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Generational Sex And HIV Risk Among Indigenous Women In A Street-Based Urban Canadian Setting

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Abstract

In Canada, indigenous women are overrepresented among new HIV infections and street-based sex workers. Scholars suggest that Aboriginal women's HIV risk stems from intergenerational effects of colonisation and racial policies. This research examined generational sex work involvement among Aboriginal and non-Aboriginal women and the effect on risk for HIV acquisition. The sample included 225 women in street-based sex work and enrolled in a community-based prospective cohort, in partnership with local sex work and Aboriginal community partners. Bivariate and multivariate logistic regression modeled an independent relationship between Aboriginal ancestry and generational sex work; and the impact of generational sex work on HIV infection among Aboriginal sex workers. Aboriginal women (48%) were more likely to be HIV-positive, with 34% living with HIV compared to 24% non-Aboriginal. In multivariate logistic regression model, Aboriginal women remained 3 times more likely to experience generational sex work (aOR:2.97; 95%CI:1.5,5.8). Generational sex work was significantly associated with HIV (aOR=3.01, 95%CI: 1.67–4.58) in a confounder model restricted to Aboriginal women. High prevalence of generational sex work among Aboriginal women and 3-fold increased risk for HIV infection are concerning. Policy reforms and community-based, culturally safe and trauma informed HIV prevention initiatives are required for Indigenous sex workers.

Keywords

Canada; Indigenous ancestry; women; sex work; HIV/AIDS

Introduction

It is impossible to give meaning to research concerning Indigenous women globally and their risk of HIV without consideration of the historical context including the legacy of

colonialism, racialised polices, forced removal and displacement from land, home communities and the devastating impact on disconnection from traditions, spirituality and culture (Dion Stout and Kipling 2003; Smith 1999; Browne and Fiske 2001). Common to the more than 370 million Indigenous people in the world is the powerful effect of colonisation on the health of their people and their communities (Gracey and King 2009). The gap in health between Indigenous and non-Indigenous peoples is not unique in Canada but is present globally, with Indigenous people bearing the disproportionate burden of disease, disability and death (Gracey and King 2009).

In Canada, the legacy of colonisation and historical trauma, including the residential school system and child welfare policies has resulted in a 'soul injury' that continues to be felt by the youngest generations of Aboriginal people (Duran, Duran, Yellow Horse and Yellow Horse 1998; Dion Stout and Kipling 2003). However, despite this historical legacy of trauma and social disconnection, there remains a paucity of data on vulnerability across generations, and its relationship to HIV risk among Aboriginal peoples. Of particular concern, despite the documented overrepresentation of Aboriginal women within visible, street-based sex work in Canada's urban centres (Amnesty International 2009; Spittal et al. 2002), and the devastating number of lives lost through violence and murder over the last decades, there is a surprising silence in public policy and research on the voices and struggles of Aboriginal women who are street-entrenched, living in poverty, and engaged in sex work.

The global HIV epidemic disproportionately impacts marginalised groups of people, racial and ethnic minorities including Indigenous people. The socioeconomic inequalities faced by Indigenous people include: poverty, substance misuse, homelessness and unequal access to health care lead to an increased risk for HIV infection (Gracey and King 2009; Marshall 2008). Aboriginal women continue to bear the disproportionate burden of ill health and account for almost three times more AIDS cases than their non-Aboriginal counterparts across Canada (Barlow 2003). Between 1998 and 2006 Aboriginal females represented 48% of positive HIV tests (Barlow 2009).

