Published in final edited form as:
Am J Drug Alcohol Abuse. 2012 November ; 38(6): 588–592. doi:10.3109/00952990.2012.673664.

Differences in self-reported discrimination by primary type of drug used among New York City drug users

Natalie D. Crawford[1], **Abby E. Rudolph**[2], **Kandice Jones**[3], and **Crystal M. Fuller**[4]

[1]Department of Epidemiology, Center for Social Epidemiology and Population Health, School of Public Health, University of Michigan, Ann Arbor, MI, USA

[2]Department of Epidemiology, Johns Hopkins School of Public Health, Baltimore, MD, USA

[3]Center for Urban Epidemiologic Studies, New York Academy of Medicine, New York, NY, USA

[4]Department of Epidemiology, Mailman School of Public Health, Columbia University, New York, NY, USA

Abstract

Illicit drug users experience various forms of discrimination which may vary by type of drug used, as there are different levels of stigma associated with different types of drugs. This study investigated self-report of perceived discrimination by primary type of drug used. This analysis used data from "Social Ties Associated with Risk of Transition into Injection Drug Use" (START), a cross-sectional study of recently initiated injection drug users (IDUs) and prospective study of heroin/crack/cocaine-using non-IDUs (n=652). Using log binomial regression, the relationship between primary drug used (i.e., single drug used most often) with discrimination due to drug use was examined. Heroin users were significantly more likely (PR:1.54 (95% CI:1.15–2.07)) to report discrimination due to drug use compared to cocaine users. More research is needed to understand the mechanism through which discrimination affects heroin users, and its potential relation with other discrimination-related outcomes, namely depression and drug treatment.

Keywords

illicit drug use; crack use; heroin use; social discrimination

Introduction

Public ridicule and criminalization of people addicted to drugs is an issue that tarnishes drug abuse treatment and prevention efforts nationally and internationally. Historically, it has been socially acceptable to treat illicit drug users poorly as drug addiction has been viewed as a moral issue rather than a public health issue (1). Thus, most people that are dependent on illicit drugs are presumed to be bad people, weak, and for better or worse, deserve their shortcomings (1). Some research suggests that negative views of drug users differ by the drug of choice and the mode of administration (eg. injection versus non-injection) (2, 3). While it has not been empirically examined, it has been argued that powder cocaine (hereafter referred to as cocaine) users are less likely to experience stigmatization and subsequent negative treatment (i.e. discrimination) because of their drug use when compared with people who use crack cocaine (hereafter referred to as crack) and heroin (2, 3). Higher

Corresponding Author: Natalie D. Crawford, Department of Epidemiology, Center for Social Epidemiology and Population Health, 1415 Washington Heights, SPH1, Room 3642, Ann Arbor, MI 48109.

levels of discrimination towards crack and heroin users may exist because: 1) the social implications of cocaine use are less harsh since it is perceived as a drug that wealthy, more educated people use (4), 2) there are fewer physical and behavioral manifestations of cocaine use allowing cocaine users the ability to easily conceal their drug use (5, 6), or 3) differences in legal punishments for crack and heroin possession influence their public perceptions of danger.

The implications of discrimination towards drug users that use crack and heroin are far reaching as both crack and heroin use are highly associated with HIV risk (7–9). Thus, systematically differential treatment or experiences of discrimination may further increase their risk of disease as they may be discouraged from accessing critically needed social and medical resources such as mental health services and HIV testing and treatment. Moreover, several studies suggest that discrimination is associated with depression, increased drug use and poorer health seeking behaviors (10–14). Thus, experiences of discrimination may result in more drug use, unsafe drug using behaviors and poorer drug treatment enrollment and outcomes.

Given that few individual level behavioral interventions have been successful at reducing infectious disease-related risk behaviors among drug users (15–17), it is important to go beyond the individual in our intervention strategies and include structural approaches (e.g., interventions that target the socio-environmental context of disease transmission) to help reduce drug-related illnesses (18–22). Thus, examination of drug users' perceptions of discrimination which may impact the success of structural interventions is direly needed. While authors have reported experiences of discrimination among illicit drug users (2, 23), in this short report, we go further in assessing whether self-reported discrimination differs by the primary type of drug used, as this could substantially impact targeted intervention efforts towards these groups.

