Managed Alcohol Programs (MAPs): Implementation and Effectiveness

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Funded by:
Rates of Alcohol Use in Homeless Populations

• Among homeless male populations, prevalence of severe alcohol dependence is estimated to be 38-75%
• In general public, 3-4%
• No studies of prevalence among women experiencing homelessness.
Alcohol Dependence and Homelessness

Shelters and housing programs differ in how they approach alcohol use:

**Abstinence-based or “dry” shelters/housing:**
no drinking is allowed

**Tolerant shelters/housing:**
allow drinking but do not manage it (e.g. Collins, Larimer)

**Managed alcohol programs:**
shelters/housing that actively manage alcohol use for some people, including providing alcohol
What is a MAP?

Harm reduction approach

1. Provide accommodation or housing stability
2. Reduce consumption of non-beverage alcohol use and stabilize use
3. Reduce police and emergency service use
National Study of MAPs

- 7 MAP Sites, 6 cities (Vancouver, Thunder Bay, Toronto, Hamilton, Ottawa, Sudbury)
- 3 year project (2013-2016)

⭐ MAP Site
- Other partner
Control Site Partners

- Targeted engagement and diversion program
- Emergency shelters
- Transitional housing
- Drop-in and meal programs
- Community outreach and seniors’ club
The purpose of our research is to rigorously evaluate MAPs in Canada and generate insights into the implementation of MAPs with a focus on outcomes and process.
Outcomes

To establish whether entry into a MAP contributes to significant...

• **Objective 1:** improvements in the health, longevity and well-being of participants

• **Objective 2:** changes in service use (*reductions in the use of emergency, hospital, police and emergency housing services*)

• **Objective 3:** changes in substance use (*less hazardous patterns of alcohol use*)
Process

• **Objective 4:** To inform the development of program and policy recommendations for MAPs by identifying participant and program characteristics that are most likely to predict positive outcomes and critically examine practical, ethical and legal issues as part of the implementation of MAPs.
Evaluating Outcomes and Process

Outcomes
- Quantitative Surveys
- Secondary Administrative Data

Process
- Qualitative Interviews
- Policy and Protocol Analysis
Quantitative Participant Groups

- **Baseline and Secondary Data** (N=364)
  - N=177 MAPs >120 days (NO follow up)
  - 1 MAP : 1 Control
  - N=187 Controls (NO follow up)

- **Baseline, Follow-up and Secondary Data** (sub-sample: 175)
  - N=72 New MAPs < 120 days (follow up)
  - 2 MAP : 3 Control
  - N=103 Matched Controls (follow up)

Matched on gender and age (over/under 45 yrs)
Quantitative Surveys

Survey measures (1 hour, N=364)

- Demographics and identifiers (full name, aliases, DOB, gender, postal code, OHIP, ethnicity, sexual orientation, marital status, education)
- Living location timeline (5 year period)
- Homelessness, Housing Quality and Stability (e.g. At Home/Chez Soi)
- Mental Health (e.g. Colorado Symptom Index)
- Social Functioning (e.g. MCAS)
- Substance use and related harms (e.g. SADQ, AUDIT, CASSIDU)
- Service use and access to care (e.g. adapted from CCHS)
Follow-up Strategy

Monthly follow-ups for up to 14 months

- MAP email and cell phone
- Appointment cards
- 3 participant contacts
- Sites frequented
- Access to shelter records
- Staff support
## Sample size and response rate

<table>
<thead>
<tr>
<th>Site</th>
<th>Cohort</th>
<th>Recruited @ Baseline</th>
<th>Selected for Follow Up</th>
<th>6 month response rate</th>
<th>12 month response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>THUNDER BAY</td>
<td>MAP</td>
<td>24</td>
<td>14</td>
<td>85.7%</td>
<td>38.5%</td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>28</td>
<td>17</td>
<td>56.3%</td>
<td>28.6%</td>
</tr>
<tr>
<td>VANCouver</td>
<td>MAP</td>
<td>7</td>
<td>1</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>8</td>
<td>2</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>HAMILTON</td>
<td>MAP</td>
<td>21</td>
<td>13</td>
<td>92.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>28</td>
<td>21</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>OTTAWA</td>
<td>MAP</td>
<td>66</td>
<td>24</td>
<td>86.4%</td>
<td>91.7%</td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>63</td>
<td>28</td>
<td>70.4%</td>
<td>81.5%</td>
</tr>
<tr>
<td>TORONTO</td>
<td>MAP</td>
<td>59</td>
<td>20</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>60</td>
<td>35</td>
<td>48.6%</td>
<td>63.3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>MAP</td>
<td>177</td>
<td>72</td>
<td>91.0%</td>
<td>78.0%</td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>187</td>
<td>103</td>
<td>67.0%</td>
<td>67.1%</td>
</tr>
</tbody>
</table>
Sample characteristics

