 2003; El-Bassel, Witte, Wada, Gilbert, & Wallace, 2001; Rhodes, 2008; Shannon, 2009). Researchers studying IPV among the general population have reported similar findings, linking IPV with elevated maternal stress (Kalil, Tolman, Rosen, & Gruber, 2003), though evidence to the contrary also exists (Sullivan, Nguyen, Allen, Bybee, & Juras, 2000). While further qualitative exploration is needed to determine exactly how IPV acts as a barrier while pregnant/parenting, there is an immediate need to provide access to services that reduce the harms faced by pregnant/parenting sex workers experiencing IPV. In particular, there is a need for effective, and innovative models that target the male perpetrator of IPV, such as South Africa's *Stepping Stones* program (Jewkes et al., 2007). *Stepping Stones* involves couples (including women involved in transactional sex), promoting gender equity in relationships and improved communication skills with partners. The program also targets behaviours associated with ideas of masculinity (e.g., risk taking, antisocial behavior) and has been found to significantly decrease men's reported incidents of intimate partner violence (Jewkes et al., 2007). Interventions to address the male partners of sex workers warrant consideration.

Limitations

The hidden nature of sex work poses challenges in terms of sampling frame selection and population representativeness, however, time-space sampling and social mapping were used to temper this limitation. This approach recruits sex workers at times and locations where they work, and has been previously used to sample hidden and criminalized populations in this setting and elsewhere (Odinokova, Rusakova, Urada, Silverman, & Raj, 2013; Shannon et al., 2007). Social desirability bias cannot be excluded from this study, given the sensitive nature of sex work while parenting, including fear of reporting to child protection services. Despite this, we obtained a high response rate, likely due to the good rapport of the study and interviewers (both experiential and non-experiential) and long history of community collaboration. Finally, given the cross-sectional nature of this data, temporality cannot be inferred.

Conclusion, policy and programming implications

We found that sex workers face a range of barriers in their roles as mothers, underlining a critical need for shifts in policy and programming to better support their needs as mothers. In particular, a shift away from the current quasi-criminalized nature of sex work to one that recognizes sex work as a legitimate occupation would likely reduce stigmatization and increase access to necessary services and supports (Abel, Fitzgerald, Healy, & Taylor, 2010). Additionally, decriminalization would foster the collectivization and empowerment of sex workers, and decrease exposure to workplace and partner violence and improving peer social support networks and access to care (Abel et al., 2010; Lazarus et al., 2011; Swendeman, Basu, Das, Jana, & Rotheram-Borus, 2009). The collectivization of sex workers could potentially offer the possibility of sharing of childcare responsibilities among sex workers, or the availability of more formal childcare for the children of sex workers.

There is a critical need for novel, low-barrier, nonjudgmental service models that holistically attend to the numerous challenges faced by pregnant/parenting sex workers (McClelland & Newell, 2008), particularly for the most marginalized and street-involved, including homelessness/housing instability, addictions, criminalization and child protection services, violence, stigma, and a lack of social and financial resources. An example of such a service is Vancouver-based *Sheway*, a women-centred, harm reduction model that delivers addiction treatment services, food, parental support, health care and links women to external services (e.g., housing, legal supports) (Benoit, Carroll, & Chaudhry, 2003a; Poole, 2000). This space has also been described as a temporary safe haven from gender-based violence, including from intimate partners (Benoit, Carroll, & Chaudhry, 2003b). *Sheway* has been found to improve sex workers' access to health care, housing, nutritional status and support women in maintaining custody of their children (Poole, 2000). *Sheway's* holistic philosophy of care is well aligned with Aboriginal women's concept of an ideal 'healing place' (Benoit et al., 2003a), and has been highly valued by the women (many of whom are sex workers) who frequent these services. While *Sheway* has been hailed an effective model by sex workers, lack of funding for the program has resulted in cramped quarters and age-cutoffs for child services (e.g., services are discontinued for children > 18 months, lack of child-friendly spaces) which represent additional barriers to service access for these women (Benoit et al., 2003a; Poole, 2000). There is a need for increased number of and funding for

effective services such as these, to provide enabling environments for women to exercise their rights to raise their children.

