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Short-term interruptions to sex work among a prospective cohort of street-based cisgender female sex workers in Baltimore

Rebecca Hamilton White, MSPH^a, Ju Nyeong Park, PhD^a, Noya Galai, PhD^{b,c}, Michele R. Decker, ScD^d, Sean T. Allen, DrPH^a, Katherine H. A. Footer, MSc^a, Susan G. Sherman, PhD, MPH^a

^aDepartment of Health, Behavior, and Society; Bloomberg School of Public Health; Johns Hopkins University; 624 N. Broadway, Hampton House 180B, Baltimore, MD, USA 21205

^bDepartment of Epidemiology; Bloomberg School of Public Health; Johns Hopkins University; 615 N. Wolfe Street, Room E6608, Baltimore, MD, USA 21205

^cDepartment of Statistics; University of Haifa; 199 Aba Khushi Street, Mount Carmel, Haifa, Israel 3498838

^dDepartment of Population, Family, and Reproductive Health; Bloomberg School of Public Health; Johns Hopkins University; 615 N. Wolfe Street, Room E4142, Baltimore, MD, USA 21205

Abstract

Background: Street-based female sex workers (FSW) often cycle in and out of sex work engagement. For many FSW, substance use plays a critical role in sex work entry, continuation, and interruptions. We examined individual, interpersonal, and structural correlates of short-term interruption of sex work among street-based FSW in an urban environment.

Methods: Data were from 205 FSW in Baltimore, MD, USA followed as part of an observational prospective cohort study between April 2016-February 2018. The primary outcome was short-term interruptions of sex work (stopping sex work) over the past 3 months, asked every 3 months over a 12-month follow-up. We assessed the relationship between individual, structural, and interpersonal factors for each woman's prior visit and current visit with short-term sex work interruptions. We employed modified Poisson regression with Generalized Estimating Equations to identify correlates of short-term interruptions of sex work.

Results: Eighty-two women (40%) reported stopping sex work over the past 3 months at least once during follow-up. Past drug treatment (adjusted incidence rate ratio [aIRR] 1.40; 95% CI:

Corresponding Author: Rebecca Hamilton White; 624 N. Broadway, Hampton House Rm 180B, Baltimore, MD, 21205; rwhite75@jhmi.edu.

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1.06–1.86) and not having used drugs in the past 3 months (aIRR 2.70; 95% CI: 1.96–3.71) were positively associated with short-term interruption to sex work. Past intimate partner violence (IPV) (aIRR 0.52; 95% CI: 0.31–0.86) and current homelessness (aIRR 0.61; 95% CI: 0.41–0.91) were negatively associated with short-term interruption. Results were inconclusive for the association between recent prostitution arrest and short-term interruptions to sex work (IRR 0.86; 95% CI: 0.40–1.86).

Conclusion: The study suggests that similar to other professions, women leave sex work for numerous reasons. Substance use cessation and participation in drug treatment programs may contribute to short-term interruptions of sex work by reducing reliance on sex work for income among street-based FSW. Structural vulnerabilities including homelessness and IPV are driving continued street-based sex work, speaking to the need for holistic structural interventions.

Keywords

female sex workers; homelessness; intimate partner violence; arrest; substance use; women who use drugs

Street-based sex work is demanding work with its illegality precipitating unpredictability of wages, difficult work environments, and a heightened risk of exposure to violence (Brown et al., 2006; Decker et al., 2015). For many street-based female sex workers (FSW), these challenges are exacerbated by drug dependence and engagement in the volatile street economy (Dalla, 2002; El-Bassel et al., 2001). Studies of a diversity of FSW (e.g., escorts, women based in indoor venues) indicate that sex work is a collection of push-pull dynamics with some factors promoting the desire to exit and exiting, yet others precipitate sustained involvement (Cimino, 2012; Dalla, 2006). Particularly for street-based FSW who use drugs, sex work engagement is often driven by structural vulnerabilities, such as homelessness and lack of education, that constrain alternative employment options (El-Bassel et al., 2001). Further, street-based FSW face high levels of gender-based violence and health risks from their work including increased incidence of HIV and STIs and high mortality (Baral et al., 2012; Brody et al., 2005; Decker et al., 2012; Deering et al., 2014; Potterat et al., 2004; Sherman et al., 2019). These health and safety risks are in turn a key driver for some FSW's decision to fluctuate out of sex work, yet economic need often precipitates their decision to return (Manopaiboon et al., 2003).

