

REPLACE IT - A SMARTPHONE APP TO REDUCE ALCOHOL CONSUMPTION: PRELIMINARY FINDINGS FROM A RANDOMISED CONTROLLED TRIAL

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Introduction and Aims:

Digital interventions delivered via smartphone apps are increasingly popular in supporting the reduction of problematic behaviours such as drinking, smoking, and over-eating. Extant findings regarding effectiveness are mixed, and usability and retention issues are common. Adopting a co-design approach, we developed and rigorously piloted an alcohol reduction app – 'Replacelt' – that incorporated If-Then Planning as the primary behaviour-change technique. We hypothesised that engagement in the app intervention would result in reduced alcohol consumption and consequences, as measured by the AUDIT.

Design and Methods: In a pre-registered, randomised controlled trial, 290 adults provided complete pre and post AUDIT data after being randomly assigned to either an intervention group (n=261, M_{age}= 44.19, SD= 8.9) or a 4-week wait-list control (n=245, M_{age}= 44.45 SD= 9.19). The app program consisted of one week of baseline data collection, followed by 3 weeks of the Replacelt behaviour change intervention. The primary endpoint was the AUDIT at 4-weeks following baseline survey completion.

Results: Linear mixed effects regression analysis (accounting for clustering of timepoints within participants) revealed a significant group X time (pre and post) interaction effect ($b = 1.80$, $SE = 0.63$ $p = .004$) in predicting AUDIT scores. Simple slopes analyses revealed that reduction in AUDIT score between pre and post was greater in the intervention group (Mean Change = -3.31, 95% CI (-4.26, -2.36; Cohen's $d_{av} = -.36$) than in the waitlist control group (Mean Change = -1.51, 95% CI (-2.29, -0.73; Cohen's $d_{av} = -.20$).

Discussions and Conclusions: The Replacelt smartphone app significantly reduces alcohol consumption and consequences following only a short intervention period, compared to a wait-list comparison. Further, we illustrate that a rigorous and theoretically-justified co-design process may mitigate usability and retention issues, maximising the likelihood of effectiveness

Implications for Practice or Policy Findings at this stage suggest that apps such as Replacelt can play an important public health role in assisting in the reduction of alcohol-related consumption and harm.

Disclosure of Interest Statement:

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