

## **Abstract Title**

Describing the Nutrition Knowledge Tool used to evaluate changes in adolescent nutrition knowledge following a smartphone-based nutrition intervention, SmartAPPetite

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## **Abstract**

**Purpose:** To describe the selection and modification of the tool used to evaluate the effect of a smartphone application in improving nutrition knowledge amongst adolescents.

**Summary of content:** Diet quality tends to sharply decrease during adolescence and remain low into adulthood. Due to their ubiquity amongst adolescents, smartphone applications may be a convenient and relatively low-cost approach to influence behaviour. In studies examining use of mobile applications to improve nutrition outcomes, only one reported knowledge outcomes. SmartAPPetite is a smartphone application designed to provide evidence-based, dietitian-approved food and nutrition-related messages to improve dietary behaviours.

**Systematic approach:** Currently there are no validated tools to measure nutrition knowledge in English-speaking Canadians. Our 51-item Nutrition Knowledge Tool was modified from Parmenter and Wardle's 2016 revised validated Nutrition Knowledge Questionnaire. Though originally developed in the UK, the questionnaire was modified to make appropriate for the Canadian adolescent population. It consists of questions regarding dietary recommendations, nutrient sources, food labelling and diet-disease relationships; topics discussed within SmartAPPetite. The tool will be completed at baseline, 10 weeks post-intervention and 4 months post-intervention, distributed via Qualtrics, an online survey software. Nutrition knowledge is measured as a cumulative score determined by the correctness of answers; each correct answer is given a score of 1 and all scores are summed for a final score ranging from 0 (no nutrition knowledge) to 51 (high nutrition knowledge).

**Conclusions/Recommendations:** Research is underway using the Nutrition Knowledge Tool to assess potential changes in nutrition knowledge resulting from the SmartAPPetite intervention.

**Significance to the Field of Dietetics:** The Nutrition Knowledge Tool has the potential to assess efficacy of nutrition education programmes. It can shed insight on levels of nutrition knowledge in the Canadian adolescent population, which can be used to address gaps in nutrition education and ultimately provide evidence for public health efforts necessary to improve dietary habits.

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