Numerous frameworks for the 'sex-work-exiting' process have been proposed, and all of the frameworks detail significant structural and individual-level barriers characterizing sex workers' fluctuations in and out of sex work, including drug dependency, lack of education and job skills, food insecurity, housing instability, poverty, and criminal justice involvement (Baker et al., 2010; Cimino, 2012; Månsson & Hedin, 1999; Sanders, 2007). Arrest and incarceration of women who sell sex is a societal response meant to deter, punish, and encourage women to stop selling sex, further burdening them with criminal histories that often preclude them from housing, jobs, and other benefits, leading them back into sex work to meet their needs (Benoit et al., 2018; Monroe, 2005; Shdaimah & Bailey-Kloch, 2014; Shdaimah et al., 2012). Encouraging women to leave sex work is a common goal for local and national governments; however, evidence suggests that often such exiting is the result of coercive regulations and policies (e.g., mandatory drug treatment or prostitution diversion

program; welfare benefits conditional upon gaining legal employment [welfare-to-work programs]; gendered language and ideas) (Sanders, 2009; Scoular & O'Neill, 2007; Weitzer, 2010). The current 'exiting' theories and qualitative research highlight a complex picture in which women's structural vulnerabilities constrain economic agency, thus challenging arrest and coercive policies as viable aids to exiting sex work particularly if women do not want to leave.

Most research on sex work interruption is qualitative, and from these qualitative studies, it is clear that both current and recent environmental and structural vulnerabilities impact FSW's individual agency around leaving sex work (Cimino, 2019; Dalla, 2006; Ingabire et al., 2012; Preble et al., 2019). Substance use plays a critical role in entry, continuation, and interruptions to sex work. Some FSW use substances to cope with and sustain their sex work, while for other FSW, their substance use precedes, or often drives, their entry and precludes their exit as they rely on sex work for income (Cobbina & Oselin, 2011; Potterat et al., 1998).

Few quantitative studies exist to support or challenge these qualitative findings. Gaines and colleagues, for example, report that among FSW in Mexico, continued injection drug use predicted sex work continuation while income from sources outside of sex work was associated with interruptions in women's sex work (Gaines et al., 2015). Importantly, prior research has not detailed the impact of past individual, interpersonal, and structural experiences of FSW and how these exposures impact current short-term interruptions to sex work. Here we examine correlates of short-term interruptions to sex work among a prospective cohort of street-based FSW in Baltimore, Maryland (MD).

METHODS

Study participants and data collection

The SAPPPIRE study (Sex workers And Police Promoting Health In Risky Environments) was an observational prospective cohort study of street-based cis- and transgender FSW in Baltimore, MD recruited between April 2016-February 2017. The study methodology is described in detail elsewhere (Allen et al., 2018; Sherman et al., 2019). In brief, women were recruited from 14 zones across Baltimore City via targeted sampling and were eligible to enroll if they met the following criteria: age ≥ 15 years old; sold or traded oral, vaginal or anal sex for money or things like food, drugs, or favors; picked up clients in public at least 3 times within the past 3 months; and willing to undergo HIV/STI testing. Those identifying as male or a man were not eligible. Upon giving written informed consent, women completed a baseline survey and were subsequently interviewed at 3, 6, 9, and 12 months. Each follow-up visit was conducted within an 8-week window around the scheduled visit date. If the interview had not been completed by the end of the window, the visit was considered missed.

At each visit, participants completed an interviewer-administered computer-assisted personal interview. Surveys included questions on sociodemographic characteristics, substance use, experiences of violence and arrest, sex work history, and current sex work behaviours and experiences. Participants were compensated with \$70 prepaid VISA gift cards at the baseline

and 12-month visit, and \$45 prepaid VISA gift cards at interim study visits. The study was approved by the Johns Hopkins School of Public Health Institutional Review Board.