Data and Methods

We used baseline data from heroin, crack and cocaine users enrolled in the Social Ties Associated with Risk of Transition (START) study. START is a cross-sectional study of recently initiated injection drug users (IDUs) and 18-month prospective study of heavy non-injection drug users (NIDUs) an between August 2005 and June 2009. To be eligible for the study, IDUs had to report injecting heroin, crack or cocaine for four years or less and at least once in the past 6 months; NIDUs had to report heavy non- injection drug use defined as the use of heroin, crack or cocaine for 1 year or more and at least 2–3 times a week in the past 3 months. Drug use was verified with a rapid drug test which detected opiate and cocaine metabolites in the urine and track marks (i.e., stigmata) were visually verified by assessing scarring on the arm among those who reported injecting. Participants were recruited using a combination of Targeted Street Outreach (TSO) and Respondent Driven Sampling (RDS). TSO has been described in detail elsewhere (24), but in brief it was performed by conducting outreach to ethnographically mapped neighborhoods with high drug activity in NYC. RDS has also been described in detail elsewhere (25), but in brief, RDS is a chain-referral sampling method used to improve generalizeability of the drug use sample and reach hidden populations of drug users. Data were collected from study participants via structured interviewer-administered questionnaires. This study was approved by the Institutional Review Boards of Columbia University and New York Academy of Medicine.

Explanatory variables

Primary drug use

The outcome, primary type of drug use of heroin, crack or cocaine was defined as the single drug used most often in the past six months; if all three drugs were used in equal amounts then participants were classified as poly drug users.

Potential Confounders

Participants were asked about basic demographic information, drug use history and experiences of discrimination. In order to determine the association between primary type of drug used and discrimination, we assessed the following variables as potential confounders of this relationship: age (continuous), age at first use of heroin, crack or cocaine (continuous), race/ ethnicity (Latino, black and white/Other), gender (female/ male), education (less than high school, high school/ GED, some college or more), yearly legal income (none, $1-$4,999 and ≥$5,000), current marital status (married, unmarried), ever homeless (yes, no) injection status (injector, non-injector) and discrimination due to prior incarceration (yes, no).

Dependent variables

Discrimination

To ascertain experiences of discrimination, participants were asked “In your lifetime, have you ever been discriminated against, prevented from doing something, or been hassled or made to feel inferior because of any of the following?” Available responses included age, race, sex (gender), sexual orientation, poverty, drug use, having been in jail or prison, religion, mental illness, physical illness, other, and I have never been discriminated against. Given the relevance to this research question, this analysis assesses discrimination due to one’s drug use.

Statistical Models

Descriptive statistics of the sample were calculated (Table 1). Bi-variable associations between primary type of drug used and discrimination due to drug use were assessed (Table 1). Where there was a statistically significant relationship ($p<0.05$), we estimated the prevalence ratios using multivariable log binomial regression to assess the strength of association between primary type of drug used and lifetime experience with discrimination because of their drug use after taking into account potential confounders (Table 2).

Results

Characteristics of the sample are displayed in Table 1. The median age was 33, most participants were of black or Hispanic race/ ethnicity, male, single, had less than a high school education, income less than $5,000/ year, were un-married and home-less in their lifetime. Slightly more than half of the participants used crack as their primary drug of choice and most people did not inject drugs. About one-third of participants reported discrimination because of their drug use (32.9%) and discrimination due to incarceration (34.0%).

In the bivariable analysis (Table 1), primary type of drug used was associated with experiencing discrimination due to drug use and was borderline significant for discrimination due to incarceration. Specifically, heroin users followed by poly drug users followed by crack users had the highest reports of discrimination due to their drug use and incarceration.

In the adjusted analysis (Table 2, Model 1), heroin users continued to be more likely to experience discrimination due to drug use compared to cocaine users (PR: 1.54 (95% CI: 1.15 – 2.07)). Given the high rates of incarceration among drug users and crude differences in reports of discrimination due to incarceration with primary type of drug used, we attempted to tease out the effect of discrimination due to incarceration among those who also reported drug use discrimination. After accounting for discrimination due to incarceration in the final model, the association between heroin use and drug discrimination (PR: 1.34 (95% CI: 1.02 – 1.75)) persisted (Table 2, Model 2).

