TOWARDS ALCOHOL HARM REDUCTION: RESULTS FROM AN EVALUATION OF A CANADIAN MANAGED ALCOHOL PROGRAM

A report prepared for the Canadian Mental Health Association of Sudbury/Manitoulin by the Canadian Institute for Substance Use Research, University of Victoria, BC, Canada

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Executive Summary

Introduction

The introduction of managed alcohol programs (MAPs) provides a new alternative in the system of care for those who are experiencing severe problems with alcohol combined with homelessness and housing instability. While potentially a form of treatment, MAPs are underpinned by a harm reduction approach in which the main goals are to reduce harms associated with drinking in street-based settings, drinking non-beverage alcohol (NBA) and homelessness or housing instability. There is promising evidence for the effectiveness of MAPs to improve outcomes related housing, health and quality of life, alcohol consumption including reduced NBA use, alcohol related harms, and reductions in other service use. These outcomes are being evaluated further in the Canadian Managed Alcohol Program Study (CMAPS). In CMAPS, we are using a mixed methods design with parallel collection of qualitative and quantitative data where we examine outcomes related to housing, quality of life, health, alcohol consumption, NBA use, and alcohol related harms as well as program implementation to better understand the factors influencing MAP participant outcomes. In this evaluation of the Sudbury MAP we aimed to address several research objectives including whether participating in this program impacts: (1) quality of life in terms of housing satisfaction and stability, physical and mental health; (2) patterns of alcohol use including NBA use and related harms; (3) usage of health services. A fourth and final objective was to gain qualitative insight into any emergent issues related to program implementation in order to help form policy recommendations for the Sudbury MAP.

Methods

For this program evaluation, we undertook a small scale mixed methods evaluation that tested a revised CMAPS research protocol and provided a site-specific evaluation of the MAP located in Sudbury. In-depth quantitative information on housing, mental and physical health, alcohol consumption, NBA use and experience of alcohol related harm was collected from eight MAP participants through monthly surveys for a 6 month period as well as through accessing secondary administration records from the MAP itself and also from the Drug and Alcohol Treatment Information System (DATIS). Parallel information was collected from comparable group of 16 control participants who met the eligibility criteria for participating in the Sudbury MAP but who were not currently enrolled in the MAP. Five MAP participants and eight MAP staff participated in in-depth open-ended qualitative interviews regarding their understandings of the program including goals, implementation and impact of the program. We also conducted similar interviews with five staff from other community organizations that serve a similar population as the Sudbury MAP. These qualitative interviews provide insights about program operations and inform recommendations for enhanced implementation and improved outcomes.

The two participant cohorts recruited for the quantitative portion of the study (MAPs and controls) were similar to one another in terms of age and gender but different in terms of ethnicity, and specifically Indigenous identity. The mean age amongst the eight MAP participants was approximately 43 years; the mean age among the 16 control participants was 45 years. The majority of both MAP and control participants identified as male (87.5%). Approximately 63% of control participants compared to only 25% of MAP participants identified as Indigenous. Participant cohorts were also similar in terms of housing status, employment status as well as severity of alcohol related problems. The majority of MAP and control participants indicated they were unemployed (87.5%). Just over one third of control participants (37.5%) and approximately two thirds of MAP participants (62.7%) were housed. All participants were assessed using the Alcohol Use Disorders Identification Test (AUDIT) as being alcohol dependent. Scores on the Severity of Alcohol Dependence Questionnaire (SADQ) test indicated severe alcohol dependence for

approximately 77% of control and 86% of MAP participants. Overall, comparable participant cohorts were successfully recruited into the study, however, the difference in ethnicity with more controls than MAP participants identifying as Indigenous should be noted when interpreting the results. A further limitation of the design was that because most MAP participants had already been on the program for almost 4 months when the first interviews were conducted, their reported status at this point on the outcome measures cannot be regarded as a true baseline as they may have already adjusted to and perhaps begun to experience benefits from being on the program. Due to the small number of people that were followed up, the quantitative results should not be generalized and need to be interpreted with caution. Only broad patterns are presented and instances of statistical significance highlighted where they are found.