Analytic sample.—The current analysis is restricted to the cisgender FSW cohort (n=250/312 women). The transgender cohort is distinct from the cisgender cohort in prevalence of homelessness, substance use, reasons for engagement in sex work, and race/ethnicity (the transgender cohort is entirely composed of women of color); as such, we did not include them in the present analysis (Poteat et al., 2020; Sherman et al., 2019). Of 250 cisgender FSW in the cohort, only women with at least 2 consecutive visits were included in this analysis due to our interest in understanding correlates reported at the previous survey as well as the current survey. Two hundred and five women met this criterion, resulting in an analytical sample of 593 survey pairs. Although the IRB protocol included additional protective measures to allow for the recruitment of participants ages 15 to 17 years, the study team, to their knowledge, did not encounter any cisgender FSW under age 18.

Measures

Variables were selected a priori from the qualitative sex work ‘exiting’ literature and guided by the participants’ self-reported reasons of current sex work engagement at the baseline visit and, if applicable, reasons for interruption in sex work (Baker et al., 2010; Cimino, 2012; Dalla, 2006; El-Bassel et al., 2001; Krüsi et al., 2016; Sanders, 2007). Broadly defined, fixed variables were time invariant and measured only at baseline. Time-varying measures were asked about the past 3 months at each survey. For each of the time-varying measures, we evaluated both the response at the current visit (concurrent measures) and the previous visit’s response (lagged measures).

Outcome.—The primary outcome was self-reported short-term interruption of sex work over the 3 months preceding each follow-up survey. Women were asked at each follow-up survey if they had sold sex over the past 3 months. Interruptions are defined as not selling sex at any point over the past 3 months.

Individual-level explanatory variables.—Most individual-level variables were fixed measures. Current age and age at which women first sold sex (street-based or otherwise) were retained as continuous covariates. Length of time in street-based sex work was categorized as one year or less, >1 to 5 years, and more than 5 years. Race/ethnicity was categorized into non-Hispanic White, non-Hispanic Black, or other race/ethnicity. Reasons for current engagement were ascertained with 10 select-all-that-apply options including an open response option (response options are listed in Table 1). If women reported interruptions to sex work, they were asked why with reasons for interruptions including 13 select-all-that-apply options and an open response option (reasons listed in Table 2). We asked women about substance use not as prescribed by a healthcare provider in the past 3 months by types of drugs used (cocaine, including powder and crack cocaine; heroin; speedball (heroin and cocaine together); prescription opioids; benzodiazepines; buprenorphine) and route of administration (injection, snort, smoke, or swallow). As women used a variety of drugs and via multiple routes of administration that shifted dramatically

over follow-up, we opted to collapse substance use into the broad dichotomization of any drug use versus no drug use in the past 3 months.

Interpersonal explanatory variables.—Fixed interpersonal measures included number of financial dependents (1 financial dependent vs. none) and children <18 years living with the participant at baseline (yes/no). For time-varying interpersonal measures, we explored recent (past 3 months) physical or sexual violence by perpetrator type, clients or intimate partners (IP), using an adapted version of the Revised Conflict Tactic Scale (Straus et al., 1996). Physical violence was defined as being hit, punched, slapped, or otherwise physically hurt, or being threatened or hurt by a weapon. Sexual violence was defined as being pressured or forced into sexual intercourse. Clients were “people you’ve had oral, vaginal, or anal sex with for things like food, money, drugs, or favors.” IPs were non-paying sexual partners. We only examined lagged client violence because women that reported sex work cessation would not be at risk of concurrent client violence.

Structural explanatory variables.—We asked women about their sources of income in the past 3 months, such as selling drugs, social services, full- or part-time employment, panhandling, larceny/robbery, which we collapsed into any source of income other than sex work or solely income from sex work (fixed measure). Food insecurity was defined as going to bed hungry at least once per week. We asked about women’s criminal justice history at baseline including if women have ever been arrested, arrests for prostitution, incarceration, and convictions for prostitution charges. Time-varying structural vulnerabilities included recent (past 3 months) experiences of: homelessness; drug treatment, which we defined broadly as engaging in methadone detoxification or maintenance program, buprenorphine, in-patient or out-patient treatment facilities, and group therapy or individual counseling; and arrest for prostitution. At follow-up visits, women were asked if they had been recently arrested whereas the baseline visit asked about arrest in the past year.

