

The relative contribution of major depressive disorder diagnosis and depressive symptomatology to risky injection behaviours in people who inject drugs: results from a cohort in Montreal, Canada.

Category: Oral Presentation

Abstract Body

Background. Risky injection behaviours are at the core of the hepatitis C (HCV) epidemic in Canada. A key element for understanding the persistently high HCV incidence among PWID is the role played by mental health in conditioning behaviours. Major depressive disorder (MDD) and depressive symptoms have each been associated with risky injection behaviours in various studies among PWID. However, it remains unclear whether depressive symptoms are sufficient to increase risky behaviours or if a diagnosis is required.

Hypotheses. We hypothesized that depressive symptoms would be associated with risky injection behaviours both in PWID with and without a current diagnosis of MDD.

Methods. Data (n=282, N=871) was drawn from a longitudinal cohort of PWID in Montreal (HEPCO, Aug.2017-Sep.2022). During three-month follow-ups, interviewers assessed injection behaviours and other clinical measures. For our main outcome, we developed a 'risky injection behaviour' score using item response theory to capture injection of opioid residues from a filter, sharing of syringes/paraphernalia, binge drug use episodes, and daily frequency of injection. Current diagnosis of MDD was evaluated categorically using the Mini International Neuropsychiatric Interview based on DSM-5 criteria. Depressive symptoms were measured continuously with the Depression dimension of the Brief Symptom Inventory every six months, with scores ranging from 0 to 80. The relative contribution of diagnosis and depressive symptoms on risky injection behaviour scores was estimated with a generalized linear mixed model including an interaction term between diagnosis and symptoms and adjusted for potential confounders.

Results. Median (IQR) risky injection behaviours score was -0.741 (0.594). About 11.0% of participants were diagnosed with current MDD. Median (IQR) depressive symptoms score was 61 (18). Depressive symptoms were significantly associated with risky injection behaviours ($a\beta=0.005$; $SE=0.002$; $p=0.004$). Current diagnosis of MDD ($a\beta=0.023$; $SE=0.319$; $p=0.942$) was not associated with risky injection behaviours. The interaction between diagnosis and symptoms was not significant ($a\beta=0.000$; $SE=0.004$; $p=0.859$)

Conclusions. Depressive symptoms appear to play an important role in shaping risky injection behaviours. Our

findings highlight the importance of evaluating and addressing depressive symptoms, even in absence of a primary MDD diagnosis, to decrease risky injection behaviours in PWID.

Key Words

- Concurrent Disorders
- Medical Co-Morbidities
- Psychiatric Co-Morbidities
- Substance Use Disorder (general)

Learning Objective # 1

To understand the relative contribution of depressive symptoms and major depressive disorder diagnosis in shaping risky injection behaviours in people who inject drugs

Learning Objective # 2

To reflect on the best practices to evaluate and prevent harms related to depression in people who inject drugs

Reference # 1

Lourenço L, Kelly M, Tarasuk J, Stairs K, Bryson M, Popovic N, Aho J. The hepatitis C epidemic in Canada: an overview of recent trends in surveillance, injection drug use, harm reduction and treatment. *Can Commun Dis Rep* 2021;47(12):505–14. <https://doi.org/10.14745/ccdr.v47i12a01>

Reference # 2

Mackesy-Amiti ME, Donenberg GR, Ouellet LJ. Psychiatric correlates of injection risk behavior among young people who inject drugs. *Psychol Addict Behav*. 2014 Dec;28(4):1089-95. doi: 10.1037/a0036390. Epub 2014 Aug 18. PMID: 25134053; PMCID: PMC4274210.

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