Promoting children's health: Toward a consensus statement on food literacy

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ABSTRACT

This consensus statement reflects the views of a diverse group of stakeholders convened to explore the concept of "food literacy" as it relates to children's health. Evidence-based conceptions of food literacy are needed in light of the term's popularity in health promotion and educational interventions designed to increase food skills and knowledge that contribute to overall health. Informed by a comprehensive scoping review that identified seven main themes of food literacy, meeting participants ranked those themes in terms of importance. Discussions highlighted two key points in conceptualizing food literacy: the need to recognize varying food skill and knowledge levels, and the need to recognize critical food contexts. From these discussions, meeting participants created two working definitions of food literacy, as well as the alternative conception of "radical food literacy". We conclude that *multiple literacies* in relation to food skills and knowledge are needed, and underline the importance of ongoing dialogue in this emergent area of research.

KEY WORDS: Food; diet; health promotion; literacy; education

La traduction du résumé se trouve à la fin de l'article.

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ood literacy" was a term first introduced in public health literature in 2001 to describe the aims of a community program intervention seeking to improve low-income adults' understanding of nutrition.¹ By 2016, academic and grey literature revealed 1049 citations for the term. Food literacy programs are often used in educational contexts to teach nutrition knowledge, food preparation or cooking skills, and in consumer contexts to encourage the consumption of "healthy foods" such as fruits and vegetables. The same term is employed in policy contexts - typically to inform debates about macro-level issues such as food safety (preventing food-borne illness). A growing body of research uses "food literacy" in relation to educational interventions and health promotion, yet no clear consensus exists on its definition or core components.² While the term is easy - and popular - to employ, without a clear definition, its "achievement" is difficult to measure, assess and improve through educational interventions.

Given the wide range of meanings and applications of food literacy, a meeting of 12 diverse stakeholders was convened to explore the concept, particularly as it relates to children's health. Participants included researchers and professors in nutrition, public health and communication; public health practitioners; and educational practitioners and trainees. Invited participants represented a range of areas and levels of expertise across Alberta. The meeting included presentations on media literacy, food literacy and knowledge translation, a ranking exercise, and group work and discussion examining the range of existing definitions and components of food literacy. Informed by their expertise in health, health policy, communication, education and knowledge translation, meeting participants identified the important components that comprise a working definition of food literacy, presented in the following consensus statement.

BACKGROUND

Rising rates of childhood obesity have drawn attention to the importance of nutrition, along with the critical need to create positive eating habits and food skills that last over a lifetime. While Canadian children gain nutrition knowledge through Canada's Food Guide for Healthy Eating as part of the school curriculum, their understanding and application of nutrition knowledge is often lacking.³ One strategy to promote children's health is to provide children with the skills and knowledge to make healthy choices in a complex food environment – often understood as providing a type of "food" literacy.⁴

Food literacy has become a popular way to frame and explain the educational aims of initiatives designed to improve children's eating, although (as noted above) definitions of the term are inconsistent, and often too broadly framed to be useful. This raises

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STATEMENT ON FOOD LITERACY

significant questions about how we understand food literacy when it comes to children: what does it mean for a child to be "food literate"? Do we need a definition of food literacy for children separate from that for adults? How can – and should – children's food literacy skills be taught and measured?

In light of these considerations, participants were presented with the results of a comprehensive scoping review focusing on definitions of food literacy collected from academic and grey literature: 1049 potentially relevant articles about food literacy were located and screened for duplicates and direct relevancy (i.e., the study/report must be about food literacy).⁵ This resulted in 67 abstracts for full data extraction. The scoping review revealed an interesting contradiction: while the largest number of food literacy studies orient towards adult populations (39%), the majority of educational interventions specifically target children and adolescents (58%).

The scoping review identified two broad categories related to "food literacy": functional knowledge (skills, abilities and choices) and critical knowledge (theory and cognition). Seven specific themes were also identified: skills/behaviours, tool use, food/health choices, culture, knowledge, emotions and food systems. These themes were ranked for frequency of use across the included abstracts (see Table 1).

