Assessing a Nutrition Education Tool for Adolescents Undergoing Bariatric Surgery: A Study Protocol



Patricia F.C. Acosta, MSc^{1,2,3}, Peggy Alcindor, RD⁴, Carla Farnesi, PhD⁴, Angela S. Alberga PhD^{4,5,6,7}, Julius Erdstein, MD FRCP⁴, Tamara R. Cohen, PhD RD^{1,3}

- 1. Faculty of Land and Food Systems, The University of British Columbia, Vancouver, BC, Canada
- 2. Montreal Behavioural Medicine Centre, Hôpital du Sacré-Cœur-de-Montréal, Montréal, QC, Canada 3. BC Children's Hospital Research Institute, BC Children's Hospital, Vancouver, BC, Canada
- 4. Centre of Excellence in Adolescent Severe Obesity, Montreal Children's Hospital, Montréal, QC, Canada 5. Department of Health, Kinesiology, and Applied Physiology, Concordia University, Montréal, QC, Canada 6. Department of Pediatrics, Faculty of Medicine, McGill University, Montréal, QC,
- 7. Research Institute of the McGill University Health Research Centre, Montréal, QC, Canada

Background

Bariatric surgery is a safe and effective treatment option for severe obesity among adolescents with a sustained reduction in weight, low-rates of long-term complications, and improved cardiometabolic health.¹

A primary nutritional concern postbariatric surgery is inadequate dietary protein intake², largely attributed to low intakes of protein rich foods.

Additionally, limited nutrition education resources to help guide adolescents with the post-bariatric surgery diet stages (fluid, purée, soft, and regular diet) are available³.

Objectives

- 1. Examine the suitability, acceptability, and usability of the Protein Cards among adolescents (14-19y) who have undergone bariatric surgery
- 2. Refine *Protein Cards* for practical application in clinical settings

Secondary Aim: Compare total protein intake to the level of adherence of what adolescents were recommended postoperatively

Pilot Work

In 2020, an online survey was conducted to assess the suitability of Protein Cards among patients who have undergone bariatric surgery, their caregivers, and healthcare providers (N= 442).



The *Protein Cards* tool was rated as 'superior', and participants found it beneficial for the various post-bariatric surgery diet stages.