Results and Discussion

Objective 1:

Housing Satisfaction and Stability

MAP participants highlighted in the qualitative interviews that the lack of housing connected to the program presents some significant challenges and often means that individuals must return to streets when the program closes at the end of the day without the important supports that the MAP provides. For many, this means consuming alcohol, sometimes NBA, to cope. Additionally, while obtaining housing was considered an important aspect of the program, there were few suitable housing options in close proximity to the program and thus daily travel sometimes created barriers to ongoing access to the MAP. Overall, the quantitative data showed that fewer MAP participants (37.5%) reported current homelessness compared to controls (62.5%). Half of all control participants and a quarter of MAP participants indicated drug and alcohol use as a barrier to securing housing. Overall, MAP participants' satisfaction with their housing was similar to that of controls however, MAP participants consistently rated their housing safety significantly higher than controls.

Mental Health and Well-being

Promoting mental health and wellbeing was identified by participants in the qualitative interviews as an important focus of the program. MAP staff highlighted their role in facilitating greater independence of program participants and participants identified that the program played a role in reducing social isolation, specifically by providing stability in their lives and opportunities to reconnect with family. While program activities can play an important role in engaging participants, staff raised concerns about client motivation to participate and clients expressed that activities did not always suit their interests. The program overall was described as welcoming but participants spoke of some on-going concerns about safety due to aggression and fighting between MAP participants that are reflective of street life outside the program. MAP staff also acknowledged that supporting participants to communicate and relate to others appropriately and positively is a challenge within the program. Staff expressed that the process of developing trusting relationships and feelings of safety over time requires a lot energy, learning and support.

Quantitative survey responses showed that there were no significant differences between MAP and control participants on their ratings of physical health, psychological wellbeing, the quality of the environment they lived in and their social relationships; all four of these dimensions had low scores across the board at Time 1 of the study. However, MAP participants did show slightly improved scores of social relationships and environment at Time 2 (approximately 6 months later) which may be reflective of the program helping reduce social isolation and providing meaningful activities for participants.

Changes in Physical Health

In the qualitative interviews, MAP participants described multiple chronic illnesses and significant health challenges related to chronic pain and past injuries, which they linked to increases in drinking throughout their life. Participants reported improved eating habits and some were experiencing fewer symptoms of alcohol withdrawal since entering the program. However, due to the MAP only providing day services as part of their program, participants indicated they still consumed alcohol outside of the program hours to manage remaining withdrawal symptoms.

As would be expected, the quantitative ratings of physical health on the WHO-BREF Quality of Life scale for both MAP and control participants indicated compromised health and functioning and levels remained mostly stable for both participant groups over the course of the study period. Self-rated physical health improved slightly for controls and slightly worsened for MAP participants though differences were not significant. The limited number of liver function tests (LFT) available for MAP participants indicated most participants show persistent or worsening liver damage.

Objective 2:

Patterns of Alcohol Consumption

In qualitative interviews, MAP participants reported decreases in alcohol use or switching to less harmful alternatives. However, reported drinking outside the program continued primarily to manage symptoms of withdrawal before and after program hours and/or to cope with continuing homelessness in some cases. This highlights challenges faced by a day program in which suitable housing in close proximity to the program is not always available and program hours may not be aligned with current drinking patterns of participants. Based on the alcohol consumption records recorded by program staff, MAP participants reduced their overall alcohol consumption over the 9-month study period from an average total of 8.4 to 6.5 standard drinks per day. However, during this time MAP-administered drinks decreased over time (from an average of 8 standard drinks to 5 standard drinks) and the number of drinks being consumed outside of the MAP increased (from an average of 0.2 standard drinks to 1.8 standard drinks).

