Canadian Health Professionals' Understanding of Sugar's Functional Roles In Foods

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Background

- The presence of sugar (sucrose) in food products has garnered both media attention and calls from health groups for reformulation to reduce the added sugar content of foods.
- However, sugar contributes important sensory, microbial, chemical and structural properties to foods, in addition to providing sweetness.
- To reduce sugar but still maintain a product's consistency and texture, other Caloric ingredients (e.g. starches, polydextrose, gelatin) are often added, which may neither reduce the total energy content of the foods nor lead to a reduced glycemic response that could potential benefit diabetic patients in managing blood glucose levels.

Objectives & Methods

- The objective was to assess health professionals' understanding of the functional properties of sugar in foods and to identify knowledge gaps.
- Health Professionals voluntarily completed questionnaires at two Dietitians of Canada conferences and the International Diabetes Federation Conference in 2015.

Results

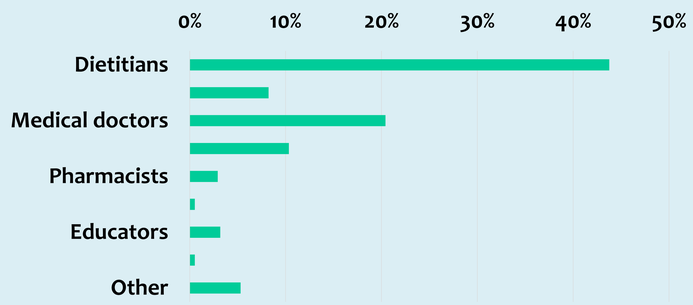
1. Although many respondents understood some of sugar's functions, only a small proportion (ranging from 15% to 31%) were able to identify all the roles it performs in three types of food products (baked goods, tomato-based sauces, and ready-to-eat breakfast cereals). Dietitians were generally more likely to answer correctly (ranging from 18% to 55%) than other health professionals.

Table 1. Percentage of participants who answered each question correctly.

Question	All Respondents	Dietitians
In baked foods, which of the following features is/are linked to the use of sugar (sucrose)?	20%	39%
Sugar is added to tomato-based sauces to_____.	15%	26%
In ready-to-eat breakfast cereals, which of the following features is/are linked to the use of sugar (sucrose)?	26%	18%
Products with the claim "Reduced in sugar" are lower in calories compared to the products not "reduced in sugar"	31%	55%

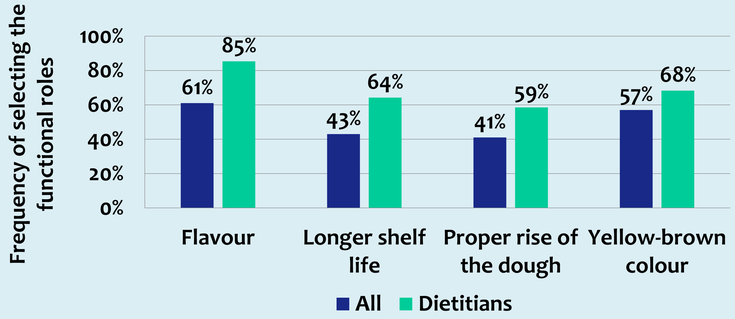
Results

Figure 1. Distribution of participant occupations (n=377).

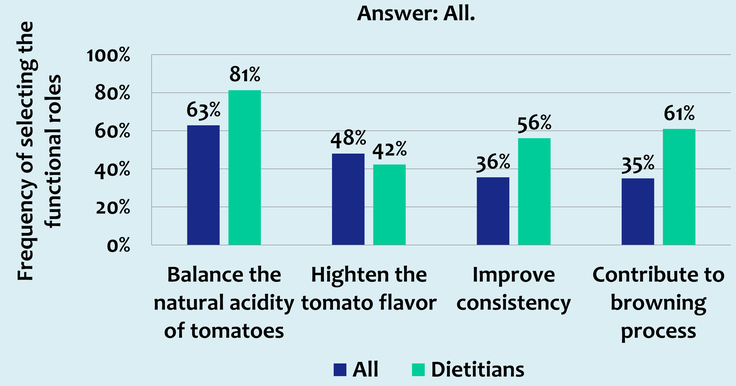


2. Proper rise of the dough in baked foods, surface porosity improvement in cereals and the browning process in tomato-based sauces were among the least known functions of sugar, whereas flavour was most frequently known role in each type of food product.

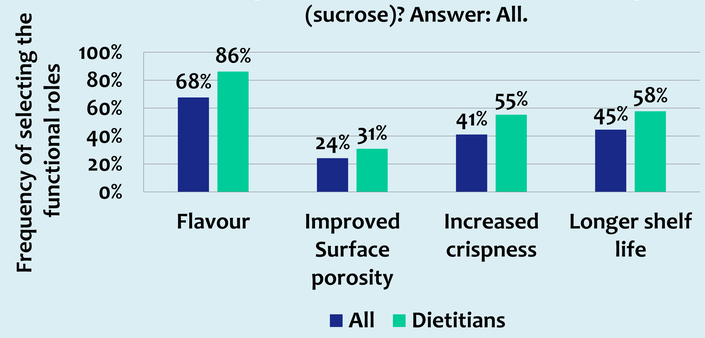
Question 1 : In baked foods, which of the following features is/are linked to the use of sugar (sucrose)? Answer: All.



Question 2: Sugar is added to tomato-based sauces to_____. Answer: All.

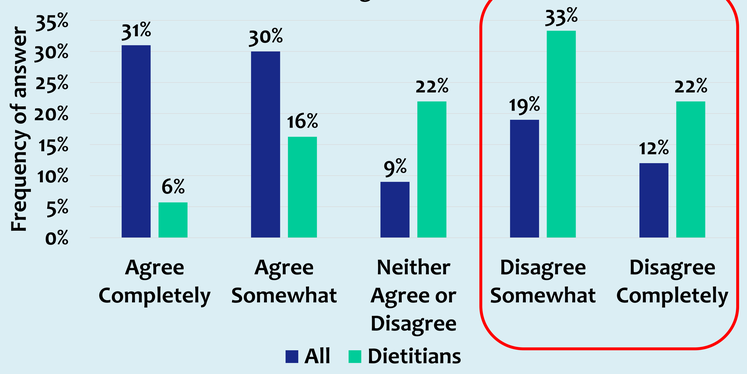


Question 3: In ready-to-eat breakfast cereals, which of the following features is/are linked to the use of sugar (sucrose)? Answer: All.



3. About 31% respondents and 55% among dietitians recognized that products with the claim "Reduced in sugar" are not necessarily lower in Calories compared to the reference products.

Question 4. Products with the claim "Reduced in sugar" are lower in calories compared to the products not "reduced in sugar"



Conclusions

Several knowledge gaps were identified among health professionals with respect to sugar's functional roles in foods that go beyond sweetness. Health professionals also have a limited understanding that foods without added sugar or lower in sugar may not be lower in Calories or lead to a lower glycemic response. The development of continuing education resources addressing these knowledge gaps may be helpful.

The **Nutrition Information Service** is managed by qualified nutrition professionals including registered dietitians and nutrition researchers and is guided by a Scientific Advisory Council. **For correspondence please contact:** flora.wang@sugar.ca