

Implementing Mexico's "Narcomenudeo" Drug Law Reform: A Mixed Methods Assessment of Early Experiences Among People Who Inject Drugs

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Abstract

In 2009, Mexico decriminalized small-scale drug possession, instituting drug treatment diversion in lieu of incarceration. To assess initial reform impact, our mixed methods study integrated a structured questionnaire with in-depth interviews assessing legal knowledge, police encounters, and risk behaviors among people who inject drugs (PWID) in Tijuana. Between 2010 and 2013, we recruited 737 adults; 32 participated in qualitative interviews. Only 11% reported being aware of the reform; virtually none experienced its operational components. Narratives underscored the law's irrelevance to PWID; 699 (98%) saw police practice as generally inconsistent with formal law. Instead of treatment diversion, police encounters were associated with risk behaviors, including syringe sharing (odds ratio [OR] = 1.26; 95% confidence interval [CI] = 1.09-1.46) and polydrug use (OR = 2.11; 95% CI = 1.38-3.22). As drug policy reforms gain global momentum, ancillary structural interventions are needed to improve their public health benefit.

Keywords

public health policy, mixed methods, injection drug use, HIV/AIDS, law and law enforcement

Since the use of heroin and other commonly injected drugs is typically criminalized around the world, the legal and law enforcement environment is a key macrolevel factor shaping the health of people who inject drugs (PWID; Burris et al., 2004; Galea, Nandi, & Vlahov, 2004; Poundstone, Strathdee, & Celentano, 2004; Rhodes, 2002, 2009; Rhodes, Singer, Bourgois, Friedman, & Strathdee, 2005; Strathdee et al., 2010; Cooper et al., 2005). Within the broader recognition of structural factors as key determinants of health (Kelly, Bonnefoy, Morgan, &

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Florenzano, 2006; Marmot & Wilkinson, 1999), laws criminalizing drug and syringe possession create a barrier to syringe access, thwarting PWID's agency to practice safer injection behaviors (Bluthenthal, Kral, Erringer, & Edlin, 1998; Bluthenthal, Kral, Erringer, & Edlin, 1999; Burris et al., 2004; Burris, Strathdee, & Vernick, 2003; Cooper et al., 2005).

Relatedly, police enforcement activities such as syringe confiscation (whether in the presence or absence of formal policies criminalizing syringe possession) have been observed to be a robust predictor of risky injection practices and HIV serostatus among PWID (Beletsky, Lozada, et al., 2013; Bluthenthal, Lorvick, Kral, Erringer, & Kahn, 1999; Strathdee et al., 2011). While verbal abuse and extortion may have indirect effects that ultimately nudge PWID to engage in higher risk injection behaviors, physical and sexual abuse of PWID by police directly fuel infectious disease transmission, substance abuse, and mental health syndemics (Beletsky, Lozada, et al., 2013).

Countries in Latin America and elsewhere are increasingly experimenting with liberalized drug possession and drug paraphernalia (e.g., syringe) laws in an effort to shift the response to drug abuse away from a predominantly criminal justice-based to a public health model (Castaldi & Llambias, 2013; Grillo 2011). When evaluated, such public health-minded reforms have frequently been found to suffer from significant implementation gaps (Beletsky, Thomas, et al., 2012; Beletsky, Macalino, & Burris, 2005; Burris et al., 2004; Green et al., 2010; Rhodes et al., 2006). Although there have been notable successes (such as the comprehensive drug decriminalization in Portugal), in some instances drug law reform efforts can cause more harm than good (European Monitoring Centre for Drugs and Drug Addiction, 2009). For example, mandatory treatment schemes may subject drug users to ineffective and inhumane modalities (International Harm Reduction Development Program, 2009; Vongchak et al., 2005), while poorly implemented legalization of harm reduction programs can expose PWIDs and other vulnerable groups to increased police surveillance and abuse (Bobrova et al., 2006; European Monitoring Centre for Drugs and Drug Addiction, 2009; International Harm Reduction Development Program, 2009; Martinez et al., 2007).

In 2009, as part of sweeping criminal justice reform, the Mexican Federal Government decriminalized possession of small amounts of controlled substances (Secretaria de Gobernacion, 2009). The law provided a 1-year grace period for the states to adopt the new legal framework. The state of Baja California, located on the northwestern border adjacent to the U.S. state of California, did so in September, 2010. This "narcomenudeo" reform mandates that, when apprehended by police, persons possessing amounts of drugs below specified thresholds (e.g., 50 mg. for heroin, 5 g. for marijuana) would not be charged with a crime. Instead, these individuals must be reported to health authorities and then released (Secretaria de Gobernacion, 2009). On the third such report (or "strike"), the individual possessing drugs is required to enter drug treatment (Secretaria de Gobernacion, 2009). To accommodate the anticipated tide of new patients, the law also mandated the expansion of capacity in the drug treatment sector. Criminal penalties for drug trafficking offenses, including possession of drug amounts above the stated thresholds remained the same or were increased.