In contrast, the records for average total daily alcohol consumption for both on- and off-MAP alcohol consumption as reported to the CMAPS research interviewers was much higher. Higher levels of total alcohol consumption being reported to CMAPS interviewers as compared to MAP staff has also been found to occur in other MAPS in Canada and the discrepancy is often due to participants feeling less comfortable reporting their outside drinking to MAP staff than to CMAPS interviewers (Chow et al., 2018).

Of potential concern is that, at Time 2 of the study, the total daily drinking amounts, including drinking within the program and outside the program, that were reported to the CMAPS team during participant surveys showed an increase in overall alcohol consumption for MAP participants compared to a decrease in overall consumption among the controls. The reported total number of drinking days for the past month remained relatively stable for both MAP participants and controls. This finding from the research survey data suggests that MAP participants' overall alcohol consumption, including both on- and off- MAP drinks, may have increased compared to controls, although these trends were not statistically significant. The higher study drop-out rate for control participants may also be impacting the outcomes of this group and shifting their daily drink totals downward. In other words, the remaining controls interviewed at 6 months may be biased towards having improved overall functioning, including reduced drinking, in comparison to those controls who did not continue on with the study who may not have reduced their drinking.

Non-Beverage Alcohol (NBA) Use

In the qualitative interviews, program participants reported decreasing their NBA use since joining the

MAP and in some cases participants indicated they did not use it at all. It is important to note that this reported decrease or lack of NBA use may be partly reflective of the stigma associated with NBA and participants' possible reluctance to disclose use to the CMAPS interviewer. MAP participants identified that NBA is often used as a last resort to manage alcohol withdrawal symptoms when beverage alternatives are not available to them. In the quantitative surveys, NBA was reported as being used by a greater number of control participants than MAP participants and mouthwash was the type most frequently used among both groups. At the time of first assessment (Time 1), more controls were consuming NBA than MAPs; however, this had leveled off by Time 2 and controls and MAP participants were consuming comparable amounts. Due to the small sample size even changes found amongst a small number of participants can affect overall trends. Due to the small sample size and limited observation period of 1 month general trends should not be drawn based on these findings.

Alcohol-Related Harms

MAP participants shared that they were experiencing fewer legal, physical and social harms since joining the program and the MAP was described as being safer than the street. However, there were still challenges related to violence and aggression within and outside the program that were a reflection not only on the time required to transition into the program, but also the continuing homelessness of some participants who must return to the street after program hours. At the time of first self-reported assessment (Time 1), nearly all of the control participants reported experiencing physical harms related to alcohol use in the past month compared to only half of the MAP participants reporting the same; this difference was statistically significant. This more positive result for MAP participants likely reflects some early benefits from their already having been on the program for a few months before these first interviews took place. In terms of housing related harms, assaults, seizures and passing out due to alcohol use at Time 1 there were also marked differences between MAP and control participants, with control participants reporting more harms; these differences were not statistically significant. At Time 2, there were markedly fewer MAP participants reporting harms to physical health, work/employment opportunities, financial, legal, housing, "learning things", and "passing out" than at Time 1.

Objective 3:

Access to and Usage of Health Services

In the qualitative interviews both MAP staff and other community partners noted MAP participants' frequent ER presentations and hospital admissions prior to entering the program and noted a subsequent shift towards more regular access to non-emergency care upon entering the MAP. Another important impact of the program identified by many MAP participants was that they not only had better access to health care and medications but also felt they had better and less stigmatizing interactions and relationships with health care providers. This finding may reflect the important work done by the MAP in partnership with other agencies and also by the MAP advisory committee to increase the broader community's understanding of MAP client needs and individual situations.

When looking at participants' actual use of treatment services while they were on the MAP, participants demonstrated significantly higher use of treatment services as compared to controls. This pattern of frequent access to alcohol treatment and detox services likely reflects the fact that the MAP recruited into the program individuals most in need of these types of services and may also serve as a supported way to short term breaks from alcohol consumption. Further, looking at MAP participants' overall access to treatment services going back to 2008, access remained unchanged regardless of whether they were currently on the MAP or off the MAP; this may be due to some MAP participants continuing to access detox in the absence of other housing or shelter options during the times when they were not on the MAP.