Examples of food literacy definitions were provided to illustrate how the themes appear in the literature and were recorded in the data extraction. As the scoping review revealed, one of the most cited definitions of food literacy is from Vidgen and Gallegos (2014).² Broadly worded, it suggests that micro-level food knowledge and skills are connected to macro-level health and well-being:

"Food literacy is the scaffolding that empowers individuals, house-holds, communities or nations to protect diet quality through change and strengthen dietary resilience over time. It is composed of a collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat food to meet needs and determine intake." (p. 54)²

While the Vidgen and Gallegos definition was the most frequently cited, it is merely one of 39 distinct definitions identified in the literature. Our scoping review data revealed variability in the way food literacy is currently defined and used for both child and adult populations. In fact, many of the studies collected (42%) did not define the term "food literacy" at all, which contributes to its current opaqueness of meaning.

Table 1.	Food literacy theme frequency of use as identified in
	scoping review

Food literacy theme	Ranking
Knowledge	1
Food/health choices	2
Skills/behaviours	3
Food systems	4
Emotions	5
Culture	6
Tool use	7

STAKEHOLDER MEETING "RESULTS" AND DISCUSSION

Informed by a ranked list of existing themes in the literature reflecting the importance in which they appeared (based on frequency of use), participants were asked to provide their own ranking of each of the seven themes, first individually, and then averaged as a group (see Table 2).

The group ranking mirrored the Scoping Review in ranking the importance of themes 1, 2, 3 and 5. "Culture" and "tool use" ranked higher in the forced ranking than in the scoping review. "Food systems" ranked lower (no. 7) compared to the scoping review (no. 4). (This low ranking of "food systems" may be due to the varied meanings of this theme for people – ranging from the complexity of the food environment, to food production, distribution and consumption.)

Group discussion about food literacy components emphasized the importance of "culture" as a core theme – participants stressed the significance of the broader cultural context in learning and exercising food literacy, through the notions of food use and cultural practices, and through the larger food system.

Creating a working definition of food literacy from these core themes is a complex task, yet two key points emerged from this meeting. First is the need to recognize *varying skill and knowledge levels* around food. Participants stressed the need for graduated categories of food literacy, such as "simplified" and "complex", which reflect varying levels of knowledge and skills (rather than focusing on age groups). These graduated categories were not found in the scoping review. "Simplified" and "complex" food literacy, moreover, requires corresponding themes with information appropriate to an individual's existing level of food knowledge. For example, at the "simplified level", students would study food origins (farm to fork pathways), while at the "complex level", they would engage with concepts representing the broader food system (such as industry, agriculture, politics, marketing and sustainability).

The second key point raised in the meeting was the need to recognize *critical contexts* in relation to food use and experience. Participants suggested that food literacy must capture the idea of critical abilities associated with advanced knowledge of food systems, allowing for critique, action and change. This advocacy approach could be conceived of as "radical food literacy". Radical food literacy moves away from the idea of focusing on nutrition or cooking skills to instead argue that

Food literacy theme Ranking		
Table 2.	Food literacy theme ranking result meeting	s from stakeholder

Knowledge	1
Food/health choices	2
Skills/behaviours	3
Culture	4
Emotions	5
Tool use	6
Food systems	7
Missing elements (gender, age groups, human rights, cultural/ethnic diets and practices, etc.)	c 8

Table 3.	Working definitions of food literacy		
Definition 1		Definition 2	
Food literacy involves broad sets of skills and knowledge about food origins and systems; individual and collective food experiences; food		Food literacy is a foundation of knowledge, understanding and awareness that allows people to perform actions related to food and	

identification; physical, emotional and

mental effects of food; as well as basic

abilities related to food.

the system itself (such as factory farming or marketing practices) should be challenged – and changed.

think critically about their relationship

to the broader food system.

These key reflections support the formulation of two working definitions of "food literacy". Working definition 1 captures food skills and knowledge levels, while working definition 2 addresses critical food contexts (see Table 3).