Despite evidence of the increased vulnerability to HIV among women, few prevention strategies are gender sensitive, and even fewer have focused on Aboriginal women within street-based sex work in Canada's urban centres. Furthermore, few public policies and research studies specifically consider the synergistic effects of historical trauma and Aboriginal women's risk for HIV, particularly for street-entrenched women engaged in sex work. Aboriginal women in Canada experience rates of violence 3.5 times higher than non-Aboriginal women, in particular women involved in sex work are at heightened risk of violence (Amnesty International 2009; Shannon, Kerr et al. 2009). In the Downtown Eastside of Vancouver, Canada, a low-income area known for the drug and low track sex work being prominent, over 60 women have gone missing since the 1980s, one third of whom were of Aboriginal ancestry (Amnesty International 2009). One man has been charged with the murders of 22 women, and he is suspected to be responsible for the disappearance of many more (Carter 2005). Many of the missing women were engaged in sex work and it has been estimated that up to 70% of street sex workers on the Downtown Eastside are Aboriginal, in their early 20s and also mothers (Culhane 2003; Shannon, Bright,

Gibson et al. 2007). Aboriginal women on the Downtown Eastside continue to fight for visibility, justice and to have their voices heard. To date, Aboriginal women who comprise close to half the population of street sex workers in Vancouver remained almost completely ignored in both public policy and research despite their unique historical context and disproportionate vulnerability. High rates of trauma and violent victimisation have been documented among both Aboriginal and non-Aboriginal women in sex work (Shannon, Strathdee et al. 2009; Shannon, Kerr et al. 2009; Vaddiparti et al. 2006; Stoltz et al. 2007; Mill 1997). Street involved Aboriginal women's experiences differ from their non-Aboriginal counterparts in that they live with historical trauma resulting from the turbulent history of racial policies in Canada which is further compounded by contemporary racialised policies which create the context within which they work and live. Little or no research has investigated the generational nature of vulnerability and its associated HIV risk among Aboriginal women engaged in street-based sex work.

Historical Legacy of Colonisation and Racial Policies

In Canada, the residential school system removed over 100,000 children from their families between 1874 and 1986 (Pearce et al. 2008). As recently as 1991, 13% of Canada's Aboriginal populations were residential school survivors (Dion Stout and Kipling 2003). Attempts to "civilise" Aboriginal people became an official government policy in the 1840s. The government was attempting to prevent any interference with their plans to colonise Western Canada (Dion Stout and Kipling 2003). There were 22 residential schools in British Columbia, which was more than in any other Canadian province. Residential schools used regimented behaviour, corporal punishment and strict discipline to teach Aboriginal children to be ashamed of their culture, language and Aboriginal identity. Aboriginal children in residential schools were subjected to many forms of abuse at the hands of school employees, including sexual abuse (Pearce et al. 2008; Dion Stout and Kipling 2003; Barlow 2003). The disciplinary regime often involved verbal, sexual or physical assault and there are also documented cases of children being confined in dark closets, being beaten physically or having their heads shaved for speaking their native language (Dion Stout and Kipling 2003). The residential school regime created a general climate of fear for the children and taught them to be ashamed of their culture as well as their family. The impact of residential schools is felt at the individual, family and community level (Evans-Campbell 2008). Many individual survivors of residential schools adopted destructive patterns of behaviour and many died an early death as a result of suicide, violence or alcohol-related causes (Dion Stout and Kipling 2003). The patterns of behaviour learned in residential schools were often brought back to families and communities creating a cycle of violence and abuse impacting future generations of children.

Survivors of residential school often indicate that their experiences in the residential schools left them unprepared to become parents themselves. Being raised in an institutional setting with authoritarian care givers and a lack of emotional support left survivors facing difficulty showing affection to their own children (Dion Stout and Kipling, 2003). After being taken from their parents at young ages, survivors did not have the chance to learn child-rearing and parenting techniques from their own parents:

“Like a pebble dropped in a pond, the effects of trauma tend to ripple outwards from victims to touch all those who surround them, whether parents, spouses, children or friends”

(Dion Stout and Kipling 2003 p. 33).

The legacy of residential schooling in Canada is still felt by the youngest of Aboriginal generations. The trauma resulting from residential schools, whether direct or intergenerational, continues to have an impact on Aboriginal people, intersecting with their issues of mental health, drug use and risk taking behaviours leading to HIV vulnerability.

