Applying a Health Literacy Lens to the Labelling of Supplemented Foods

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Background

A supplemented food (SF) is defined as “a *pre-packaged product that is manufactured, sold or represented as a food, which contains added vitamins, minerals, amino acids, herbal or bioactive ingredients. These ingredients may perform a physiological role beyond the provision of nutritive requirements*” (1).

- SFs include pre-packaged, ready-to consume beverages, beverage mixes and concentrates, powders and conventional foods (e.g. bars).
- As of 2012 SFs have been marketed in Canada subject to specific conditions while regulatory requirements, including package labelling, are being finalized.
- SFs are currently sold alongside conventional foods and lack features that clearly identify them from other foods.

The objectives of this research are to determine a key set of labelling tools that enable health intermediaries and consumers to:

- Distinguish **SFs** from conventional foods;
- Identify **the nature of the supplemental ingredients (SI)**; and
- Identify **any directions or caution for use**.

Methods

Health intermediaries and consumers of varying health literacy levels were recruited with a convenience sampling strategy to participate in individual interviews or discussion groups. Health intermediaries included exercise professionals, food/nutrition professionals, medical professionals and complementary and alternative medicine specialists. Consumers included seniors, parents and physically active individuals of varying health literacy (HL) levels, as assessed by the Newest Vital Sign (2).

- Step 1:** Discussion Groups with Health Intermediaries were conducted to gain a better understanding of their awareness, understanding and appraisal of labelling approaches for Supplemented Foods.
- Step 2:** Individual consumer interviews (n=31; n=21 adequate HL/ n=10 marginal HL) were conducted. Each consumer was given various design options for the key set of SF labelling tools. They chose and discussed their preferred options. Each consumer was tasked with placement of each of the labelling elements on mock food packages of varying sizes and food categories (cereals, beverages, bars). The interviewer probed on the accessibility (size, placement, noticeability), understanding, and appraisal for choice, size, placement and label placement of each labelling element.
- Step 3:** Discussion groups (n=8; n=5 adequate HL/ n=3 marginal HL) were held with 5-9 consumers per group. Participants compared and contrasted the consumer salient labelling options from Step 2 with current labelling for SFs.
- All interview and discussion groups were digitally recorded and transcribed. Thematic analyses were conducted using core health literacy competencies of consumer access, understanding, and appraisal of SF label information using NVivo Qualitative Software Tool.

Step 1 Draft Labelling Approaches Health Intermediaries

Health Intermediaries Discussion Groups

Supplemented Facts	
Per ½ cup (30 g)	
AA Amino Acid	2.5 g
C Caffeine	0 g
HB Herbal, Bioactive	0 g
VM Vitamin, Mineral	0 g

Guidance for use: Eat ½ cup (30g) post-workout for maximum benefit.

Caution: Not intended for children. Eat ½ cup (30 g) after exercise for maximum benefit.

Supplemented per bar (36g): caffeine (300 mg), niacin (16mg), vitamin B12 (9µg), vitamin B6 (1mg), vitamin B2 (1.5mg). **Caution:** Not recommended for children, pregnant or breastfeeding women or individuals sensitive to caffeine. Do not consume more than 2 bars per day.

Step 2 Draft Labelling Approaches Consumers

Consumer Interviews

Supplemented	
Per ½ cup (30 g)	
Leucine	2.5 g
Isoleucine	1.75 g
Valine	1.75 g

Caution
Not intended for children. Eat ½ cup (30 g) after exercise for maximum benefit.

Supplemented per ½ cup (30 g): Leucine (2.5 g), Isoleucine (1.75 g), Valine (1.75 g)

Caution: Not intended for children. Eat ½ cup (30 g) after exercise for maximum benefit.

Step 3 Saliency of Labelling Approaches Consumers

Consumer Discussion Groups

Supplemented	
Per ½ cup (30 g)	
Leucine	2.5 g
Isoleucine	1.75 g
Valine	1.75 g

Caution
Not intended for children. Eat ½ cup (30 g) after exercise for maximum benefit.

Supplemented	Per ½ cup (30 g): Leucine (2.5 g), Isoleucine (1.75 g), Valine (1.75 g)
Caution	Not intended for children. Eat ½ cup (30 g) after exercise for maximum benefit.

Discussion Group Mock-ups

Current SF Labelling

Tested SF Labelling

Consumer Discussion Group Results

Current Labelling			VS	Tested Labelling		
Identification of a SF	Nature of SI*	Caution	Needed Labelling Attributes	FOP Identifier	Nature of SI*	Caution
✓	✓	–	Legible?	✓	✓	✓
✓	✓	–	Readable?	✓	✓	✓
–	✓	–	Consistent location?	✓	✓	✓
–	–	–	Background contrast?	✓	✓	✓
✓	✓	N/A	Clutter-free location?	✓	N/A	N/A
✓	–	–	Proximity to other regulated information?	✓	✓	✓
* No labelling of the amount of SI *				* Labelling of both type and amount of SI *		

Supplemented Food Labelling Literacy

•Awareness of Supplemented Foods

- “I like the logo “S” for “supplemented” on the front-of-pack. Whatever is on the back, this sets it up, that it is supplemented. So if there is a public education campaign on recognizing that logo, that would be a good start.”

•Understanding of Supplemented Foods

- “If I wanted to know how much it’s supplemented with, I would look at the label [the supplemented box] to see how much was in there.”

•Appraisal of Supplemented Foods

- “I don’t know, am I supposed to have 225 mg of vitamin C or not? I don’t know, people don’t know that right off the top of their head [...] So if they are warning you [in the caution box] that with this amount of vitamins, you should probably either drink this or have a multi [multivitamin], don’t do both. And I thought that was pretty good personally.”

Next Steps

Findings from **Steps 1-3** of this study have generated a key set of labelling tools for SFs. These are to be objectively tested with Canadian consumers (n=4000) in a web-based survey with an embedded mock package trial (MPT) (**Step 4**).

This MPT will help generate evidence-based information that will be used to inform government in the development of labelling strategies and specifications for SFs. It will also help to identify needed education/outreach activities to bridge the gaps in consumer awareness, understanding, appraisal, and informed use of these SFs.

References

- Health Canada, H. C. (February 2016). Category Specific Guidance for Temporary Marketing Authorization: Supplemented Food. Retrieved February 2, 2018, from: <https://www.canada.ca/en/health-canada/services/food-nutrition/legislation-guidelines/guidance-documents/category-specific-guidance-temporary-marketing-authorization-supplemented-food.html>
- Mansfield et al. Adaptation of the Newest Vital Sign for Use in Canada. Public Health Nutrition (2018) in press.