Randomized controlled trial of harm reduction treatment for alcohol (HaRT-A) for people experiencing homelessness and alcohol use disorder.


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Heavy drinking is clearly problematic for homeless populations, but is the best way to tackle it to aim for abstinence, or to accept the reality of life on the streets and aim to reduce harm and improve lives in ways which make sense to the patient? This US study supports the latter, but without conclusively deciding the issue.

**SUMMARY** People who are homeless are disproportionately affected by a range of physical, psychological, and social problems, including risky and dependent drinking – the focus of the featured study from Seattle in the USA.

Treatments for people with drinking problems, particularly those severely affected, have in the US traditionally been rooted in abstinence. For homeless people, although studies suggest that abstinence-based treatments are associated with modest improvements in drinking outcomes (1 2 3), these improvements tend only to be experienced by the few who are engaged and retained in treatment. A review of substance use treatment programmes from the US National Institute on Alcohol Abuse and Alcoholism showed that treatment engagement in this population weakened as the demands made on them by the programme – particularly for abstinence from substance use – became more onerous.

The few studies addressing the topic have shown that only a minority of homeless people start treatment (1 2), and even fewer complete it.

Given the failure of existing treatments to adequately engage with this population, the featured study examined the feasibility, desirability, and short-term outcomes of treatment oriented towards harm reduction rather than abstinence. Researchers predicted that, compared to participants in a services-as-usual control group, those allocated to a harm reduction intervention would, over a three-month period, reduce their peak drinking, drinking to intoxication, number of symptoms of alcohol use disorders, and alcohol-related harm, as well as improve their quality of life and increase their motivation for alcohol harm reduction (assessed by participants’ readiness for, confidence about, and perceptions of the importance of changing drinking behaviour to reduce its adverse effects). To place the efficacy of the intervention in the context of the larger alcohol research literature and typical clinical practice, researchers also explored the effects of the intervention on more conventional abstinence-oriented outcomes, including a biological outcome (presence of ethyl glucuronide in urine, used to detect recent drinking) and self-reported abstinence.

**Co-creating an intervention based on harm reduction**

Harm reduction approaches are a diverse set of compassionate and pragmatic strategies that do not require or advise abstinence or reduction in use. Treatment under the umbrella of harm reduction involves individual-level behavioural counselling that entails accepting people ‘where they’re at’, while helping them make informed decisions to reduce their substance-related harm and improve their quality of life.

In the featured study, a harm reduction intervention was developed through a collaborative process involving researchers, people with lived experience of homelessness and drinking problems, and providers serving this population. Specific components of the intervention were:

- joint tracking of alcohol-related measures preferred by the participants;
- discussion of participants’ own harm reduction and/or quality of life goals as the primary treatment focus;
• discussion of safer-drinking strategies.

The mindset of co-creation honoured the long-standing grassroots movements that have advocated for community representation in the development of harm reduction interventions (1 2), and was carried through into the intervention itself – participants' voices were centred in individual sessions, and the intervention as a whole emphasised the wisdom of the participant in defining their own pathway to recovery.

The intervention applied motivational interviewing within a harm reduction treatment context, promoting a compassionate way of being and communicating with participants; in other words, 'feeling with' the participant coupled with an unconflicted desire to support the participant on their own chosen trajectory.

Participants were recruited from three community-based healthcare and social service agencies in Seattle, Washington. The proposed sample size (160) was exceeded during recruitment (169) and consisted of people aged 21 and above, homeless for at least six of the last 12 months, and meeting Diagnostic and Statistical Manual of Mental Disorders (DSM-5) criteria for alcohol use disorder (unfold supplementary text). Potential participants were excluded if they were unable to consent to participate, or posed a risk to the safety and security of other clients or staff. One participant was later excluded from analyses as they received the treatment and subsequent follow-up assessments far outside of the time window stipulated by the protocol due to administrative errors.

