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Prevalence, Characteristics, and Predictors of Police Training Initiatives by US SEPs: Building an Evidence Base for Structural Interventions

L Beletsky^{(1),(2)}, LE Grau^{(2),(3),(4)}, E White^{(2),(3),(4)}, S Bowman^{(3),(5)}, and R Heimer^{(2),(3),(4)}

(1) UCSD School of Medicine, Division of Global Public Health, 9500 Gilman Drive, MC 0507, La Jolla, CA 92093

(2) Yale Center for Interdisciplinary Research on AIDS, 135 College St., Suite 200, New Haven, CT 06510

(3) Yale School of Public Health, 60 College St., New Haven, CT 06510

(4) Yale Medical School, 333 Cedar St., New Haven, CT 06510

(5) Rhode Island Hospital, General Internal Medicine, 111 Plain St., Providence, RI 02903

Abstract

Background—Community-based prevention initiatives such as syringe exchange programs (SEPs) are proven to curb injection-related HIV transmission. Policing targeting injection drug users (IDUs) can interfere with SEP functioning. Efforts to maximize the public health benefit of SEPs have included police trainings designed to reduce such interference.

Methods—We surveyed US SEP managers to assess prevalence, content, and correlates of SEP police trainings. Multivariate analyses were utilized to identify predictors of training participation.

Results—Of 107 SEPs (57% of all US programs), 20% reported participating in trainings during the previous year. Covered topics included the public health rationale behind SEPs (71%), police occupational health (67%), needle stick injury (62%), SEPs' legal status (57%), and harm reduction philosophy (67%). On average, trainings were seen as moderately effective, but only four programs reported conducting any formal evaluation. In multivariate modeling, training participation was independently associated with state law authorizing syringe possession by clients (aOR=3.71, 95%CI=1.04–13.23), higher frequency of client arrest (aOR=2.07, 95%CI = 1.0–4.7), and systematic monitoring of adverse client-police encounters (aOR=4.02, 95%CI =1.14–14.17).

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Corresponding Author: Leo Beletsky, Assistant Professor, UCSD School of Medicine, Division of Global Public Health, 9500 Gilman Drive, MC 0507, La Jolla, CA 92093, T: 858-822-0578, F: 858-534-7566, leob@alumni.brown.edu.

Contributors

Beletsky conceived of the research and Beletsky and Grau designed the study and wrote the protocol with input from Heimer, Bowman, and White. Beletsky and Bowman conducted data collection and Bowman processed the data. Grau conducted statistical analyses, with input from all other authors. Beletsky wrote the first draft of the manuscript. All authors contributed to and have approved the final manuscript.

Conflict of Interest

The authors report no conflict of interest connected to any goods or services described.

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Assistance with police trainings was identified by 72% of respondents as the key to improving police relations.

Conclusion—At a time when collaboration with police may become requisite for SEPs to receive federal funding, most program managers in the US perceive police trainings as a key to improved SEP-police relations. Robust evaluation is needed to better understand the impact of these trainings on law enforcement practices, SEP operations, and community health. Such research will inform technical assistance, policy design, and resource allocation.

Keywords

Injection drug use; structural interventions; policing; police training; HIV prevention

1. Introduction

Improving access to sterile injection equipment is a key component in community-based infectious disease prevention (Palmateer et al., 2010; Academy for Educational Development, 2000; Wodak and Cooney, 2006), but implementation of syringe access programs can be complicated by a number of structural and environmental factors, including police interference (Heimer et al., 1996; Davis et al., 2005; Burris et al., 2004; Hammett et al., 2005; Rhodes et al., 2002; Kerr et al., 2005). A large proportion of US syringe exchange programs (SEPs) report regular negative police interactions with clients or staff (Beletsky et al., 2011).

A variety of mechanisms may explain this phenomenon. Police may be unaware of formal syringe access policies, especially in settings where SEPs and related programs are subject to special legal exceptions (Beletsky et al., 2005; *Roe v. City of New York*, 2002). Officers may misunderstand or oppose the policy rationale for SEPs, resulting in practices that are at odds with public health laws and initiatives designed to address injection-related disease transmission (*Doe v. Bridgeport Police Department*, 2001; *Roe v. City of New York*, 2002; Beletsky et al., 2005; Maher and Dixon, 1999).