Discussion

This paper examined reports of discrimination by primary type of illicit drug used and found that important differences in experiences of perceived discrimination exist for heroin users. This study found that heroin users were significantly more likely to experience discrimination because of their drug use than were cocaine users, even after controlling for experiences of discrimination related to prior incarceration. These data are consistent with other studies that have shown that illicit drug users encounter substantial discrimination because of their drug use (23). For example, Young and colleagues found that 75.3% of drug users in NYC experienced drug use discrimination, while 40.3% reported incarceration discrimination (23). This study by Young and colleagues did not examine whether discrimination hinged on the type of drug use and to our knowledge, no other studies to date have examined whether drug of choice matters in interpersonal encounters. However, this information is important since it may help in understanding how sects of drug users become isolated and lose access to social services that they may need.

These findings could be due to the increased stigmatization of heroin use which may induce more negative treatment towards heroin users. Further, heroin users may be more prone to visual designation as a drug user because of the physical manifestations of heroin use (i.e. track marks, droopy eyes, drowsiness, etc.) and paraphernalia for heroin injection (i.e. syringes, tourniquet, cotton, etc.). In this analysis, we controlled for injection status to attempt to tease out any effect of injection equipment profiling but even after adjustment, heroin users were still more likely to experience discrimination. The findings could also be confounded by the length of time the participant used heroin, which may increase their sensitivity to experiences of discrimination. However, we controlled for duration of drug use and the findings persisted (data not shown in Tables).

This analysis was limited in that the data only begins to explain how heightened experiences of discrimination among heroin users might impact their access to social, medical and drug treatment services. We also assessed whether reports of racial discrimination and discrimination due to incarceration differed by main type of drug used, but there were no significant differences (data not shown), suggesting that perceived drug use discrimination may be a more profound experience for heroin users. As heroin use is highly associated with HIV transmission and acquisition (26, 27), it is possible that heightened experiences of discrimination within this group may compound the problem of HIV transmission and morbidity by reducing access to prevention, treatment and social services. Future studies should investigate whether reports of social, medical and drug treatment utilization are differential among heroin users that experience discrimination. And further, whether positive utilization outcomes with respect to syringe sharing and drug treatment are impacted within this group warrant further exploration. While this study was limited in this respect, it presents important information that supports this line of investigation. An experience of discrimination from a health care or social service provider (versus a family member) may also have more detrimental consequences for accessing critical treatment and prevention resources. Thus, future studies should examine how the source of discrimination

impacts the relationship between discrimination and drug use. Since cross-sectional data were used for this analysis, temporality cannot be determined, therefore the current drug of choice may not be the drug used when discrimination was experienced. It has also been shown that discrimination is associated with early onset of drug use (28) leading some to argue that experiences of discrimination incite drug use as a coping mechanism (29). Thus, future research examining the timing of discrimination and its impact on initiation and/or increased severity of drug use is needed.

Since this study was performed among some of the most disadvantaged drug users (i.e. heavy drug users that are poor), these estimates likely provide a measurement of discrimination reports among those who are the most vulnerable and in need of prevention services. Given the high levels of discrimination reported in this brief report, future investigations and efforts to reach illicit drug users should consider the potential impact of discrimination, particularly among heroin users who are more likely to perceive discriminatory treatment. This has the potential to impact heroin users' willingness to participate in research and prevention services, adherence to medication, and drug treatment outcomes.