Statistical analysis.—We used Generalized Estimating Equations (GEE) Poisson regressions with robust variance and exchangeable correlation structure to explore univariate correlates of short-term interruptions to sex work. To understand the relationship between the lagged and concurrent predictors, we further evaluated Poisson models including both the lagged and concurrent variables to predict sex work interruptions. Covariates significant at $P < 0.20$ were considered for inclusion in the multivariable model. If either the lagged or concurrent measures were statistically significant when included together in a model predicting short-term sex work interruptions, both were included in the initial multivariable model. Age and age first sold sex were determined a priori from the literature and their influence in interruptions or continuation of sex work and retained in the multivariable model (Cobbina & Oselin, 2011; Cregan et al., 2013; Dalla, 2006). Backwards stepwise selection was used with a threshold of $P > 0.20$ for removal.

To assess potential bias due to losses to follow-up, we compared baseline characteristics between participants included in the analysis ($n=205$) versus women who did not complete at least 2 consecutive visits ($n=45$) using Pearson’s chi-square or independent t-tests. Additionally, we conducted sensitivity analyses using the final multivariable model restricting the sample to those women who completed at least 3 ($n=157$), 4 ($n=114$), and 5

(n=103) consecutive study visits. Analyses were conducted using Stata/SE 15.1 (StataCorp, College Station, TX).

RESULTS

Baseline descriptive statistics

At baseline, participants' median age was 36 years old (interquartile range [IQR]: 30–42 years), and the average age of first selling sex was 23 years old (IQR: 18–30 years) (Table 1). The most common responses as to why women were currently engaged in sex work were “to get money for drugs” (84%), “to get food” (54%), and “to get a place to stay” (35%). Substance use was common with 75% reporting daily illicit drug use and over half (54%) injected drugs daily in the past 3 months at baseline. The most commonly used drugs were heroin and cocaine. Participants experienced high levels of structural vulnerabilities with 55% reporting food insecurity and 60% reporting recent homelessness. The majority had ever been arrested (82%), and 72% of whom had ever been arrested for prostitution.

Patterns of sex work

Short-term interruptions to sex work were common across follow-up with 13% reporting currently not engaging in sex work at the 3-month visit to 37% at the 12-month visit (Figure 1). Overall, 60% (n=123) reported selling sex at all completed visits, 30% (n=62) reported sex work interruptions during follow-up, and 10% (n=20) stopped and restarted over follow-up. Women also reported on drug use status over follow-up: 2% of women at baseline reported no recent illicit drug use and at the 12-month visit, 28% reported no recent illicit drug use. Reported levels of recent drug treatment engagement remained constant over follow-up, and homelessness and experiences of violence decreased.

Over follow-up, there were 158 reports from 82 women of short-term interruptions to sex work. The most commonly cited reasons for current interruption were: “didn’t want to anymore” (45%); “stopped using drugs” (38%); and “someone regularly gives them money” or they “no longer needed the money” (37%) (Table 2).

Univariate correlates of short-term cessation

Among the fixed variables, age first sold sex and being Black versus White were found to be significantly different by short-term interruption to sex work status (Table 3). We did not find evidence to suggest an association between recent prostitution arrest and short-term interruptions to sex work (IRR 0.86; 95% CI: 0.40–1.86). When assessing the relationship between the lagged and concurrent time-varying measures, we found attenuation in point estimates for concurrent drug treatment and concurrent IPV when combined with lagged drug treatment and lagged IPV, respectively. However, the changes in the point estimates were not significant enough (change <10%) to warrant excluding concurrent drug treatment or IPV from the multivariable model due to high correlation.