Nutrition Education Tool

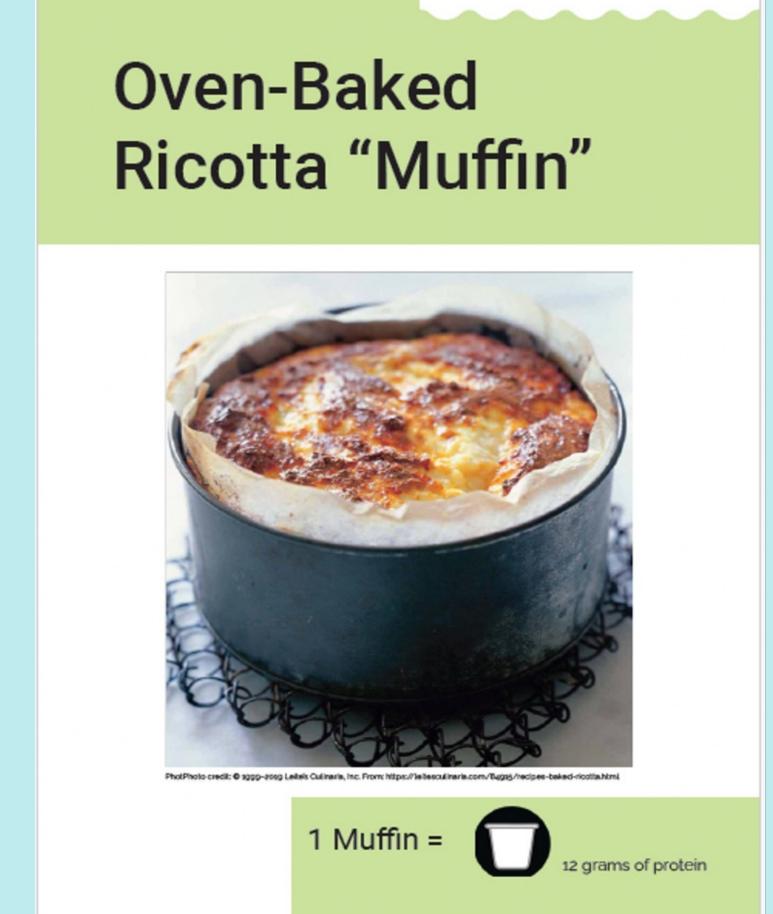


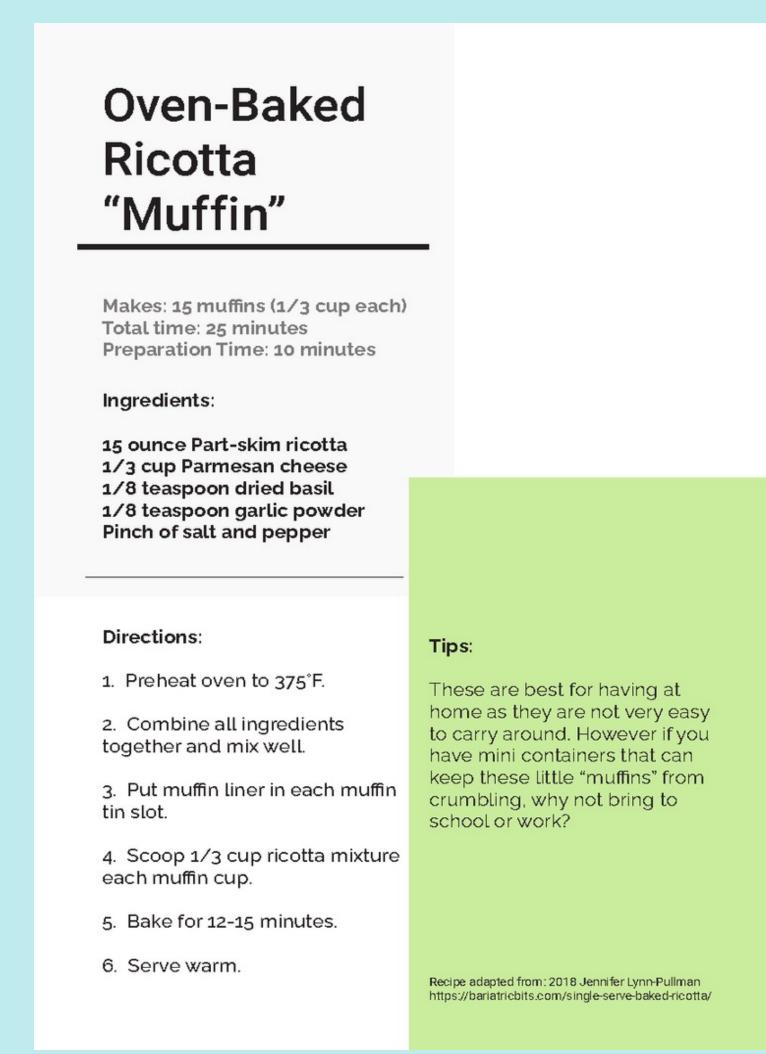
Protein Cards

Purée

A nutrition education tool that aims to assist adolescents meet their protein requirements during the post-bariatric surgery diet stages and acquire the skills to incorporate protein in their diet.

- Developed in collaboration with Canadian dietitians specializing in adolescent bariatric surgery
- Includes 40 protein-rich recipes
- Available in both English and French





Methods

This mixed-methods study will be conducted at the Centre of Excellence in Adolescent Severe Obesity (CEASO) at the Montreal Children's Hospital (Montreal, QC).

Eligibility Criteria:

- Individuals aged 14-19 years, able to speak and read English and/or French who had bariatric surgery at CEASO within 12 months of study launch (N= 30).
- Participants are excluded if they have cognitive disorders that limit communication abilities.

Conclusion

Findings of this study will inform the refinement of the tool and lay the groundwork for future, larger-scale intervention trials.

Data Analysis:

- Descriptive statistics will be applied to the surveys.
- Interviews will be transcribed and analyzed using inductive thematic analysis.

Data Collection:

- Food recalls
- Online demographic questionnaire
- Suitability Assessment of Materials (SAM)⁴ questionnaire
- Semi-structured interview based on the Capability, Opportunity, Motivation-Behaviour (COM-B)⁵

