

This entry is our account of a study selected by Drug and Alcohol Findings as particularly relevant to improving outcomes from drug or alcohol interventions in the UK. Unless indicated otherwise, permission is given to distribute this entry or incorporate passages in other documents as long as the source is acknowledged including the web address http://findings.org.uk. The original study was not published by Findings; click on the Title to obtain copies. Free reprints may also be available from the authors – click Request reprint to send or adapt the pre-prepared e-mail message. Links to source documents are in blue. Hover mouse over orange text for explanatory notes. The Summary is intended to convey the findings and views expressed in the study. Below are some comments from Drug and Alcohol Findings.

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▶ Internet therapy versus internet self-help versus no treatment for problematic alcohol use: a randomized controlled trial.



Blankers M., Koeter M.W.J., Schippers G.M. Journal of Consulting and Clinical Psychology: 2011, 79(3), p. 330–341. Request reprint using your default e-mail program or write to Dr Blankers at m.blankers@amc.uva.nl

From the Netherlands, the first randomised controlled trial to evaluate internet-based therapy for problem drinking via text-chat conversations with a real therapist found this improved on an automated self-help option; on average alcohol intake was cut by nearly two-thirds.

**Summary** The burden of ill health due to drinking partly results from the fact that most problem drinkers do not enter treatment, even though there are effective approaches. In particular, those whose problem drinking is recent and/or relatively less severe receive little attention. This 'treatment gap' can be bridged by innovative treatment options which access and work with these currently under-served populations at the lowest possible cost. Internet-based interventions are one class of such innovations, seen as attractive to otherwise 'hidden' drinkers with relatively mild alcohol-related difficulties.

Rather than an automated process, the most intensively resourced of internet-based interventions employ therapists to offer individualised feedback and therapeutic programmes in interaction with the client. This may be via successive e-mails or texts, or in 'real time' through text-based 'chat' conversations, internet telephone , or videoconferencing. The featured study conducted in the Netherlands was the first randomised controlled trial to evaluate real-time, internet-based therapy via text-chat conversations, comparing it both to no intervention and to automated and briefer on-line self-help with no therapist contact. More so than phone or video contact, the chat medium promotes frank communication due to a high degree of perceived anonymity, enables participants to re-read and further benefit from the interaction between themselves and their therapists, and automatically documents the therapeutic process.

### The interventions

Both interventions were text-based and derived from a Dutch treatment manual which embodied cognitive-behavioural therapy and motivational interviewing, the two most prominent 'talking' therapies for substance use problems.

The automated self-help program helps the user monitor their drinking, become aware of related thoughts and feelings, set drinking goals, and identify relapse-precipitating situations. Feedback is offered on their drinking-related contexts and inner states and their alcohol consumption, comparing the latter with their goal. To help reach this goal, the user is educated and trained in skills related to coping with craving, drinking lapses, peer pressure, and how to stay motivated in risky situations. Another strand in the intervention offers social support from other participants through an internet-based forum. Participants can access the service on demand; it is suggested they use it daily for at least four weeks, but few do so.

The therapist-led option uses similar but more extended cognitive-behavioural exercises offered over seven 40-minute text-based chat-therapy sessions, each preceded by a homework assignment. The successive themes are: introduction; pros and cons of drinking, how to monitor it and set goals; self-control; risky situations; craving and how feelings can influence drinking; lapse, relapse, and 'pro-lapse'; overall review. Therapists are psychologists from the collaborating substance abuse treatment centre, trained and experienced in delivering face-to-face cognitive-behavioural therapy for drinkers and further trained in internet-based delivery using chat conversations.

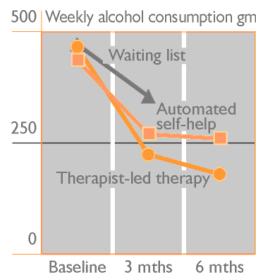
Visitors seeking to "reduce your alcohol intake or quit drinking" were recruited via the web site of Jellinek/Arkin, the collaborating substance abuse treatment centre. Interested visitors could complete a screening survey to determine their eligibility for the study, for which the main criteria were that they were adult drinkers living in the Netherlands who scored above the AUDIT questionnaire's threshold for risky drinking and on average drank over 140gm alcohol a week, but had not previously been treated for substance use problems, were not or had not been seriously ill in certain ways, and had not had used illegal drugs at significant levels. Such criteria correspond to those used to allocate patients to low-intensity outpatient treatment at the collaborating centre.

Eligible and consenting participants were randomly allocated either to one of the two interventions or to a three-month waiting period, after which they could access the therapist-led intervention. This meant that for the first three months, offering the internet-based interventions could be compared against offering no intervention. A further follow-up at six months checked for any persisting effects and differences between the two active interventions. It was expected that the study sample would benefit most from the most intensive (ie, the therapist-led) intervention and least from being placed on the waiting list.