Paralleling the regional drive to reorient drug law enforcement away from a strictly punitive approach (Castaldi & Llambias, 2013; European Monitoring Centre for Drugs and Drug Addiction, 2009; Grillo, 2011), this legal reform's graduated drug thresholds were intended to inform the triage of suspects as drug dependent versus those involved in drug trafficking. In recognition of drug dependence as a health condition, the law created a framework for rehabilitation by diverting drug users to treatment rather than into the criminal justice system; it also mandated treatment only on the users' third "offence" to focus in particular on the problem users. By directly interlocking criminal justice with components of the health and drug treatment systems, the law envisioned cross-sectoral collaboration that is key to tackling substance

misuse more broadly (Mackey et al., 2014; Werb, Medina Mora, Beletsky, Arredondo, & Strathdee, 2014).

The narcomenudeo reform adds to Mexico's already relatively public health-oriented legal environment for drug users, sex workers, and other vulnerable groups. In contrast to many other countries, Mexican federal law does not criminalize syringe possession, over-the-counter pharmacy sale of syringes, or prostitution (Beletsky, Martinez, et al., 2012; Moreno, Licea, & Ajenjo, 2010; Pollini et al., 2008; Pollini, Lozada, et al., 2010). The narcomenudeo reform was lauded for its promise to more effectively and humanely address substance abuse, while also optimizing the use of criminal justice resources (Grillo, 2011). Additional benefits could include reducing stigma and facilitating initiation and adherence to protective behaviors among drug users (e.g., utilization of drug treatment programs). Critics contended that the law is ill-conceived because it could encourage drug use and criminal activity, while falling far short of its public health goals because of inadequate treatment capacity and expertise in Mexico (Grillo, 2011).

The weak "rule of law" in Mexico could present additional obstacles to effective implementation (Beittel, 2009; Human Rights Watch, 2011; Tello, 2011). Rule of law is generally defined as "a principle of governance in which all persons, institutions and entities . . . including the State itself, are accountable to laws that are publicly promulgated, equally enforced and independently adjudicated" (United Nations, 2004, p. 4) Above and beyond promoting the values of due process, fairness, and transparency, rule of law is understood to improve societies by ensuring stability and predictability (Menon-Johansson, 2005; United Nations, 2004).

Tijuana is a locale where the stakes for the positive public health impact of Mexico's narcomenudeo reform are exceptionally high. Fuelled by drug trafficking and by drug and sex markets catering to U.S. tourists, migrants, and deportees, Tijuana and other cities along Mexico's Northern Border are experiencing rising prevalence of HIV and sexually transmitted infections among PWID, with potential to spread elsewhere (Beletsky, Martinez, et al., 2012; Frost et al., 2006; Strathdee et al., 2011; Strathdee, Lozada, Ojeda, et al., 2008). Despite a high prevalence of injection drug use, initiation of evidence-based drug treatment and adherence is low (Strathdee, Lozada, Pollini, et al., 2008). In the context of ongoing drug-related violence, levels of drug law enforcement activity in the region remain elevated, while the management, transparency, and accountability of policing have come under considerable criticism (Beittel, 2009; Beletsky, Martinez, et al., 2012; Meyer, 2010). Police practices that run counter to public health, such as syringe confiscation, abuse and financial and sexual extortion from drug users and sex workers are prevalent (Pollini et al., 2008; Pollini et al., 2009; Strathdee et al., 2005; Strathdee, Lozada, Pollini, et al., 2008).

We undertook a study to examine the implementation of Mexico's recent drug policy reform. Using mixed methods, we assessed the legal knowledge and interactions with police among a cohort of PWID in Tijuana in the two years following the passage of the new law. Motivated by the conflicting prognoses of the law's impact on drug-related harms, we also collected data on sexual and injection risk behaviors and health outcomes. Within the context of this larger study, the current analysis focuses specifically on the participants' perceptions of the law and law enforcement and their direct experiences of police practices pertinent to the narcomenudeo framework, including arrest, detention, and treatment diversion.

Since these data were collected within two years after the adoption of the reforms, we hypothesized that drug users reporting recent encounters with police may be more likely to have been informed about the reform by officials and more likely to have experienced the reform's programmatic elements, such as diversion to drug treatment. To our knowledge, this is the first study evaluating the experience of Mexican drug law reform among PWID—a key group the law could potentially benefit.

