

# Smartphone app may support drinkers who overindulge to drink less heavily

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Access to a smartphone alcohol intervention app helped university students to cut down their overall alcohol consumption and the number of days they drank heavily, suggests a study published in *The BMJ* today.

Unhealthy drinking is the biggest risk factor to health for 15 to 49-year-olds, and unhealthy use of alcohol is especially prevalent among adult

students, prompting the authors to design a [smartphone app](#) to encourage healthier drinking among this group.

The authors tested the app in 1,770 university students who had screened positive for unhealthy alcohol use when assessed by a questionnaire. The students, based at four higher education institutions in Switzerland, reported consuming an average 8.59 standard alcoholic drinks a week and drinking heavily on 3.53 days a month.

Heavy drinking days were considered to be consumption of at least five standard alcoholic drinks for men, and at least four for women. A standard alcoholic drink in Switzerland contains 10–12 g of ethanol. The UK and US equivalents are 8 g and 14 g, respectively.

The students were randomly allocated to either an intervention group where they were asked to download the app (Smaart) and the 83.5% who did so received a gift voucher, or a comparison group where all the participants were also given a gift voucher as a reward for filling in the initial questionnaire, but received no support to cut down their drinking.

Additional gift vouchers were given to all students who completed follow-up questionnaires at three, six, and 12 months.

Over the 12-month monitoring period, students in the intervention group reported reducing their drinking significantly compared with those in the comparison group: 10% fewer standard drinks a week and 11% fewer heavy drinking days a month.

Students in the intervention group were able use the app during the entire monitoring period to record their daily drinking and assess its impact on their health via six functions:

- personalized feedback (proportion of Swiss population of the

same age drinking less; calorie content of drinks consumed and the equivalent if eating hamburgers instead)

- estimated [blood alcohol content](#) and the associated risks
- self-monitoring tool (graph showing daily drinking related to recommended drinking limits)
- goal setting tool (set drinking limits for one, two, seven, or 30 days and receive virtual badges for sticking to them)
- designated driver tool (take pictures of themselves and friends and allow the app to randomly pick a picture to be the designated sober driver)
- fact sheets on the effects of alcohol on health

Students who downloaded the app used it up to 403 times over 12 months—an average 21.2 times each.

The authors acknowledge some limitations to their research, in particular that its reliance on self-report could have resulted in under-reporting of daily drinking. The randomization method also meant that students in the comparison group might have accessed the app using the phone of a friend in the intervention group or shared their experiences with them.

Nevertheless, the study authors conclude, "Compared with the group who were not given the intervention, providing access to the app for 12 months was effective at reducing the average drinking volume of [university students](#) who had self-reported unhealthy alcohol use at baseline."

The intervention also required fewer resources than face-to-face interventions with no need to hire and train specialist health care professionals or for a dedicated space on campus to perform interventions, they point out.

And in light of their findings they have made a version of the app freely

available for both Apple and android smartphones.

In a linked editorial, Sadie Boniface and Emma Davies of, respectively, the Institute of Alcohol Studies and Oxford Brookes University, say the reduction in alcohol consumption seen in the [intervention group](#) equates to around half a Swiss standard drink every week.

"The nature of this [intervention](#) lends itself to being reproduced at scale at limited cost," they write, but add, "These kinds of interventions are no magic fix in the context of international goals, such as the WHO's target of a 20% relative reduction in the harmful use of alcohol by 2030."

The National Institute for Health and Care Excellence in the UK recommends that clinicians consider digital and mobile health interventions as an option to reduce [alcohol](#) intake in addition to existing services.

**More information:** Effect of a smartphone intervention as a secondary prevention for university students with unhealthy alcohol use: randomised controlled trial, *The BMJ* (2023). [DOI: 10.1136/bmj-2022-073713](#)

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