Multivariable correlates of interruptions to sex work

In the adjusted model, fixed variable correlates of interruptions to sex work included age first sold sex (adjusted incidence rate ratio [aIRR] 1.02, 95% confidence interval [CI]: 1.00–

1.04) and Black race compared to White (aIRR 1.54, 95% CI 1.10–2.15) (Table 3). For the time-varying lagged exposures, recent drug treatment (aIRR 1.40, 95% CI: 1.06–1.86) was positively associated with sex work interruptions at the subsequent follow-up visit, and having recently experienced IPV (aIRR 0.52, 95% CI 0.31–0.86) was negatively associated with reporting sex work interruption at the subsequent follow-up visit. Among the concurrent time-varying exposures, women who reported concurrent homelessness were less likely to report sex work interruptions (aIRR 0.61, 95% CI: 0.41–0.91) while concurrent drug cessation was positively associated with short-term interruption to sex work (aIRR 2.70, 95% CI: 1.96–3.71). Neither age, concurrent drug treatment, nor concurrent IPV were found to be significantly associated with interruptions to sex work.

Sensitivity analyses

In comparison to the analytical sample, women who did not complete two consecutive visits and thus, not retained in the analysis were more likely to report homelessness (75.6% vs. 59.5%, $P=0.044$) and daily injection drug use (77.8% vs. 54.1%, $P=0.004$) at baseline (results not shown). There were no differences between the two groups' age, race/ethnicity, age at sex work entry, criminal justice history, past drug treatment, daily non-injection drug use, any drug use in the past 3 months, childhood violence, or past IPV.

In the visit restriction models, we compared our final model to models that restricted the sample size to women who had completed at least 3, 4 or 5 consecutive study visits. We found the point estimates were comparable to the final model, albeit confidence intervals widened as the sample size dropped, particularly for concurrent homelessness and age first sold sex; these measures were no longer significant for models that restricted to 3 visits, 4 visits, and completing all 5 study visits.

DISCUSSION

Our findings underscore that like other professions, individuals engage in and leave sex work for several reasons. In the current study among FSW most of whom use drugs in an urban street-based environment, we identified several factors at the individual, interpersonal, and structural levels, both past and current, that impact women's current sex work status. Women's reporting of recent drug treatment and not currently using drugs were positively associated with short-term sex work interruptions. However, women who experienced past IPV and current homelessness were less likely to experience short-term interruptions in sex work engagement. Yet, the association between arrest and short-term interruptions to sex work was not statistically significant. These findings can aid public health and sex worker advocates in understanding the factors that may precipitate women's increased vulnerabilities and trajectories interrupting sex work and advocates' attempts to buffer these trajectories and furnish women with economic agency and choices.

The current study is the first to longitudinally analyze past and current exposures contributing to FSW's short-term interruption of street-based sex work in the United States (US). These results reveal the complex web of individual, interpersonal and structural factors that change over time and contribute to short-term interruptions to sex work. This cohort works in an urban environment characterized by a long-term street drug market, and

women's reasons for sex work were largely rooted in meeting basic needs such as housing and food and a significant majority reporting sex work as supporting drug use (Coates, 2009; Watkins, 2015, 2017).

The intersection between the street drug and sex economy is reflected by women's reported high rates of daily illicit drug use and the significant role of drug cessation in interrupting sex work, which has been supported by previous literature (Cobbina & Oselin, 2011; Potterat et al., 1998; Strathdee et al., 2015). At the study's onset, most participants reported currently engaging in sex work to obtain drugs, and stopping drug use was a commonly self-reported reason for interrupting sex work. Our adjusted model supports the self-reported reasons and aligns with the literature (Gaines et al., 2015); we found that lagged drug treatment and concurrent no drug use were independently associated with current short-term sex work cessation. Broadly, drug treatment may act as an avenue for exiting sex work in addressing women's substance use and its drivers. Drug treatment programs may provide links to social services, such as housing, legal clinics, and therapy for mental health issues, which are critical for FSW who use drugs and wish to stop their drug use when their use is tied to destabilizing factors such as housing instability. Without the daily need for funds to buy drugs for themselves and potentially their partners, women's dependence on sex work for income lessens, paving the way for them to make decisions regarding their sex work engagement and decrease the associated exposure to the street drug economy (Dalla, 2006; Sanders, 2007). Policymakers and public health and sex worker advocates should consider initiatives that bolster women's economic agency pre- and post-treatment to empower women with choices in their sex work careers and the decision to engage in drug treatment.