The residential school era was followed closely by the cultural assimilation policies of the child welfare system in Canada. In the 1950s, the federal government handed over control to the provinces for Aboriginal health, education and welfare. Each province was given payment for each First Nations child apprehended (Fournier and Crey 1997). In 1959, only 1% of all children in care were First Nations and by the end of the 1960s close to 40% were First Nations. This number is shocking when considering that at this time, First Nations people only made up less than 4% of the national Canadian population (Fournier and Crey 1997). The large numbers of Aboriginal children apprehended over that 30 years was dubbed the “sixties scoop” by Patrick Johnson (Bennett et al. 2005, p. 19). Children were placed in foster care and rarely returned home, growing up with little understanding of their culture and were often discriminated against in cities or towns where very few Aboriginal people resided (Bennett et al. 2005; Fournier and Crey 1997). Many children also suffered physical or sexual abuse at the hands of their foster parents or adoptive parents. Some children were apprehended for legitimate reasons of abuse but many were apprehended because of impoverished living conditions or because they required medical care. The removal of children from First Nations communities was devastating and many communities lost an entire generation of their children to the child welfare system (Bennett et al. 2005; Fournier and Crey 1997). Generations of First Nations children who suffered the effects of the child welfare system are now dealing with issues of identity, searching for their parents, culture and communities, and trying to heal from the trauma of abuse.

Generations of Aboriginal communities have been affected by Canadian policies of assimilation and the disproportionate number of Aboriginal women and families who are street involved requires urgent investigation and intervention. Little is known about Aboriginal women’s experiences in sex work and if generational involvement in sex work differs between Aboriginal and non-Aboriginal families given this historical context. Research has consistently reported the trauma that affects many Aboriginal people in Canada combined with entrenched poverty, racial discrimination and cultural losses, high rates of violence, mental health problems and substance abuse (Varcoe and Dick 2008; Culhane 2009). Little or no research has specifically investigated Aboriginal women’s pathways to sex work involvement particularly within a familial context. Culhane (2009) highlights the complexities of analyses, policies and interventions aimed at improving Aboriginal health resulting from the vast differences with and among Aboriginal groups. Within the inner city setting Aboriginal residents are more disadvantaged when compared to non-Aboriginal residents and furthermore, Aboriginal women face the most challenges related to absolute and relative poverty (Culhane 2009; Varcoe and Dick 2009). Aboriginal

women's rates of HIV, injection drug use, and involvement in the most visible, street-based aspects of sex work continue to be higher than for other identified sub-populations in Vancouver's inner-city however their voices and perspectives are often not considered in discussions about solutions to reducing health and social inequities (Culhane 2009). Aboriginal women's pathways into sex work and experiences working in sex work are a significant gap in the research literature. Given the paucity of data, we examined the experiences of generational sex work involvement (having a mother, sister, aunt, brother who exchanges sex on the streets as a means of survival) among Aboriginal women and the independent effect on risk for HIV acquisition.

Methods

Data are drawn from a community-based HIV research cohort focused on evaluating the individual, social and structural contexts of HIV risk among women in street-based work in Vancouver, British Columbia. A detailed description of the community engagement, development and methodology of the project have been published elsewhere (Shannon, Bright, Allinott et. al. 2007). Briefly, since 2005, academic researchers and community have partnered in developing and implementing the research, including collaborators from sex work agencies, Aboriginal and women's organisations. Between April 2006 and May 2008, 252 women were recruited and consented to participate in a prospective cohort study (response rate of 93%), including baseline and bi-annual interview questionnaires and voluntary HIV screening. Given the difficulty in accessing a representative sample of sex workers, time-space sampling strategies and mapping were used to enhance attempts at obtaining a sample representative of women in street-based sex work. Eligibility criteria was defined as being a woman age 18 years and older who smoked or injected illicit drugs (excluding marijuana) and actively engaged in street-level sex work. At baseline, a detailed semi-structured questionnaire was administered by trained peer researchers (Aboriginal and non-Aboriginal women with current/former sex work experience) elicited responses related to demographic characteristics, mobility, drug use patterns, health and addiction service use, violence and safety, and sexual and drug-related harms.

