


DRUG & ALCOHOL FINDINGS *Review analysis*

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▶ [Screening, brief intervention, and referral for alcohol use in adolescents: a systematic review.](#)

Yuma-Guerrero P.J., Lawson K.A., Velasquez M.M. et al.
Pediatrics: 2012, 130(1), p. 115–122.


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'Inconclusive' was the verdict of a review which aimed to assess the effectiveness of brief alcohol interventions among patients aged 11 to 21 attending for emergency care in the USA. Most promising targets seem to have been the more heavy or irresponsibly drinking among patients who were young adults rather than adolescents.

SUMMARY Depending on their level, US trauma centres dealing with major injuries must **screen** their patients to identify those drinking in a risky manner and as appropriate offer **brief interventions** consisting usually of a single advice session lasting up to half an hour aiming to reduce risks, or referral to specialist treatment. At other emergency departments these procedures are variously provided.

The featured review aimed to assess the effectiveness of the brief intervention element of these procedures among patients aged 11 to 21 attending trauma units or other emergency departments in the USA. Studies were included only if patients had been allocated at random to the brief intervention versus an alternative procedure or usual care, one way to ensure that any advantages associated with the intervention were actually caused by it rather than due to pre-existing differences between the patients.

A search for reports published before January 2011 uncovered seven such studies of patients from 12 years of age to in one study 18–24. All were being care for at the emergency departments of major trauma units. Three of the studies focused on patients being treated for an alcohol-related injury or incident. All except one intervened only with patients whose screening results or other indicators were indicative of risky drinking, and all but one based their intervention on **motivational interviewing**, a counselling style which avoids explicitly directing the patient to (in this case) drink less but seeks to elicit from them their own reasons for doing so.



Key points
From summary and commentary

The featured review aimed to assess the effectiveness of brief alcohol interventions among patients aged 11 to 21 attending for emergency care in the USA.

Overall the results of the seven studies were inconclusive in respect of whether such interventions have reduced drinking or related consequences.

Most promising targets seem to have been the more heavy or irresponsibly drinking among patients who were young adults rather than adolescents.

Main findings

Overall the results of the seven studies were inconclusive in respect of whether brief interventions for young people seen at major US trauma units have reduced drinking or related consequences.

All but one of the trials found drinking and/or related consequences fell both in patients allocated to a brief intervention and those allocated to a comparator procedure or usual care. The exception was a study which did not restrict its sample to injured patients or patients who screened positive for risky drinking.

Three of the trials found these changes were not significantly greater after the brief intervention, which on these grounds was ineffective. However, in two of these studies which had recruited patients aged 14–18 or 13–17 (1 2) brief intervention was effective among subgroups of patients whose drinking or related behaviour was particularly severe.

The remaining four studies did find significant intervention benefits, but no single intervention was decisively effective for reducing both drinking *and* related consequences to a greater extent than usual care or the comparison procedure. Of these, the two studies with the most positive findings included only patients aged 18 and older. In contrast, studies which had sampled younger patients found essentially no overall intervention effect on alcohol-related outcomes. One of the two studies **found** a significant intervention effect on alcohol-related consequences among 18–19-year-olds, including drinking and driving, moving traffic violations, alcohol-related injuries, and alcohol-related problems, but no impacts on consumption. Among 18–24-year-olds, a **later study** from the same lead author found the reverse – a significant intervention effect on consumption, including drinking days, heavy-drinking days, and average drinks per week, but no effect on related consequences.

The authors' conclusions

In summary, the results of the seven randomised trials evaluating brief interventions for risky drinking among young people seen in acute care settings are inconclusive. Four studies recorded significant intervention effects, but these were inconsistent, found either in respect of consumption or related consequences, but not both. Two further studies suggested effects might be concentrated among patients engaged with more risky alcohol-related behaviours.

The fact that – regardless of intervention – all but one study found the patients improved in their drinking or related consequences suggests that screening for risky drinking and/or sustaining an injury may have a protective effect, either in isolation or in concert with one another.

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FINDINGS COMMENTARY "Inconclusive" was the reviewers' verdict, leaving staff responsible for emergency department care of young people unsure whether mounting brief intervention programmes is worth the resources. Most promising targets seem to have been the more heavily or irresponsibly drinking among the older patients who were young adults rather than adolescents, people with more reason than most to reconsider their drinking as they took on adult roles.

The featured review supported this conclusion solely on the basis of US studies. An [international review](#) also focused on emergency-department trials of brief alcohol interventions, but among young adults aged 18–24, and only trials in which pre-admission intoxication was known or suspected rather than those which identified risky drinking through screening tests. One of the three trials actually conducted in an emergency department found reduced drinking and one that related problems were reduced, the same two studies highlighted in the featured review. A closer look at these two studies – considered the most promising by both sets of reviewers – underlines how inconclusive the results are for effectiveness in routine practice.