The prevalence of housing instability and its significant inverse relationship to interruptions to sex work is well-established and speaks to yet another impact of housing stability in the lives of those unstably housed (Monroe, 2005; Månsson & Hedin, 1999; Sanders, 2007). For street-based FSW, the cycle of housing instability, illicit work, and drug use is reinforcing and potentiates risk for HIV, STIs, and violence (Dalla, 2002; El-Bassel et al., 2001; Footer et al., 2019; Sherman et al., 2019). Stable housing may allow women economic freedom to again pursue their own trajectories in sex work.

Several previous studies have cited the difficulty in obtaining legal employment with criminal records, highlighting that criminalisation can greatly limit job opportunities, increase stigmatisation, and create a cycle that perpetuates engagement in sex work (Monroe, 2005; Sanders, 2007; Wahab & Panichelli, 2013). Furthermore, extensive evidence exists that criminalisation of sex work harms sex workers, leaving them at increased risk of violence, HIV, and sexually transmitted infections. In settings of decriminalisation, sex workers report greater ability to negotiate condom use and refuse clients (Platt et al, 2018). Research has also pointed to the deleterious effects of fear of arrest for sex work, including disinclination to access HIV prevention services and report violence by clients or partners, and moving to unfamiliar areas to conduct sex work (Krüsi et al., 2014; Qiao et al., 2014; Sherman et al., 2015). The present analysis was in part motivated by our interest in examining the impact of arrest as a "deterrent" for sex work, which has been used as an argument to support sex work criminalization and heavy police enforcement (Sanders, 2007, 2009; Weitzer, 2010). We found no conclusive findings as to the association between

prostitution arrest reported at the previous visit and short-term interruptions to sex work in the subsequent visit, possibly due to the low prevalence of prostitution arrest over follow-up. These results align with prior research on the criminalisation of sex work and contribute to the literature on prostitution arrest in a U.S. setting. Decriminalisation of sex work would afford women more power in navigating client interactions for their safety without fear of arrest.

We found that age of sex work entry influenced interruptions in sex work while controlling for current age. Per year increase in age first sold sex, early age at sex work entry was associated with continuation in sex work. Most studies on age at entry focus on entering as a minor and the increased structural vulnerabilities they experience, their effects lasting long term (Benoit & Millar, 2001; Brown et al., 2006; Cobbina & Oselin, 2011; Footer et al., 2020; Ingabire et al., 2012; Manopaiboon et al., 2003). However, our results extend the understanding of age at entry by looking at entry age continuously, suggesting that on average per one-year increase in age first sold sex, women who are older upon entry are slightly more likely to experience interruptions to sex work as compared to women who are younger. It is possible that women who enter younger have less experience outside of sex work, impacting their ability to disengage from sex work. Experiences that may influence these trajectories include other job training and skills and more education; by having additional support from these experiences, women who start selling sex one year later may have more economic choice than their younger counterparts.

In the final multivariable model, we found that as compared to White women, Black women were more likely to stop selling sex over follow-up in adjusted analysis. In Baltimore, as in many US cities, racist policies and practices have resulted in many of the women in our study working in neighborhoods that are disproportionately targeted by aggressive policing stemming from the war on drugs and community members calling the police on what they perceive to be criminal activity (Coates, 2009; Krüsi et al., 2016; Watkins, 2015, 2017). To explore this relationship, we examined racial differences in key variables via Pearson's chi-square and independent sample t-tests but did not find differences in number of clients, food insecurity, homelessness, and reasons for leaving sex work. Qualitative research could shed light on understanding racial differences in sex work interruptions in Baltimore.