Methods

Quantitative Study Design

Between September 2010 and January 2013, PWID were recruited in Tijuana as a part of an ongoing cohort study. The sampling rationale and methods are detailed elsewhere (Robertson et al., 2014), but briefly, eligibility criteria for the study included: aged 18 years or older; having injected illicit drugs within the past month confirmed by inspection of injection stigmata ('track marks'); ability to speak Spanish or English; and being willing and able to provide informed consent. Participants were recruited by trained staff in areas and venues frequented by PWID using a targeted sampling scheme designed to facilitate recruitment of female participants and maximize staff and respondent safety (Robertson et al., 2014). Participants provided written consent based on the protocol approved by the Institutional Review Board of the University of California, San Diego School of Medicine and the Ethics Board of the Colegio de la Frontera Norte, Tijuana.

Building on prior research with PWID in Mexico's Northern Border Region (Philbin et al., 2008; Pollini et al., 2008; Pollini, Gallardo, et al., 2010; Pollini, Lozada et al., 2010; Ramos et al., 2009; Strathdee et al., 2005; Strathdee, Lozada, Pollini, et al., 2008), the quantitative study survey instrument assessed sociodemographics, injection and sex risk behaviors, migration history, knowledge of Mexican drug laws, and police encounter history, among other domains. Items designed to assess the implementation of the drug law reform included questions assessing knowledge, firsthand experience, and attitudes toward the Mexican drug law and its enforcement. Knowledge of the new law was assessed in a series of questions that asked about specific provisions of the law, such as, "Under current law, what is the largest amount of heroin a person can possess without being criminally charged?" (no amount/50 mg/other). We similarly assessed legal knowledge on long-standing provisions that were not part of the recent drug law reform, but are nonetheless pertinent to disease risk among PWID, including condom and syringe possession. For example, we asked, "Under the current law, is it legal to carry condoms in Tijuana?" (yes/no).

We also assessed respondents' experience of specific events within the criminal justice system that should result from implementation of the new law, for example, "Have you ever been told by law enforcement that you are not subject to detention or incarceration because the amount of drugs found in your possession was below the legal threshold?" (yes/no). The survey also included a multiple-choice question about what happened the last time they were arrested with drugs, with response options that included events such as "my drugs were weighed" (another key provision of the new law). We used the "ever" and "last time arrested" framework to measure respondent experience of the treatment diversion mechanism created by the law. For example, we asked, "Have law enforcement officers ever physically taken or escorted you to drug treatment services?" (yes/no). To minimize contamination, interview staff were trained not to disclose the provisions of the law reform to the participants prior to the completion of the baseline interview.

Attitudinal items assessed perceived risk of law enforcement encounters using a 4-point Likert-type scale (*very likely* to *very unlikely*). For example, we asked respondents to rate the risk of arrest and incarceration "if stopped with small amounts of drug for personal use." Similar items addressed the risk of extortion when stopped by police while carrying drugs or syringes. Items also assessed perceived adherence of police to the law, including "How closely do the practices of law enforcement officers in Tijuana reflect the official law?" (5-point Likert-type scale ranging from *not at all* to *totally reflecting the law*). The instrument was

administered in English or Spanish by trained, bilingual interviewers using computer-assisted interview software (QDS™ Systems, NOVA Research, Bethesda, MD).

Qualitative Study Design

To generate expansion and contextualization of the quantitative findings, we embedded a qualitative component in the larger quantitative study (Palinkas et al., 2011). Based on the results of the baseline quantitative interview, respondents who reported experiencing a recent police encounter were eligible for inclusion in the qualitative substudy. We purposively sampled 32 individuals who had recent encounters with law enforcement, including those who reported being arrested as well as those reporting being stopped, but not arrested in the past 6 months, to contextualize respondents' knowledge, perceptions, and experience of the narcomenudeo reform and its implementation. To maximize diversity of perspectives, the qualitative subsample was also balanced based on deportation experience and gender. These characteristics have been shown to be associated with vulnerability to police abuse, including the special susceptibility of deported individuals stemming from their lack of socioeconomic support in the Northern Border cities (Beletsky, Lozada, et al., 2013; Strathdee et al., 2011; Strathdee, Lozada, Ojeda, et al., 2008).

Between December 2010 and May 2011, trained interviewers conducted 40- to 90-minute semistructured interviews using a prepared topic guide. Prompts were used to confirm, clarify, and expand on emerging themes. All respondents agreed to have the interview digitally recorded. Interview guide domains included knowledge and attitudes about drug possession and paraphernalia laws; perceived recent changes in those laws and the sources of information about any change; perceived consistency of law enforcement and the adherence of police practices to the formal law; in-depth description of the last police encounter and its comparison with a "typical" encounter; and perceived behavioral and mental health effect of police encounters on drug use and daily activities. The interview process was pilot-tested with six respondents prior to the launch of the study.

