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Enduring consequences from the War on Drugs: How policing practices impact HIV risk among people who inject drugs in Baltimore City

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Abstract

Background—Neighborhood-level characteristics, including police activity, are associated with HIV and Hepatitis C injection risk-behaviors among people who inject drugs (PWID). However, the pathways through which these neighborhood perceptions shape individual-level HIV risk behaviors are unclear. This study helps to explain perceived behaviors between perceived neighborhood police activity and HIV injection risk behavior (i.e., injection syringe/tool sharing in the previous six months).

Methods—A sample of (n=366) PWIDs who self-reported recent use were recruited using community-based outreach methods in Baltimore, Maryland. Neighborhood police perceptions were assessed by asking participants whether they would (1) be more likely to ask others to share injection tools in the context of heightened police activity; and (2) be less likely to carry syringes with them due to fear of arrest. Poisson regression with robust variance was used to identify statistical relationships. Recent police encounters, frequency of heroin injection, and socio-demographic characteristics were controlled for in the model.

Results—Neighborhood police perceptions shaped injection-risk behavior. Half of the sample (49%) reported an aversion of carrying personal syringes, due to fear of arrest. Those who agreed they would be more likely to ask others to share injection equipment in the context of heightened police activity were more likely to share syringes (21% versus 3%, $p<0.01$). Adjusted models

showed that syringe sharing was independently associated with asking to borrow equipment in neighborhoods with perceived heightened police activity (aPR 2.22 95% CI 1.7, 3.0).

Conclusion—This study sheds light on how police perceptions may influence injection risk behavior. While these relationships require further elucidation, this study suggests that public health interventions aiming to reduce HIV risk would benefit from improving community- police relationships.

Keywords

Drug use; drug policy; enforcement; hepatitis C; HIV; injection

Introduction

President Richard Nixon first declared a “War on Drugs” in 1973 but it wasn’t until nearly a decade later when President Ronald Reagan redirected the country’s attention to this issue that the War on Drugs as we understand it today truly took hold (Alexander, 2010; Cooper, 2015). This renewed national interest surrounding drugs was associated with increased media attention, which garnered fear and misconceptions about drug users within the mainstream white middle class, as well as increased spending on anti-drug enforcement at the federal, state, and local levels (Reinarman and Levine, 1997). From 1992–2008, state and local police expenditures doubled (from \$131 to \$260 per capita) and the number of sworn, “boots on the ground” officers increased by over a quarter (Lynch, 2012). As a result, police presence aiming to disrupt illegal drug market activity, control individual consumption and “improve the public order” increased markedly, especially within low-income, communities of color (Fellner, 2009; Meeks, 2006).

Thirty years after Reagan’s Anti-Drug Abuse Act of 1986 was signed into law, research demonstrates that tough “war on drugs police presence” (e.g., “stop-and-frisk” practices, integrating SWAT teams into civilian police departments to serve drug warrants) has been largely ineffective at reducing street-level drug activity (Cooper, 2015; Kerr, Small, & Wood, 2005). Moreover, the enduring consequences of criminalizing such high proportions of low-income individuals for drug related offenses have amplified the stressors that impact the health and social well-being of targeted communities, further undermining the value of such aggressive policing practices (Aitken, Moore, Higgs, Kelsall, & Kerger, 2002; Gorvin, 2008; Kerr et al., 2005; Maher & Dixon, 1999).

Such policies may be particularly detrimental to the health of people who inject drugs (PWIDs) (Friedman et al., 2006; Kerr et al., 2005; UNODC, 2014). Although it is often difficult to establish direct relationships between community or neighborhood-level factors, such as policing practices, and individual behavior, previous research suggests that both actual and perceived neighborhood police presence may shape HIV risk behavior among PWIDs (Burris et al., 2004; Rhodes, 2002). For example, PWID who experienced police contact (e.g., run-ins, arrests, arrests for carrying syringes, mandatory drug testing), were more likely to report syringe sharing and attendance to unsafe environments to inject with other users (i.e., shooting galleries) whether or not the severity of drug addiction was reported (Cooper, Moore, Gruskin, & Krieger, 2005; Hayashi et al., 2013; Metzger and