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References

- Abel, G.; Fitzgerald, L.; Healy, C.; Taylor, A. Taking the crime out of sex work. Bristol: Policy Press; 2010.
- Barnett, L. Prostitution in Canada: International Obligations, Federal Law, and Provincial and Municipal Jurisdiction. Ottawa: 2008.
- Basu A, Dutta MJ. "We are mothers first": localocentric articulation of sex worker identity as a key in HIV/AIDS communication. Women Health. 2011; 51(2):106–123. [PubMed: 21476172]
- Beard J, Biemba G, Brooks MI, Costello J, Ommerborn M, Bresnahan M, Simon JL. Children of female sex workers and drug users: a review of vulnerability, resilience and family-centred models of care. Journal of the International AIDS Society. 2010; 13(Suppl 2):S6. [PubMed: 20573288]
- Bennett D, Sadrehashemi L. Broken Promises: Parents Speak about B.C.'s Child Welfare System. Child Welfare. 2008
- Benoit C, Carroll D, Chaudhry M. In search of a healing place: Aboriginal women in Vancouver's Downtown Eastside. Soc Sci Med. 2003; 56(4):821–33. [PubMed: 12560015]
- Benoit C, Jansson M, Millar A, Phillips R. Community-academic research on hard-to-reach populations: benefits and challenges. Qualitative Health Research. 2005; 15(2):263–82. [PubMed: 15611208]
- Bucardo J, Semple SJ, Fraga-Vallejo M, Davila W, Patterson TLJ. A qualitative exploration of female sex work in Tijuana, Mexico. Arch Sex Behav. 2004; 33(4):343–51. [PubMed: 15162080]
- Bungay V, Halpin M, Atchison C, Johnston C. Structure and agency: reflections from an exploratory study of Vancouver indoor sex workers. Culture, Health & Sexuality. 2011; 13(1)
- Bungay V, Halpin M, Halpin PF, Johnston C, Patrick DM. Violence in the massage parlor industry: experiences of Canadian-born and immigrant women. Health Care for Women International. 2012; 33(3):262–84.10.1080/07399332.2011.603868 [PubMed: 22325026]
- Chassey, S.; Duff, P.; Pederson, A. Taking a Second Look: Analyzing Health Inequities in British Columbia with a Sex, Gender and Diversity Lens. Vancouver, British Columbia: 2009.
- Youth Advocacy Coalition, (2011). 2011 Child Poverty Report Card, (November).
- Catillo DA, Gomez MGR, Delgado B. Border lives: Prostitute women in Tijuana. Signs. 1999; 24:387–422.