IPV was correlated with sustained sex work in this study: women who experienced IPV experienced reduced incidence of sex work interruptions at the subsequent study visit. Ethnographic research has revealed that IPV and sex work can be mutually reinforcing via gendered power imbalances enforced by violence that can extend into control over sex work. Abusive partners have been found to enable and provoke sex work to support unmet economic needs as well as the partner's own drug dependence (Dalla, 2002; Decker et al., 2013). Where partners directly facilitate sex work and refer clients, the option to exit sex work becomes more difficult to realize (Dalla, 2002, 2006; Decker et al., 2019). Current results on the role of IPV and sex work trajectories extends previous published work from this cohort which illustrates other power dynamics exerted by IPs, with IPV increasing risk for condom coercion and receptive syringe sharing (Decker et al., 2019; Park et al., 2019). Linking women to IPV support services including harm reduction and safety planning may

help them build independent economic empowerment away from the influence of their abusive partners.

Our analyses are subject to several limitations. Firstly, reasons why some women missed study visits and therefore were excluded from the analysis could be related to long-term drug treatment, incarceration, or leaving Baltimore, which could all be related to leaving sex work. Sensitivity analyses revealed that at baseline, women who were excluded from the analysis were more likely to be homeless and engage in daily injection drug use. We found in the restriction models that while concurrent homelessness and age first sold sex had point estimates comparable to the final multivariable model, they were no longer statistically significant. Our study team dedicated extensive efforts to locate all study participants, including via phone, social media, social networks, public databases, and home visits (Silberzahn et al., 2020). However, future FSW cohort studies should pay critical attention to maintaining contact with women who are experiencing homelessness and who inject drugs daily to ensure their perspectives are adequately incorporated in findings.

A second limitation is the broad definition for short-term interruptions to sex work included in our analyses. Women may have stopped selling sex for shorter amounts of time than the past 3 months; these nuances are not captured in our broad definition, which may limit our ability to assess relationships between measures. Future work should consider length of time of sex work interruptions and gradual transitions out of sex work, such as changing types of sex sold, to whom, and in what locations. Additionally, we defined drug treatment broadly resulting from conversations with participants who reported that large variation exists among programs that are on the surface categorized as the same program type. As such, we opted to incorporate drug treatment broadly into our analysis as a dichotomized measure while recognizing that while drug treatment programs have differential success in aiding those who use substances, they likely differentially influence interruptions to sex work. Finally, the measures are self-reported, and thus subject to social desirability bias. We attempted to mitigate this bias by hiring diverse staff and conducting extensive interview training.

There are several instructive program and policy implications from the current study. This study has identified key time-varying relationships among several individual, interpersonal, and structural drivers of short-term interruptions to sex work. The reasons for engagement in street-based sex work bear many similarities to reasons for engaging in other forms of paid work. Future work should further investigate the relationship between arrest for prostitution and short-term interruptions to sex work. For women in street-based sex work who want to stop using drugs, addressing their substance use through drug treatment and cessation of their substance use appears to be a critical step in interruptions to sex work. However, significant barriers exist to leaving sex work if women choose, such as homelessness and recent IPV. There is critical need to develop violence prevention strategies for FSW's non-paying partner relationships and stable housing opportunities which would provide stability and economic empowerment in FSW's lives.

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Abbreviations --

FSW	female sex workers
IP	intimate partner
US	United States
IRR	incidence rate ratio
IPV	intimate partner violence
CI	confidence interval
MD	Maryland
IQR	interquartile range

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FIGURE 1.
Longitudinal prevalence of key variables.

TABLE 1.

Baseline characteristics of female sex workers in SAPHIRE; Baltimore, MD, 2016 – 2017 (n=205).

	Total, n (%)
INDIVIDUAL-LEVEL FACTORS	
Age, median (IQR)	36 (30–42)
Age first sold sex, median (IQR)	23 (18–30)
Race/Ethnicity	
White, non-Hispanic	134 (65.4)
Black, non-Hispanic	49 (23.9)
Hispanic or Other	22 (10.7)
Length of time in street-based sex work	
1 year	37 (18.0)
>1 to 5 years	58 (28.3)
>5 years	110 (53.7)
Substance Use	
Daily injection drug use	111 (54.1)
Daily drug use ^c	154 (75.1)
Reasons for current engagement in sex work ^a	
To get drugs	173 (84.4)
To get food	113 (55.1)
To get a place to stay	75 (36.6)
Extra spending money	58 (28.3)
Pay bills	54 (26.3)
To support my children	50 (24.4)
No other job opportunities	25 (12.2)
Pay off a debt	22 (10.7)
To support regular sex partner/family members	13 (6.3)
Enjoy it	3 (1.5)
Other	2 (1.0)
INTERPERSONAL FACTORS	
1 children living with participant at baseline	42 (20.5)
Criminal Justice History	
Ever arrested	168 (82.0)
Ever arrested for prostitution	121 (72.0)
Ever incarcerated for 3 days for prostitution	67 (55.4)
Ever convicted for prostitution	61 (91.0)
STRUCTURAL FACTORS	
Income source other than sex work	183 (89.3)
Food insecurity	112 (54.6)
Homelessness, past 3 months	122 (59.5)
Drug treatment program, ever	163 (79.5)

