

This entry is our analysis of a review or synthesis of research findings considered particularly relevant to improving outcomes from drug or alcohol interventions in the UK. The original review was not published by Findings; click Title to order a copy. Free reprints may be available from the authors – click prepared e-mail. Links in blue. Hover over orange text for explanatory notes. Clicking <u>underlined</u> text highlights document or text referred to.



The Summary conveys the findings and views expressed in the review. Below is a commentary from Drug and Alcohol Findings.

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▶ A comparison of the efficacy of brief interventions to reduce hazardous and harmful alcohol consumption between European and non-European countries: a systematic review and meta-analysis of randomized controlled trials.

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Elzerbi C., Donoghue K., Drummond C. Addiction: 2015, 10(7), p. 1082–1091.

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Amalgamation of results from relevant studies finds that in high-income nations brief alcohol advice to emergency or primary care patients remains effective whether trials take place in European or non-European drinking cultures and health service contexts. Impacts were however small and may not be duplicated in routine practice.

**SUMMARY** Reviews and meta-analyses have found brief interventions effective in moderating excessive drinking. Typically the reviewed trials have identified risky drinkers by asking a few standard questions (screening) when they attended medical or other services for other purposes, and then briefly counselled or advised them (brief intervention) for from five minutes to half an hour to prompt them to reconsider their drinking. Reviews have, however, conflated data from European studies with those from non-European countries, where health systems and drinking cultures and contexts may be very different.

As well as calculating the impacts of brief interventions in primary care and emergency departments on drinking six and 12 months later, the featured review and meta-analysis assessed whether impacts differed between European versus non-European studies. It built on a review of studies published up to 2006 by extending the analysis to those published from 2007 to 2014. Studies had to involve adults drinking at risky levels, but not selected to be dependent on alcohol and not seeking treatment, who were identified through standard screening methods and randomly allocated to a brief intervention versus screening only or some other comparison intervention. The main outcome amalgamated from the studies was average per week alcohol consumption at the follow-up points.

Twenty trials were found conducted in GPs' practices or other primary care settings – 13 from Europe, five from North America, and one each from Australia and Thailand. Eight emergency department trials were found, half each from Europe and North America.

## **Key points**From summary and commentary

By amalgamating study findings the featured review found small but statistically significant reductions up to a year later due to brief interventions in primary care and emergency departments, which did not significantly differ in European versus non-European contexts.

The conclusion was that in high-income countries brief interventions are robustly effective in very different drinking cultures and health system contexts.

The analysis was however based on trials generally not conducted in conditions close to normal practice, and its outcome measure in some cases poorly reflected the findings of the studies.

## **Main findings**

In primary care settings, six months later patients allocated to a brief intervention were on average drinking 22g less alcohol – about 3 UK units – per week than comparison patients, and (in not necessarily the same studies) 12 months later, about 31g less or nearly 4 UK units. At both times these were statistically significant differences between the two sets of patients, and in neither case was there a significant difference between impacts in Europe versus elsewhere.

In emergency departments, both six and 12 months later patients allocated to a brief intervention were on average drinking 18g less alcohol – just over 2 UK units – per week than comparison patients. Again, at both times these were statistically significant differences, and there were no significant differences between impacts in Europe versus elsewhere.

## The authors' conclusions

Results support previous findings in favour of the efficacy of brief interventions in reducing drinking, and suggest this is maintained across different national health systems and geographical locations.

However, all the studies were conducted in high-income countries, and meaningful interpretation of the smaller impacts in emergency department trials is hindered by the many studies which had to be excluded from the analysis, and the small number included. It is also possible that the benefits of brief interventions would be eroded when interventions transfer from research conditions to typical clinical practice. A common criticism of brief intervention trials is that they have focused on establishing that the interventions can work in relatively ideal conditions, rather than on establishing effectiveness in real-world conditions.

**FINDINGS COMMENTARY** See Effectiveness Bank analyses of earlier reviews and the relevant hot topic for general comments on primary care and emergency department brief intervention trials. Echoing

degrees they are divorced from how screening and brief intervention would be conducted in normal practice, so their results cannot be assumed to apply to normal practice. The two definitive UK trials in GPs' surgeries and in emergency departments were both intended to be real-world trials, and both found brief interventions no more effective in reducing drinking than what was intended to be a control condition consisting mainly of a simple, terse warning that the patient was at risk due to their drinking.

A further limitation to the featured analysis – which applies also to its predecessor review – is that where these were available the analysis used 'raw' follow-up alcohol consumption figures, while the original study may have incorporated these in a more appropriate metric which gave a different impression of the intervention's impact; examples below.

An English emergency department trial was one of only two in the analysis portrayed as registering a statistically significant difference in favour of brief intervention. This seems based on an average daily drinking amount at six months of 2.0 UK units (each 8g alcohol) after intervention versus 2.4 in the control group. But when the original study adjusted this 0.4 unit difference for influences due to patients being grouped at different departments, the difference fell to a no longer significant 0.2 units. In another English trial, but at GPs' practices, reductions in drinking six months later were virtually the same among brief intervention versus comparison patients, but by chance the former had started the trial drinking less than the other patients, meaning they also ended up drinking less. These final figures which largely reflected pre-intervention differences were fed into the featured analysis, not the pre-post reductions which more closely reflected the impact of the interventions. It meant that an intervention which the original authors had declared showed no evidence of being effective appears in the featured analysis as having had a substantial and almost statistically significant impact.

In the featured analysis impacts were small, at most amounting to on average about half a UK unit a day. Small impacts from an inexpensive intervention spread over millions of risky drinkers can nevertheless make a cost-effective contribution to reducing health and other forms of harm from risky drinking, but programmes which could spread intervention this far and at the same time be shown to maintain effectiveness have proved elusive.

Last revised 07 September 2015. First uploaded 29 August 2015

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