

User-centred development of a smartphone application for personalized behavioural and lifestyle management for adolescents with obesity: A qualitative study

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Background: Adolescence is a vulnerable time for weight gain and it is critical to establish healthy behaviours during this developmental period. Mobile technology is ubiquitous among youth and many commercial weight management ‘apps’ exist. However, none of them are stakeholder-informed, tailored specifically for adolescents or inclusive of adolescents with disabilities. **Objective:** The purpose of this study was to identify the ideal features and functionality for an inclusive, adolescent-focused mobile and web-based healthy lifestyle tool. Eleven focus groups were held with youth (n= 18), parents (n=14) and healthcare professionals (n=20) from two sites: the Sick Kids Team Obesity Management Program (STOMP) and Holland Bloorview Kids Rehabilitation Hospital. **Key findings:** After content analysis, the following were deemed useful by the participants: 1) Convenient tracking of personally relevant health metrics; 2) Setting personally meaningful goals; 3) Accessible materials and information; 4) Opportunities for healthcare provider communication outside of appointments; 5) Opportunities for social support; 6) Emotional support such as supportive text messages and coping statements; 7) Receiving personalized, actionable feedback. A number of these areas would need careful tailoring to ensure accessibility for children with disabilities. **Impact:** The study positions the team well to develop a novel, personalizable, stakeholder-informed tool to support children with and without disabilities lead healthy lifestyles.