References

1. Sanders-Buell E, Bose M, Nasir A, Todd CS, Stanekzai MR, Tovanabutra S, et al. Distinct circulating recombinant HIV-1 strains among injecting drug users and sex workers in Afghanistan. AIDS Res Hum Retroviruses. 2010; 26(5):605–608. [PubMed: 20438383]
2. Ahern J, Stuber J, Galea S. Stigma, discrimination and the health of illicit drug users. Drug Alcohol Depend. 2007; 88(2–3):188–196. [PubMed: 17118578]
3. Jones, EE.; Farina, A.; Hastorf, AH.; Markus, H.; Miller, DT.; Scott, RA., et al. Social Stigma: The Psychology of Marked Relationships. New York: 1984.
4. SAMHSA. Office of Applied Studies. 2005 and 2006
5. Shanti CM, Lucas CE. Cocaine and the critical care challenge. Crit Care Med. 2003; 31(6):1851–1859. [PubMed: 12794430]
6. Devlin RJ, Henry JA. Clinical review: Major consequences of illicit drug consumption. Crit Care. 2008; 12(1):202. [PubMed: 18279535]
7. Celentano DD, Latimore AD, Mehta SH. Variations in sexual risks in drug users: emerging themes in a behavioral context. Curr HIV/AIDS Rep. 2008; 5(4):212–218. [PubMed: 18838061]
8. Mitchell MM, Latimer WW. Unprotected casual sex and perceived risk of contracting HIV among drug users in Baltimore, Maryland: evaluating the influence of non-injection versus injection drug user status. AIDS Care. 2009; 21(2):221–230. [PubMed: 19229692]
9. Strathdee SA, Sherman SG. The role of sexual transmission of HIV infection among injection and non-injection drug users. J Urban Health. 2003; 80(4 Suppl 3):iii7–iii14. [PubMed: 14713667]
10. Finch BK, Kolody B, Vega WA. Perceived discrimination and depression among Mexican-origin adults in California. J Health Soc Behav. 2000; 41(3):295–313. [PubMed: 11011506]
11. Kessler RC, Zhao S, Blazer DG, Swartz M. Prevalence, correlates, and course of minor depression and major depression in the National Comorbidity Survey. J Affect Disord. 1997; 45(1–2):19–30. [PubMed: 9268772]
12. Noh S, Beiser M, Kaspar V, Hou F, Rummens J. Perceived racial discrimination, depression, and coping: a study of Southeast Asian refugees in Canada. J Health Soc Behav. 1999; 40(3):193–207. [PubMed: 10513144]
13. Yen IH, Ragland DR, Greiner BA, Fisher JM. Racial discrimination and alcohol-related behavior in urban transit operators: findings from the San Francisco Muni Health and Safety Study. Public Health Rep. 1999; 114(5):448–458. [PubMed: 10590767]
14. Yen IH, Ragland DR, Greiner BA, Fisher JM. Workplace discrimination and alcohol consumption: findings from the San Francisco Muni Health and Safety Study. Ethn Dis. 1999; 9(1):70–80. [PubMed: 10355476]

15. Des Jarlais DC, Semaan S. HIV prevention for injecting drug users: the first 25 years and counting. Psychosom Med. 2008; 70(5):606–611. [PubMed: 18519886]
16. Degenhardt L, Mathers B, Vickerman P, Rhodes T, Latkin C, Hickman M. Prevention of HIV infection for people who inject drugs: why individual, structural, and combination approaches are needed. Lancet. 2010; 376(9737):285–301. [PubMed: 20650522]
17. Des Jarlais DC, Arasteh K, McKnight C, Hagan H, Perlman DC, Torian LV, et al. HIV infection during limited versus combined HIV prevention programs for IDUs in New York City: the importance of transmission behaviors. Drug Alcohol Depend. 2010; 109(1–3):154–160. [PubMed: 20163922]
18. Braveman PA, Egerter SA, Cubbin C, Marchi KS. An approach to studying social disparities in health and health care. Am J Public Health. 2004; 94(12):2139–2148. [PubMed: 15569966]
19. Coates TJ, Richter L, Caceres C. Behavioural strategies to reduce HIV transmission: how to make them work better. Lancet. 2008; 372(9639):669–684. [PubMed: 18687459]
20. Fuller CM, Galea S, Caceres W, Blaney S, Sisco S, Vlahov D. Multilevel community-based intervention to increase access to sterile syringes among injection drug users through pharmacy sales in New York City. Am J Public Health. 2007; 97(1):117–124. [PubMed: 17138929]
21. Heimer R. Syringe exchange programs: lowering the transmission of syringe-borne diseases and beyond. Public Health Rep. 1998; 113(Suppl 1):67–74. [PubMed: 9722811]
22. Rotheram-Borus MJ, Swendeman D, Chovnick G. The past, present, and future of HIV prevention: integrating behavioral, biomedical, and structural intervention strategies for the next generation of HIV prevention. Annu Rev Clin Psychol. 2009; 5:143–167. [PubMed: 19327028]
23. Young M, Stuber J, Ahern J, Galea S. Interpersonal discrimination and the health of illicit drug users. Am J Drug Alcohol Abuse. 2005; 31(3):371–391. [PubMed: 16161724]
24. Ompad DC, Galea S, Marshall G, Fuller CM, Weiss L, Beard JR, et al. Sampling and recruitment in multilevel studies among marginalized urban populations: the IMPACT studies. J Urban Health. 2008; 85(2):268–280. [PubMed: 18214686]
25. Rudolph AE, Crawford ND, Latkin C, Heimer R, Benjamin EO, Jones KC, et al. Subpopulations of illicit drug users reached by targeted street outreach and respondent-driven sampling strategies: implications for research and public health practice. Ann Epidemiol. 2011; 21(4):280–289. [PubMed: 21376275]
26. HIV diagnoses among injection-drug users in states with HIV surveillance-25 states, 994–2000. MMWR Morb Mortal Wkly Rep. 2003; 52(27):634–636. [PubMed: 12855944]
27. Results from the 2007 National Survey on Drug Use and Health: National Findings. Rockville, MD: US Department of Health and Human Services; 2008. Substance Abuse and Mental Health Services Administration.
28. Whitbeck LB, Hoyt DR, McMorris BJ, Chen X, Stubben JD. Perceived discrimination and early substance abuse among American Indian children. J Health Soc Behav. 2001; 42(4):405–424. [PubMed: 11831140]
29. Walters KL, Simoni JM, Evans-Campbell T. Substance use among American Indians and Alaska natives: incorporating culture in an "indigenist" stress-coping paradigm. Public Health Rep. 2002; 117(Suppl 1):S104–S117. [PubMed: 12435834]