In the past year, have you:
1. Had times when you ended up drinking more, or longer, than you intended?
2. More than once wanted to cut down or stop drinking, or tried to, but couldn’t?
3. Spent a lot of time drinking? Or being sick or getting over other aftereffects?
4. Wanted a drink so badly you couldn’t think of anything else?
5. Found that drinking – or being sick from drinking – often interfered with taking care of your home or family? Or caused job troubles? Or school problems?
6. Continued to drink even though it was causing trouble with your family or friends?
7. Given up or cut back on activities that were important or interesting to you, or gave you pleasure, in order to drink?
8. More than once gotten into situations while or after drinking that increased your chances of getting hurt (such as driving, swimming, using machinery, walking in a dangerous area, or having unsafe sex)?
9. Continued to drink even though it was making you feel depressed or anxious or adding to another health problem? Or after having had a memory blackout?
10. Had to drink much more than you once did to get the effect you want? Or found that your usual number of drinks had much less effect than before?
11. Found that when the effects of alcohol were wearing off, you had withdrawal symptoms, such as trouble sleeping, shakiness, restlessness, nausea, sweating, a racing heart, or a seizure? Or sensed things that were not there?

Research staff conducted 45-minute baseline interviews with participants, who were then randomly allocated to one of two groups (control group versus harm reduction treatment group). After being scheduled for their next sessions one week later, all participants received a $20 payment. Participants in the control group did not receive the harm reduction intervention, though did attend assessment sessions at each time point (week one, week two, week three, and then one and three months later) and therefore experienced the same number of meetings with research staff.

When possible, harm reduction participants received their first 20–30 minute treatment session immediately after the week one assessments, and in all, were scheduled to attend three weekly treatment sessions plus a one-month booster session. Usual services were available to participants in both groups, including outreach, case management, nursing/medical care, access to external service providers, and assistance with basic needs (ie, food, clothing, income, housing).

Within the sample, 8% met criteria for mild alcohol use disorder, 10% for moderate, and 82% for severe levels of alcohol use disorder. Most participants (78%) reported at least one day of polysubstance use at baseline (ie, drinking alcohol plus at least one other substance), with the top three substance used being cannabis (59%), crack cocaine (40%), and methamphetamine (18%).

Of the harm reduction participants, 77% returned for the week two assessment session, 79% week three, 73% month one, and 76% month three – this compared with 84%, 87%, 72%, and 72% respectively for those in usual services only.

Main findings

Harm reduction outcomes

Compared with usual services only, the harm reduction intervention was found to have significantly greater benefits:
• peak alcohol quantity decreased by an additional 10% for each two-week period that passed;
• number of days drinking to intoxication;
• alcohol-related harm decreased by an additional 6% for each two-week period after study enrolment;
• participants were 13% less likely to experience an additional symptom of alcohol use disorder for each two-week period after study enrolment;
• importance of reducing alcohol-related harm and confidence in being able to do so.

No significant difference in health-related quality of life was associated with the intervention. Despite positive findings on two of the measures indicating motivation for changing drinking behaviour to reduce adverse effects, there was no significant difference in a third such measure, readiness for harm reduction.

Abstinence outcomes
The harm reduction intervention was associated with a significantly greater effect than usual services only on:
• likelihood of urine samples testing positive for recent drinking, which decreased by 18% for each two-week period;
• continuous abstinence.

The authors’ conclusions
The evidence suggests that this harm reduction intervention has at least short-term efficacy in improving alcohol-related outcomes among people who are homeless. That it was not also associated with improved quality of life could be explained by several factors:
• the brevity of the treatment (delivered over four sessions) making it difficult to engender change, and the short follow-up period (three months) being inadequate to capture change in quality of life;
• the achievement of positive and sustained change in quality of life requiring meeting the many other basic needs of this population, including food security, permanent housing, and adequate medical and mental health services;
• common measures of quality of life being too generic to capture alcohol-specific aspects of quality of life.

Future studies are needed to test the longer-term efficacy of the intervention, compare it to abstinence-based treatments, and explore its underlying mechanisms of action. Ultimately, it will be important to know if the self-reported reductions in alcohol-related harm documented in this study correspond to longer-term reductions in alcohol-related mortality, criminal justice system involvement, and health-related quality of life. If so, the harm reduction mindset and intervention components could be adapted and evaluated across different sociodemographic and substance using populations to address the needs of the large numbers of people with substance use problems in the general population who are currently not served by abstinence-based treatments.

COMMENTARY
The question at the heart of this study has been the focus of an Effectiveness Bank hot topic: “Should dependent drinkers always try for abstinence?” The study authors concluded that, compared to usual services, four sessions of a harm reduction intervention (plus access to usual services) improved alcohol-related outcomes in the short term among people who are homeless and have drinking problems.