Set within a larger understanding of health risk as a product of several levels of the “Risk Environment,” (Rhodes et al., 2002) structural and educational interventions designed to improve the alignment between police and HIV prevention services targeting injection drug users (IDUs) have been suggested (Burris et al., 2004; Davis and Beletsky, 2009; Blankenship and Koester, 2002). At a time when the Centers for Disease Control and Prevention may begin requiring SEPs to establish formal agreements with local law enforcement as a condition to receiving Federal funds (Centers for Disease Control and Prevention, 2010), identifying mechanisms that can improve coordination between SEPs and police is especially crucial.

One possible intervention strategy to help harmonize SEPs and police activities is conducting police trainings (Davis and Beletsky, 2009; Beletsky and Heimer, 2009; Burris et al., 2004). Anecdotal data suggests that SEPs have long undertaken such trainings to address police interference (Daliah Heller, New York City Department of Health and Mental Hygiene, personal communication; Davis and Beletsky, 2009). Police trainings may represent an organic response by SEPs to address an unfavorable legal environment (such as operating in jurisdictions where syringe possession remains totally illegal or where state and local laws may create special exceptions for SEP clients), or a history of adverse client-police or SEP-police encounters. Alternatively, police trainings have also been popularized through SEP networks, so programs with sufficient resources, existing connections, and broader scope of activity may decide to engage in trainings as a preventative measure.

Despite their potential contribution to improved SEP functioning and better police-SEP relations, no previous study has systematically examined these efforts.

This study sought to establish the prevalence of and factors associated with participating in police training, perceived need for and topics addressed in such trainings, and the association between trainings and reported police interference with program functioning. We used a conceptual model based on the Risk Environment Framework (Rhodes et al., 2002) (see Figure 1) to hypothesize about factors that shape SEP participation in police trainings. This included (1) operating under favorable legal environment (i.e., program authorization and drug paraphernalia laws), (2) being affiliated with local government, (3) being of larger size (based upon annual volume of syringes exchanged), (4) experiencing greater frequency of police interference, and (5) collaborating with police on community safety issues. In addition to measuring participation, we also assessed whether the respondent SEPs had “administered” trainings—a variable that was designed to capture a narrower set of activity where programs “headlined” the intervention, rather than simply taking part in an activity that may or may not have been organized and presented by another entity. The reality that SEPs face a number of financial, political, and logistical barriers in working with police (Davis and Beletsky, 2009) led us to use the more inclusive construct of training “participation” as the outcome in this analysis.

2. Methods

2.1. Study design

Study procedures have been described in detail elsewhere (Beletsky et al., 2011). Briefly, a convenience sample of US SEP managers was assembled in 2008–2009 through a two-stage process: first, respondents attending a national conference were invited to complete a self-administered paper-and-pencil instrument; second, SEPs in locales unrepresented in prior recruitment completed an online version of the survey. Data were collected anonymously, but program identifiers were tracked separately to prevent redundant responses. The Human Investigation Committee at the Yale School of Medicine reviewed the study.

2.2. Study Instrument

The survey instrument included 42 items, assessing SEP: (1) characteristics; (2) legal environment (including legal status of syringe possession by clients and also by non-clients, and program authorization); (3) perceived frequency of police interference events; (4) types, content, and perceived effectiveness of training for and outreach to police conducted by or with SEP staff; and (5) perceived needs for improving the relations between the SEPs and law enforcement.

2.3. Analytic Methods

A component of a larger study, this analysis focuses specifically on the outcome of SEPs participating in police trainings. Exposure variables included legal environment (SEP authorization by state or local law); type of entity running the program (health department/other); years in operation (dichotomized at the mean + 1 standard deviation <16 years/≥16 years to improve distribution and power); annual volume of syringes distributed (median split ≤100,000/>100,000); areas served (exclusively urban/non-exclusively urban), number of sites serviced/week (median split ≤4/>4), distribution by vehicle (yes/no); location in the Northeast (yes/no); predominant client race/ethnicity (white/non-white); systematically documenting adverse events involving police (yes/no); and frequency of police interference (at least monthly instances of client harassment, client arrest, confiscation of injecting equipment, and uninvited appearances). Perceived training effectiveness score was measured

on a 5-point Likert scale ranging from “not effective” to “totally effective” (median split $\leq 3.5 / > 3.5$).