Objective 4:

Program Implementation: Understanding and Interpreting MAP Goals and Indicators of Success

Qualitative interviews with program participants, staff and community partners highlighted the importance of developing clear and shared common goals and indicators for success as these reference points impact not only implementation but also participant and staff experiences in the program. For example, staff, community partner, and program participant ideas of admission criteria, success and failure were different depending on their views of program goals. Depending on their position, those who were interviewed often spoke differently about harm reduction interventions. Some spoke at the behavioural-level of individuals changing or learning to make safer choices around alcohol use and some spoke about the management of alcohol use, and/or in regards to altering the social and economic structures and environments of drug use (e.g., providing housing) to facilitate safer use. Critically, harm reduction programs require *both* types of interventions at the individual and structural level. It was apparent from interviews that there is a complex dynamic in which some staff are measuring success by the reduction of physical harms through decreased use of NBA and/or safer drinking patterns where consumption may or may not be reduced. Other staff are measuring success by the reduction of social harms related to unsafe environments and improved mental health and wellbeing, regardless of drinking patterns and level of consumption.

It is important to recognize that there are multiple rather than competing measures of success within a harm reduction program. Measures of success in a MAP can include reducing or eliminating consumption of NBA, reduced consumption as a means of reducing harms, reducing drinking outside the program and drinking on the program as well as reduction of social harms related to homelessness. While abstinence is often not a realistic indicator of program success in a MAP context, this does not preclude individual participants from pursuing eventual goals of abstinence if they wish and there may be points in time in which detoxification even for short periods is recommended as a way of preventing certain harms. In light of multiple and sometimes competing ideas of program goals and indicators of participant success, attention to clarifying understandings of program goals and measures of success would be beneficial ongoing. In particular, there is a need for a wider view of how program participants are benefiting from the MAP based on multiple health, social, cultural, and economic domains and participant-defined goals. This perspective or lens fits well with the strong mental health recovery culture readily apparent within the program, in which changes in day to day life that facilitate hope, life skills, autonomy and citizenship are encouraged but ultimately defined by the individual.

Conclusion

This evaluation aimed to address several research objectives in order to form policy recommendations for the Sudbury MAP. These objectives included establishing whether participation in this MAP impacted (1) quality of life in relation to housing satisfaction and stability, physical and mental health; (2) patterns of alcohol use including NBA use and related harms; (3) usage of health services and also to gain insight into (4) any emergent issues related to program implementation.

On balance, this evaluation showed only limited quantitative evidence of a reduction of certain alcohol related-harms for participants in the Sudbury MAP day program compared to the control participants. There were some improvements in feelings of safety with fewer assaults and better social relationships however, there was some concerning evidence of increased alcohol use, persistent and in some cases worsening liver function and no improvement in overall physical health for MAP participants. Qualitative evidence indicated that MAP participants experienced improved quality of life, better relationships with health care providers and easier access to health services as result of being in the MAP. However, there were also concerns around access to supports to help participants manage withdrawal symptoms and

other harms related to intoxication afterhours, particularly among those who remained unhoused.

While the program is clearly striving to serve better the needs of this particularly vulnerable and underserved population in Sudbury, the current protocol design as a day program coupled with the absence of a residential component may not be reducing the risk of certain types of alcohol-related harms for its participants. It would be critical for the program management to consider implementation of some of the recommendations outlined below in order to ensure that the MAP can most effectively reduce certain harms for their participants and successfully achieve their stated program goals.

Recommendations

1. **Implementation of a residential model:** We strongly support the program moving towards a residential model that would provide stable housing to those who need it. We feel that a residential model would offer the best opportunity to realize the full benefits of a MAP while also supporting program participants who choose to stay in independent housing. A residential model would help address some of the safety, dosing and outside drinking issues reported by program participants and staff. We suggest this model may better enable participants to stabilize their alcohol consumption and achieve less hazardous patterns of use.