Data Analysis

Quantitative Data Analysis. Descriptive statistics were used to calculate baseline sociodemographic, behavioral, economic, law perception and knowledge, and policing experience characteristics. To compare respondents who reported recent (past 6 months) encounter with law enforcement to those who did not, Wilcoxon rank sum test was used for all continuous outcomes because these variables tended to have non-normal distributions. Chi-square tests were used to compare binary outcomes, except in cases where expected cell sizes were <5. For those variables, Fisher's exact test was used. Univariate logistic regression was used to compare factors between groups, treating those reporting no recent encounter as the reference group.

Qualitative Data Analysis. Audio-recordings of interviews were transcribed and translated; transcripts were spot-checked by bilingual interviewers for consistency and accuracy. Using the scheme outlined by Crabtree and Miller (1992), interview transcripts were analyzed as follows: First, investigators prepared short "memos" to document initial impressions of topics, themes and their relationships emerging from initial readings of two transcripts. Inclusion and exclusion criteria for assigning specific codes to constructs were proposed (Crabtree & Miller, 1992). Second, transcript material was independently coded by project investigators and staff to condense data into analyzable units using Atlas.ti (Scientific Software Development, Berlin, Germany). Segments of text were assigned codes based on a priori (i.e., from the interview

guide) or emergent themes (i.e., open coding; Crabtree & Miller, 1992). Codes were also assigned to reflect participants' social and demographic characteristics. Lists of codes were matched and integrated into a single codebook. The final codebook consisted of a numbered list of themes, issues, accounts of behaviors, and opinions related to legal reform, law enforcement, and drug use experiences. Each transcript was independently coded by at least two team members. Disagreements were resolved through discussion and enhanced definition (Crabtree & Miller, 1992).

Integrating Qualitative and Quantitative Data

Qualitative interviews were embedded in the larger quantitative study under the QUAN+QUAL framework. As described by Palinkas et al. (2011), this methodological approach is defined by "simultaneous collection and analysis of quantitative and qualitative data" (p. 46). We use both data sources and analytical frameworks with equal weight, taking advantage of their unique contribution. In this article, we present quantitative findings to characterize the prevalence of phenomena within the entire study population. We then invite the reader to reflect on respondent narratives to contextualize, enrich, and personalize our quantitative findings. We also use our qualitative findings to draw out conceptual and theoretical insights from our quantitative data, as well as to inform our discussion of next steps (Palinkas et al., 2011).

Results

Sample

Our quantitative study sample consists of 737 respondents. Overall, 62% were male and 89% were born in Mexico, 38% were Tijuana natives, and 7% reported having been born in the United States. Median age was 37 years (interquartile range [IQR] = 31-44) and median number of years of education was 8 (IQR = 6-10; Table 1). Many of our respondents were low-income individuals, with more than 50% reporting a monthly income of less than 2,500 pesos (approximately US\$200). The vast majority (95%) reported injecting drugs at least once a day. More than 76% of the sample reported either a stop or an arrest by police in the past 6 months (Table 1). In comparing those who reported a recent encounter with police to those who did not, we observed that male sex (odds ratio [OR] = 1.41; 95% confidence interval [CI] = 1.13-1.86) and spending more time on the street was associated with a report of a recent police encounter (OR = 1.03 per hour/day; 95% CI = 1.01-1.06), while living in Tijuana since birth (OR = 0.67, 95% CI = 0.48-0.95) was protective against such experience.

The qualitative subsample was composed of 32 participants, all of whom reported being stopped and/or arrested by police in the previous month. By design, the sample included 50% men and 50% women.

Knowledge and Perceptions of the Law

In our quantitative questionnaire, we used three constructs (knowledge, firsthand experience, and attitudes) to understand the experiences of the legal reform among PWIDs in our sample (Table 1). In the knowledge domain, very few respondents were aware that the narcomenudeo decriminalized possession of small amounts of drugs for "personal use." Only 10 individuals (1.6%) correctly identified the threshold weight of 50 mg. of heroin that had been designated for personal use under the new law. Only 71 (just less than 11%) reported knowledge that *any*

Table 1. Characteristics, Legal Knowledge, Experiences With Law Enforcement, and Risk Behavior by Recent Police Encounter Among PWID in Tijuana (N = 737).

