

# Assessing the suitability of a postoperative nutrition education tool among adults undergoing metabolic bariatric surgery: A study protocol

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**Background:** The early postoperative stage following metabolic bariatric surgery (MBS) is characterized by rapid weight loss, during which adequate protein intake is critical. However, many individuals struggle to meet protein requirements due to barriers such as lack of knowledge regarding protein-rich foods. Inadequate protein intake can lead to significant losses in fat-free mass, muscle mass and strength, and protein-related malnutrition. Moreover, there is a lack of tailored nutrition education tools that support dietary habits after MBS. Our team initiated the development of *Protein Cards*, a recipe book designed to enhance dietary protein intake for the various MBS diet stages. The current study aims to assess the suitability of *Protein Cards* among adults at various stages of the MBS process, to acquire preliminary data for continued refinement of the tool.

**Methods:** Participants [waitlisted for MBS (n=15), <3-months post-MBS (n=15) and 4-12 months post-MBS (n=15)] will be recruited through online advertisements and MBS centres across Canada. They will complete a sociodemographic questionnaire and a virtual semi-structured interview, adapted from the Suitability Assessment of Materials questionnaire, to evaluate the tool's suitability on content, literacy demand, graphic illustrations, layout and typography, learning stimulation and motivation, and cultural appropriateness. Sociodemographic data will be analyzed using descriptive statistics and interviews data will be analyzed using thematic analysis.

Conclusion: The development of tailored nutrition education tools is critical to support postoperative dietary management. Findings from this study will be used to refine *Protein Cards* to better meet the needs of individuals at various stages of the MBS process.

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