Data were analyzed using STATA 10 (StataCorp., 2007). Standard descriptive statistics were calculated. Bivariate analyses were conducted between exposure variables and the outcome using logistic regression. Only exposure variables significant at $p < 0.10$ level in bivariate analyses were entered into the multivariate logistic regression model. Backward elimination of non-significant covariates produced a model in which all coefficients were significant at the $p < 0.05$ level or for which removal did not change other coefficients by $> 10\%$.

3. Results

3.1. Descriptive Findings

Of the estimated 187 US SEPs (Des Jarlais et al., 2009), 111 programs completed this survey. Sample characteristics were described elsewhere (Beletsky et al., 2011). Within the larger sample, 107 programs (57% of US SEPs) responded to police training questions. Twenty-one (20%) programs reported participating, and 15 (14%) reported actually administering police trainings. Table 1a lists program characteristics by training participation.

Among the twenty-one SEPs that participated in trainings, the topics covered included: public health rationale behind SEPs (71%), occupational health issues for police (67%), occupational needle stick injury risk (62%), legal status of SEP operations (57%), and harm reduction philosophy (67%). Programs perceived their trainings to be moderately effective, on average. Only four programs reported a formal evaluation component. When asked what the program would find most useful in improving police relations, the overwhelming majority cited technical assistance with police trainings (72%). There was no statistical difference between respondents completing the paper vs. on-line version of the survey.

3.2. Bivariate Regression Analysis

Table 1b lists the covariates associated with participating in police training. In bivariate analyses, participating in police trainings was significantly associated with state authorization of syringe possession for SEP clients, SEP being sanctioned by law, location in Northeast, high frequency of client arrest en route to or from SEP, working with police on syringe disposal issues, and having a system to document adverse police events.

3.3. Multivariate Regression

In multivariate modeling, participating in police trainings was significantly associated with state-level exception sanctioning SEP clients—but not others—to possess syringes without a prescription (aOR=3.71, 95% CI:1.04–13.23), reporting more frequent client arrest en route to or from SEP (aOR=2.07, 95% CI:1.0–4.7), and reporting having a system to document adverse events (aOR=4.02, 95% CI:1.14–14.17) (See Table 1b). After controlling for other variables, official authorization of the SEP or operating in a jurisdiction where syringe possession had been completely deregulated were not associated with providing police training.

4. Discussion

Amidst growing calls and formalized requirements for better harmonization of policing and public health efforts targeting IDUs (Centers for Disease Control and Prevention, 2010; Beletsky and Heimer, 2009; Burriss et al., 2004), police trainings have been identified as a

particularly promising approach (Davis and Beletsky, 2010). A substantial minority of US SEPs surveyed reported already engaging in such initiatives.

Overall, these findings support our hypotheses that programs in jurisdictions permitting SEP clients to possess syringes without a prescription as well as those with a higher frequency of police interference were more likely to participate in trainings targeting police. Hypotheses that programs under the auspices of health departments, those exchanging larger numbers of syringes, or those working with police on syringe disposal are more likely to engage in police trainings were not supported.

The finding that higher perceived frequency of client arrest was independently and positively associated with trainings supports a common-sense notion that adverse events may motivate SEPs to address police interference through educational outreach. Our analysis also suggests that state-level deregulation of syringe possession by SEP clients increased the odds of SEP participation in training. There is some evidence that laws deregulating syringes only for SEP clients and not for others may create confusion among law enforcement (*Roe v. City of New York*, 2002). This may motivate SEPs to undertake police education.

The positive perceived effectiveness (with “moderately effective” as the average response) of these trainings cannot be mistaken for real effect. Only four programs reported having a formal evaluation component as part of their training; to date, none has been published. The scientific community and funders must work with SEPs to improve program capacity to systematically evaluate their efforts. Specifically, researchers should help SEPs evaluate training impact on knowledge, attitudes, and police practices, including police referral of IDUs and other vulnerable groups to public health programs (DeBeck et al., 2008). Trainings that bundle relevant police occupational safety issues with public health content can strengthen institutional ties and facilitate an enabling environment for disease prevention efforts among vulnerable groups (Davis and Beletsky, 2009). Although the majority of participating programs (62%) reported addressing needle stick injury risk in their curriculum, only 31% reported covering general infectious disease topics relevant to police occupational safety. Existing gaps in police education on this point create a crucial opportunity for SEPs to expand their risk reduction mandate to this at-need audience (Davis and Beletsky, 2009; Beletsky et al., 2005).