Variable	Total quant (N = 737)		Stop or arrest ^a (n = 563)		No stop or arrest ^a (n = 174)		P value	OR	95% CI
	n	% (IQR)	n	% (IQR)	n	% (IQR)			
Sociodemographics									
Male gender	456	61.87 (31-44)	370	69.02 (31-44)	86	49.42 (30-44)	<.001	1.41	[1.13, 1.86]
Age, years, median (IQR)	37	89.17	37	88.73	38	90.65	.442	0.99	[0.97, 1.01]
Born in Mexico	420	45.45 (6-10)	323	45.29 (6-10)	97	45.97 (6-10)	.466	1.33	[0.68, 2.59]
Married	335	8	255	8	80	8	.924	1.01	[0.84, 1.22]
No. of years of education completed, median (IQR)	8	12	8	12	8	12	.912	0.99	[0.93, 1.04]
Hours spent on street, median (IQR)	12	50.34	12	50	12	51.44	.006	1.03	[1.01, 1.06]
Monthly income >2,500 pesos	369	37.72	280	35.52	89	44.82	.21	1.05	[0.75, 1.49]
Lived in Tijuana all my life	278	19	200	19	78	20	.027	0.67	[0.48-0.95]
Risk behavior									
Age in years when first injected drugs, median (IQR)	19	33.92 (9-22)	19	36.76 (9-22)	20	24.71 (9-22)	.341	0.98	[0.96, 1.01]
Receptive syringe sharing (half the time or more) ^a	350	69.75	207	73.25	43	56.41	.003	1.26	[1.09, 1.46]
Duration in years of injection, median (IQR)	16	10.95	16	10.7	16	11.76	.956	0.99	[0.98, 1.01]
Polydrug use ^a	392	17.16	326	17.45	66	16	<.001	2.11	[1.38, 3.22]
Knowledge and perception of law personal use decriminalized (50 mg or other)	71	85	53	84.84	18	85.71	.923	0.95	[0.70, 1.28]
Knowledge that syringe possession is legal	109	85	89	84.84	20	85.71	.7	1.1	[0.65, 1.88]
Knowledge that condom possession is legal	567	85	459	84.84	108	85.71	.805	0.93	[0.53, 1.61]

(continued)

Table 1. (continued)

Variable	Total quant (N = 737)		Stop or arrest ^a (n = 563)		No stop or arrest ^a (n = 174)		P value	OR	95% CI
	n	% (IQR)	n	% (IQR)	n	% (IQR)			
Would be arrested if caught with small amount of drugs (somewhat likely + very likely)	618	83.85	476	84.54	144	82.75	.704	1.04	[0.88, 1.22]
Law does not correspond to police practice (sometimes—not at all)	699	97.89	546	97.84	153	98.07	.496	0.94	[0.76, 1.15]
If caught with a small amount of drugs, 3 reports, then mandated treatment	2	0.28	1	0.18	1	0.59	.142	0.79	[0.37, 1.67]
Criminal justice system experiences									
Told not subject to arrest because drugs under threshold	15	2.03	11	1.95	4	2.31	.77	0.84	[0.26, 2.67]
Drugs weighed before being released	2	0.35	2	0.43	0	0	.523	0 predicts success perfectly	
Ever physically diverted by law enforcement to drug treatment	16	2.17	12	2.13	4	2.31	.887	0.92	[0.29, 2.89]
Police officer has asked you for money ^a	216	47.26	194	45.97	22	62.85	.173	0.98	[0.96, 1.00]
Ever spent time in jail	550	74.72	449	79.75	101	58.38	<.001	2.8	[1.94, 4.04]

Note. PWID = people who inject drugs; IQR, interquartile range; OR, odds ratio; CI, confidence interval.

^aPast 6 months.

amount has been decriminalized. In other words, the vast majority (>89%) believed that all heroin possession—regardless of the amount—remained a criminal offense.

Notably, we also found a low level of knowledge in other key areas of drug law pertinent to behaviors protective against infectious disease transmission. More than 83% thought syringe possession was illegal, and more than one in seven perceived condom possession to be illegal, although possession of neither article is criminalized under Mexican law. We observed no significant differences on these legal knowledge and perception variables between those reporting and those not reporting a recent police encounter.

Our qualitative findings help contextualize these legal knowledge data points. One common sentiment among our respondents was that knowledge of formal laws on drug and drug paraphernalia is of little relevance:

I do not know how much [drugs] one can carry. I do not know if the drugs are legal or if one day they will be, but I do not take that chance myself—I do not carry any, not even a balloon [single dose of heroin]. (Male, 30s)

From the perspective of drug users participating in this study, the critical behavioral reference point was not the black letter law, but the practices of law enforcement. These practices form the day-to-day regulatory environment that shapes the perceptions and behaviors of PWID:

I think every time I've had [syringes] I've gotten into trouble. It's a joke! I have gotten them literally for, for six pesos [in a pharmacy]. But you can't carry them on you, I don't understand that. How come you're allowed to buy that but not [carry]? (Female, 30s)

This participant's response highlights the inconsistencies that she and other PWIDs in our qualitative sample identified in the enforcement of drug and drug paraphernalia possession policies in Tijuana.