Woody, 1991; Pollini et al., 2008). These behavioral modifications are known to increase exposure to HIV and Hepatitis C (Celentano et al., 1991). Additionally, PWID who perceived a strong police presence in their neighborhood have reported greater HIV injection risk behaviors, such as rushed injecting, aversion to traveling with needles, and injecting in riskier environments with other users and sharing with others (Aitken et al., 2002; Booth et al., 2013; Miller et al., 2008; Small, Kerr, Charette, Schechter, & Spittal, 2006). Recent individual-level research suggests that fear of syringe confiscation or arrest may motivate PWID's aversion to carrying personal paraphernalia, resulting in a higher likelihood of needle sharing and increased risk of HIV (Bluthenthal, Kral, Erringer, & Edlin, 1999; Bluthenthal, Lorvick, Kral, Erringer, & Kahn, 1999; Rhodes et al., 2003). However, these pathways through which neighborhood police perceptions shape individual-level HIV risk remain unclear.

Baltimore is a unique context in which to study the association between police perceptions and HIV risk. Across the nation, it ranks as having the tenth highest HIV diagnosis rate and holds a reputation of aggressive law enforcement focused on illicit drug use (Centers for Disease Control and Prevention [CDC], 2015; Stolberg & Nixon, 2015). Despite noteworthy reduction in HIV among PWID since the implementation of the city-wide Needle Syringe Programs (NSPs), injection drug use remains a primary exposure category of incident HIV cases (Broadwater, 2014; Flynn, 2012). Furthermore, a recent investigative report released by the United States' Department of Justice (DOJ) revealed that in Baltimore City, unconstitutional stops, searches and arrests were frequently normative and disproportionately targeted in African-American neighborhoods (U.S. Department of Justice, 2016). Over a five year period, modest estimates found that hundreds of predominately African-American citizens were stopped on at least ten separate occasions. African-Americans were more likely to be searched compared to whites, despite finding contraband during pedestrian stops fifty percent more often among Whites. The report concludes that the majority of stops were often unjustifiable for reasonable suspicion, which not only violates civil protections, but also deteriorates public perceptions of police and instigates fear.

The purpose of this paper presents a more nuanced understanding of how perceived behavior linked to perceived neighborhood police presence shapes injection sharing behaviors among PWID residing in predominantly African-American communities in Baltimore City. In addition, we compare risk behavior with actual self-reported stops after adjusting for perceptions of police presence (i.e., heightened police presence and fear of an arrest) which to our knowledge, has not been explored. Adding to the existing body of literature about perceived and actual police exposures on HIV risk behavior among different samples and populations strengthens the consistency of the association and validates the likelihood of the pattern (Hill, 1965). With specific focus on recruitment in predominantly African-American neighborhoods with disparate police surveillance, internal validation of the proposed findings contends to tailored solutions needed to reduce the syndemics of HIV and illicit drug use. Understanding perceived behaviors between experienced and perceived neighborhood police activity on PWID's injection risk behavior is important to inform interventions for substance use and public health.

Methods

Study population

This study population was comprised of participants in an HIV prevention intervention study, STEP into Action (STEP), conducted in Baltimore, Maryland between April 2005 and December 2009. Further details can be found in Tobin, Kuramoto, Davey-Rothwell, and Latkin (2011). PWID were recruited using community-based outreach in predominantly African American neighborhoods with high concentrations of drug market activity (Latkin, Yang, Tobin, & German, 2013). Eligible participants were: 18 years or older, self-reported injection drug use in the prior six months, current Baltimore residents, and willing to talk to and recruit drug or sex partners into the study. Eligible participants (primary) were requested to recruit at least one drug or sexual risk partner (secondary). The referred partners were 18 years or older. Both primary and secondary participants completed an interviewer-administered survey and an Audio Computer-Assisted Self-Interview (ACASI) for items related to sex and drug behaviors. Participants received \$35 as compensation for their time. All protocols and procedures related to this study were approved by the Institutional Review Board at Johns Hopkins Bloomberg School of Public Health.

The present analysis is restricted to data collected during 12-month follow up interviews, as this was the first stage questions about policing were introduced into the STEP survey. Retention rates at 12-months ranged from 70–89% based on randomization category. Of the 743 participants who completed this wave of the research project, $n=367$ primary and secondary participants reported injecting drugs in the previous six months and hence the focus of the present analysis.

Measures

Dependent—The main outcome measure of the study, HIV injection risk, was assessed by asking participants to self-report “In the past six months, when you injected drugs how often did you use a needle or tool that you were not sure was clean?” We dichotomized the frequency response variable into an “never shared” and an “ever shared” category derived from “once, once a month, few times a month, once a week, few times a week, every day, and more than once a day.”