Table 1. The characteristics of the sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>MAP clients</th>
<th>Controls</th>
<th>t–test/X²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N Mean or % (95% CI) †</td>
<td>N Mean / % (95% CI) †</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>175 51.89 (50.24–53.53)</td>
<td>189 44.50 (42.92–46.08)</td>
<td>***</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>26 14.86% (9.56–20.15)</td>
<td>37 19.58% (13.89–25.26)</td>
<td>ns</td>
</tr>
<tr>
<td>Male</td>
<td>149 85.14% (79.85–90.44)</td>
<td>152 80.42% (74.74–86.11)</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>85 48.57% (41.13–56.01)</td>
<td>76 40.21% (33.19–47.24)</td>
<td>*</td>
</tr>
<tr>
<td>Aboriginal</td>
<td>58 33.14% (26.14–40.15)</td>
<td>88 46.56% (39.42–53.71)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>32 18.29% (12.53–24.04)</td>
<td>25 13.23% (8.37–18.08)</td>
<td></td>
</tr>
<tr>
<td>Non-beverage alcohol past 30 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>52 29.71% (22.91–36.52)</td>
<td>64 33.86% (27.08–40.46)</td>
<td>ns</td>
</tr>
<tr>
<td>No</td>
<td>123 70.29% (63.48–77.09)</td>
<td>125 70.92% (59.36–72.92)</td>
<td></td>
</tr>
</tbody>
</table>

Note: † Mean estimate of age and housing status score and the corresponding 95% confidence interval (CI); % of age group, sex, ethnicity, site of residence and non-beverage drinking and the corresponding 95% CI. t–test or X² –test: ns P>0.05 *P<0.05 ***P<0.001.
Secondary Administrative data

10 year period (Jan 2008 - Dec 2017) (N=364)

Hospital use - Institute for Clinical Evaluative Sciences
- ER visits (date, length and reason for visit), hospital admissions (date length of stay, admitting diagnosis and whether or not they were admitted from the ER)

Treatment history - Drug and Alcohol Treatment Information System
- Admission and release dates for each admission to an alcohol treatment or withdrawal management program

Liver health - Ontario Lab Information System and MAP records
- ALT, AST, GGT, Bilirubin and Albumin (6 month)

Death records - Registrar General
- Date and cause of death, place of usual residence and place of death
Secondary Administrative data

Police service records- **local Police services**
- Dates and reason for each police interaction and arrest, time spent in custody, the date and type of charge, the number of court appearances

Corrections records- **Min of Community Safety and Corrections**
- Number, length and reason for incarceration (i.e. admission and release dates from provincial correctional institutions)

MAP data- **MAP records**
- Program stays (admission/discharge dates and reason), Alcohol administration, Liver function test results

Shelter use- **SMIS, HIFIS**
- Shelter data (HIFIS, SMIS): Shelter stays (admission/discharge dates and reason)
Qualitative data (N=82)

N=42 MAP clients
• Life before MAP
• Transition into MAP
• Best/worst experiences in MAP
• Impacts on: social/family life, finances, housing, substance use, physical/mental health

N=40 Staff perspective:
• Policies, rules, relationships
• Successes and challenges
Data Challenges

- Identifying data sources (e.g. ICES)
- Centralized access to data (e.g. HIFIS)
- Data sharing policies (e.g. fed. corrections)
- Coordinating ethics approvals (e.g. REB x 25+)
- Informed consent and privacy (e.g. Death records)
- Scope of REB approvals (e.g. prov. corrections)
# National Research Team

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Thank You!

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