Insights from doctoral research project on food literacy and adolescents’ dietary behaviours in Australia

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Adolescence plays an important role in developing healthy lifestyle habits because those habits are likely to continue in adulthood. All modifiable risk factors for non-communicable diseases (NCDs), including an unhealthy diet, tobacco and alcohol use and lack of physical activity have their origins in adolescence. Currently, dietary behaviours of adolescents in Western countries are described as being poor, with low intakes of fruit and vegetables and high intakes of sweetened beverages and convenience foods. More specifically, dietary behaviours of adolescents generally do not align with national dietary guidelines. These unhealthy dietary behaviours are concerning as they place adolescents at greater risk of developing NCDs in adulthood, including overweight and obesity.

In Australia, one in four children are overweight, with a trend heading towards one in three. The WHO has identified school as an important setting in providing food and nutrition education and promoting healthy dietary behaviours to adolescents. Most school-based interventions have been successful in increasing
the nutrition-related knowledge of students, but generally do not result in improved dietary behaviours. The concept of food literacy emerged as a key factor in improving the outcomes of future interventions. Vidgen and Gallegos (2014) have described food literacy as “the scaffolding that empowers individuals, households, 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”. Put simply, food literacy consists of food and nutrition knowledge, skills and capacity which are collectively required to make informed food choices and improve dietary behaviours.

In most high schools, the subject with the most focus on increasing adolescents’ food literacy is the area of home economics. Although, food literacy is increasingly recognised as important, very little is known about how adolescents become food literate. Therefore, the aim of this research program was to explore the role of food literacy in shaping adolescents’ dietary behaviours in order to inform the development of future interventions that facilitate healthy dietary behaviours of adolescents. Four research studies were designed to address the overall research aim: a systematic review of the literature, a cross-sectional survey, and interviews with home economics teachers and focus groups with adolescents.

The findings of this research showed that high schools play a vital role in enhancing adolescents’ food literacy, which in turn, underpins their healthy dietary behaviours. However, numerous barriers within the high school setting that could impact on adolescents’ food literacy and dietary behaviours were identified, such as school curricula not providing enough time for food literacy related activities, financial constraints, unsupportive school food environments and negative role modelling. School food environments do not support adolescents in making healthy food choices due to limited adherence to National Healthy School Canteen guidelines; canteens and food providers being profit orientated; negative role modelling; and fundraising that often involves unhealthy foods. Home economics teachers focus on teaching adolescents basic food skills as many adolescents have minimal pre-existing knowledge and skills and there is limited time in the Australian curriculum devoted to food literacy. Adolescents reported a low level of confidence in the application of food and nutrition knowledge due to minimal opportunities to increase their food literacy in home and school settings. Food and nutrition education to increase adolescents’ food literacy could be a central strategy to increase not just adolescents’ food literacy but also to enable adolescents to act as agents of food behaviour change in the home setting. Future research is needed to develop and undertake a longitudinal study to measure the impact of food literacy and dietary behaviours from adolescence to adulthood. In addition, there is a need to develop a tool to measure adolescents’ food literacy comprehensively.

Further reading

Recent publications by APFNC members

Amy Savage, Judhiastuty Februhartanty & Anthony Worsley
Adolescent women as a key target population for community nutrition education programs in Indonesia
Asia Pacific Journal of Clinical Nutrition, 2017: 26(3)

Background and Objectives: Adolescence is a critical life-stage that sets the foundation for health in adulthood. Adolescent women are a unique population and should be targeted as
such for nutrition promotion activities. Using Indonesia as a case study, this qualitative study aimed to identify existing nutrition promotion programs aimed at adolescent girls, how best to target this population and effective recommendations to inform nutrition education program design for this important group.

Methods and Study Design: Semi-structured interviews and questionnaires were conducted with ten key informants working in public health in Indonesia. Interview transcripts were analysed and coded to identify key themes.