Table 1

Descriptive characteristics of the START sample and of those who ever experienced discrimination related to drug use, 2006–2009

	Total sample (n=647)		**Drug use discrimination (n=209)**	
	n	**%**	**%**	**p-value**
	-	-	32.86	-
Demographics				
	Median	IQR	Median	IQR
Age *	33	28–37	33	28 – 37
Age at first heroin, crack, cocaine use [b]	17	15–20	17	15–19
	n	%	%	p-value
Race/ Ethnicity				
Hispanic/ Latino	240	37.09	41.10	0.0003
Black	316	48.84	25.16	
White/ Other	91	14.06	37.78	
Gender				
Male	456	70.48	34.30	0.2351
Female	191	29.52	29.47	
Education				
< High school	320	49.54	32.48	0.5667
High school degree/ GED	231	35.76	34.80	
Some college or more	95	14.71	28.72	
Legal Income/ Year				
None	135	22.02	30.83	0.6455
$1-$4,999	372	60.69	34.60	
≥$5,000	106	17.29	31.07	
Marital status				
Married	98	15.24	31.25	0.7068
Un-married	545	84.76	33.21	
Ever homeless				
Yes	571	88.25	33.33	0.4885
No	76	11.75	29.33	
Discrimination due to incarceration [a]				<0.0001
Yes	159	33.97	74.05	
No	309	66.03	19.09	
Drug use behaviors				
Main Drug used				
Cocaine	62	10.20	23.33	0.0010

	Total sample (n=647)		Drug use discrimination (n=209)	
	n	**%**	**%**	**p-value**
Crack	315	51.81	27.74	
Heroin	166	27.30	44.51	
Poly drug use	65	10.69	33.85	
Injection Status				
Injector	141	21.89	43.88	0.0020
Non-injector	503	78.11	29.96	

[a]Only includes those who reported spending time in jail or prison in their lifetime (n=468)

[*]p>0.05

Table 2

Adjusted prevalence ratios of the associations of main type of drug use and discrimination, 2006–2009

	Drug use discrimination	
	Model 1 [a]	Model 2 [b]
Main drug used		
Cocaine	1.00	1.00
Crack	0.86 (0.67 – 1.11)	1.09 (0.91 – 1.29)
Heroin	1.54 (1.15 – 2.07)	1.34 (1.02 – 1.75)
Poly drug use	0.83 (0.57 – 1.20)	0.85 (0.63 – 1.15)

[a] Adjusted for race and injection status

[b] Adjusted for race, injection status and discrimination due to incarceration (only includes those who reported spending time in jail or prison in their lifetime (n=468))