Sugar claims on foods: health professionals’ understanding compared to marketplace practice

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Introduction

- Nutrition claims are meant to help consumers make informed dietary choices.¹
- All carbohydrates (including naturally occurring and added sugars) contribute 4kcal/g.
- Under isocaloric conditions (i.e. sugars exchanged for another carbohydrate) there is no effect of sugars on weight gain or other metabolic disturbances.²,³,⁴
- Therefore, for products bearing a sugar claim, comparative reductions in calories are required for any meaningful changes regarding health.
- Sugar claims on foods may not be useful if:
  - Consumer expectations are not met;
  - Benefits are misinterpreted; or
  - Products do not comply with Canadian Food Inspection Agency (CFIA) criteria.

Terminology

- **Sugar** = sucrose (from sugar cane or sugar beet)
- **Added sugars** = all sugars added to foods, e.g. sugars and syrups, corn sweeteners, and other ingredients that act as a sweetener (e.g. concentrated fruit juice)
- **Sugars** = all naturally occurring and added sugars

Canadian Food Inspection Agency (CFIA) compositional criteria for sugar claims on foods¹

<table>
<thead>
<tr>
<th>Claim</th>
<th>Conditions - Food</th>
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</thead>
<tbody>
<tr>
<td>Reduced in sugar(s) &amp; lower in sugar(s)</td>
<td>• Modified food must contain at least 25% less sugar, totaling at least 5g less sugar per reference amount.</td>
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<tr>
<td>&quot;reduced sugar&quot;, &quot;sugar-reduced&quot;, &quot;less sugar&quot;, &quot;lower sugar&quot;</td>
<td></td>
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<tr>
<td>No added sugar(s)</td>
<td>• Food must not contain added sugars (see term above) and sugars content is not increased through some other means.</td>
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<tr>
<td>&quot;no sugar added&quot;</td>
<td>• Similar reference food contains added sugars.</td>
</tr>
<tr>
<td>&quot;without added sugar&quot;</td>
<td></td>
</tr>
<tr>
<td>Unsweetened</td>
<td>• Food meets conditions for &quot;no added sugars&quot; and does not contain non-caloric sweeteners.</td>
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Objectives

1) To assess health professionals’ understanding of sugar claims ("reduced in sugar", “no sugar added”, “unsweetened”)
2) To compare calories, carbohydrates and sugars content between claim and reference products in the marketplace; and
3) To determine the level of compliance with CFIA criteria among sugar claim products.

Methods

- A survey of health professionals and marketplace research were used to meet study objectives.

Survey of Health Professionals:
- Health professionals completed voluntary questionnaires at two National conferences to assess their understanding of sugar claims and expectations of the products bearing sugar claims.

Marketplace Research:
- Four Toronto grocery stores were surveyed between June and August 2012 to identify products with sugar claims.
- Information on sugars, calories, and carbohydrates were collected for both claim and reference products (reference product was defined as a food of the same type to which it is compared that has not been processed, formulated, reformulated or otherwise modified in a manner that increases or decreases the energy value, or amount of a nutrient that is being compared).¹
- The nutrient content of the claim product was subtracted from the reference product to calculate reductions in sugars, calories, and carbohydrate.
- Products were assessed for compliance with CFIA criteria.
- Microsoft Office Excel 2007 was used to conduct all analyses.

Results

Health Professionals’ Understanding of Sugar Claims on Foods
- Questionnaire respondents (n=442); dietitians (43%), nurses (22%), other health professionals (29%).
- “Reduced in Sugar” claims:
  - Majority of respondents (65%) expected calories to be reduced; one third expected calories to be reduced by 25%.
- “No Added Sugar” claims:
  - Almost half (43%) of respondents expected calories to be reduced.
  - More than half (57%) of respondents incorrectly thought concentrated fruit juice could be added as a sweetener.
  - Fewer than 15% of respondents knew naturally occurring sugars could be present.

Sugar- Claim Products in the Marketplace
- 402 products bore a sugar claim.
- 38% of products were not reduced in calories by ≥25% as expected by health professionals.
  - 15% of products were higher in calories;
  - 18% were higher in carbohydrates; and
  - 6% were higher in sugars compared to reference products.
- One-third of “reduced in sugar” products did not meet the % sugar reduction claimed on the package.
- Less than 40% of products complied with CFIA criteria; mainly due to:
  - the absence of a reference product (n=141); or
  - the incorrect use of concentrated fruit juice as a sweetener in “no sugar added” products (n=99).

Conclusions & Significance

- Sugar claims may be misleading if used incorrectly or if there is not a meaningful reduction in calories.
- The nutritional composition of products bearing a sugar claim did not meet health professionals’ expectations.
- The perception that sugar claim products are free of sugars and/or lower in carbohydrates may be of concern for people with diabetes.

References:
3) Te Morenga L. BMJ. 2013;346:e7482.