Results: No existing nutrition education programs targeting adolescent women in Indonesia were identified. Several strategies apply to nutrition programs for adolescent girls: 1) nutrition promotion messages that are relevant to the lifestyles and interests of adolescent women; 2) technology-based interventions show promise, however, they need to be appropriately targeted to sub-groups; 3) school remains an important setting; and 4) early marriage is an important issue affecting nutritional status and engagement of adolescent girls. The informants recommended that: 1) more research is needed about the underlying motivations for behaviour change among adolescent women and ways to effectively implement the identified engagement strategies; 2) adolescent girls should be included in program design to improve its suitability and uptake; and 3) government budget and policy support is crucial to success.

Conclusions: Adolescent women are an important population group and more research is required to identify the optimal forms of engagement to improve nutrition programs for them.

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Deakin University: Institute for Physical Activity and Nutrition (IPAN) recent publications


Background: Children’s learning about food and physical activity is considerable during their formative years, with parental influence pivotal. Research has focused predominantly on maternal influences with little known about the relationships between fathers’ and young children’s dietary and physical activity behaviours. A greater understanding of paternal beliefs regarding young children’s dietary and physical activity behaviours is important to inform the design and delivery of child-focused health promotion interventions. This study aimed to describe fathers’ perceived roles in their children’s eating and physical activity behaviours. It also sought to document fathers’ views regarding how they could be best supported to promote healthy eating and physical activity behaviours in their young children.

Methods: In depth, semi-structured interviews were conducted with twenty fathers living in socio-economically diverse areas of metropolitan Melbourne, Australia who had at least one child aged five years or less. All interviews were audio recorded, transcribed verbatim and thematically analysed.
Results: Thematic analysis of the transcripts revealed eight broad themes about fathers’ beliefs, perceptions and attitudes towards the dietary and physical activity behaviours of their young children: (i) shared responsibility and consultation; (ii) family meal environment; (iii) parental role modelling; (iv) parental concerns around food; (v) food rewards; (vi) health education; (vii) limiting screen time; and (viii) parental knowledge. Analysis of themes according to paternal education/employment revealed no substantial differences in the views of fathers.

Conclusions: This exploratory study presents the views of a socio-economically diverse group of fathers regarding the dietary and physical activity behaviours of their young children and the insights into the underlying perceptions informing these views. The findings suggest that fathers believe healthy eating behaviours and being physically active are important for their young children. Fathers believe these behaviours can be promoted and supported in different ways including through the provision of appropriate meal and physical activity environments and parental role modelling of desired dietary and physical activity behaviours.

Recent scientific publications

Food: Literacy, education and communication

Truman E; Raine K; Mrklas K; Prowse R; Carruthers Den Hoed R; Watson-Jarvis K; Loewen J; Gorham M; Ricciardi C; Tyminski S; Elliott C, Canadian (2017) “Promoting children's health: Toward a consensus statement on food literacy”. Canadian Journal of Public Health, 2017; Jun 108(2): e211-e213
DOI: http://dx.doi.org/10.17269/cjph.108.5909

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.

Food: Purchasing behaviour and marketing


The objective of this paper is to comprehensively assess the extent, nature and impact of unhealthy food advertising targeted to children on New Zealand television. The study concluded current self-regulation is ineffective in protecting children from exposure to unhealthy food advertising on television. The WHO nutrient profiling model needs to be used to restrict unhealthy food advertising, especially during children's peak viewing times.
Systematic reviews investigating associations between objective measures of the food environment and dietary behaviours or health outcomes have not established a consistent evidence base. The present paper aims to synthesise qualitative evidence regarding the influence of local food environments on food and purchasing behaviours.


Nutrition labeling is a prominent policy to promote healthy eating. This study aimed to evaluate the effects of 2 interpretive nutrition labels compared with a noninterpretive label on consumer food purchases in a parallel-group randomized controlled trial, which enrolled household shoppers across New Zealand who owned smartphones and were aged ≥18 y. At the relatively low level of use observed in this trial, interpretive nutrition labels had no significant effect on food purchases. However, shoppers who used interpretive labels found them to be significantly more useful and easy to understand, and compared with frequent NIP users, frequent TLL and HSR users had significantly healthier food purchases.

Food Policy


South Asian countries experience some of the highest levels of child undernutrition in the world, strongly linked to poor infant and young child feeding (IYCF) practices. Strong and responsive policy support is essential for effective interventions to improve IYCF. This study aimed to identify opportunities for strengthening the policy environment in the region to better support appropriate infant and young child feeding.