

Crystal meth use among gbMSM: Discussion of findings and recommendations from OHTN's Crystal Meth Think Tank

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Objectives

To highlight some relevant information for RAAM nurses:

- The context of crystal meth use among gay, bisexual, and men who have sex with men (gbMSM) in Ontario
- Harm reduction strategies/considerations for counseling
- Existing/emerging services
- Possible interventions

Crystal meth and gbMSM (1)

- Use of methamphetamine has increased among the general Canadian population in recent years
- gbMSM and people living with HIV have higher rates of meth use than the general population
- For gbMSM who use meth, the substance is frequently intertwined with their sexual lives
- **Party and play (PnP):** the use of recreational drugs before or during planned sexual activity to sustain, enhance, disinhibit, or facilitate the experience
- Meth may be swallowed, snorted, smoked, absorbed through the rectum or injected, with injection producing the most intense rush (typically, gbMSM use more than one method; snorting and smoking are most common)

Crystal meth and gbMSM (2)

- Drugs most commonly associated with PnP in Canada are meth, gamma-hydroxybutyrate (GHB) and ketamine
- A recent systematic review found that meth use was the most frequently reported PnP drug
- Contemporary geosocial-networking apps, such as Grindr, facilitate men's capacity to find and filter potential sexual partners for their interest in PnP
- An increasing proportion of group sex now takes place in private homes, rather than in public bathhouses or bars (as it did in the past), facilitated by apps

Meth use among gbMSM in ON (1)

- Difficult to estimate
- National estimates compiled by CATIE suggest that 5% to 20% of gbMSM are involved in PnP
- A 2014 survey conducted at the World Pride event in Toronto found that 6.4% of the 865 Ontario-resident men interviewed had used meth in the past six months
- In the most recent data (2017-18) from 1,705 Ontario men enrolled in the European Men's Internet Survey, 7.7% reported using meth in the past year

Meth use among gbMSM in ON (2)

- The literature suggests higher rates of use among HIV-positive gbMSM, as does the OHTN Cohort Study (OCS): in 2016–17, 9.6% of HIV-positive gbMSM enrolled in the OCS reported using meth in the last six months
- Individuals with problematic meth use represent a substantial proportion of LGBTQ people seeking substance use treatment in Ontario

Physiological effects of meth use (1)

- Meth increases **dopamine** in the brain
 - Part of the brain's **reward system**; creates feelings of pleasure in response to triggers such as food or sex
- Meth **blocks the flow** of dopamine between nerve cells
 - Dopamine is held in place for four to ten hours
 - **Sustained pleasurable dopamine** response many times stronger than the brain's response to natural triggers or that produced by other stimulant drugs like cocaine
- Meth **depletes the dopamine produced in the cells**
 - Contributes to **crash/feelings of depression** people typically feel after a session of meth use

Physiological effects of meth use (2)

- Increases alertness, confidence, and energy level, nearly eliminating the need to eat or sleep
- Raises body temperature and increases heart rate/breathing
- Lowers inhibitions, increases impulsivity/sexual arousal
 - Men often remain aroused without orgasm: 84% of gbMSM in one study reported “marathon sex” with genital contact for hours
 - Impairs erection, leading to use of erectile dysfunction drugs or to have receptive sex (bottom) more frequently
- Regular use causes less dopamine to be produced
 - Results in anhedonia or an inability to feel pleasure
 - May persist for two years – a major challenge for recovery

Risks associated with CM use among gbMSM

- Apart from the legal consequences, the use of meth among gbMSM has been associated with harms including:
 - An increased risk of HIV acquisition and other sexually transmitted and blood-borne infections (STBBIs)
 - Increased viral load among gbMSM living with HIV who use meth
 - A risk of problematic use for a proportion of users that undermines their well-being (physical, mental, emotional, financial)

- gbMSM report **immediate benefits** of participation in PnP:
 - Increased sexual arousal, pleasure, and stamina
 - Increased confidence and ability to be sexually adventuresome (disinhibition)
 - Escape from internal/external experiences of judgment around their sexual desires
 - Easier connections with desired partners
 - “Instant” creation of a social network
- These benefits must be taken into account in any harm reduction or prevention messaging as well as in any therapeutic work with men who want to modify their meth use

Targeted harm reduction

- According to anecdotal information from Ontario service providers, the drivers of PnP in some sub-populations of gbMSM may also affect their capacity to modify their behaviour, including:
 - Men with existing mental health challenges and experiences of trauma
 - Older gbMSM: Meth used to connect with sexual partners and create sexual/social networks
 - Newcomers to Canada: Meth use may offer a ready path to connection, a sense of community, and a release from that internalized shame

Resources (1)

