Conclusions

- Many alcohol-related apps promote the use of alcohol.
- The minority of alcohol-related apps that aim to promote health contain few Behaviour Change Techniques (BCTs).
- They also contain few BCTs frequently found in other health behaviour change interventions.
- The mention of evidence was associated with an app’s popularity. However, an app’s BCT content was only weakly associated with its popularity or user ratings. No apps mentioned theory.

Discussion

- These findings are in line with alcohol-related apps available in the Australian app stores [4] and indicates that a substantial majority of the apps users see when searching for terms such as ‘alcohol’ will contain few Behaviour Change Techniques (BCTs).
- The average number of BCTs used was 3.56 (SD = 3.39, median 2). Seven apps did not include any BCTs.
- The most frequently used BCTs were: ‘facilitate self-recording’ (54%); ‘provide information on consequences of excessive alcohol use’ (42%) and; ‘provide feedback on performance’ (41%).

Results

- 662 unique apps were identified, 14% were classified as health promotion (n=91), 54% entertainment (n=357), 19% blood alcohol content measurement (n=125), and 14% other (n=89).
- The average number of BCTs used was 2.46 (SD = 2.06, median 2).
- Of the BCTs frequently found in other health behaviour change interventions, the three most often included in alcohol apps were: ‘facilitate self-recording’; ‘provide information on consequences of excessive alcohol use and drinking cessation’; ‘provide feedback on performance’;
- ‘Prompt review of goals’ was positively associated with user ratings in univariate regression models; no other significant associations between BCTs and user ratings were found.
- In multiple linear regression apps that advised on environmental restructuring had lower user ratings. Both ‘advise on/facilitate the use of social support’ and the mention of evidence were positively associated with popularity.

Introduction

- Brief interventions to reduce alcohol consumption are effective [1] but have limited reach.
- Smartphone apps are relatively cheap, accessible to users and deliver support when and where needed.
- Despite the number of mHealth apps, there has been little research investigating their mechanisms of action or efficacy. They are often developed without reference to evidence base or theory [2].
- Coding alcohol apps for BCTs would allow researchers to identify BCTs and establish which are based on theory and/or evidence; ii) users to be better informed about which BCTs are present and enable them to choose ones suited to their needs; iii) healthcare practitioners to make more informed recommendations to patients and; iv) app developers to make decisions about which BCTs to include.

Methods

- The UK versions of the iTunes and Google Play store were searched for the terms “alcohol” and “drink”.
- 61 health-promotion apps (51 free, 10 paid-for) were coded by two trained coders using an established and reliable method [3].
- The popularity of apps was operationalised as the overall number of ratings received. User ratings of the apps were operationalised by assessing the proportion of 4 or 5 star ratings, and calculating the associated lower 95% CI.
- Theory was coded if the app made reference to specific psychological theory. Evidence was coded if the app made reference to empirical evidence.

References