These findings should be considered in the context of several limitations. Despite broad coverage of US SEPs, this study captured a relatively small number of observations, limiting the power for multivariate modeling. This respondent SEP population represents a convenience sample, so the findings may not be generalizable to all SEPs in the US or internationally. Our instrument did not assess the duration, intensity, or other dosage components of police trainings; this could have enabled more detailed analysis of their perceived effectiveness. The cross-sectional nature of this survey and the fact that the police interference variables measured lifetime prevalence does not permit the evaluation of the causal or temporal relationship between trainings and the incidence of police interference. Additional research is needed to elucidate training impact on police attitudes, knowledge, and practices, as well as factors associated with perceived effectiveness of these interventions.

5. Conclusion

At a time when many US SEPs are already engaging in police trainings, there is clear demand for technical assistance with these educational efforts among US SEPs. This adds to the urgency to better understand, evaluate, and support these efforts. Police trainings by

SEPs and other interventions that seek to harmonize policing and public health initiatives targeting drug users carry the potential for improved community health, smarter allocation of law enforcement resources, and substantial cost-savings to the society.

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References

- Academy for Educational Development. A Comprehensive Approach: Preventing Blood-Borne Infections Among Injection Drug Users. Academy for Educational Development; Washington, D.C: 2000.
- Beletsky L, Macalino G, Burris S. Attitudes of police officers towards syringe access, occupational needle-sticks, and drug use: a qualitative study of one city police department in the United States. *Int J Drug Policy*. 2005; 16:267–274.
- Beletsky, L.; Heimer, R. Aligning Criminal Justice and HIV Prevention: From Conflict to Synergy. Yale University: Center for Interdisciplinary Research on AIDS; 2009. Available at http://cira.med.yale.edu/events/crimhiv/conflict_synergy_final.pdf
- Beletsky L, Grau LE, White E, Bowman S, Heimer R. The roles of law, client race, and program visibility in shaping police interference with the operation of US syringe exchange programs. *Addiction*. 2011; 106:357–365. [PubMed: 21054615]
- Blankenship K, Koester S. Criminal law, policing policy, and HIV risk in female street sex workers and injection drug users. *J Law Med Ethics*. 2002; 30:548 – 559. [PubMed: 12561263]
- Burris S, Blankenship KM, Donoghoe M, Sherman S, Vernick JS, Case P, Lazzarini Z, Koester S. Addressing the "risk environment" for injection drug users: the mysterious case of the missing cop. *Milbank Q*. 2004; 82:125–156. [PubMed: 15016246]
- Centers for Disease Control and Prevention. [Last accessed July 16, 2010] Interim Syringe Exchange/ Access Guidelines. 2010. Available at <http://www.cdc.gov/hiv/resources/guidelines/PDF/SSP-guidanceacc.pdf>
- Davis C, Burris S, Metzger D, Becher J, Lynch K. Effects of an intensive street-level police intervention on syringe exchange program utilization: Philadelphia, Pennsylvania. *Am J Public Health*. 2005; 95:233–236. [PubMed: 15671455]
- Davis C, Beletsky L. Bundling occupational safety with harm reduction information as a feasible method for improving police receptiveness to syringe access programs: evidence from three U.S. cities. *Harm Reduct J*. 2009; 6:1–18. [PubMed: 19138414]
- DeBeck K, Wood E, Zhang R, Tyndall M, Montaner J, Kerr T. Police and public health partnerships: evidence from the evaluation of Vancouver's supervised injection facility. *Subst Abuse Treat Prev Policy*. 2008; 3:11. [PubMed: 18462491]
- Des Jarlais DC. Structural interventions to reduce HIV transmission among injecting drug users. *AIDS*. 2000; 14(Suppl 1):S41–S46. [PubMed: 10981473]
- Des Jarlais D, McKnight C, Goldblatt C, Purchase D. Doing harm reduction better: syringe exchange in the United States. *Addiction*. 2009; 104:1447–1448. [PubMed: 19558568]
- Doe v. Bridgeport Police Department, 198 F.R.D. 325 (US Dist 2001);
- Hammett T, Bartlett N, Chen Y, Ngu D, Cuong DD, Phuong NM, Tho NH, Van LK, Liu W, Donghua M, Shaomi X, Chen H, Quyen HN, Broadhead RS, Des Jarlais DC. Law enforcement influences