1. <http://himynameistina.com>
 - Most established online resource in Ontario
 - Offers a broad spectrum of resources for using meth more safely, information about quitting/changing use and some information for friends and family
2. <http://torontovibe.com/party-safe/>
 - Offers education and harm reduction information
3. Party n Play Your Way
 - Harm reduction pilot in development by Gay Men's Sexual Health Alliance
 - Emphasizes peer engagement, distribution of harm reduction supplies, and an information portal

Resources (2)

4. <https://www.monbuzz.ca/>

- Quebec-based online intervention
- Includes online screening tool to help gbMSM reflect on the role of PnP/substance use in their lives
- Profile of substance use, motivation to change, personalized list of appropriate service referrals
- Online counselling support to help establish goals

5. <https://www.actoronto.org/the-kiki>

- PnP-specific harm reduction initiative
- 10-week educational workshop and drop-in series created by peers, hosted by both BlackCAP and ACT
- Low-barrier, no behavioural change components
- Emphasis on community building

Resources (3)

4. <https://www.actoronto.org/spunk>
 - Closed group in Toronto
 - Strong harm reduction, non-abstinence approach, while endeavoring to be a gateway for men who want to consider changing their meth use
5. <http://maxottawa.ca/en/spillthetea/>
 - Ottawa-based program that hosts events for gbMSM
 - Intended to reduce stigma and provide harm reduction information around drug use and sex

Pharmacological interventions

- There are no direct pharmacological interventions to counter the effects of meth
 - Some medical interventions tested in relatively small trials (including dopamine agonists and naltrexone) have had some modest positive outcomes for gbMSM who use meth and binge drink
 - Some preliminary data (six men) also suggest that modafinil may help men taper their meth use

Psychosocial interventions

- Most effective therapeutic interventions available now are psychosocial
- Primary methodological approaches:
 - Motivational interviewing
 - Cognitive behavioural therapy
 - Community reinforcement approaches
 - Contingency management

References (1)

- Maxwell S, Shahmanesh M, Gafos M. Chemsex behaviours among men who have sex with men: A systematic review of the literature. *International Journal of Drug Policy*. 2019;63:74–89.
- Colyer S, Lachowsky N, Cui Z, et al. HIV treatment optimism and crystal methamphetamine use and initiation among HIV-negative men who have sex with men in Vancouver, Canada: A longitudinal analysis. *Drug Alcohol Depend*. 2018 Apr 1;185:67.
- Russell C, Miles S, Fischer B. Compendium: *Illicit and Psychotropic Drug Use, Risk/Harm and Intervention Indicators and Data for Ontario*. Canadian Research Initiative in Substance Misuse (CRISM) Ontario, 2016 December. At: <https://bit.ly/315owDU>
- Parsons JT, Kowalczyk WJ, Botsko M, Tomassilli J, Golub SA. Aggregate Versus Day Level Association Between Methamphetamine Use and HIV Medication Non-adherence Among Gay and Bisexual Men. *AIDS Behav*. 2013;17:1478–1487.
- Massanella M, Gianella S et al. Methamphetamine Use in HIV-infected Individuals Affects T-cell Function and Viral Outcome during Suppressive Antiretroviral Therapy. *Scientific Reports* 2015;5:13179.
- Passaro RC, Pandhare J, Qian HZ, Dash C. The Complex Interaction Between Methamphetamine Abuse and HIV-1 Pathogenesis. *J Neuroimmune Pharmacol*. 2015 Sep;10(3):477-86
- Knowles Z (CATIE). Party and play in Canada: What is its impact on gay men’s health? *Prevention in Focus*, Spring 2019. Available at: <https://www.catie.ca/en/pif/spring-2019>.

References (2)

- Tomkins A, George R, Kliner M. Sexualised drug taking among men who have sex with men: A systematic review. *Perspectives in Public Health*. 2018;139(1):23–33.
- Edmundson C, Heinsbroek E, Glass R, Hope V, Mohammed H, White M, et al. Sexualised drug use in the United Kingdom (UK): A review of the literature. *International Journal of Drug Policy*. 2018;55:131–48.
- Ashok AH, Mizuno Y et al. Association of Stimulant Use With Dopaminergic Alterations in Users of Cocaine, Amphetamine, or Methamphetamine A Systematic Review and Meta-analysis. *JAMA Psychiatry*. 2017;74(5):511.
- The Counter Narrative Project. The Ties that Bind: Black MSM, Crystal Meth and Family [webinar]. Presented Sept 27, 2018. Available at <https://harmreduction.org/crystalmethblueprint/index.html>
- Meyers R, Miller WR, et al. COMMUNITY REINFORCEMENT AND FAMILY TRAINING (CRAFT): Engaging Unmotivated Drug Users in Treatment. *Journal of Substance Abuse*, 1998; 10(3): 291-308.