Dependent Variables

Our dependent variable was 'generational sex work' defined as having a family member (e.g mother, sister, aunt, brother) currently or previously engaged in street-based sex work. Given substantial overlap between having various family members, for the purposes of this analysis, we created a dichotomous variable of yes or no to having family engaged in sex work. Follow up research may further investigate the impact of different patterns of generational sex work involvement on vulnerability to HIV and other outcomes. In our secondary analyses, our dependent variable was HIV seropositive status based on point of care rapid INSTI® test (Biolytical Laboratories Inc., Richmond, BC: specificity =99.3%; sensitivity=99.6%) conducted by the project nurse and confirmed by western blot. All participants received standardised pretest and posttest counseling.

Covariates of Interest

Individual, interpersonal and contextual factors were considered in the following analysis as covariates of interest. Age was considered a continuous variable (years), and Aboriginal ancestry was defined as 'yes' versus 'no'. It is acknowledged that the category 'Aboriginal' does not fully capture the diversity of the Indigenous populations of Canada however for the purposes of the current study participants who self-identified as being Aboriginal are included in the analysis within the 'yes' category. Individual drug use patterns included daily cocaine and heroin injection, crystal methamphetamine use (injection/non-injection), daily crack use and sharing of syringes or drug paraphernalia. Being homeless before age 16 and living in the inner-city epicentre were also considered as individual variables of interest. Interpersonal/contextual variables of interest included servicing a high number of clients per week (10+ vs. less), ever experienced physical violence, ever experienced childhood physical violence, and ever experienced childhood sexual violence.

Statistical Analyses

Descriptive statistics and bivariate analyses were conducted to test for associations with generational sex work involvement. The Pearson's chi-square test was used to verify associations between each independent variable and the outcome measures. A logistic regression model was then fitted to obtain adjusted odds ratios for factors associated with generational sex work involvement. Variables found to be associated with generational sex work involvement at the univariate level ($p < 0.05$) were entered into the logistic regression model. The final model was selected by minimising Akaike Information Criterion (AIC) in a stepwise manner, selection started with a model including only a constant and adding predictor 1 at a time. At each step, the effect on AIC is checked by removing a previously added variable, with a lower value suggesting a better fit (Deering et al., 2013). In our secondary analyses, we built multivariate confounder models restricted to Aboriginal ancestry and non-aboriginal to test for an independent association between generational sex work involvement and HIV positive serostatus. All reported p-values are two sided and odds ratios (ORs) reported at 95% confidence intervals (CIs).

Results

Of the total sample, 225 women were eligible and included on this analysis. 107 (47.5%) were of Aboriginal/Indigenous ancestry (inclusive of First Nations, Métis and Inuit, and non-status First Nations). The mean age of participants was 34.3 years and the mean age of first exchanging sex for money was 18.6 years.

Descriptive data for the sample was also stratified by Aboriginal ancestry (see Table 1). Of the Aboriginal women in the sample ($n=107$), 41% had used heroin in the past 6 months and 64% reported daily crack use. Sixty-seven percent of Aboriginal women reported they had borrowed syringe or drug use paraphernalia. Eighty-five percent of Aboriginal women reported they were living on the downtown eastside compared to 76% of their non-Aboriginal counterparts. Forty-eight percent of Aboriginal women reported experiencing childhood sexual violence in their lifetime and 34% were HIV seropositive. Aboriginal women first exchanged sex for money at a younger age than non-Aboriginal women

(16years vs. 17 years respectively). Non-Aboriginal women were significantly more likely to have used heroin in the past 6 months.

Fifty (22.2%) of the sample reported they had a family member who has exchanged sex on the streets. Of those who reported generational sex work, (34) 68% were of Aboriginal ancestry, compared to (16) 34% of non-Aboriginal counterparts (see Table 2). Among the participants who reported generational sex work involvement, 27(54%) reported daily crack use and 36 (72%) reported having borrowed a syringe or other drug use paraphernalia. Fifty-four percent of participants who experienced generational sex work involvement reported they experienced homelessness before age 16 compared to only 39% of those who had not reported generational sex work involvement. Eighty-four percent of those who reported generational sex work involvement reported they lived on the downtown eastside compared to 79% of those who had not experienced generational sex work involvement.

