



Increased drug use and the timing of social assistance receipt among people who use illicit drugs



Emanuel Krebs^a, Linwei Wang^a, Michelle Olding^a, Kora DeBeck^{a,b}, Kanna Hayashi^{a,c}, M.-J. Milloy^{a,c}, Evan Wood^{a,c}, Bohdan Nosyk^{a,d,*}, Lindsey Richardson^{a,e}

^a BC Centre for Excellence in HIV/AIDS, St. Paul's Hospital, 608-1081 Burrard Street, Vancouver, BC, V6Z 1Y6, Canada

^b School of Public Policy, Simon Fraser University, Suite 3271, 515 West Hastings Street, Vancouver, BC, V6B 5K3, Canada

^c Department of Medicine, Division of AIDS, University of British Columbia, St. Paul's Hospital, 608-1081 Burrard Street, Vancouver, BC, V6Z 1Y6, Canada

^d Faculty of Health Sciences, Simon Fraser University, 8888 University Drive, Burnaby, BC, V5A 1S6, Canada

^e Department of Sociology, University of British Columbia, 6303 NW Marine Drive, Vancouver, BC, V6T 1Z1, Canada

ARTICLE INFO

Article history:

Received 19 April 2016

Received in revised form

2 November 2016

Accepted 3 November 2016

Available online 4 November 2016

Keywords:

Canada

Social assistance

Government transfers

Drug use intensity

Stimulants

Opioids

Polydrug use

Vancouver

ABSTRACT

Background: The monthly disbursement of social assistance (SA) payments to people who use illicit drugs (PWUD) has been temporally associated with increases in drug-related harm. Yet, whether SA receipt changes drug use intensity compared to levels of use at other times in the month has not been established. We therefore examined this relationship among PWUD in Vancouver, Canada (2005–2013). **Methods:** Data were derived from prospective cohorts of HIV-positive and HIV-negative PWUD. Every six months, participants were asked about their illicit drug use during the last 180 days and the past week. We determined whether SA receipt occurred within the assessment's one-week recall period. We employed generalized estimating equations controlling for confounders to examine the relationship between SA receipt and the change in drug use intensity, defined as a 100% increase in the average times per day a given drug was used in the last week compared to the previous 6 months. We tested the robustness of this relationship by stratifying analyses by whether individuals primarily used stimulants, illicit opioids or engaged in polydrug use and examining the timing of SA receipt relative to date of assessment.

Results: Our study included 2661 individuals (median age 36, 32% female) with 1415 (53.2%) reporting SA receipt occurring within the one-week recall period of the assessment at least once. SA receipt was independently associated with intensified drug use (Adjusted Odds Ratio [AOR]: 1.79; 95% Confidence Interval [CI]: 1.53, 2.09), and remained significant when stratified by primary use of stimulants (AOR: 1.87; 95% CI: 1.54, 2.26), opioids (AOR: 1.96; 95% CI: 1.23, 3.13) and polydrug use (AOR: 1.53; 95% CI: 1.11, 2.10).

Conclusion: We found a temporal association between SA receipt and drug use intensification. While the health and social benefits of SA are significant, these findings suggest that alternative disbursement strategies, such as staggered or smaller and more frequent SA payments may be able to mitigate drug-related harm. Alternatives should be tested rigorously.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

Many people who use illicit drugs (PWUD) are vulnerable to socio-economic insecurity and face various individual and structural barriers to formal employment, including chronic

homelessness, limited formal education or employment skills, workplace drug-testing, criminal record checks, and employer discrimination (Cebulla et al., 2004; Richardson et al., 2013). Social assistance (SA) provides a critical source of income for many PWUD to meet basic needs and alleviate the adverse health effects of poverty (Immervoll, 2009; Nelson, 2004; Walker, 2004).

Higher income may improve individual health outcomes through its direct influence on material conditions (ability to work, housing, health care access and nutrition) and indirectly by

* Corresponding author. BC Centre for Excellence in HIV/AIDS, St. Paul's Hospital, 613-1081 Burrard St., Vancouver, BC, V6Z 1Y6, Canada.

E-mail address: bnosyk@cfenet.ubc.ca (B. Nosyk).

