



Providing web-Based Feedback and social Norms
information to reduce student alcohol intake:
A multisite investigation of Unitcheck

Introduction

Unhealthy alcohol use amongst university students is a major public health concern. Heavy alcohol intake among the student population has implications for the individual, educational institutions, and wider society^{i,ii}. Across the world it has been reported that university students' levels of alcohol consumption are higher than that of their non-university peers^{iii,iv}.

One intervention approach attracting increasing interest is providing electronic personalised feedback. Brief personalised feedback intervention programmes focus on an individual's alcohol consumption and provide personalised risk level and alcohol related information. A systematic review concluded that current evidence of the effectiveness of web-based brief interventions for alcohol use is promising but inconsistent and that further controlled trials are needed to investigate their efficacy^v.

The current study aimed to evaluate the feasibility and effectiveness of delivering a social norms and personalised feedback intervention to university students studying at four UK institutions.

Method

Students from four UK universities were invited to participate in the current project. In total 2306 students registered their interest. Students were excluded from the current study if they: did not consume alcohol (n=221), consumed alcohol but did not provide details of their alcohol consumption during the last week (n=53), did not specify if they were consumers of alcohol (n=27). The remaining students (n=2005) were randomised to one of three conditions (control, intervention, delayed intervention). At Time 1 55% (n=1112) agreed to participate and provided informed consent (control n=354, intervention n=334, delayed intervention n=424). Seventy-three percent (n=816) of the sample were female, the mean age was 21 (SD 5).

Data were collected electronically via two web sites (control and intervention). Contact with all participants was by email; at each stage participants received a standardised message inviting them to participate in the study. At each stage participants who completed an assessment were entered into a prize draw (one per institution) to win a £25 Amazon Gift Certificate.



Students were asked to complete an assessment at Time 1 (T1; week 1), Time 2 (T2; week 8), Time 3 (T3; week 16), Time 4 (T4; week 24). Students in the intervention and delayed intervention group had access to the web-based intervention between T1-T2 and T2-T3 respectively.

Assessment at each time point included the: number of units consumed per average occasion, number of units consumed over the last week, Alcohol Use Disorders Identification Test (AUDIT), Readiness to Change and Clinical Outcomes in Routine Evaluation (CORE-10; measure of psychological distress).

Participants with access to the intervention received feedback on their alcohol consumption and social norms information every time they visited the website and completed the online assessment. The online personalised feedback consisted of three main sections:

1. Alcohol consumption: Participants were presented with statements indicating the number of alcohol units they consumed per week, and the associated level of health risk. Statements were standardised for each risk level, and gave advice about whether personal alcohol consumption should be reduced or maintained within the current sensible levels. The number of alcohol free days was indicated, alongside information stating that it is advisable to have a least two per week. Statements related to binge drinking behaviour were also presented.
2. Social norms: Personalised statements were presented that indicated to participants the percentage of students who report drinking less alcohol than them. Information was also provided about the negative effects of alcohol intake reported by students who consume alcohol within the same risk category.
3. Generic information: this provided standard advice on calculating units, the general health risks of health levels of alcohol consumption and outlined sensible drinking guidelines published in the UK. Tips for sensible drinking and the contact details of both local and national support service were also presented.



Results

At Time 1:

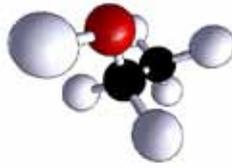
- The reported mean number of units consumed by consumers of alcohol on an average occasion was 10 (SD 9).
- The average consumption, by consumers, over the last week was 16 units (SD 22).
- In total 68% reported binge drinking on at least one day (i.e. ≥ 6 units female/ ≥ 8 units male) over the last week.
- Fifty-seven percent scored at high levels on the AUDIT (i.e. ≥ 8 indicating possible hazardous and harmful alcohol use).
- Of participants who completed the readiness to change questions, 33% were in the pre-contemplation stage with 38% contemplation and 29% action.
- Twenty-nine percent had heightened levels of psychological distress (i.e. CORE-10 clinical score >10 ; the equivalent figure for non-consumers was 31%)

Of participants who accessed the intervention and provided feedback on their experience (n=408):

- 63% agreed that the feedback was useful
- 58% agreed that it would make them think more about the amount they drink
- 57% agreed that they would like to use the website again
- 53% would recommend the website to a friend
- 40% were surprised by the feedback
- 12% thought the feedback would reduce the amount they drink
- 3% thought the feedback would increase the amount they drink

Using last known value carried forward, at Time 4:

- The reported mean number of units consumed by consumers of alcohol on an



average occasion was 9 (SD 10).

- The average consumption, by consumers, over the last week was 14 units (SD 20).

MANOVA revealed a main effect of time on units consumed over the last week. Longitudinal regression model showed an effect of assessment across time, predicting that participants who completed at least two assessments reduced their drinking. The model predicted an additional effect on being assigned to an intervention arm. Regarding the possible effects of differential assessment completion, regression analysis showed that: age, educational institution, previous week unit consumption at Time 0, and readiness to change were unrelated to completion. Being male, or being assigned to the intervention, increased the odds of not completing all assessments^{vi}.

Attrition

Of the 1112 participants who completed the T1 assessment 62% (n=690) completed T2, 42% (n=463) completed T3 and 34% (n=374) completed T4.

At the end of T3 of the 2005 students who registered their interest and were eligible for the current study, 352 (32%) had completed only the T1 assessment and 360 (32%) had failed to complete either the T2 or T3 assessment. An online questionnaire on attrition was sent to these participants and returned by 16% (n=115).

The most common reason for not completing assessments was being too busy (76%). Others were: assessment length (60%), number of assessments (51%), loss of interest (47%), forgetting (41%), and incentive amount (40%). Neither confidentiality (3%) nor computer access (9%) were seen as problems.

Conclusions

- The majority of students who accessed the intervention gave positive feedback on the website. This suggests that once students log onto the site they find the personalised feedback useful.
- Our model suggests that monitoring alone is likely to reduce weekly consumption but that consumption can be further reduced by providing access



to a web-based intervention. This assessment only effect has not been seen in our other trials ^{vii} although it is not without precedent ^{viii}. Further research is needed to understand the impact of completing an assessment on behaviour.

- The current study shows that it is feasible to engage some students with an online tool, hosted by an outside institution, for alcohol misuse. The level of attrition within the current study suggests that effective ways of retaining participants who are recruited remotely (i.e. via email from a distance) are needed.

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