More fundamentally, our respondents saw police practice in Tijuana as completely divorced from the formal policies that are supposed to govern law enforcement. Specifically, in our quantitative sample, almost all respondents (98%) felt that the practices of Tijuana police do not generally correspond to the formal law. One man explained that, although he learned about the new law from police, he was nonetheless arrested,

According to what I understand, for us, the addicts if they catch us with one dose, that is not a reason to be locked up. The officers themselves [informed me of this] . . . It is like, "well I cannot tell you, but I am going to tell you anyways." . . . But they take you in [anyway]. It is like I said, one is much marginalized in their eyes . . . they do not like us. (Male, 30s)

Two important issues emerge from this respondent's narrative. First, he framed his understanding of the police code of conduct as requiring officers to actively withhold information about the new law from PWID. Second, his narrative highlights a common perception among PWID in Tijuana that police behavior is motivated by a deeply held dislike of or antipathy toward drug users, which is seen as part of the explanation for extralegal police activities. This perceived antipathy is further highlighted below in participants' accounts of their experiences of drug law enforcement.

Experiences of the Criminal Justice System

We also assessed a range of drug user experiences with drug law enforcement related to the implementation of the narcomenudeo reform. Our quantitative findings highlight a near-

universal absence of experiences corresponding to the steps in the diversion process set out by the new statute. Only 15 respondents (2%) reported ever being told that their drugs were under an acceptable threshold, and just two individuals reported being released from police custody after their drugs were weighed and deemed to be under a personal use threshold. Overall, 16 (2%) reported ever being diverted to drug treatment by police (see Table 1). We found that those reporting being stopped or arrested in the past 6 months were also significantly more likely to have served jail time (OR = 2.8; 95% CI = 1.94-4.04).

In terms of extralegal police activities during the most recent arrest, one in six respondents reported being beaten.

It was two months ago, they kicked me, they have pulled my hair, they have slapped me; they have hit me with the club they carry on their leg . . . they have twisted my arms, they have thrown me on the ground and kicked me. And besides that well they humiliate you verbally as well . . . (Female, 30s)

In addition to personal experience of police abuse, the respondents' environment is characterized by persistent police violence: almost half (49%) reported personally seeing others being beaten by law enforcement in the past 6 months.

Given that almost half (47.6%) of the overall quantitative interview respondents reported being asked for a bribe during the last six months, corruption throughout the criminal justice system was also a pervasive concern in the qualitative sample. In the following quote, a participant describes being arrested and having drug evidence planted on him by the police. Importantly, his narrative highlights the perceived collusion between police and the judiciary in the miscarriage of justice:

I do not think they apply them [the laws] as they should because when they arrested me and wanted to plant the balloons [doses of drugs] on me, I think they are doing something not legal, right? . . . Why do they do it? So when going to the judge the policeman is going to tell him: this person had nine balloons in his property, here they are. And the judge is going to say: oh, to jail he goes, one year in jail. And why do the police do it? Because . . . they only want to arrest someone and to let others go. (Male, 30s)

The sense of frustration, stigmatization, and discrimination may amplify the salience of these occurrences in participants' accounts of their interactions with law enforcement. For many respondents, these experiences led to a general perception not only that the enforcement of drug laws is arbitrary but also that the agents of the criminal and judicial systems are deeply corrupt.

We also assessed the perceived risk of various law enforcement encounters, including the likelihood of events reflecting the operationalization of narcomenudeo reforms. The overwhelming majority (almost 84%) felt it was "somewhat" or "very likely" that they would face criminal sanctions if found with a small amount of drugs for personal use. Additionally, when asked what would be a likely outcome of police discovering drugs on a PWID, only two respondents' (0.28%) chose the answer option reflecting the "three strikes" narcomenudeo framework (Table 1). The following passage illustrates this sense of arbitrariness among our participants:

[What happens to a person who is . . . found with a small amount of drugs] depends . . . on the policeman, he can take you to the ministerio publico [booking facility] but if the policeman is more flexible, he will only take it away and take away your money if you have any, and if not, if you do not have any money then he takes it away and send you to the [lock-up] . . . for seventy six hours. (Male, 30s)

Finally, respondents perceived a fundamental lack of fairness and articulated a sense of fatalism that flows from the aggregation the above perceptions and experiences:

The law always finds you guilty and looks right away to find someone guilty even if the person isn't carrying drugs, they right away fabricate something to find you guilty and if you have some [drugs] or not they put them on you either way (Male, 30s)

Risk Behavior and Possible Public Health Harms

We also assessed the association between reports of law enforcement encounters and drug use risk behaviors. Syringe sharing (a widely recognized risk factor for HIV, viral hepatitis, and other bloodborne infections; Centers for Disease Control and Prevention, 2012) was significantly associated with being stopped and/or arrested in the past 6 months (OR = 1.26; 95% CI = 1.09-1.46). Using speedballs (i.e., mixing heroin and cocaine together, a known risk factor for infectious disease and drug overdose; Centers for Disease Control and Prevention, 2009, 2012) was also significantly associated with reporting a recent encounter with police (OR = 2.11; 95% CI = 1.38-3.22).

