Topic Area: Nutrition and Health Education

Abstract Title

Enhancing glycemic index knowledge and application among adults with type-2 diabetes mellitus: A randomized controlled trial

H. Avedzi[1,2], A. Soprovich[1,2], S. Ramage[3], K. Storey[1], J. Johnson[1,2], S. Johnson[1,4]; [1] School of Public Health, University of Alberta, Edmonton, AB, [2] Alliance for Canadian Health Outcomes Research in Diabetes, Edmonton, AB, [3] Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, AB, [4] Centre for Nursing and Health Studies, Faculty of Health Disciplines, Athabasca University, Athabasca, AB

Abstract

Introduction: Research examining how to increase uptake of evidence-based recommendations to include low glycemic index (GI) foods as an effective dietary self-care strategy for glycemic control among people with type 2 diabetes (T2D) remains sparse.

Objective: To present the design and baseline data from the Healthy Eating and Active Living for Diabetes-Glycemic Index (HEALD-GI) study, which is designed to evaluate the effectiveness of a 12-week GI-targeted nutrition education on GI-related knowledge and intakes among adults with T2D in Edmonton, Alberta.

Methods: Participants (N=67) were randomized to a control group that received standard printed copies of Canada's Food Guide and Diabetes Canada's GI resources OR to an intervention group that received those same materials, plus an online platform with six self-directed learning modules and print material. Each module included videos, links to reliable websites, chat rooms, and quizzes. The evidence-based information included GI values of foods and low GI shopping, recipes, and cooking tips by a Registered Dietitian. Support through email, text messaging, phone calls, or postal mail to reinforce their learning were also provided. The primary outcome is average dietary GI (collected by 3-day Diet Record). Secondary outcomes including GI-knowledge and self-efficacy, glycated hemoglobin A1c, lipids, blood pressure, body-mass-index (weight, height), and waist circumference were assessed at baseline and will be assessed at three months post-intervention.

Results: Participants, similar to the general adult T2D population in Canada, are 64% men; mean age 69.5 (9.3) years, with a mean diabetes duration of 19.7 (14.4) years, BMI 29.9 (5.8) kg/m2 and HbA1c 7.1 (1.2)%. No significant difference was observed between men and women at baseline.

Conclusion: The HEALD-GI study aims to provide evidence about the best approach to translate the concept to adults with T2D.

Significance to the field of dietetics: This study may help dietitians improve efforts to disseminate low GI dietary recommendations.