

Web-Based Alcohol Screening and Brief Intervention for University Students A Randomized Trial

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Abstract

Importance Unhealthy alcohol use is a leading contributor to the global burden of disease, particularly among young people. Systematic reviews suggest efficacy of web-based alcohol screening and brief intervention and call for effectiveness trials in settings where it could be sustainably delivered.

Objective To evaluate a national web-based alcohol screening and brief intervention program.

Design, Setting, and Participants A multisite, double-blind, parallel-group, individually randomized trial was conducted at 7 New Zealand universities. In April and May of 2010, invitations containing hyperlinks to the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C) screening test were e-mailed to 14 991 students aged 17 to 24 years.

Interventions Participants who screened positive (AUDIT-C score ≥ 4) were randomized to undergo screening alone or to 10 minutes of assessment and feedback (including comparisons with medical guidelines and peer norms) on alcohol expenditure, peak blood alcohol concentration, alcohol dependence, and access to help and information.

Main Outcomes and Measures A fully automated 5-month follow-up assessment was conducted that measured 6 primary outcomes: consumption per typical occasion, drinking frequency, volume of alcohol consumed, an academic problems score, and whether participants exceeded medical

guidelines for acute harm (binge drinking) and chronic harm (heavy drinking). A Bonferroni-corrected significance threshold of .0083 was used to account for the 6 comparisons and a sensitivity analysis was used to assess possible attrition bias.

Results Of 5135 students screened, 3422 scored 4 or greater and were randomized, and 83% were followed up. There was a significant effect on 1 of the 6 prespecified outcomes. Relative to control participants, those who received intervention consumed less alcohol per typical drinking occasion (median 4 drinks [interquartile range {IQR}, 2-8] vs 5 drinks [IQR 2-8]; rate ratio [RR], 0.93 [99.17% CI, 0.86-1.00]; $P = .005$) but not less often (RR, 0.95 [99.17% CI, 0.88-1.03]; $P = .08$) or less overall (RR, 0.95 [99.17% CI, 0.81-1.10]; $P = .33$). Academic problem scores were not lower (RR, 0.91 [99.17% CI, 0.76-1.08]; $P = .14$) and effects on the risks of binge drinking (odds ratio [OR], 0.84 [99.17% CI, 0.67-1.05]; $P = .04$) and heavy drinking (OR, 0.77 [99.17% CI, 0.56-1.05]; $P = .03$) were not statistically significant. In a sensitivity analysis accounting for attrition, the effect on alcohol per typical drinking occasion was no longer statistically significant.

Conclusions and Relevance A national web-based alcohol screening and brief intervention program produced no significant reductions in the frequency or overall volume of drinking or academic problems. There remains a possibility of a small reduction in the amount of alcohol consumed per typical drinking occasion.

Trial Registration anzctr.org.au Identifier: [ACTRN12610000279022](https://www.anzctr.org.au/Trial/Registration/Trial.jsp?id=12610000279022)

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