Our qualitative findings help contextualize these associations, suggesting some mechanisms that underlie the links between police encounters and risk behavior. The pervasive abuse and corruption experienced during police encounters have pushed PWID to respond by developing avoidance strategies. For example, respondents reported being deterred from carrying syringes and injecting in body sites (such as the groin) not readily visible to police. Injecting into the femoral vein in the groin or other concealed sites is a practice understood to be a risk factor for HIV and hepatitis infection, as well as skin abscesses, deep vein thrombosis, and other health harms (Pollini, Gallardo, et al., 2010):

People like me . . . think of using [drugs] in a way where [the police] can't notice, where there aren't marks left, leaving marks on your arms or on your neck . . . and to be able use it in a different way [to] avoid being caught (Male, 30s)

Our quantitative findings of associations between past police encounters and a number of risk indicators are also supported by poignant narratives characterizing the disruptive effect of drug law enforcement policing on broader drug user activities. Beyond simply shaping drug consumption practices, these past experiences and perceptions of police encounters were seen as major influencers on the respondents' conduct of daily activities, including employment, child care, and simply choice of route to take home:

When I see the police . . . by instinct, I start to run . . . to hide . . . in the side streets, to the highway, towards [any]where I can get away from them.

Discussion

Given the potential of the narcomenudeo reform to alleviate harms from the substance abuse and infectious disease syndemics among PWID in Tijuana, we undertook the current study to assess the knowledge and experience of the new law among those who could benefit most from the law's full implementation. Our findings suggest that the experiences of our respondents do not reflect substantial programmatic or operational change contemplated by the law; nor is the reform well-understood among drug users. This implies that the law had not yet percolated to the street level in the initial two-year period since its enactment. Previous studies have similarly found that legal reform is often insufficient in and of itself to produce positive public health

effects among PWID (Beletsky et al., 2005; Beletsky, Thomas, et al., 2012; Burris, Beletsky, Burleson, Case, & Lazzarini, 2007).

Although our analyses did not indicate that those reporting recent encounters with police had improved knowledge of the law or experiences consistent with the reform's provisions, we did find such reports to be associated with known HIV risk factors. Recent arrest or stop by police was positively and significantly associated with known risk behaviors, including syringe sharing and speedball use (Centers for Disease Control and Prevention, 2012). Such associations have been extensively documented by our team and others across the globe (Beletsky, Lozada, et al., 2013; Case, 1998; Pollini et al., 2008). This analysis adds to the existing canon by highlighting the discrepancy between the potential public health benefit contemplated by the narcomenudeo reform and the reality of its implementation.

The dissonance between the formal legal standards for drug and syringe possession, treatment diversion, and other public health-oriented provisions on the one hand, and the lived experience of drug users on the other can have far-reaching consequences. Among Mexicans in general, widely held distrust of police and fatalism about the chronic failure of overarching political and legal institutions have been well documented (Carbonell, 2004; Fondevila, 2008). Most recently, these sentiments have galvanized mass protests across Mexico, leading to pledges of further wide-reaching reforms (Martínez Ahrens, 2014).

In the case of PWID and other high-risk groups, arbitrary and abusive police practices are especially deleterious. Such practices can send behavioral signals that are inconsistent with the policy's public health objectives, messaging, and programming—instead facilitating health risks like groin injection designed to conceal visible marks of drug use. These patterns can trigger cascades of public health harms to PWID, their social and family networks, and the community at large. The unpredictable nature of police enforcement practices can severely undercut the drug users' actual ability or self-efficacy to practice in protective health behaviors. This includes procuring (and carrying) clean syringes, adherence to safe injection practices, and consistent engagement with public health, medical, drug treatment, and other services. Without predictability, transparency, and legitimacy of the law and its enforcement, natural coping responses steer PWID away from these key elements of drug user health. In this context, fundamental elements of the "rule of law" should be understood as key contributors to the PWID's risk environment (Rhodes et al., 2005).