	Total, n (%)
Experiences of Violence ^b	
Police violence, ever	79 (38.5)
Client violence, ever	116 (56.9)
Intimate partner violence, ever	110 (55.0)

^aWomen could select more than one reason

^bPhysical or sexual

^cExcludes marijuana

TABLE 2.

Self-report reasons^a for interruption to sex work from female sex workers (n= 82 women) in Baltimore, MD, 2016–2018.

Reason	Frequency (%)
Didn't want to anymore	37 (45.1)
Stopped using drugs	31 (37.8)
Someone gives them money/didn't need the money	30 (36.6)
Was in drug treatment program	11 (13.4)
Was in the hospital	8 (9.8)
Got a different job	7 (8.5)
Pregnancy/Because of my kids	7 (8.5)
Locked up	5 (6.1)
Fear of arrest	3 (3.7)
Trauma	1 (1.2)

^aWomen could select more than one reason

TABLE 3.

Univariate and multivariable GEE Poisson regressions with robust variance estimate of correlates of sex work interruption among female sex workers (n=205; 593 survey pairs) in Baltimore, MD, 2016 – 2018.

	Univariate			Multivariable		
	IRR	95% CI	p-value	aIRR	95% CI	p-value
INDIVIDUAL-LEVEL FACTORS						
Age ^a	1.02	0.99 – 1.04	0.141	0.99	0.97 – 1.01	0.228
Age first sold sex ^a	1.03	1.01 – 1.04	0.002	1.02	1.00 – 1.04	0.017
Race/ethnicity ^a [Ref: White, non-Hispanic]						
Black, non-Hispanic	1.80	1.21 – 2.68	0.004	1.54	1.10 – 2.15	0.011
Hispanic or other race	0.58	0.22 – 1.54	0.276	0.63	0.36 – 1.11	0.107
No drug use ^{b,c}						
Concurrent	3.46	2.61 – 4.59	<0.001	2.70	1.96 – 3.71	<0.001
Lagged	1.83	1.35 – 2.48	<0.001			
INTERPERSONAL FACTORS						
1 Financial dependents ^a	0.80	0.52 – 1.24	0.318			
1 Children living with participant ^a	1.01	0.62 – 1.67	0.968			
Client violence ^{b,d}						
Lagged	0.66	0.40 – 1.08	0.098			
Intimate partner violence ^{b,d}						
Concurrent	0.54	0.28 – 1.02	0.058	0.61	0.36 – 1.03	0.066
Lagged	0.54	0.31 – 0.95	0.032	0.52	0.31 – 0.86	0.011
STRUCTURAL FACTORS						
Income source other than sex work ^a	1.18	0.57 – 2.45	0.649			
Prostitution arrest ^b						
Concurrent	0.62	0.26 – 1.52	0.298			
Lagged	0.86	0.40 – 1.86	0.701			
Homelessness ^b						
Concurrent	0.45	0.32 – 0.64	<0.001	0.61	0.41 – 0.91	0.014
Lagged	0.60	0.44 – 0.81	0.001			
Drug treatment ^b						
Concurrent	1.39	1.05 – 1.86	0.024	1.21	0.93 – 1.56	0.151
Lagged	1.53	1.17 – 2.03	0.002	1.40	1.06 – 1.86	0.018

^a measured at baseline

^b past 3 months

^c excluding marijuana

^d physical or sexual