Final report to SSA
Re: Updating the Drink Less alcohol reduction smartphone application in response to user feedback and advances in software and technology with a view to evaluation and ongoing optimisation.
16 May 2019

History of the project

Smartphone applications (apps) may help people to reduce their alcohol consumption at low unit costs. The Drink Less app was developed based on evidence and theory using what is known as a Multiphase Optimisation Strategy (MOST) – a sequenced, experimental approach for efficiently and systematically developing and optimising multi-component interventions. *Drink Less* centres on a goal setting module with five modules that were evaluated experimentally. This study involved 672 excessive drinkers and led us to include modules relating to 'Normative Feedback', 'Cognitive Bias Re-training', and 'Self-monitoring' and 'Action Planning' in the next version of the app.

The initial development and evaluation was funded by the SSA, NIHR School for Public Health Research (SPHR), UK Centre for Tobacco and Alcohol Studies (UKCTAS) and Cancer Research UK (CRUK).

Based on the traction and favourable usability amongst its users, Drink Less was in an excellent position to be 'optimised' – the next stage of MOST.

The SSA funded project

This optimisation was based on the results from the experimental study and on feedback from users and in response to advances in technology.

The SSA-funded project's aim was to create an optimised version that would have been modified in response to the preliminary evaluation, and user requests and feedback, and to improve its acceptability and usability to users.

This was part of an ongoing programme of optimisation and testing (funded by NIHR SPHR) to create a mature product with demonstrated effectiveness. Public Health England has expressed an interest in promoting the product once a satisfactory level of evidence for effectiveness has been achieved.

The SSA funding covered an app developer's time to implement necessary changes to the app in addition to the funding from NIHR SPHR.

These necessary changes were identified from analysing feedback (from 480 users) received via email and through the app store. These changes included:

- Customise recording of alcohol volumes for changes to the 'add drinks' feature – *see screenshots*
- Update the drinking calendar in line with weekly goals (both to start on a Monday) – *see screenshots*
- Improve the normative feedback module by providing users with the ability to update their feedback – *see screenshots*
- Bug identification/fix with 'alcohol free days' count and in goal feedback
- Add functionality to accurately handle changes in time zone

App developers, designers and digital behaviour change intervention researchers were consulted on the best way to implement the changes. The final decision on how to implement the changes was based on this consultation as well as feasibility of the design and development.

Latest news on the app

The Drink Less app is available free for iOS devices in the UK. Drink Less consistently appears amongst the top results for the 'alcohol' search term and has an average 4.1-star rating on the Apple App Store. Since the launch of Drink Less in May 2016, it now has over 50,000 unique users. This has been helped by it being mentioned by the journalist, Adrian Chiles, as part of his documentary "Drinkers Like Me - Adrian Chiles" and in a BBC article in which he encouraged anyone *"…don't judge*

yourself, don't panic you're not going to drop dead, but go on an app like 'Drink Less' and measure what you're drinking, be honest with yourself for three weeks." Subsequently both Dr Claire Garnett (August 2018) and Prof Robert West (December 2018) were interviewed on BBC Radio 5 Live about the app.

Research outputs

The key research output from this project will be the freely available, optimised version of the Drink Less app that is up-to-date in terms of its design and functionality that built to a high professional standard and functioning well. The optimised app (v2.0.0) is due for release this summer following further changes to optimise the app based on usability testing conducted this year.

A research paper on the whole optimisation process will be written and co-authored by the wider collaborative team. The optimisation of Drink Less is in line with the principles of Open Science; the intervention content will be fully reported; open source app code, and open access journal articles.

This optimised version of the Drink Less app will be ready to be evaluated in a confirmatory trial (the final step of MOST). Following positive results from the confirmatory trial, PHE plans to promote the app which would provide a cost-effective way for public health practice to help excessive drinkers reduce their alcohol consumption at a low incremental cost per user. We will address the issue of the funding model for long-term maintenance and support of the app (e.g. explore partnerships with local authorities).

Screenshots

Links of interest

Drink Less on the Apple App store: https://itunes.apple.com/gb/app/drink-less-get-help-reducing/id1020579244?mt=8

Drink Less website: http://drinklessalcohol.com/

All relevant publications: https://www.researchgate.net/project/Development-and-evaluation-of-a-smartphone-app-Drink-Less-for-reducing-excessive-alcohol-consumption

Screen recording of v1.1.0: https://vimeo.com/326313692

BBC News article mentioning Drink Less: https://www.bbc.co.uk/news/uk-45258081