

Title: Evaluation of glycemic index education in people living with type 2 diabetes mellitus: Participant satisfaction, knowledge uptake and application

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Introduction: Use of low glycemic Index (GI) foods is recommended by the Canadian Diabetes Association for managing type 2 diabetes mellitus (T2DM). Notwithstanding, 61% of Canadian Registered Dietitians (RDs), working with clients with DM, do not use GI in practice. These educators highlight the following barriers to utility: Lack of suitable GI-education tools, GI is too difficult for clients to understand and apply, and a need for more GI-utility data from diverse client populations. Although the literature supports that available GI-education materials are unsuitable, there is not enough evidence available to support or refute that GI is too difficult for clients to understand and apply.

Objective(s): To address the lack of data available on GI-education evaluation, a mixed-form questionnaire (GIQ) was developed, pre-tested and used to evaluate an evidence-based GI education platform.

Methods: Participants (n = 29) with T2DM attended a 40 minute GI education session, led by an RD. The GIQ was administered pre-education, immediately post-education, and one and four weeks post-education. Three-day-diet-records were administered pre-education and at one and four weeks post-education.

Results: The primary outcome, dietary GI, was significantly lower at one and four weeks (mean±SEM; both 54±1) compared to baseline (58±1;p≤0.001; 4-5 unit decrease). Most study participants (28/29) were satisfied with the education session. Knowledge score significantly increased from pre-education (53.6±5.1%) to immediately post-education (83.5±3.4%;p≤0.001), one week post-education (87.5±2.6%;p=0.035) and four weeks post-education (87.6±3.8%;p=0.011).

Conclusions and Implications: Our findings suggest that a statistically significant reduction in dietary GI can be obtained using the GI education platform; supporting that clients can understand and apply GI-knowledge and skills. The education and evaluation materials created for this study have addressed the aforementioned perceived barriers to GI utility and may be tested and/or used in other DM populations for which more GI utility data is required (e.g. gestational diabetes mellitus).