In a multivariate logistic model (Table 2) generational sex work was associated with Aboriginal ancestry (adjusted OR=3.05, 95% CI: 1.47–6.33), homeless before 16 years of age (OR=2.95, 95% CI: 1.4–6.24), older age (aOR=1.04, 95% CI: 1.00–1.08), and inversely associated with heroin use in the past six months (aOR=0.24, 95% CI: 0.11–0.52). In a confounder model restricted to women of Aboriginal ancestry, adjusting for age, early sexual abuse, homelessness and injection drug use, generational sex work remained independently associated with HIV infection (OR=3.01, 1.67–4.58). There was no statistically significant association between generational sex work and HIV infection among non-aboriginal participants.

Discussion

Our results demonstrate that women of Aboriginal ancestry were three times as likely to experience generational sex work involvement, irrespective of other risk factors. Further, we found that generational sex work involvement holds an independent confounding effect that triples the risk for HIV infection among Aboriginal women. This is a risk pathway not observed among non-Indigenous sex workers. As previously noted, HIV prevalence among Aboriginal women stands at one-third of street-based sex workers (34%) compared to one quarter among non-Aboriginal women. These findings underscore the urgent need for attention by policy makers, including Indigenous leaders, governments, and HIV prevention and human rights experts.

This study offers critical insight into the downstream effects of the historical and intergenerational legacy of colonisation and racial policies in Canada on our Indigenous communities and these legacies' impacts on shaping the HIV epidemic for Aboriginal women. The silence and lack of acknowledgement within our communities on the visible overrepresentation of Aboriginal women among the most marginalised aspects of the sex industry, requires immediate consideration. Further community-led research into how generational sex work shapes HIV risks for Aboriginal women as compared to Caucasian and visible minority women is warranted. These results provide important evidence to support evidence-based calls to move away from a criminalised approach to prostitution in Canada towards a public health and human rights-based approach. In particular, our findings

suggest the importance of Aboriginal voices and leaders in policy reform and HIV prevention efforts.

It is difficult to fully comprehend how the nature of generational sex work involvement among Aboriginal sex workers shapes experiences of trauma and HIV risk. What remains clear is that the legacy of residential schooling and historical trauma crosses generations and continues to impact cycles of young Aboriginal women. Mill (1997) conducted a qualitative study with Aboriginal women and found that HIV risk behaviours became survival techniques for these women. The women described histories of turbulent family relationships, parental residential school experiences, parental substance abuse, physical and sexual abuse and negative foster care experiences. Women often reported running away at a young age, using substances including injection drugs and first exchanging sex during adolescence. Simoni, Sehgal and Walters (2004) echo these findings and highlight the importance of previous life trauma, including intergenerational trauma in the prevention of HIV infection among Aboriginal women. This study found that women who were traumatised would use injection drugs as a way to cope with abuse and their drug use mediating the relationship between past non-partner trauma and current sexual risks for HIV infection. Aboriginal women in the current study were no more likely to report risky drug use (e.g. cocaine, heroin injection, syringe sharing) than their non-Aboriginal counterparts, however Simoni and colleague's (2004) work suggests that this injection pathway may mediate the impact of trauma on sexual risks for HIV infection among Indigenous women.

Collectively, these findings suggest an urgent need for immediate action. Research and public health approaches that utilise decolonising methodologies and Aboriginal-led initiatives (including leadership by Aboriginal communities) are urgently required as a critical buffer to sexual risks and HIV infection for Aboriginal women. Indigenous movements towards self-determination are underway and there is growing evidence that Indigenous people globally benefit from culturally relevant and culturally appropriate interventions that fit better with Indigenous concepts of health (Lavoie 2004). Culturally relevant interventions and increased community ownership can help mitigate the complex constellation of vulnerabilities faced by Aboriginal people, including HIV vulnerability.

