The Community Reinforcement Approach decreased alcohol intake in homeless alcoholics

Smith JE, Meyers RJ, Delaney HD. ***The community reinforcement approach with homeless alcohol-dependent individuals.*** *J Consult Clin Psychol 1998 Jun;**66**:541–8.*

Question
In homeless alcohol dependent individuals placed in transitional housing, does the Community Reinforcement Approach (CRA) compared with standard treatment decrease alcohol consumption and increase employment and housing stability?

Design
Randomised controlled trial with 12 months follow up.

Setting
A day shelter in Albuquerque, New Mexico.

Patients
106 participants (mean age 38 y, 86% men) who were chronically homeless and met *DSM-III-R* criteria for alcohol dependence. Exclusion criteria were a primary drug problem other than alcohol, psychosis, refusal to live in grant provided housing, unwillingness to delay getting a job, or involvement in another alcohol programme.

Intervention
Before allocation to the treatment groups, it was ascertained whether the participant was willing and medically able to take disulfiram. Those who matched these criteria were randomly assigned to 1 of: CRA plus disulfiram (n = 21), CRA without disulfiram (n = 19), or standard treatment (n = 21). Those not willing or unable to take disulfiram were randomly assigned to CRA without disulfiram (n = 24) or standard treatment (n = 21). The CRA therapists focused on problem solving, communication, drink refusal, independent living, and goal setting. Individuals in standard treatment could participate in the day shelter's services and 12 step counselling. All participants were housed in grant supported apartments for a maximum of 4 months. Treatment length varied according to individual needs.

Main outcome measures
Drinking levels measured using the Follow-up Drinker Profile, serum chemistry profiles, and the Addiction Severity Index; employment status; and housing stability. Participants were paid $20 for each follow up.

Main results
Follow up exceeded 80% at all assessment times except for 12 months (76% follow up). Since neither willingness and ability to take disulfiram nor its use had an effect, the 3 CRA groups were collapsed (n = 64) and compared with the 2 combined standard treatment groups (n = 42). Overall, drinking levels in both treatment conditions improved over follow up. Participants in the CRA group had statistically significantly lower standard ethanol content, fewer drinking days, and lower peak blood alcohol content compared with those in standard treatment for the first 4 follow ups. Only standard ethanol content was statistically significant at 12 months. Mean standard ethanol content each week declined from 136.31 each week pretreatment to 22.10 each week after treatment; mean drinking days declined from 5.01 to 1.45 days each week; and mean peak blood alcohol content declined from 287.35 mg% to 90.23 mg%. Participants in both conditions had statistically significant improvements in employment status and housing security, but there were no statistically significant differences between the conditions.

Conclusion
The Community Reinforcement Approach led to decreased alcohol consumption in homeless alcohol dependent individuals placed in transitional housing.

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Commentary

Smith *et al* outline an ambitious research project in an area that is in dire need of programme development and evaluation. Although estimates vary, problems associated with alcohol use are endemic among homeless adults. The authors of this study target a subgroup of homeless people with a primary diagnosis of alcohol dependence, and combine interventions in a research strategy designed primarily to assess the effect of an adapted community reinforcement approach (CRA). Additional interventions include disulfiram as an adjunct treatment component and grant provided housing for up to 4 months. Although the added benefit of disulfiram is addressed in detail and rejected as statistically non-significant, the importance of grant provided housing receives less direct attention. Although tenants are supposed to maintain sobriety in both housing settings, random breathaliser tests were conducted only in the CRA affiliated housing and not in the standard care group housing. As an intervention in itself, random testing may have an effect in sustaining lowered drinking levels after transition to other housing settings.

From a practical standpoint, it would be helpful to know more about optimal configurations of assessments and interventions to change and monitor the effects on drinking behaviour, employment, and housing stability. Given that self reports tend to underestimate prevalence,[1] the authors' experience using these in combination with serum chemistry profiles warrants some recommendations on how and when to assess for alcohol use. Other researchers focusing on homeless adults have described subject recruitment and retention during assessment, treatment, and follow up periods.[2 3] This research group is to be commended for its diligence in mustering the variety and amount of resources required to conduct their evaluation.

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1 Goldfinger SM, Schutt RK, Seidman LJ, *et al. J Nerv Ment Dis* 1996;**184**:667–72.
2 Hough RL, Tarke H, Renker V, *et al. J Consult Clin Psychol* 1996;**64**:881–91.
3 Stein JA, Gelberg L. *Health Psychol* 1997;**16**: 155–62.