2. **Expanding Understanding of Harm Reduction Goals and Indicators of Success:** While the stated overarching goal of the MAP is to reduce alcohol-related harms rather than overall consumption, there were differences in how program participants, staff and community partners understood that goal and varying perceptions of what constituted success. Based on our findings, there can and should be multiple indicators of program success. These could include goals of reducing or eliminating NBA, reducing consumption to prevent harms through safer drinking patterns (e.g., drinking on the program, reduced drinking outside the program and attention to consumption levels in relation to harms) and reducing social harms and improving quality of life and well-being. In light of multiple and sometimes competing ideas of program goals and indicators of success, attention to clarifying understandings of realistic program goals and measures of success would be beneficial ongoing. It would also be helpful to create a more nuanced understanding of program goals moving towards realistic expectations and improvements for participants within the context of a day program. As part of the measures of success, it is possible to take a wider view of how participants are benefiting from the program based on multiple health, social, cultural, and economic domains and participant-defined goals. Indeed, there are notable successes of the program with qualitative reports of improved relationships with health care providers and better health access as well as reported improvements in overall quality of life and housing satisfaction for some. This perspective or lens fits well with the strong mental health recovery culture readily apparent within the program, in which changes in day to day life that facilitate hope, life skills, autonomy and citizenship are encouraged but ultimately defined by the individual. However, in the absence of providing housing as part of the MAP, there may be only limited potential for a day program to achieve more than very short term reductions in some harm domains while, worryingly, physical health may continue to deteriorate.

3. **Revised Alcohol Administration and Dosing Schedules:** While the MAP continues to operate as a day program and during the transition to a residential model, adjusting the alcohol administration protocol to better address the needs of participants who are housed and those who are unhoused or currently staying at the nearby shelter should be considered. The mornings were identified by a number of participants as the most challenging time to be without the supports and regulated doses of alcohol provided by the MAP. Participants who were currently housed but who had to travel a fair distance by public transit to access the program reported struggling with managing their early-morning withdrawal symptoms along with their commute prior to having access to the MAP. In some cases the search for alcohol to address or avoid

withdrawal delayed their arrival at the program quite significantly or precluded their arrival altogether. Facilitating program access for these particular participants by either implementing early morning alcohol deliveries, which would tide them over during their commute or providing rides to the program first thing in the morning could be potential options. For those who are either staying on the streets or accessing the shelter nearby, providing earlier access to the program in the mornings would reduce the amount of time prior to the MAP's current opening hours when participants reported they were most likely to experience withdrawal symptoms and seek outside alcohol outside to cope. For participants who are housed and who have had some success in stabilizing their alcohol consumption, tailoring an individual dosing schedule that might include a set number of carries that the participant could self-manage during off-program hours may be another option. If these recommended changes were to be implemented, overall dosing schedules for individual participants would also need to be reviewed and revised accordingly.

4. **Implementation of tailored program activities and inclusion of peer leaders:** Increasing opportunities for participants to provide input into the program activities might be beneficial for creating programming that is more specific to the age, gender, and ethnic mix of the group as well as their particular life- and work-related goals. Introducing programming such as safer-drinking workshops could be another way to provide relevant information that could increase participant safety while building capacity and reducing stigma around alcohol consumption. MAPs in other communities have had great success with developing peer leaders from within the pool of program participants and this has consistently led to more engagement in the program with increased social cohesion and overall feelings of inclusion and accountability. In some cases, bringing in a former program participant who has maintained some stability in their alcohol consumption and who can act as a leader or mentor for the others has also been an effective strategy. By creating a more engaging, empowering and cohesive atmosphere it may become easier for staff to work alongside participants to achieve the overarching program goals and attain more positive individual outcomes.