- on HIV prevention for injection drug users: observations from a cross-border project in China and Vietnam. *Int J Drug Policy*. 2005; 16:235–245.
- Heimer R, Bluthenthal RN, Singer M, Khoshnood K. Structural impediments to operational syringe-exchange programs. *AIDS Publ Policy J*. 1996; 11:169–184.
- Kerr T, Small W, Wood E. The public health and social impacts of drug market enforcement: a review of the evidence. *Int J Drug Policy*. 2005; 16:210–220.
- Maier L, Dixon D. Policing and public health: law enforcement and harm minimization in a street-level drug market. *Br J Crim*. 1999; 39:488–512.
- Palmateer N, Kimber J, Hickman M, Hutchinson S, Rhodes T, Goldberg D. Evidence for the effectiveness of sterile injecting equipment provision in preventing hepatitis C and human immunodeficiency virus transmission among injecting drug users: a review of reviews. *Addiction*. 2010; 105:844–859. [PubMed: 20219055]
- Rhodes T, Mikhailova L, Sarang A, Lowndes CM, Rylkov A, Khutorskoy M, Renton A. Situational factors influencing drug injecting, risk reduction and syringe exchange in Togliatti City, Russian Federation: a qualitative study of micro risk environment. *Soc Sci Med*. 2002; 57:39–54. [PubMed: 12753815]
- Roe v. City of New York, 240 (S.D. N.Y. 2002).
- StataCorp. Stata Statistical Software: Release 10. College Station, TX: 2007.
- Wodak A, Cooney A. Do needle syringe programs reduce HIV infection among injecting drug users: a comprehensive review of the international evidence. *Subst Use Misuse*. 2006; 41:777–813. [PubMed: 16809167]



Figure 1.
Conceptual Model

Table 1A

Prevalence, Program Characteristics, and Content of Police Training Reported by 107 US SEPs

	Training n=21 (%)	Not Training n=86 (%)	Total N=107 (%)
Program Characteristics			
Syringe output over 100,000	39	49	47
Mobile distribution	57	58	58
Modal race white	62	52	68
Urban only setting	48	38	40
More than 3 sites per week	50	44	46
Operating for 16 years or more	26	15	17
Location in Northeast	52	23	29
Operated by Department of Health	38	24	27
Syringe possession for clients authorized by state	80	52	57
Syringe possession for clients authorized by locality	12	0	10
Program Police Interference Experience			
High frequency of client harassment	40	52	42
High frequency of client arrest	6	30	11
High frequency of client syringe confiscation	42	29	31
High frequency of uninvited appearances	12	20	13
Work w police on syringe disposal	28	70	38
SEP status (legal)	86	71	74
Document police interference	75	40	47
Police Training Content among Participating SEPs (n=21)			
Staff independently administering trainings	71	-	-
Includes evaluation component	19	-	-
Covers police occupational safety, generally	31	-	-
Covers occupational risk of needle stick injury	62	-	-
Covers legal/authorization issues	57	-	-
Covers public health rationale for SEP	71	-	-
Average perceived effectiveness	3.8(out of 5)	-	-

Table 1B

Correlates of Police Training Reported by US SEPs

Dependent variables	Unadjusted OR (95% CI)¹	Adjusted OR (95% CI)²
State authorization of syringe possession for SEP clients	3.73(1.15–12.08)	3.71 (1.04–13.23)
SEP is legal	2.46 (.66–9.09)	-
Location in Northeast	3.79(1.39–10.34)	-
High frequency of client arrest	2.20 (1.15–4.24)	2.07 (1.0–4.7)
Work w police on syringe disposal	6.02 (2.02–17.96)	-
Having a system to document adverse police events	4.59 (1.52–13.88)	4.02 (1.14–14.17)

¹Significant to p<.10 level²Significant to p≤.05 level