This consensus exercise revealed the difficulties in constructing clear, concise terminology – difficulties also found in the literature. Indeed, the working definitions are as broad and vague as the examples critiqued by the group. This reinforces the need for ongoing dialogue about the conceptualization of food literacy in this emergent research field.

The event organizers created a post-meeting report that summarized the group discussion and circulated it for participant feedback. Participants observed the vagueness of the two working definitions, along with the need to more concisely define food literacy themes/domains (in order to treat the individual themes of skills/behaviours, tool use, and so forth as separate components). Stated differently, food literacy requires multiple definitions – ones specific to each domain that can be measured (i.e., functional cooking skills, or critical knowledge skills) in order to articulate clear objectives and outcomes in policy, intervention-based studies, and food programs, among others.

CONCLUSIONS

This stakeholder meeting aimed to create a consensus statement on food literacy. Given the complexity of the task, we instead present something far more modest, which can move forward the discussion. Our meeting emphasized the gaps in knowledge highlighted by the scoping review: the majority of existing definitions of food literacy are too broad and too vague, and while these definitions reflect a range of dimensions, current conceptualizations do not recognize different levels of functional and critical knowledge and food skills. Further work is needed to expand on the notion of multiple literacies, especially those related to the six themes examined here. Alternative categories, such as "radical food literacy", may also be included – which calls into question current popular definitions of the term that focus on basic knowledge and skill acquisition. This is a significant challenge, and we invite contributions to this important discussion.

REFERENCES

- Kolasa KM, Peery A, Harris NG, Shovelin K. Food Literacy Partners Program: A strategy to increase community food literacy. *Top Clin Nutr* 2001; 16(4):1–10. doi: 10.1097/00008486-200116040-00002.
- Vidgen HA, Gallegos D. Defining food literacy and its components. *Appetite* 2014;76:50–59. PMID: 24462490. doi: 10.1016/j.appet.2014.01.010.
- Elliott C, Brierley M. Healthy choice?: Exploring how children evaluate the healthfulness of packaged foods. *Can J Public Health* 2012;103(6):453–58. PMID: 23618027. doi: 10.17269/cjph.103.3419.
- Velardo S. The nuances of health literacy, nutrition literacy, and food literacy. *J Nutr Educ Behav* 2015;47(4):385–89. PMID: 26026651. doi: 10.1016/j.jneb. 2015.04.328.
- Truman E, Lane D, Elliott C. Defining food literacy: A scoping review. *Appetite* 2017; epub ahead of print. doi: 10.1016/j.appet.2017.05.007.

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RÉSUMÉ

Cette déclaration de consensus reflète les points de vue d'un groupe d'acteurs divers réunis pour explorer le concept de « littératie alimentaire » et ses liens avec la santé des enfants. Il est nécessaire d'avoir des notions de la littératie alimentaire fondées sur les preuves, étant donné la popularité de cette expression dans les interventions éducatives et de promotion de la santé qui visent à accroître les compétences et les connaissances alimentaires contribuant à la santé globale. Éclairés par une étude de champ exhaustive qui a dégagé les six grands thèmes de la littératie alimentaire, les participants de la réunion ont classé ces thèmes en ordre d'importance. Les discussions ont mis l'accent sur deux points pour conceptualiser la littératie alimentaire : le besoin de reconnaître divers niveaux de compétences et de connaissances alimentaires, et le besoin de reconnaître les contextes alimentaires essentiels. Sur la base de ces discussions, les participants de la réunion ont créé deux définitions pratiques de la littératie alimentaire, ainsi que la notion parallèle de « littératie alimentaire radicale ». Nous concluons qu'il faut différentes formes de littératie en ce qui a trait aux compétences et aux connaissances alimentaires, et nous soulignons l'importance d'un dialogue permanent dans ce domaine de recherche en émergence.

MOTS CLÉS : aliments; régime alimentaire; promotion de la santé; littératie; éducation