Independent

Participant characteristics—Socio-demographic characteristics were defined as age (cutoff at mean), race (African-American vs. Caucasian and other), gender, and education level (less than high school vs high school or more), unemployment and housing status (homeless vs. not homeless) within the last six months and monthly income split at \$500 or less. HIV status was captured through a positive response to one of the three following questions: “What was the result of your last HIV test?” “Have you ever been tested positive for HIV?” and “Do you have HIV?” (Latkin et al., 2013). Frequency of three different types of injection drug use (i.e., heroin, speedball, and cocaine) were categorized as injecting at “least once daily” (i.e., almost everyday, everyday, 2–5 times daily, greater than five times per day), “at least once per week” (i.e., 1–2 times per week, 3–4 times per week) and “less than weekly” (i.e., less than once per week), based on the distribution of response categories.

Structural risk factors: exposure to police, use of NSP—Structural risk determinant measures were based on previous literature on policing and HIV risk in addition to characteristics described by the Rhodes' HIV risk environment framework (Rhodes, 2002). Domains of structural risk were assessed by asking participants to report whether or not they had: attended Needle Syringe Program (NSP), been arrested and reasons for arrests (i.e., loitering and drug possession/attempt to purchase), been stopped by the police in the last 6 months.

Risk perceptions in the context of different neighborhood policing scenarios—Measures of risk perceptions were reported using a 5-point Likert scale and dichotomized into agreeing (i.e., strongly agree and agree) or not agreeing (i.e., neutral, do not agree, strongly disagree) with the following two independent statements: “When there is a lot of police activity in the neighborhood, I am more likely to ask others to share their tools with me” and “Because I am worried about getting arrested, I am less likely to carry my syringes with me.”

Data analysis—We stratified by the risk behavior outcome and explored proportions of socio-demographic characteristics, HIV status, attendance to NSP, and exposure to law enforcement. Statistical associations were determined with Chi-square tests. We then evaluated perceptions of risk and the actual sharing of injection equipment in the context of heightened police presence or fear of arrest. Poisson regression with robust variance was used to identify bivariate and multivariate associations with the outcome measure of actual sharing injection equipment for each measure of police perception using prevalence ratios (PR). This technique was selected because the outcome was greater than ten percent (Petersen & Deddens, 2008). Generalized Estimating Equations (GEE) models were cross-checked with logistic regression to evaluate the hypothesis of independent observations among social network relationships. Inferences were the same. Based on our hypothesis that encounters with the criminal justice system would influence both fear toward police and injection behavior, and significant bivariate associations, a reported stop by the police (regardless of whether or not it resulted in arrest) was controlled for in each multivariate model. Due to the influence of the HIV prevention intervention on the sharing outcome, we controlled for the intervention assignment with each model, found no association, and did not include for parsimonious integrity. Gender, age, race, and frequency of heroin injection were included in the final models based on previous literature and significant bivariate relationships. All models were checked for co-linearity. Statistical analysis was completed using STATA version 11.0.

Results

As depicted in Table 1, among the total sample of 367 recent injectors, over half (57%) were 45 years or older, 82% were African-American and 63% male. More than half (58%) had not finished high school, majority (89%) were recently unemployed, 26% homeless and 49% living with a monthly income of \$500 or less. In terms of HIV prevention, 17% were living with HIV. Twenty-one percent had recently attended a NSP. Fifty-three percent reported injecting heroin at least once daily. The frequency decreased for reports of injecting speedball (37%) and cocaine (22%). Recent sharing of syringes or tools was reported by

33% (n=114) of participants. Characteristics associated with sharing equipment were older age, Caucasian and other race, recent homelessness and frequently injecting heroin (respectively: $p<0.001$, 0.001, 0.001, 0.01, 0.01).

Furthermore, Table 1 depicts that recent exposures to law enforcement were common. Thirty-four percent of participants reported a recent arrest. Among those arrests, 28% were for loitering and 42% for drug possession or attempt to purchase. Sixty percent of the participants reported a recent stop by police. Structural characteristics associated with sharing syringes were having been stopped by the police in the past six months, regardless of whether or not the encounter resulted in an arrest. Among those who were stopped, 71% shared syringes, in comparison to 53% who did not ($p<0.01$).