Raising the importance of a stable legal environment as an enabling factor for public health has clear analogues. Instability in one's living environment, such as housing, family life, and security have been observed to aggravate risk and adversely affect health outcomes (Rhodes & Simic, 2005). Similarly, the lack of stability in one's legal environment may undermine health, especially among marginalized groups. Strengthening the rule of law, especially by promoting police education and management can help anchor this unstable legal landscape.

Discourse on the societal detriment from a weak rule of law has traditionally been confined to political, legal, social, and economic critiques (Carbonell, 2004; González Oropeza, 2005; Kossick, 2004). By expanding the scope of these critiques to include the health of vulnerable groups, this study posits that structural interventions to strengthen the rule of law can enable protective behaviors and improve community health. Seeing the promotion of the rule of law as a public health good may help shape future epidemiological research and intervention agenda in infectious disease and other areas.

As more and more locales are experimenting with drug policy reforms to address public health and other social needs (Castaldi, & Llambias, 2013; Grillo, 2011), evaluation of early examples of these structural interventions is critical to inform future efforts. In this study, we used a mixed-methods framework integrating law knowledge, firsthand enforcement experience, and attitudes to measure the impact of the recent reform as it is transformed from "law

on the books” to the real-world “law on the street” (Beletsky et al., 2005; Burris et al., 2004; Green, Martin, Bowman, Mann, & Beletsky, 2012). Employing a mixed methods framework that allows for the contextualization of statistical outcomes by qualitative narratives can help generate hypotheses about the mechanisms of effect. For example, in the current study our qualitative analysis demonstrated that it was not merely a lack of knowledge about the drug law that influenced participants’ behavior, but also a deeply rooted sense of mistrust that existing laws will be applied as written.

This study makes clear that additional efforts to bolster the implementation of the narcomenudeo will be needed to realize its potential. Policy, management, and training efforts have shown promise in helping improve legal intervention impact (Beletsky, Agrawal, et al., 2011; Beletsky, Thomas, et al., 2012; Beletsky, Grau, White, Bowman, & Heimer, 2011). Efforts to improve internal and external controls, while also boosting officer knowledge, resources, and incentives to implement the reform are warranted to strengthen the law’s implementation. Although Tijuana police are comparatively well-compensated by national standards, insufficient law enforcement pay is understood to be one of the factors contributing to corruption and lack of professionalism (Zhao, Lovrich, & Robinson, 2001). Further increasing pay and improving police education, while also minimizing staff turnover, can help strengthen managerial control and performance of street-level personnel (Lennings, 1997; Waters & Ussery, 2007). To better understand the challenges in implementing the reform, we are conducting a follow-up qualitative study among members of the public security, drug treatment, and other relevant sectors.

On a positive note, our findings demonstrate that there are instances when police do engage in practices that can promote public health. This includes diversion of PWID to treatment and providing information about other services available to this marginalized population of drug users. This nascent baseline level of police–public health collaboration makes it critical to identify and support police officers who are championing this approach (Beletsky, Thomas, et al., 2012). Police training, policy development, treatment scale-up, and other programmatic efforts can improve the likelihood that the passage of narcomenudeo and other drug policy innovations in Latin America and elsewhere may translate to public health and criminal justice benefits (Beletsky, Agrawal, et al., 2011; Beletsky, Thomas, et al., 2012; Beletsky, Thomas, Shumskaya, Artamonova, & Smelyanskaya, 2013). When coupled with better access to justice, improved legal knowledge among PWID and the population at large can help change the normative environment and support accountability and consequent gradual behavior change among police (Cohen & Csete, 2006).

This study is subject to several limitations. Our findings are not necessarily generalizable to all PWID in Tijuana or elsewhere in Mexico. Data on police stops, arrest, and experiences corresponding to narcomenudeo programs are self-reported and were not corroborated by examination of police records. Social desirability bias and other biases related to self-representation may also have influenced the way in which participants described their experiences with police. The drug policy reform in question had been recently enacted when we began our data collection. Nonetheless, our study continued for almost two years after the passage of the law, allowing time for the diffusion of legal knowledge among PWID, as well as the development of the criminal justice and drug treatment system response to the new legal directives.

Conclusion

Despite the potential of the narcomenudeo reform to alleviate harms from the substance abuse and infectious disease syndemic among PWID in Tijuana, the implementation of the law reform had not percolated to our sample within two years after the law’s passage. The wide gap between

formal law and the legal environment as experienced by this vulnerable population parallels the mounting criticism of policing in Mexico. Efforts to utilize policy interventions designed to curtail the risk environment of PWID and other vulnerable groups must concurrently support the rule of law, including accountability and integrity of the criminal justice system.

Authors' Note

Views expressed are those of the authors and do not necessarily reflect the views of the National Institutes on Drug Abuse, Fogarty International Center, or the National Institutes of Health.

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