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► [Effect of motivational interviewing on reduction of alcohol use.](#)



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Nyamathi A., Shoptaw S., Cohen A. et al.
Drug and Alcohol Dependence: 2010, 107(1), p. 23–30.

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At Californian methadone clinics, group education sessions led by a nurse and focused on the risks of aggravating hepatitis infection led to the same substantial reductions in drinking as one-to-one or group motivational interviewing conducted by highly trained counsellors, offering a cost-effective means to reduce alcohol-related risks.

Summary Many methadone-maintained patients drink excessively, a particular concern among those infected with hepatitis C for whom drinking may accelerate disease progression. Motivational interviewing is the most popular counselling approach found to reduce drinking, but so far no studies have tested it among patients treated for opioid dependence in methadone maintenance programmes.

The featured study aimed to start to fill this gap in the research and at the same time (given the dominance of group counselling in US treatment services) compare one-to-one motivational interviewing with the less familiar group version, and with a nurse-led group education programme focused on the relation between drinking and disease related to hepatitis C infection.

Each of the three approaches occupied three fortnightly one-hour sessions over the first six weeks after patients started methadone treatment. Interventions were guided by set protocols and delivered by staff trained in these approaches and supervised to help ensure they delivered them as intended. Patients were paid \$5 for each session they attended.

Group and individual motivational sessions were generally conducted by different counsellors. Sessions explored the impact of drinking on health and risky behaviours and

while focusing on life goals, worked through ambivalence about cutting drinking. Sessions were open, meaning that patients who had not completed three sessions in their original group could join a later one. Instead of a motivational approach, the nurse-led (assisted by a hepatitis-trained research assistant) hepatitis health promotion programme adopted an educational format. Sessions focused on the progression of hepatitis infection and culturally-sensitive strategies to prevent liver damage. Content included the dangers of drinking while infected with hepatitis, strategies for avoiding drinking and drug use, diet, the dangers of reinfection with hepatitis C if patients inject, other infection routes, consistently looking after one's health, and seeking social support and building self esteem.

After these sessions patients suitable for this started a course of hepatitis A and B vaccinations, concluding at the same time as a six-month follow-up interview.

Participants in the study were 256 adult drinkers starting methadone treatment at five Californian clinics who scored as moderate or heavy drinkers on a baseline questionnaire. They were randomly allocated to the three approaches to reducing drinking. Typically they were black or Latino men. On entering treatment about half had drunk at least **90 US standard drinks** in the past month. On average 87% of the patients completed all three of the study's counselling/education sessions and 91% completed the six-month follow-up.

Main findings

The main outcome tested by the study was the proportion of patients who cut their drinking by half from the month before they started treatment to the month before the six-month follow-up. On this yardstick, and on the yardstick of total abstinence, there were not only no statistically significant differences between patients allocated to the three interventions, but also no substantial differences. In each group about half the patients halved their drinking, ranging from 54% after group motivational sessions to 49% after hepatitis education and 47% after one-to-one motivational sessions, and from 20–23% had not drunk at all in the past month.

Once other variables had been taken in to account, across the three sets of patients the strongest predictor of which patients would halve their drinking was how much they drank before treatment; the more they drank, the more likely they were to halve it. Women were more likely to halve their drinking than men as were better educated patients and those who took at least one dose of vaccine, while less likely were those whose partners were also drug users or who had recently used cannabis.

The authors' conclusions

The major finding of this study was that all three interventions were followed by roughly equally substantial reductions in drinking at the six-month follow-up. Delivered by trained therapists, group and one-to-one motivational interviewing sessions neither differed in effectiveness from each other nor from a nurse-led group hepatitis education programme focused on reducing drinking.

For services the implications are that the cost-saving group format can be used without detriment to effectiveness and that costs may also be saved by implementing programmes led by nurses rather than therapists, with the potential added benefit that such programmes can be integrated within more comprehensive health promotion.

Research nurses also administered the vaccines, receipt of which was associated with drinking reductions, perhaps partly because of the extra time and attention required to explain the vaccine.

It should be acknowledged that any differences between the interventions may have been obscured by differences between the staff implementing them, and that patients had volunteered for a research study rather than being counselled during routine practice.

FINDINGS Half the patients halving their drinking seems an impressive result. However, the patients were extremely diligent in attending their sessions and completing the follow-up, suggesting that self-selection in to the study and the small financial incentive may have created a better platform for these kinds of intervention than would normally be the case.

It should also be stressed that the study lacked a no-intervention **control** group against which to benchmark these results. It could be that simply starting methadone treatment, the regularisation of one's life the treatment requires and enables, the medical setting and contact, being asked about one's drinking, and the clinics' usual hepatitis testing and care procedures, had a substantial impact on drinking. To avoid possible overdose, it is not unusual for methadone clinics to administer methadone only if patients test free of alcohol, another possible incentive to cut back. This was one of the reasons why **it was thought** patients in Germany required to test free of alcohol several times a day before heroin was administered cut their drinking more than patients on methadone, required to test free of alcohol just once a day.

Set against this speculation is **a review** of the effects of methadone maintenance treatment on drinking, which found that 'no change' was the usual result. Given this context, it seems more likely that the interventions in the featured study did contribute to drinking reductions than that they did not.

Another report from the featured study focused on use of drugs other than alcohol. It reported that the two motivational approaches were followed by statistically significant reductions in substance use, while the reduction after the nurse-led approach was not statistically significant. However, once again there were no statistically significant differences *between* the three interventions. The authors concluded that on this yardstick too, group motivational interviewing had shown itself equivalent to the one-to-one format, and that this time there was some indication that the perhaps more alcohol-focused educational approach had less of a 'spillover' impact on non-alcohol drug use. As with drinking, it was the most severe users (the recent injectors) who made the greatest reductions in their drug use.

Motivational interviewing has **also been used** to try to reduce the drinking of methadone patients at a clinic in England. Reflecting the featured study's conviction that nurses could play a role, the intervention was conducted by a specialist nurse. Among patients identified by screening as heavy drinkers, 14 of 22 attended all five sessions and 11 markedly reduced their drinking. Again there was no no-intervention control group, but in this case the patients were not necessarily new to methadone treatment, so 'spontaneous' drinking reductions of the

For further evidence that other well structured approaches are usually as effective as motivational interviewing see this Effectiveness Bank **hot topic**.

order seen in this study are an unlikely explanation for the findings.

Thanks for their comments on this entry in draft to author Adeline Nyamathi of the University of California. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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