Abstract

Background: Too few young people engage in health behaviours that may reduce the risk of morbidity and premature mortality. An online intervention, based on self-affirmation theory, the theory of planned behaviour and implementation intentions, targeted fruit and vegetable consumption, exercise, binge drinking and smoking during the transition to university. Methods: New students (N=1445) were randomly allocated to an online health-behaviour intervention (U@Uni) or a measurement-only control condition approximately two weeks before starting university. Participants were followed-up six months after starting university. Results: Primary analyses revealed a significant intervention effect on smoking status, controlling for baseline smoking status and the covariates of age, gender and nationality, $B = 0.65$, $p = .01$, $OR = 1.95$, with fewer smokers in the intervention (8.7%) versus the control (15.0%) condition at follow-up. No significant differences were found between the two conditions on the other three health behaviours. Preliminary health economic analyses indicated a high probability that a roll-out of the intervention to other universities would be cost-effective, although there was considerable decision uncertainty, especially in relation to effects of the intervention on the targeted health behaviours. Conclusions: The findings support the efficacy and cost-effectiveness of a theory-based online intervention. However, there was some evidence of low engagement with the intervention due to technical problems experienced with the software platform. The health economic modelling suggests further research is needed to provide more precise estimates of the intervention effects in order to reduce decision uncertainty.