Two most promising studies

A key objective for trauma units and emergency departments is to prevent further illness or injury, yet across the entire caseload of the study, such an effect was recorded in just one of the seven US trials found by the featured review. It found significantly greater reductions in drink-related risks and problems over the six months following a brief motivational intervention relative to just being given a handout on drink-driving plus a list of local alcohol treatment agencies. However, this finding emerged from procedures unlikely to be replicated in normal practice. Counsellors were the same research staff who immediately before the 35–40 minute intervention had conducted research assessments, feedback from which was used in the following session. Patients may have reacted to this as one continuous intervention, extending beyond what is conventionally termed 'brief'. Counsellors were specially recruited, extensively trained, and supervised weekly. The control handout focused on drink-driving, so may have seemed irrelevant to the three-quarters of the sample not attending after a motor vehicle accident. In contrast, the focus for the motivational intervention was not tied down in advance, potentially giving it an advantage over and above any advantage gained by the motivational approach.

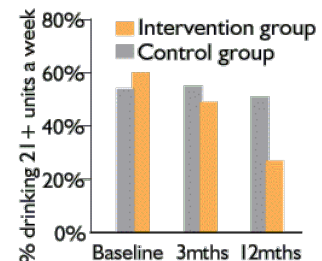
When later the same lead author tested a brief motivational intervention against *individualised* assessment feedback, no differential effect was found on alcohol-related problems (1 2), though there were effects on drinking. But this study too deployed well trained and supervised research staff for the interventions, and intervention followed what seemed quite lengthy assessments for research purposes conducted by the same staff, procedures divorced from normal practice. In this study, of the 627 patients who might have joined it, just 198 ended up being allocated to the interventions and 161 completed the final follow-up assessment, raising doubts over the applicability of the results to the trauma centre's entire caseload of young people attending after having drunk alcohol. It may also be relevant that many if not most would have been below the legal drinking age in the USA, perhaps making the results less applicable to countries like the UK with a lower drinking age

Welsh study convincing and practice-relevant but not in emergency unit

Another study included in the [international review](#) cited above was a [Welsh trial](#), but rather than being conducted in an emergency department, the intervention took place later in a jaw and face clinic to which the 16–35-year-old patients had been referred from a local emergency department. What proportion were within the featured review's 11–21 age range is unclear.

This distinctive set of patients were mainly young men facially injured in assaults. The study seems to suggest that when the setting is relatively conducive (a clinic insulated from the disruptions of an emergency service and whose patients attend for lengthy periods) and the patients relatively receptive (recently reminded that drinking can result in serious injury, but not distracted by the immediate aftermath of that injury), brief intervention is not just effective, but also practical. In this study it was conducted by the clinic's own nurses after training and while they treated the patient's injuries, rather than as a separate procedure.

Follow-up data was collected from 92% of the subjects three months after their visit to the clinic, and from 81% after 12 months. In the usual-care [control](#) group, drinking amounts over the past three months or in a typical week had barely changed, but both had fallen in the intervention group, which at 12 months was now drinking on average about 10 UK units (80g) less a week. At 12 months a virtually unchanged half of the control group were still drinking above recommended limits (21 units a week or 168g) but just 27% of the intervention group, down from 60% at baseline [▶ chart](#). Similarly, 81% of the controls scored above a screening test's hazardous drinking level but just 58% of the intervention group. Drinking reductions in the intervention group were most evident at the later follow up and among the heaviest drinkers. The study was, however, unable to test whether these extra drinking reductions translated into reduced alcohol-related injuries or other problems.



Last revised 28 May 2016. First uploaded 20 May 2016

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STUDY 2014 [A multisite randomized controlled trial of brief intervention to reduce drinking in the trauma care setting: how brief is brief?](#)

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STUDY 2011 [Randomized controlled trial of a brief intervention for unhealthy alcohol use in hospitalized Taiwanese men](#)

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STUDY 2014 [The effectiveness of alcohol screening and brief intervention in emergency departments: a multicentre pragmatic cluster randomized controlled trial](#)

STUDY 2010 [The impact of screening, brief intervention and referral for treatment in emergency department patients' alcohol use: a 3-, 6- and 12-month follow-up](#)

REVIEW 2013 [Interventions for reducing alcohol consumption among general hospital inpatient heavy alcohol users: a systematic review](#)

STUDY 2003 [Injury rate cut in heavy drinking accident and emergency patients](#)

STUDY 2012 [Text-message-based drinking assessments and brief interventions for young adults discharged from the emergency](#)

STUDY 2012 text-message-based drinking assessments and brief interventions for young adults discharged from the emergency department

STUDY 2010 Screening, Brief Intervention, and Referral to Treatment (SBIRT): 12-month outcomes of a randomized controlled clinical trial in a Polish emergency department