


# DRUG ALCOHOL FINDINGS *Research analysis*

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## ▶ **A 9-month follow-up of a 3-month web-based alcohol treatment program using intensive asynchronous therapeutic support.**

**Postel M.G, ter Huurne E.D., Haan H.A. et al.**

**American Journal of Drug and Alcohol Abuse: 2015, 41(4), p. 309–316.**

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*In the Netherlands an intensive cognitive-behavioural treatment programme for problem drinkers based on messages sent via a web site between therapist and patient achieved substantial remission in drinking and improvements in health – promising results undermined somewhat by how few patients were followed up.*

**SUMMARY** The featured article reports a longer-term follow-up of participants in the Netherlands who undertook a web-based treatment programme for problem drinking as part of a randomised trial. The account below is based both on the featured article and on an [earlier report](#) which compared outcomes between patients offered and not yet offered the treatment.

### Three-month follow-up results from the randomised trial

The trial had included 156 adult problem drinkers who on the [project's web site](#) (now also available in an [English-language version](#)) had identified themselves as drinking at least 150g alcohol a week for women and 220g for men (about 19 and 28 UK units respectively), but no more than 670g for women and 990g for men. They were among over 500 who had responded to adverts and other invitations to join the study who said they had not recently been in alcohol treatment and were not suffering a psychiatric disorder. Just over half were women, 82% were employed, and they averaged 45 years of age. About 8 in 10 self-assessed as dependent on alcohol, though 86% had never received professional help. The women averaged 352g alcohol (44 UK units) a week and the men 419g (about 52 UK units).

Half were allocated at random to immediately gain access to a 12-session web-based treatment programme. The other half formed a **control** group who had to wait three months for access, during which they were kept in touch with through fortnightly **email messages** from the research project.

The web-based programme involved patients being allocated their own personal therapist with whom they communicated in writing via the project's web site. Rather than online 'chatting' in real time, communication was analogous to email messages, responses following some time after the initial contact. The programme was based on **cognitive-behavioural therapy** and **motivational interviewing**. The first part involved assessment, assessment feedback, a drinking diary, and identifying situations which for that individual risked heavy drinking. This part culminated in advice from the therapist on how the patient might change their drinking habits. Part two was the change phase, involving setting a drinking goal and formulating a plan for maintaining the new drinking behaviour.

Since on average the programme lasted about three months, at this point those offered immediate access could be re-assessed after having had a chance to complete treatment. The results were compared with assessments completed simultaneously by the control group still waiting to start the programme. At issue was whether immediate-access patients had improved more in their drinking than control patients; if they had, it would be evidence that the programme had exerted its intended effects.

**Key points**  
From summary and commentary

In the Netherlands an intensive treatment for problem drinkers based on messages sent via a web site between therapist and patient has attracted generally employed and well educated heavy drinkers, around half of whom are women.

In a randomised trial, at treatment completion patients offered access to the programme reduced their drinking and improved their health more than patients placed on a waiting list.

Patients who completed the programme sustained their improvements over the following six months.

Only patients who had completed treatment were followed up, perhaps biasing the results towards those achieved by a minority of more motivated and stable patients.

### Main findings

Only treatment completers could complete follow-up assessments. It meant that just 46% of immediate-access patients both completed the programme and completed the end-of-treatment follow-up. Baseline assessments at the start of the trial indicated they were on average more committed to treatment than patients who did not complete the programme. In contrast, 85% of the control group waiting for treatment were followed up. Based on the responses of those followed up, estimates were made of how the non-responders would have scored, and these were incorporated in the analysis of the treatment's impact.

Over the three months the control group barely reduced their drinking – on average by just 31g or about 4 UK units a week. Immediate-access patients reduced their drinking by a further 256g or 32 UK units a week, a large and statistically significant **difference**. Just over two-thirds of immediate-access patients were now drinking below the study's cut-off for risky drinking compared to just 15% of the waiting-list group. Immediate-access patients had also improved significantly more in physical and mental health but not on an assessment of quality of life.

### Longer term results

For the featured report the researchers pooled data from all 144 participants **who had received** the web-based intervention either immediately or after waiting three months, to check whether improvements seen at the end of the programme were sustained three and six months later.

Improvements had indeed largely been sustained. By the final follow-up only 58 of the participants could be re-assessed, but the analysis included all 144 by using data gathered before therapy and at whatever follow-ups the participant completed. On this basis, average weekly drinking significantly decreased from 399g alcohol before therapy to 114g at its conclusion, then increased over the next six months to finish at 195g – in UK units, decreasing from 50 units to 14 and then rising to 24 units. Substantial improvements in psychological and physical health at the conclusion of the therapy and a lesser improvement in quality of life were sustained.