The totality of the study, which included the co-creation of a harm reduction intervention with people who have lived experiences of homelessness and drinking problems, contributes to the evidence base for a vulnerable population which has not been well served by treatments which require abstinence. However, the study did not compare treatments aimed at harm reduction versus those aimed at abstinence, so could not demonstrate whether one was more effective than the other. Without this side-by-side look at the two different styles of treatment it makes it very difficult to disentangle the mechanisms or active ingredients of the treatments themselves from the non-specific, common factors shared by different treatments.

The harm reduction intervention was not associated with an effect on quality of life. Plausibly, the authors suggested that achieving positive and sustained changes in quality of life in this population likely also requires meeting the many other basic needs of this population, including food security, permanent housing, and adequate medical and mental health services. While usual services available to all participants did include “assistance with basic needs (ie, food, clothing, income, housing”, the paper did not embellish on the intensity of these services, or the flexibility of service providers to adjust their intensity based on the severity of people’s problems, which among this sample was likely to be high.

All study participants met the criteria for alcohol use disorder, a classification which combines alcohol abuse and alcohol dependence into a single disorder measured on a continuum from mild to moderate to severe. In this case the overwhelming majority presented with severe levels of alcohol use disorder (82% versus 8% mild and 10% moderate), and as a result the study primarily reflects how to treat severely affected drinkers rather than those with less severe drinking problems.

The study’s implications were supported by a rapid evidence review of best practice in other countries intended to inform the Scottish response to providing substance use services for
homeless people. Among its conclusions were that:

- In Scotland, England and elsewhere, there is a strong association between mental health problems or severe mental illness among homeless people and substance use problems.
- Services aimed solely at promoting abstinence tend to be met with quite limited success. Many either cease contact with these services before treatment or rehabilitation is complete, or avoid them to begin with.
- Rather than insisting on total abstinence, when services pursue harm reduction or harm minimisation policies, they are able to engage with homeless people with a substance use problem more effectively. In particular, US floating support models based on harm reduction have been shown to promote and sustain stable living arrangements and ensure contact with services.
- Homeless people with substance use problems tend to have a range of (often complex) needs. Services that focus on any one element, be it substance use, mental health or housing-related support, are less successful than services designed to support all their needs.

One of the messages from the review was that the pursuit of abstinence, independent living, and paid work for all homeless people with a history of substance misuse may not be realistic. Some are highly vulnerable and have ongoing health, personal care and other support needs which may demand long term interventions and preclude independent living or secure paid work. Harm reduction models also appeared more effective at engaging and retaining homeless people with substance use problems than services which insist on abstinence. However, services which pursue abstinence do succeed with at least a minority. This suggests a need for either a mixture of services, or a flexible model which can accept when harm reduction and semi-independent living are the only realistic goals, but can also pursue abstinence and independent living as appropriate, with further adaptations for rural areas.

Approaches to alcohol policy differ widely across the UK. An appraisal in 2015 found Scottish policy to be most closely aligned with evidence-based recommendations, framing alcohol as a whole population issue in contrast with UK government policy which is influenced to a greater extent by prevailing beliefs about personal responsibility.

The Scottish Government’s 2018 drug and alcohol strategy is underpinned by a public health and human rights-based approach. In practice this means: recognising the impact of problem drinking and drug use on population health and wellbeing; encouraging work across multiple policy areas to reduce the harms of drugs and alcohol, including housing, education and criminal justice; grounding approaches in the legal rights that citizens have under both domestic and international laws; involving people in decisions that affect their rights; and preventing and eliminating all forms of discrimination, prioritising people who face the biggest barriers to realising their rights. There is also an accompanying alcohol framework, outlining 20 key actions that seek to "reduce consumption and minimise alcohol-related harm arising in the first place”.

The UK Government’s alcohol strategy has now lapsed, and though in early May 2018 the government committed to developing a new strategy on alcohol for England, at the time of writing this had not been published – arguably leaving the national response to be guided by the Modern Crime Prevention Strategy which identified alcohol as a key driver of crime and disorder.

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STUDY 2010 Initial preference for drinking goal in the treatment of alcohol problems: II. Treatment outcomes

STUDY 2008 Computer-assisted delivery of cognitive-behavioral therapy for addiction: a randomized trial of CBT4CBT