Marshall (2008) highlighted the impact of macro-level structural and environmental factors contextual factors that influence negotiation of sexual risks among marginalised individuals and the importance of considering these factors when planning HIV prevention programming. Women of Aboriginal ancestry when compared to their non-Aboriginal counterparts were more likely to report being homeless before age 16 and report that they reside on the downtown eastside of Vancouver. Poverty and geographic marginalisation in urban ghettos may suggest in part why young Aboriginal women remain continuously overrepresented in the most visible aspects of sex work across Canada's urban centres. To date, hundreds of Indigenous youth and young women have gone missing from the streets across Canada, with high rates both in Vancouver and in the north of BC along the highway of tears, a stretch of highway infamously known for 18 young girls, mostly young Aboriginal women who have been murdered or gone missing since 1969 (Rolston 2010). The Native Women's Association of Canada reported 582 cases of missing or murdered Aboriginal girls and women, and this number is likely underestimated (NWAC 2010). In

2001 a police task force was created following years of protests demanding action and justice for these women. Increased efforts must be made to ensure that the Aboriginal youth and sex workers have access to safe, supportive health and support services.

The generational vulnerability of Aboriginal women within the most marginalised, street-entrenched aspects of sex work suggests that criminalised approaches to sex work in Canada have not only been vastly ineffective at protecting individuals and communities from harm but further exacerbating marginalisation of this street-entrenched Aboriginal women. There is a growing body of evidence of structural conditions including policies and law shape the context within which HIV vulnerabilities occur (Blankenship and Koester 2002; Shannon and Csete 2010; Shannon and Montaner 2012; Seshia 2010). Human rights based approaches in combination with Indigenous- and sex work-led approaches are needed to ensure that the voices of Aboriginal sex workers are included in HIV prevention and policy development. These findings echo global calls, including international policy bodies such as WHO, UNAIDS and the Global Commission on HIV and the Law, to move away from a criminal justice approach to human rights and public health approaches to preventing harm among sex workers. More research is needed to document the narratives and lived experiences of Aboriginal sex workers voices to provide a contextual analysis to the generational nature of their experiences and document pathways of resiliency against and vulnerability to HIV infection.

Several limitations of this analysis should be considered. Firstly, the results are from a cross-sectional survey and therefore causality and direction of associations cannot be determined (Shannon, Bright, Allinott et al. 2007; Shannon, Bright, Gibson et al. 2007). A primary covariate of interest 'Aboriginal ancestry' was defined as 'yes' versus 'no'. 'Aboriginal' does not fully capture the diversity of the Indigenous populations of Canada including First Nations, Inuit and M groups as well as both status and non-status populations as defined under the Indian Act. Further qualitative inquiry is required to further explore the unique experiences of First Nations, Metis and Inuit women involved in sex work. The dependent variable 'generational sex work' as a binary variable does not capture the differences between which family member is involved in sex work or whether there is a variable impact to having one family member in sex work compared to several, which can be considered in further qualitative inquiry. All behavioural variables are self-reported and can be subject to social desirability bias. The study had a low non-response rate (7%) and time location sampling across sex work strolls has been a standard for accessing hidden populations and this being combined with community partnerships the study is likely to have reached some of the most marginalised women (Lazarus et al. 2012). Interviews for the current study were conducted offsite, however all women were initially contacted through a low-threshold drop in centre and therefore the most marginalised women may not have been reached. The criminalisation of sex work in Canada creates a hidden population difficult to engage in services, health care and research. However, the participatory methods employed by this study and mapping has helped ensure that an increasing number of most marginalised women in sex work are reached (Shannon, Bright, Allinott et al. 2007; Shannon, Bright, Gibson et al. 2007).