- Dalla R, Kennedy H. You just give them what they want and pray they don't kill you. *Violence Against Women*. 2003; 9:1367–1394.
- Duff P, Bingham B, Leo D, Simo A, Reading C, Shannon K. The “Stolen Generations” of Mothers and Daughters: Child Apprehension and Enhanced HIV Vulnerabilities for Aboriginal Sex Workers. *PLOS ONE*. 2014
- Duff P, Deering K, Gibson K, Tyndall M, Shannon K. Homelessness Among A Cohort of Women in Street-Based Sex Work: The Need for Safer Environment Interventions. *BMC Public Health*. 2011; 11(1):643. [PubMed: 21838894]
- Duff P, Shoveller J, Zhang R, Alexson D, Montaner JSG, Shannon K. High lifetime pregnancy and low contraceptive usage among sex workers who use drugs- an unmet reproductive health need. *BMC Pregnancy and Childbirth*. 2011; 11:61. [PubMed: 21851622]
- El-Bassel N, Witte SS, Wada T, Gilbert L, Wallace J. Correlates of partner violence among female street-based sex workers: Substance abuse, history of childhood abuse, and HIV risks. *AIDS Patient Care & STDS*. 2001; 15(1):41–51. [PubMed: 11177587]
- Elmore-Meegan M, Conroy RM, Agala CB. Sex workers in Kenya, numbers of clients and associated risks: an exploratory survey. *Reprod Health Matters*. 2004; 12(23):50–57. [PubMed: 15242210]
- Feldblum PJ, Nasution MD, Hoke TH, Van Damme K, Turner AN, Gmach R, Behets F, et al. Pregnancy among sex workers participating in a condom intervention trial highlights the need for dual protection. *Contraception*. 2007; 76(2):105–110. [PubMed: 17656179]
- Global Commission on HIV and the Law. *HIV and the law: risks, rights, & health*. 2012
- Greaves L, Cory J, Haddow D, Lee T, Levine S, Nathoo T, Sotto M. *A Motherhood Issue : Discourses on Mothering Under Duress. Strategies*. 2002 Oct.
- Jewkes R, Nduna M, Levin J, Jama N, Dunkle K, Wood K, Duvvury N. Evaluation of Stepping Stones: A Gender Transformative HIV Prevention Intervention. 2007
- Kalil A, Tolman R, Rosen D, Gruber G. Domestic violence and children's behaviour in low-income families. *Journal of Emotional Abuse*. 2003; 3:75–101.
- Kissman K. Respite from stress and other service needs of homeless families. *Community Mental Health Journal*. 1999; 35(3):242–50.
- Kurtz SP, Surratt HL, Kiley MC, Inciardi JA. Barriers to health and social services for street-based sex workers. *J Health Care Poor Underserved*. 2005; 16(2):345–61. [PubMed: 15937397]
- Lazarus L, Deering KN, Nabess R, Gibson K, Tyndall MW, Shannon K. Occupational stigma as a primary barrier to health care for street-based sex workers in Canada. *Health (San Francisco)*. 2011; 00(0):1–12.
- Maher, L. *Sexed work: Gender, Race and Resistance in a Brooklyn Drug Market*. Oxford: Clarendon Press; 1997.
- McClelland GT, Newell R. A qualitative study of the experiences of mothers involved in street-based prostitution and problematic substance use. *Journal of Research in Nursing*. 2008; 13(5):437–447.
- Meadows-Oliver, Mikki, MSN, M. Social Support Among Homeless and Housed Mothers: An Integrative Review. *Journal of Psychosocial Nursing*. 2005; 43(2):40–47.
- Morrow M, Hankivsky O, Varcoe C. The effects of dismantling the welfare state. *Critical Social Policy*. 2004; 24:358–384.
- Odinokova, V.; Rusakova, M.; Urada, LA.; Silverman, JG.; Raj, A. Police sexual coercion and its association with risky sex work and substance use behaviors among female sex workers in St. Petersburg and Orenburg, Russia. *The International Journal on Drug Policy*. 2013. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/23916802>
- Poole, N. Evaluation Report of the Sheway Project for High-Risk Pregnant and Parenting Women. Vancouver, Canada: 2000.
- Rhodes T. Police violence and sexual risk among female and transvestite sex workers in Serbia: qualitative study. *BMJ*. 2008; 337:a811–a811. [PubMed: 18667468]
- Roberts SCM, Pies C. Complex calculations: how drug use during pregnancy becomes a barrier to prenatal care. *Maternal and Child Health Journal*. 2011; 15(3):333–41.10.1007/s10995-010-0594-7 [PubMed: 20232126]