Injection risk behaviors in the context of differing neighborhood police perceptions

Table 2 depicts participants' responses to the question about how heightened neighborhood policing impacted their willingness to ask others to share tools and the correlation with injection behavior (i.e., injection syringe/ tool sharing). Only nine percent of the total sample agreed to the statement, "When there is a lot of police activity, I am more likely to ask others to share their tools," with a greater proportion of those who reported recent syringe sharing indicating agreement (21% versus 3%, respectively $p<0.01$).

Table 3 presents the participants' response to the question about willingness to carry syringes in response to fear of arrest and the corresponding relationship with syringe sharing. Half (49%) of the sample agreed with the statement "Because I am worried about getting arrested, I am less likely to carry my syringes with me," with no significant difference across syringe sharing behavior (48% shared syringes versus 49% never $p=0.8$).

After adjusting for socio-demographic characteristics, frequency of heroin injection, and a previous exposure to a police stop, the multivariate regression models in Table 2 illustrate that individuals who reported agreement to ask others to share syringes in response to heightened neighborhood police activity were 2.43 times more likely to report sharing syringes compared to those who did not agree (aPR 2.43 95% CI 1.8, 3.3). As depicted in Table 3, we did not observe an independent relationship between carrying syringes due to fear of arrest and syringe sharing (aPR 0.90 PR 95% CI 0.7, 1.2).

In comparison to those who injected heroin less than once per week, individuals who reported injecting one to four times per week, as adjusted for in the two multivariate models shown in Tables 2 and 3, were significantly more likely to share syringes, when controlling for (1) looking to others to share injection equipment in response to heightened neighborhood police activity (aPR 1.87 95% CI 1.1, 3.2) and (2) being less likely to carry clean syringes due to concerns about getting arrested (aPR 1.8 95% CI 1.1, 3.2).

Discussion

Results of this study add to the consistency of the body of research that individuals' perceptions of neighborhood-level factors and self-reported experiences with police have an influence on syringe sharing among PWID. The majority of the participants reported

unemployment, low monthly income (less than \$500 dollars a month) and an uncompleted high school education. Sixty percent reported a stop by the police within the last six months of the interview. They were also predominantly African-American males. These statistics reflect the social, health and economic conditions of black, inner-city Baltimore (Ames et al., 2011). Similar communities of color are impacted by poverty, unemployment, low performing schools, lack of healthcare, and high involvement in the criminal justice system (Gorvin, 2008; Meeks, 2006; U.S. Department of Justice, 2016). Individuals who reported being more likely to ask others to share their tools within the context of heightened neighborhood police activity were significantly more likely to self-report syringe sharing within the past six months. However, a relationship between the perception for willingness to carry personal syringes due to fear of arrest and syringe sharing was not observed, although half of the respondents agreed to the statement that they were afraid to carry syringes for fear of arrest. These findings help to explain how perception of law enforcement contribute to the HIV risk environment in Baltimore City and provides insight into the internal validity of the effect in this setting.

We found that syringe sharing was associated with PWID's risk perception of asking others to share injection tools with them in response to heightened police activity in the neighborhood. These findings are consistent with previous qualitative studies exploring similar risk behaviors, such as rushed injections or syringe sharing, in response to a perceived change in police activity, contributing quantitative evidence to the patterns of research about PWIDs' perceptions of police and implications on HIV risk behavior (Aitken et al., 2002; Booth et al., 2013; Small et al., 2006). The recent DOJ reporting of excessive undue stops and arrests in poor, African-American neighborhoods of Baltimore provides explanation for perceived and actual behaviors associated with perceptions of heightened policing in our findings (U.S. Department of Justice, 2016).

The majority of the sample indicated an aversion to carrying personal injection equipment due to fear of arrest, however, this was not significantly associated with syringe sharing behavior in adjusted models. This finding differs from a collection of qualitative findings and one quantitative study which linked fear of arrest and police harassment with injection risk behavior (Bluthenthal, Kral, et al., 1999; Bluthenthal, Lorvick, et al., 1999; Booth et al., 2013; Rhodes et al., 2003). An early study of over 1,000 PWIDs residing in a jurisdiction where possession of drug paraphernalia was illegal, found that individuals who reported fear of arrest were 1.5 times more likely to have shared syringes compared to those not did not; however, this study did not delineate the pathways through which this fear of arrest influenced perceptions of injection risk behavior as compared to our present study (Bluthenthal, Kral, et al., 1999).