enabling control over life situations (Deaton, 2002; Marmot, 2004). However, observational studies have found that higher income among PWUD is also associated with high-intensity drug use (Bretteville-Jensen and Sutton, 1996; DeBeck et al., 2007; Deschenes and Anglin, 1991; Grapendaal et al., 1995; Sherman and Latkin, 2002), suggesting a more complex relationship between income and drug use. While this association may be explained in part by the need for individuals with higher intensity drug addiction to generate more income in order to meet their drug use needs (Bourgois, 1998; Deering et al., 2013; Maher, 1997), observational studies also suggest that some income generation strategies can contribute to higher intensity drug use or create additional barriers to decreasing drug use. Specifically, research from Vancouver, Canada (DeBeck et al., 2011; Kerr et al., 2008; Long et al., 2014) and other settings (Bretteville-Jensen and Sutton, 1996; Fischer, 1999; Grapendaal et al., 1995; Sherman and Latkin, 2002) suggest that people who self-report high intensity drug use are more likely to report income from street-based activities such as sex work and drug-dealing. Engagement in street-based activities may impede decreasing drug use (Ti et al., 2014), directly when individuals are paid in drugs rather than money (Bretteville-Jensen and Sutton, 1996; Shannon et al., 2008; Small et al., 2013) and indirectly as individuals may increase drug use in response to work stresses (Draus et al., 2010; Erikson et al., 2002). Taken together, this body of research suggests the potential for reverse causality in the income and drug intensity relationship: higher intensity drug use may lead individuals to generate income, but income generation strategies (particularly from sex work and drug dealing) may in turn contribute to higher intensity drug use. The hypothesized reverse-causality, or endogeneity of income in the demand for illicit drugs, challenges efforts to isolate the competing directional effects of the drug use-income relationship empirically, which are necessarily conflated in observational studies not explicitly addressing income endogeneity. Monthly SA disbursements provide a valuable opportunity to analyze the effect of income on illicit drug use. This source of income is made available at a predictable, exogenously-determined time, not motivated by prior drug use, thus precluding the endogeneity likely implicated in other income generating activities. Here, we use the fact that the Government of British Columbia issues SA to nearly all eligible recipients once a month on the same day, similar to many other North American jurisdictions (Li et al., 2007). In British Columbia, SA is distributed by the BC Ministry of Social Development and Social Innovation, generally on the last Wednesday of each month (Province of British Columbia, 2016b), and rates are contingent on recipient age, family size, and disability status (Province of British Columbia, 2016a). The SA program is structured as a program of last resort for persons who have exhausted other means of legal financial support, and applicants must have expended nearly all assets to become eligible (Tweddle et al., 2015). Frozen since the last rate increase in 2007 (Tweddle et al., 2015), three general levels of assistance are disbursed: single “employable” individuals receive \$610.00 CAD per month, those classified as persons facing persistent multiple barriers receive \$657.92 CAD per month and Persons with Disability receive \$906.42 per month (Province of British Columbia, 2016a). Rates are inclusive of a shelter allowance of \$375 CAD per month, with the remainder provided as a support allowance (Province of British Columbia, 2016a). Even after considering income from additional provincial tax credits, rates fall between 28 and 60% of Canadian thresholds for after-tax low income cut off (Tweddle et al., 2015). Further, individuals in Vancouver face some of the highest costs of living in Canada (The Economist Data Team, 2016), including some of the highest housing costs and lowest vacancy rates in the world (Canada Mortgage and Housing Corporation, 2015).

Consistent with the evidence identifying a complex drug use-income relationship, and given the difficulty of observing drug use, a number of studies have linked monthly SA disbursement to cyclical and substantial increases in the risk of experiencing drug-related harms, including accidental overdose (Otterstatter et al., 2016; Riddell and Riddell, 2006; Verheul et al., 1997; Zlotorzynska et al., 2014), hospitalizations (Dobkin and Puller, 2007; Halpern and Mechem, 2001; Maynard and Cox, 2000), drug-induced psychiatric emergency department visits (Catalano and McConnell, 1999; Pickett et al., 2015), HIV and substance abuse treatment interruption (Anis et al., 2002; Chan et al., 2004; Svikis et al., 1999), and related burdens on health, social and police services (Brunette et al., 1991; Li et al., 2007; Pickett et al., 2015; Riddell and Riddell, 2006; Shaner et al., 1995; Verheul et al., 1997; Zlotorzynska et al., 2014). While the aforementioned studies used predominantly administrative data, studies examining the drug use-income relationship that directly account for drug use are rare. For example, a study examining the probability of use of cocaine or opioids among former recipients of supplemental security income who had received disability benefits for drug addiction and alcoholism in 1996 found a higher probability of a positive urinalysis test in the first 10 days of the month compared to later in the month, with no difference between individuals requalifying for supplemental security income and those losing their benefits (Swartz et al., 2003). However, their outcome examined the association between the timing of SA disbursements and the likelihood of any drug use, as opposed to changes in levels of drug use. Another study among homeless individuals with severe mental illnesses used self-reported measures of illicit drug use drawn from the Addiction Severity Index but examined longitudinal increases in overall drug use associated with SA receipt as opposed to the timing of drug use intensification (Rosen et al., 2006).

A recent review has pointed out that monthly SA disbursement schedule alters the timing of substance use rather than increase the overall level of use over an extended timeframe (Rosen, 2011). Intensified use immediately following SA receipt may be the cause of much of the drug-related harm identified by observational studies to date. The mechanisms that produce such intensification may be linked to the additional resources available following SA payments for the consumption of drugs, but may also be connected to the broader physical, social, economic, and policy features of the drug use environment (Rhodes, 2009). For example, low levels of income assistance may require individuals to supplement their income from other prohibited and illegal sources such as drug dealing, sex work, or street-based income generation. The environment in which this activity occurs may increase individual exposures to drug use scenes, which have been associated with economic marginalization and drug-related risk (Richardson et al., 2013). As such, the level of integration in such scenes may amplify individual propensity for increased use, particularly in places where socio-economic marginalization is concentrated and SA receipt is synchronized across the population.

To our knowledge, the proximal relationship between SA receipt and drug use intensity has not been explicitly studied, likely due to the challenge of measuring drug use in the immediate period following SA receipt. If this relationship can be established, it may follow that smaller and more frequent SA disbursements may mitigate the intensification of drug use linked to SA receipt, though this may vary across different drug types (e.g., stimulants, opioids) because of the different patterns of use associated with different substances. Understanding the immediate effect of a monthly SA disbursement on drug use intensity across different types of drug use can thus provide critical insights into how SA policy can be leveraged to reduce drug-related harm among PWUD. Thus, we undertook the current study, which takes advantage of

Download English Version:

<https://daneshyari.com/en/article/5046842>

Download Persian Version:

<https://daneshyari.com/article/5046842>

[Daneshyari.com](https://daneshyari.com)