

High Levels of Pain and Undertreated Pain among HIV-Positive People Who Use Illicit Drugs in Vancouver, Canada

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Background

- The advent of highly active antiretroviral therapy has contributed to dramatic prognostic improvements for people living with HIV/AIDS (PLWHA). However, there remain several barriers to achieving optimal treatment outcomes among PLWHA.
- Pain is one of the most commonly reported comorbidities among illicit drug users and PLWHA.
- This study investigated perceived undertreated pain, pain intensity and functional interference among a cohort of HIV-positive people who use illicit drugs in Vancouver, Canada.

Methods

- Data were derived from the AIDS Care Cohort to evaluate Exposure to Survival Services (ACCESS), a prospective observational cohort of HIV-positive people who use illicit drugs in Vancouver, Canada.
- This analysis was restricted to participants who completed an interview between June 2014 and November 2014, and who reported having major persistent pain and being prescribed medication for pain in the six months prior to their interview.
- Bivariable and multivariable logistic regression was used to evaluate factors associated with perceived undertreated pain.
- Perceived undertreated pain was defined as participants believing that they required a stronger dose or type of medication for the purpose of analgesia than what they were currently prescribed.
- Pain intensity and functional interference were examined using the Brief Pain Inventory.

Results

- 244 participants were eligible for this analysis, of which 81 (33.2%) were female.
- 208 (85.3%) participants reported major pain persisting longer than six months.
- In total, 103 (43.4%) participants reported undertreated pain.
- Perceived undertreated pain was positively and independently associated with self-managing pain and having a physical disability (Table 1).
- Participants reporting undertreated pain had significantly higher average pain intensity (odds ratio [OR]: 2.00, 95%CI: 1.19-3.33) and functional interference (OR: 1.92, 95%CI: 1.14-3.23) than those who did not report undertreated pain.

Conclusion

- The high prevalence of perceived undertreated pain in this sample highlights the need for increased attention to pain management among PLWHA who use illicit drugs, given its major potential role in engaging and retaining this population in clinical care.
- It is troubling that individuals reporting undertreated pain were more likely to report self-managing their pain, as this behavior may be contributing to highly elevated risk of overdose, morbidity, mortality, HIV transmission and HIV/AIDS disease progression if self-management activities involve ongoing illicit drug use.
- These findings indicate areas for clinical intervention and patient education in order to minimize risk behaviors associated with perceived undertreated pain, and to improve quality of life among PLWHA who use illicit drugs.

Table 1. Bivariable and multivariable logistic regression analysis of factors associated with perceived undertreated pain among HIV-positive people who use illicit drugs reporting major persistent pain in Vancouver, Canada (n=249)

Characteristic	Unadjusted		Adjusted	
	Odds Ratio (95% CI)	p - value	Odds Ratio (95% CI)	p - value
Age (per year older)	1.05 (1.01, 1.09)	0.007	1.04 (1.01, 1.08)	0.027
Gender (male vs. female)	1.18 (0.68, 2.03)	0.555		
Ethnicity (Caucasian vs. other)	0.73 (0.43, 1.21)	0.221		
Highest level of education completed (≥ high school diploma vs. < high school diploma)	1.11 (0.66, 1.87)	0.687		
Hepatitis C status (Positive vs. Negative)	1.31 (0.60, 2.90)	0.499		
Homelessness* (yes vs. no)	1.03 (0.42, 2.54)	0.950		
Sex work* (yes vs. no)	0.78 (0.30, 2.07)	0.622		
Enrolled in methadone maintenance treatment* (yes vs. no)	0.87 (0.52, 1.44)	0.583		
Physical disability* (yes vs. no)	2.81 (1.57, 5.04)	<0.001	2.31 (1.26, 4.23)	0.007
Mental illness diagnosis* (male vs. female)	0.68 (0.12, 3.78)	0.658		
Currently on ART* (yes vs. no)	2.27 (0.60, 8.61)	0.227		
CD4 cell count^Δ (per 100 cells/mL)	1.00 (0.89, 1.12)	0.988		
Plasma viral load^Δ (per log10 increase)	0.91 (0.76, 1.10)	0.334		
Incarceration* (yes vs. no)	0.77 (0.22, 2.71)	0.688		
Overdose* (yes vs. no)	1.83 (0.66, 5.09)	0.245		
Denied pain medication* (yes vs. no)	1.08 (0.51, 2.28)	0.843		
Self-managed pain* (yes vs. no)	2.50 (1.38, 4.53)	0.003	2.24 (1.21, 4.15)	0.010
Enrolled in drug or alcohol treatment* (yes vs. no)	0.81 (0.49, 1.35)	0.413		
Barriers to accessing health (yes vs. no)	1.21 (0.65, 2.27)	0.543		
Marijuana use* (yes vs. no)	1.32 (0.79, 2.20)	0.284		
Methamphetamine use* (yes vs. no)	0.87 (0.51, 1.50)	0.625		
Crack cocaine use* (yes vs. no)	0.88 (0.52, 1.46)	0.610		
Heavy alcohol use* (yes vs. no)	0.88 (0.43, 1.77)	0.710		
Prescription opioid use* (yes vs. no)	1.41 (0.79, 2.50)	0.241		
Heroin use* (yes vs. no)	0.75 (0.44, 1.27)	0.284		
Binge injection drug use* (yes vs. no)	1.10 (0.57, 2.14)	0.773		

* Denotes activities/events within in the six months prior to participant's interview
Δ Denotes activities/events at baseline

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