The incongruity between these findings may be explained by legal immunity given to NSP clients in Baltimore which provides exemption from arrest when carrying syringes. However, over a quarter of our sample reported fear of arrest for carrying syringes, aligning with other quantitative studies which reported percentages ranging from 55 to 65% (Gleghorn, Jones, Doherty, Celentano, & Vlahov, 1995; Grund, Heckathorn, Broadhead, & Anthony, 1995). This also differs from a spatial analysis conducted in New York City which demonstrated a relationship between syringe sharing among PWIDs who resided in regions

where coverage of legal NSPs were high, in addition to ample drug-related arrest rates (Cooper et al., 2012). Future research is necessary to determine what drives these risk perceptions, even in environments where paraphernalia has been decriminalized (e.g., previous arrests, misperceptions about current laws). Given the high rates of arrests in the sample and risk perception attitudes toward police, these findings imply that reforms, including police training as well as trainings for PWIDs about their rights are warranted (Beletsky et al., 2011; U.S. Department of Justice, 2016).

Finally, on unadjusted models, almost three-quarters of those who reported syringe sharing had reported a recent police stop compared to a significant difference of approximately half of the non-sharers. Not only are these findings consistent with research documenting how interactions with law enforcement may create an environment of risk, but they also provide evidence to the effect that police encounters impact injection behavior regardless of individual's risk perceptions (Hayashi et al., 2013; Metzger and Woody, 1991; Pollini et al., 2008). However, after adjusting for age, gender, race, the risk perception scenarios and injection frequency, this relationship diminished and was no longer significant. Moreover, individuals who injected heroin with a higher frequency were significantly more likely to share syringes compared to those who reported using less frequently. This suggests that injection frequency may be crucial to understanding relationships between police encounters and individual decision making related to injection risk behavior. Future research should seek to better understand how relationships with police impact perceived and actual risk behavior among diverse samples of drug users in order to develop interventions appropriate to people with varying levels of addiction severity.

Although the current study contributes uniquely to the present literature, it is not without limitations. The cross-sectional nature of the study does not allow us to assess temporal precedence, so it is impossible to determine whether or not risk perceptions related to neighborhood policing preceded injection risk behavior. Further the present study did not explore the extent to which fear of police harassment impacted key findings. Additionally, the present study did not inquire about participants' syringe carrying behavior or experiences with syringe confiscation by police. Including individuals who are not regular carriers of paraphernalia in the present study may have obscured the true effect of risk perceptions on injection behavior. Conversely, people with previous experience with syringe confiscation may have heightened risk perceptions in different policing scenarios. Unmeasured confounders, specifically structural and socio-behavioral characteristics that play a role in shaping distal determinants of risk, may limit the inference of our findings. For example, the present study failed to assess spaces where people inject and how it may shape PWIDs risk of police contact or influence perceptions and risk engagement. Lastly, fear of arrest may not be attributed to carrying syringes, but rather other reasons such as drug possession. Future research which compares syringe sharing across jurisdictions with varying syringe paraphernalia laws, could assess how this policy may shape risk perception and behavior (Cooper et al., 2012).

Unpacking determinants of injection risk behavior is important to designing effective interventions appropriate to individuals' risk environments. Future qualitative research is needed to further explore the underlying mechanisms through which perceptions and norms

shape risk within environments where carrying injection paraphernalia is legal. Compelling arguments have been made showing the negative consequences of drug enforcement on the health and wellbeing of targeted communities (Kerr et al., 2005). As such understanding the impact of policing practices on injection behavior is important to developing interventions that support individuals at heightened risk of HIV and AIDS and who also interface often with the criminal justice system. Evidence based interventions include promoting safe injection facilities with a memorandum of understanding with local police departments, where PWIDs can safely inject without the fear of an encounter with a police, as well as, implementing the LEAD (Law Enforcement Assisted Diversion) program where enforcement officers divert non-violent drugs users into treatment and social programs, rather than arresting (Collins, Lonczak, & Clifasefi, 2015; DeBeck et al., 2008; Potier, Laprevote, Dubois-Arber, Cottencin, & Rolland, 2014). The outcry for police reform in response to current high profile police brutality cases is salient. Public health leaders and community activists need to use this window of opportunity to advocate for the health and human rights of key populations affected by HIV, including how policing practices impact drug users' physical and mental well-being.

