Knowledge, Attitudes and Perceptions Of Carbohydrates among Nutrition Undergraduates in Canada

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Financial Interest Disclosure
(over the past 24 months)

I declare that I have not had any relevant financial relationships with any commercial interests over the past 24 months.
Background

• Communication of evidence-based nutrition information by health professionals plays an important role in improving Canadians’ health. Students gain knowledge from nutrition courses and develop critical thinking skills required for future careers.

• However, students and health professionals may also be influenced by competing messages on the internet, mainstream media and social media that often communicate opinions not always based on best-available science.
Objectives

The purpose of the study is to:

• Assess knowledge and attitudes/perceptions of carbohydrates (including sugars) among students enrolled in undergraduate nutrition courses in Canada
Participating Universities
Methods

• Cross-sectional questionnaires were distributed in nutrition courses to undergraduate students at different stages of their training

• The questionnaire contained 32 questions including student demographics, knowledge of carbohydrates, and perceptions of topics on carbohydrates and health.
Results: Participant Demographics

• A total of 1207 students participated in the study between January 2016 and February 2017
Results: Source of Nutrition Information

### Question:
In addition to textbooks and lecture notes, what are the top 3 sources you would obtain nutrition-related information from? (Open-ended)

<table>
<thead>
<tr>
<th>Source of Nutrition Information</th>
<th>Frequency Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>1%</td>
</tr>
<tr>
<td>Wikipedia</td>
<td>1%</td>
</tr>
<tr>
<td>Professors</td>
<td>2%</td>
</tr>
<tr>
<td>Relatives, friends</td>
<td>4%</td>
</tr>
<tr>
<td>Google</td>
<td>4%</td>
</tr>
<tr>
<td>Social Media (Youtube, Facebook, Twitter)</td>
<td>5%</td>
</tr>
<tr>
<td>Mass media (TV, newspaper, magazines, etc.)</td>
<td>8%</td>
</tr>
<tr>
<td>Dietitians/DC</td>
<td>8%</td>
</tr>
<tr>
<td>Government (Health Canada), Food Guide, Nutrition Labels</td>
<td>9%</td>
</tr>
<tr>
<td>&quot;Internet&quot;</td>
<td>18%</td>
</tr>
<tr>
<td>Academic Journals/PubMed/Library/Books</td>
<td>22%</td>
</tr>
</tbody>
</table>

Frequency Distribution
Results: Glycemic Index

Question: Which of the following has the highest Glycemic Index?

- A. White bread
- B. Table sugar
- C. Honey
- D. Apple Juice
- E. Brown rice
- F. I am not sure about the answer

![Frequency Distribution Chart]

- White bread: 33%
- Table sugar: 41%
- Honey: 7%
- Apple juice: 4%
- Brown rice: 4%
- Not sure: 9%
Results: Calories from macronutrients

Percentage of Students Who Provided Correct Answers for Each Nutrient

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Frequency Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starch</td>
<td>57%</td>
</tr>
<tr>
<td>Sugar</td>
<td>64%</td>
</tr>
<tr>
<td>Soluble fibre</td>
<td>23%</td>
</tr>
<tr>
<td>Insoluble fibre</td>
<td>33%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>47%</td>
</tr>
<tr>
<td>Protein</td>
<td>71%</td>
</tr>
<tr>
<td>Fat</td>
<td>73%</td>
</tr>
</tbody>
</table>
Results: Added Sugars Consumption

Question: Added sugars consumption in Canada has been ______ over the past 20 years.

A. Rapidly increasing
B. Slightly increasing
C. Steady (neither increasing nor decreasing)
D. Slightly declining
E. Rapidly declining
F. I am not sure about the answer
Results: Added Sugars Consumption

Results: Added Sugars Consumption

- Rapidly increasing: 72%
- Slightly increasing: 14%
- Steady: 2%
- Slightly decreasing: 5%
- Rapidly decreasing: 1%
- Not sure: 5%
Conclusions

• Knowledge gaps on carbohydrate and sugars were identified.
• Perceptions of sugars-related health topics were generally negative, many reflecting information and opinions communicated online, in mass and social media sources.
• The importance of accessing nutrition information from credible sources needs to be reinforced throughout the degree program.
• It warrants greater emphasis on addressing knowledge gaps, improving knowledge retention and ensuring nutrition curricula being based on current, highest quality evidence.
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Thank You!

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