In 2008–2009 1720 people completed the screening questionnaire, of whom 832 were eligible for the study and 205 decided to participate and were randomly allocated to the three arms. Averaging 42 years of age, half were women and around 8 in 10 were employed, typically in white-collar jobs. AUDIT scores averaged nearly 20 and they drank nearly every day, totalling about 450gm alcohol or 56 UK units, figures indicative of significant drink problems. They also scored as suffering from (relative to the general Dutch population) troubling psychological problems. Around 70% completed the three-

month follow-up assessments and 60% those at six months.

## Main findings



All four main outcomes (weekly drinking amount, AUDIT score representing drink-related problems, and two measures of quality of life) were significantly affected by the interventions.

Detailed analyses showed that while at three months weekly drinking amounts had on average fallen across the board, the fall was (as expected) greatest among patients allocated to the therapist-led intervention (down on average from 466gm to 224gm), somewhat less among those allocated to the self-help option (from 436gm to 270gm), and least among those placed on the waiting list (472gm to 355gm) > chart. For both interventions the falls were significantly greater than after simply being placed on a waiting list, but not significantly different from each other. This pattern was replicated for other three-month outcomes. Among these was a combination intended to represent a good response to treatment: drinking below risky levels without any substantial deterioration in drink-related or psychological problems or quality of life. For every five people allocated to the therapist-led intervention, one achieved a good treatment response who would not have done so had they been placed on the waiting list.

By six months benefits from the therapist-led intervention had further increased but those from the self-help option had stayed more or less the same. The result was that the superiority of the therapist-led intervention had become more apparent and statistically significant in respect of drinking amount (down to 180gm per week versus 260gm), drink problems and quality of life, and narrowly missing being significant in respect of response to treatment.

#### The authors' conclusions

Both internet-based therapy and internet-based self-help reduced problem drinking, but the therapist-led option was the more effective of the two, especially at the longer (sixmonth) follow-up. Not just drinking was beneficially affected but also alcohol-related problems and quality of life. Advantages of the self-help option include minimal or no costs per participant, while the therapy option could help equalise access to therapists in areas where therapist availability is limited, and to currently under-served drinkers, especially women and people in work. Both have the potential to dramatically extend

access to cognitive-behavioural therapies.

These findings were derived from a sample selected to be risky drinkers but not necessarily suffering from an alcohol use disorder. They were also relatively well-educated and generally employed full time, exemplifying the 'new population' of problem drinkers who can be reached with internet-based interventions. Within these parameters, the sample was diverse.

According to their AUDIT profiles, drinkers who had been invited to participate but declined were not markedly different from those who did participate in the study, suggesting that they too might respond well to the interventions. Loss to follow-up reaching 40% at six months raises concerns over the validity of the findings, but measures were taken to estimate what the outcomes of the missing participants would have been, and an analysis based only on those followed up produced similar results.

**FINDINGS** The consistency and magnitude of the findings favouring the interventions and especially the therapist-led option are indicative of a real and worthwhile impact, even if some of the findings of statistical significance might not have survived a stricter interpretation.

It is however of concern that so few people (1 in 8) who completed screening on the web site went on to participate in the study and that just 1 in 14 were represented in the sixmonth follow-up. Despite any similarities on the measures assessed by the study (especially AUDIT scores), clearly people who are eligible for and then go on join and comply with a study differ in some ways from those who do not. Outside a research context, free and ungated access over the internet might result in a different mix of intervention participants, and so too might the impacts of the interventions differ. For example, participants might have more serious substance use and psychiatric problems, some of which led web visitors to be excluded from the study. They might also be less interested in research and therefore perhaps less well educated and with less in the way of resources to aid their recovery.

None of this is to seriously cast doubt on the validity of the impacts on the people who did participate in the study, or to deny the probability that others interested enough to access the interventions would respond similarly. However, it could be that rather than a resource accessed widely enough to have an impact on public health across a country, internet-based alcohol treatment applications become one more niche option attracting and/or having a beneficial impact on a rather different population to conventional care.

The featured therapy-led intervention was among those whose impacts were simulated for the Netherlands, the results of which suggested that national health would improve and/or health care costs be reduced if on-line brief interventions and therapy were added to or partly replaced conventional alcohol-related care. The other interventions were:

- **DrinkTest**, a 10-minute, on-line intervention which assesses one's alcohol use and gives automated personalised advice;
- DrinkingLess, an on-line four-step cognitive behavioural intervention involving exploring one's alcohol use, setting goals, changing behaviour, and maintenance of behaviour change.

The second of these seems similar to the self-help option tested in the featured study. Since these three eHealth interventions increase in intensity, it was suggested that they could be used in a stepped-care framework, starting with the least intensive intervention, the DrinkTest, then if needed moving up to the more

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intensive levels of DrinkingLess and the on-line treatment tested in the featured study.

See other Findings analyses for a review of computer-delivered self-help interventions for drinking and smoking and a review focused on drinking. Both analyses include further commentary on the role of computer delivery and on UK findings.

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