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Table 1

HIV and viral hepatitis risk behaviors by socio-demographic characteristics, drug use frequency, and police encounters among people who recently injected in Baltimore, MD (n=367)

	Total	Shared syringes or tools	Never shared syringes or tools
	n (%)	n (%)	n (%)
	367	114 (33)	228 (67)
<i>Socio-demographic</i>			
Age > 45 years **	210 (57)	51 (45)	144 (63)
Race			
Caucasian and Other **	65 (18)	34 (30)	29 (13)
African American	301 (82)	80 (70)	189 (87)
Male (compared to Female)	230 (63)	72 (63)	144 (63)
Education			
High school or More	153 (42)	71 (62)	129 (57)
Less than High school	213 (58)	43 (37)	98 (43)
Unemployed <6mo	326 (89)	103 (90)	202 (89)
Homeless <6mo **	94 (26)	47 (41)	43 (19)
Income <\$500 monthly (compared to >\$500)	181 (49)	55 (33)	111 (67)
HIV positive	63 (17)	25 (27)	34 (19)
Returned needles to the NSP	70 (21)	26 (23)	44 (19)
<i>Drug use frequency</i>			
<i>Inject heroin *</i>			
<i>daily</i>	139 (53)	51 (56)	88 (51)
<i>1–4 times per week</i>	55 (21)	25 (27)	30 (17)
<i>Less than weekly</i>	69 (26)	15 (16)	54 (31)
Inject speedball			
<i>≥ daily</i>	76 (37)	27 (42)	49 (35)
<i>1–4 times per week</i>	63 (31)	25 (39)	38 (27)
<i>Less than weekly</i>	67 (33)	13 (20)	54 (38)
Inject cocaine			
<i>daily</i>	36 (22)	12 (19)	24 (23)
<i>1–4 times per week</i>	58 (35)	25 (40)	33 (32)
<i>Less than weekly</i>	73 (44)	26 (41)	47 (45)
<i>Exposures to police encounters</i>			
Recent Arrests			
Any arrest	125 (34)	44 (39)	72 (32)
Loitering	35 (28)	15 (34)	18 (25)
Drug Possession/attempted purchase	52 (42)	16 (36)	35 (48)
Stopped by police *	217 (60)	81 (71)	122 (53)
Stopped but not arrested *	101 (28)	40 (35)	54 (24)

**
p<0.001

*
p<0.01

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Table 2

Bivariate and multivariate correlates of injection risk behavior and agreement to the statement of asking to share tools (i.e., police activity risk perception) in the context of heightened police activity in the neighborhood among people who recently injected in Baltimore, MD (n=341)

	Shared syringes or tools		Never shared syringes or tools		PR (95% CI)	aPR* (95% CI)
	Total n (%)	n (%) 113 (33)	n (%) 228 (67)			
Risk intentions in police context						
When there is a lot of police activity in the neighborhood, I am MORE LIKELY to ask others to share their tools with me						
Agree	31 (9)	24 (21)	7 (3)		2.70 (2.1, 3.5)	2.43 (1.8, 3.3)
Did not agree	310 (91)	89 (79)	221 (97)	ref	ref	ref
Frequency of heroin injection						
> daily		-	-		-	1.4 (0.9, 2.3)
1–4 times per week		-	-		-	1.87 (1.1, 3.2)
Less than weekly		-	-		-	ref
Stopped by police <6 months		-	-		-	1.26 (0.9, 1.8)

* adjusted prevalence ratio for age, race, gender, heroin injection frequency and a reported recent stop by the police

Boldface indicates statistically significant results determined by a 95% confidence interval

Table 3

Bivariate and multivariate correlates of injection risk behavior and agreement to the statement of being less likely to carry syringes (i.e., arrest risk perception) due to fear of arrest among people who recently injected in Baltimore, MD (n=341)

	Shared syringes or tools		Never shared syringes or tools			
	Total n (%)	n (%) 113 (33)	n (%) 228 (67)	PR (95% CI)	aPR* (95% CI)	
<i>Risk perceptions in police context</i>						
Because I am worried about getting arrested, I am LESS LIKELY to carry my syringes with me.						
Agree	166 (49)	54 (48)	112 (49)	0.97 (0.7, 1.3)	0.90 (0.7, 1.2)	
Did not agree	175 (51)	59 (52)	116 (51)	ref	ref	
<i>Frequency of heroin injection</i>						
> daily		-	-	-	1.44 (0.9, 2.4)	
1–4 times per week		-	-	-	1.8 (1.1, 3.2)	
Less than weekly		-	-	-	ref	
Stopped by police <6 months		-	-	-	1.4 (1.0, 2.1)	

* adjusted prevalence ratio for age, race, gender, heroin injection frequency and a reported recent stop by the police

Boldface indicates statistically significant results determined by a 95% confidence interval