- Schempf AH, Strobino DM. Drug use and limited prenatal care: an examination of responsible barriers. *American Journal of Obstetrics and Gynecology*. 2009; 200(4):412.e1–10. [PubMed: 19217591]
- Shannon K, Bright V, Parsad D, Alexson D, Allinott S, Gibson K, Tyndall MW. Community-Based HIV prevention research among substance-using women in survival sex work: The Maka Project. *Harm Reduction Journal*. 2007; (1):20–6. [PubMed: 18067670]
- Shannon K. Prevalence and structural correlates of gender-based violence in a prospective cohort of female sex workers. *BMJ*. 2009; 339:b2939–b2939. [PubMed: 19671935]
- Shannon K, Goldenberg S, Deering K, Strathdee S. HIV Infection among Female Sex Workers in Concentrated and High Prevalence Epidemics: Why a Structural Determinants Framework is Needed. *Current Opinions in HIV/AIDS*. 2014
- Sharpe TT. Sex-for-Crack-Cocaine Exchange, Poor Black Women, and Pregnancy. *Qualitative Health Research*. 2001; 11(5):612–630. [PubMed: 11554191]
- Sloss CM, Harper GW. When street sex workers are mothers. *Arch Sex Behav*. 2004; 33(4):329–341. [PubMed: 15162079]
- Sloss CM, Harper GW, Budd KS. Street Sex Work and Mothering. *Journal of the Association for Research on Mothering*. 2004; 6(2):102–115.
- Sullivan CM, Nguyen H, Allen H, Bybee D, Juras J. Beyond searching for deficits: Evidence that physical and emotionally abused women are nurturing parents. *Journal of Emotional Abuse*. 2000; 2:51–71.
- Swendeman D, Basu I, Das S, Jana S, Rotheram-Borus MJ. Empowering sex workers in India to reduce vulnerability to HIV and sexually transmitted diseases. *Social Science & Medicine* (1982). 2009; 69(8):1157–66. [PubMed: 19716639]
- Wolitski RJ, Kidder DP, Pals SL, Royal S, Aidala A, Stall R, Courtenay-Quirk C, et al. Randomized Trial of the Effects of Housing Assistance on the Health and Risk Behaviors of Homeless and Unstably Housed People Living with HIV. *AIDS and Behavior*. 2009
- Wood E, Stoltz JA, Montaner JS, Kerr T. Evaluating methamphetamine use and risks of injection initiation among street youth: the ARYS study. *Harm Reduction Journal*. 2006; 24(3):18. [PubMed: 16723029]

TABLE 1

Individual, interpersonal, work environment and macro-structural factors among 399 sex workers in Vancouver with experience pregnant and/or parenting

Characteristic	Total (%) (399 = N)	Barriers while Pregnant/Parenting		p - value
		Yes (%) (136=34.0)	No (%) (263=65.9)	
Individual-level factors				
Age (median, IQR)	–	35 (28-42)	37.0 (31-44)	0.055
Median number of unintended pregnancies	–	2.0 (1-4)	2.0 (1-4)	0.089
Sexual minority ⁺	81 (20.3)	23 (28.4)	113 (71.6)	0.228
English primary language	309 (77.4)	122 (39.5)	14 (60.5)	<0.001
HIV	43 (10.8)	12 (28.9)	31 (72.1)	0.359
Ever used non-injection drugs	303 (75.9)	120 (39.6)	183 (60.4)	<0.001
Ever used injection drugs	213 (53.4)	93 (68.4)	120 (45.6)	<0.001
Interpersonal/ Partner-Level Factors				
Partner violence	303 (75.9)	120 (39.6)	183 (60.4)	<0.001
Work Environment Factors				
Threatened violence (workplace)	97 (24.3)	58 (59.7)	39 (40.2)	0.144
Primary place where clients were serviced, last 6 months				
Outdoor/public place [*]	178 (44.8)	80 (58.8)	98 (37.5)	–
Informal indoor/ out-call (e.g., bar, hotel, client's place, supportive housing) [*]	91 (22.9)	34 (25.0)	57 (21.8)	–
Formal sex work establishment/'in-call' venue (e.g., massage parlour, micro-brothel, managed indoor space) [*]	128 (32.2)	22 (16.1)	106 (40.6)	–
Macro-Structural Factors				
Aboriginal ancestry (Indigenous ancestry, including First Nations, Metis, Inuit)	155 (38.8)	65 (47.8)	90 (34.2)	0.524
International Migration				
Migrant/new immigrant	100 (25.1)	17 (17.0)	83 (83.0)	<0.001
Canadian born				
Education				
High school graduate	205 (51.4)	52 (38.2)	153 (58.2)	<0.001
Less than high school	194 (48.6)	84 (61.8)	110 (41.8)	REF
Ever had child removed by child protection services	117 (29.3)	65 (55.6)	52 (44.4)	<0.001
Ever homeless	268 (67.2)	112 (41.8)	156 (58.2)	<0.001