### The authors' conclusions

Post-therapy improvements in drinking and health and in quality of life were sustained over the next six months. The decrease in alcohol consumption was substantial and clinically meaningful. These results suggest web-based alcohol interventions with intensive personal support from a therapist can help reduce problem drinking. However, support of the kind offered in this trial requires more resources than less intensive web-based interventions such as brief interventions or self-help programmes. Professional therapists available at least twice a week are needed to maintain communication with participants, and technology and security requirements are greater because personal information is sent between clients and therapists. Despite these costs, web-based alcohol interventions of this kind are legitimate additions to the range of treatment modalities as they attract new groups of problem drinkers and extend the accessibility of interventions.

Web-based treatment particularly attracts women and better educated and employed drinkers, groups under-represented in face-to-face therapy. Anonymity means participants no longer need stay away from treatment because of shame, fear of stigmatisation, or other barriers to professional help. Participants are helped in their own environments at times of their choosing, making therapy more accessible and convenient. These are also why email type communications have an advantage over 'chat' sessions which require client and therapist to be available at the same, set times. An advantage over self-help is the added value of personal contact with a professional therapist. The main challenge seems to be keeping participants involved until the end of the programme.

The fact that relative to similar studies this study found large effects might have been due to active therapeutic involvement, its intensity, the experience and qualifications of the therapists, their special training and high quality supervision, and a recruitment process for participants which presumed a certain degree of motivation and readiness to change. Severity of dependence may have been generally moderate as a high proportion of the participants maintained normal lives. They were, however, similar to participants who access the programme outside the context of a study.

A serious weakness of the study was the substantial proportion of participants who did not complete follow-up questionnaires, a consequence of the fact that these were embedded in the web-based intervention programme. It meant that when participants dropped out of this programme by missing a session, not only could they not go on to later sessions, but they were also not sent follow-up questionnaires. The statistical model used to analyse the data tried to compensate for this, and on the available measures, participants who did complete follow-ups seemed representative of the entire sample.


The initial phase of the study featured a no-treatment control group and found substantial extra improvements in drinking and health associated with the intervention as assessed at its conclusion. However, there was no control group for later follow-ups – all the patients had by then been offered access to and had time to complete the intervention. It means some of the improvements seen at these later times may not have been due to the intervention.

**FINDINGS COMMENTARY** Web-based therapy programmes for problem drinkers particularly attract those who retain a stake in mainstream society in the form of relationships, jobs, families, and a reputation to lose. Compared to typical public sector treatment caseloads, these populations have more of the 'recovery capital' needed to elevate oneself out of a substance use problem without the more extended assessment and support available by attending a specialist treatment service. Computer-based interventions can save therapist and patient time and extend treatment access to problem drinkers unwilling to attend a service for 'alcoholics'. The main reservation is whether computerised therapy can match face-to-face therapy, a question yet to be addressed. What seems clear however is that it can lead to improvements greater than those which would have occurred had the patient accessed no treatment at all, and possibly too that using computerised systems to deliver personalised interventions from a real therapist has a greater impact than a fully automated system. Details below.

### Low follow-up rates undermine findings

As the authors imply, the study's promising findings are seriously undermined by the fact that over half the immediate-access patients did not complete the follow-up at the end of the randomised phase of the trial, and 60% offered the intervention either immediately or after having to wait did not complete the final follow-up. Only participants who completed the therapeutic programme could complete a follow-up assessment, suggesting that follow-up results derived from a particularly motivated and/or stable minority of participants. These results were adjusted for known factors related to outcomes, but this degree of loss to follow-up and its association with treatment drop-out undermines confidence that the estimated outcomes represent what really happened across the entire study sample. How far they are representative of the programme's effects in routine practice is even more uncertain.

Nevertheless, the size of the difference probably means that even if it was assumed all participants lost to follow-up continued drinking at risky levels, there would still have been **an advantage** at treatment completion for those offered the intervention versus those waiting for access.

[Look here](#)  for a pilot trial of the intervention with similar results to the featured study and which explored acceptability to patients.

### 'Real' therapists may be more effective

**Another Dutch trial** has tested a therapist-led text-chat intervention based on **cognitive-behavioural therapy** and **motivational interviewing** against an automated self-help programme and having to wait for treatment.

Patients seemed similar to those in the featured study, but this time 70% could be re-assessed after

patients seemed similar to those in the featured study, but this time 70% could be re-assessed after three months, including almost as many of those offered therapy as those who had to wait. At this time the reduction in drinking was greatest among patients allocated to the therapist-led intervention (down on average from 466g a week to 224g), somewhat less among those allocated to the self-help option (from 436g to 270g), and least among those placed on the waiting list (472g to 355g). For both interventions the falls were significantly greater than after being placed on a waiting list. Three months later benefits from the therapist-led intervention had increased but those from the automated self-help option had stayed more or less the same. The result was that the superiority of the therapist-led intervention over self-help had become more apparent and statistically significant in respect of drinking amount, drink problems, and quality of life.

More on computerised brief interventions and treatment in this Effectiveness Bank [hot topic](#).

Thanks for their comments on this entry in draft to research author Marloes Postel of the [Tactus addiction treatment network](#) in the Netherlands. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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