In summary, generational sex work among Aboriginal women in street-based sex work is associated with a 3-fold increased risk of HIV infection irrespective of other risk pathways. Policy reforms and HIV prevention initiatives that are community-based, culturally safe and address issues of historical trauma are urgently required for Indigenous street-based sex workers to stem epidemics of HIV infection. Policies and services that aim to prevent HIV must also address Aboriginal women's experiences of violence and promote their independence and focus on strengths and resilience through the use of post-colonial approaches (Varcoe and Dick 2008; Duran and Walters 2004; Mooney-Somers 2011). A multifaceted and comprehensive systems approach to HIV prevention that acknowledges the complex nature of intergenerational trauma resulting from colonisation and the generational nature of Aboriginal women's involvement in street-based sex work scenes are desperately needed.

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Table 1

Baseline Characteristics of Women in Street-Based Sex Work, Stratified by Aboriginal Ancestry (N=225)

	Aboriginal Ancestry		p-value
	Yes (n=107) n(%)	No (n=118) n(%)	
Cocaine injection *	30(28.04)	42(35.59)	0.225
Heroin injection *	44(41.12)	68(57.63)	0.013
Crystal methamphetamine use *	13(12.15)	17(14.41)	0.619
Daily crack cocaine use	69(64.49)	72(61.02)	0.591
Receptive use of used syringe or drug paraphernalia	72(67.29)	76(64.41)	0.649
>10 clients per/week	33(35.11)	40(35.71)	0.928
Homeless <16 years of age	48(44.86)	48(40.68)	0.527
Living in the Innercity epicentre	91(85.05)	90(76.27)	0.097
Experienced physical violence *	26(24.3)	39(33.05)	0.148
Experienced child physical violence	56(52.34)	61(51.69)	0.923
Experienced child sexual violence	52(48.6)	58(49.15)	0.934
HIV seropositive status	36 (33.6)	28(23.73)	0.025
Median age	34 years [IQR ^I : 24–40]	36 years [IQR: 27–42]	0.020
Median age first exchange sex for money	16 years [IQR: 14–19]	17 years [IQR: 14–23]	0.156

* = Last 6 Months

^I IQR= Interquartile Range

Table 2

Bivariate and Multivariate Associations with Generational Sex Work among Women in Street-Based Sex Work

	Generational Sex Work		Unadjusted Odds Ratios (95% CI)	Adjusted Odds Ratios (95% CI)
	Yes (n=50) n(%)	No (n=175) n(%)		
Aboriginal ancestry	34(68.00)	73(41.71)	2.97 (1.53–5.78)	3.05** (1.47–6.33)
Cocaine injection *	11(22.0)	61(34.86)	0.53 (0.25–1.10)	
Heroin injection *	12(24.0)	100(57.14)	0.24 (0.12–0.48)	0.24** (0.11–0.52)
Crystal Methamphetamine use *	7(14.0)	23(13.14)	1.08 (0.43–2.68)	
Daily crack cocaine use	27(54.0)	114(65.14)	0.63 (0.33–1.19)	
Receptive use of used syringe or drug paraphernalia	36(72.0)	112(64.00)	1.45 (0.73–2.88)	
>10 clients per/ week	13(30.23)	60(36.81)	0.74 (0.36–1.54)	
Homeless <16 years of age	27(54.00)	69(39.43)	1.80 (0.96–3.40)	2.95** (1.4–6.24)
Living in the innercity epicentre	42(84.0)	139(79.43)	1.36 (0.59–3.15)	
Experienced physical violence *	14(28.0)	51(29.14)	0.95 (0.47–1.90)	
Experienced child physical violence	24(48.0)	93(53.14)	0.81 (0.43–1.53)	
Experienced child sexual violence	25(50.0)	85(48.57)	1.06 (0.56–1.99)	
HIV seropositive status	7(14.0)	45(25.71)	0.47 (0.20–1.12)	
Median age	36 (IQR ¹ : 25–41)	34 (IQR: 24–39)	1.02 (0.99–1.06)	1.04** (1.00–1.08)

* = Last 6 Months

** = Variables significant at p<0.05 and adjusted for in multivariate model

¹ IQR= Interquartile Range