* Variables refer to experiences within the past 6 months and therefore were not included in bivariate or multivariable analysis.

⁺ Sexual minority was defined as self-identifying as gay, lesbian, bisexual, transgender, transsexual, two-spirited, or other

Table 2

Specific barriers to pregnancy and mothering among sex workers in Vancouver who reported prior pregnancy

Ever Experienced a Barrier while Pregnant /Parenting (n=399)	<u>Experienced Barrier</u>	
	Yes (%)	No (%)
Macro Structural Barriers		
Lack of financial support	65 (16.3)	334 (83.7)
Fear of accessing services due to child protection services involvement	52 (13.0)	347 (87.0)
Lack of trauma/violence counselling	33 (8.3)	366 (91.7)
Fear of police	30 (7.5)	369 (92.5)
Lack of access to programs for parenting women	30 (7.5)	369 (92.5)
Lack of services for pregnant/parenting women experiencing partner violence	27 (6.8)	372 (93.2)
Geographic Barriers (e.g., distance, travel)	26 (6.5)	373 (93.5)
Lack of drug treatment support for moms/pregnant women	24 (6.02)	375 (94.0)
Restrictions on housing with children	24 (6.02)	375 (94.0)
Lack of non-judgmental education on FASD/ infant narcotic withdrawal	18 (4.5)	381 (95.5)
Age cut-off for infant services	11 (2.76)	388 (97.2)
Fear of community stigma as pregnant/parenting mom	40 (10.0)	359 (90.0)
Interpersonal Barriers		
Fear of partner violence	61 (15.3)	338 (84.7)
Lack of social support from family members	60 (15.1)	339(84.9)

TABLE 3

Unadjusted and Adjusted odds ratios (ORs) for the association between individual, interpersonal, work environment, and macro-structural-level factors and barriers to pregnancy and mothering services among a sample of 399 sex workers in Vancouver, Canada

Factors	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Individual-level factors		
Age	2.00 (1.50 – 3.00)	–
Median number of unintended pregnancies	1.08 (0.99 – 1.91)	–
Sexual minority ⁺	0.72 (0.42 – 1.23)	–
English primary language	3.54 (1.92 – 6.54)	–
HIV seropositivity	0.72 (0.36 – 1.46)	–
Ever used injection drugs	2.58 (1.67 – 3.98)	1.65 (0.98 – 2.77)
Ever used non-injection drugs	3.28 (1.83 – 5.88)	–
Macro-structural Factors		
Migrant/new immigrant	0.31 (0.18 – 0.55)	–
Education (high-school graduate)	0.45 (0.29 – 0.68)	0.59 (0.38 – 0.93)
Removed from home as a child	1.72 (1.22 – 2.64)	–
Ever had a child removed by child protection services [*]	3.72 (2.36 – 5.84)	–
Ever homeless	3.20 (1.93 – 5.30)	1.97 (1.07 – 3.64)

* Variables were included in the list of barriers to pregnancy and mothering (primary outcome) and were therefore not included in the multivariable model.

⁺ Sexual minority was defined as self-identifying as gay, lesbian, bisexual, transgender, transsexual, two-spirited, or other (versus straight)