Welcome to Aprils’s edition of the APFNC Behavioural Nutrition Newsletter

This month’s edition brings news of development of a new nutrition education blogsite led by Professor Tony Worsley and a fabulous article on the pedagogy of nutrition education by Samantha Baker.

If you would like to subscribe to this newsletter, or if you have any articles or research you would like to contribute to the web page or newsletter, please forward them to s.ridley@deakin.edu.au

**EVENTS**

1st Southeast Asia (SEA) Public Health Nutrition Conference  
14 - 17 May, 2017  
Kuala Lumpur, Malaysia  
https://seaphnc2017.org/conference/

Several Southeast Asia countries are experiencing a rapid nutrition transition, facing a double burden of malnutrition, with persisting issues of undernutrition especially among children, and at the same time heading into an epidemic of obesity, diabetes and other non-communicable diseases related to over-nutrition.

The first SEA-PHN Conference provides a platform for interaction and development of potential cross sectors collaborations; strengthen current partnerships in combating public health nutrition issues of the Southeast Asia region.

**In the media; current events**

Asia’s deadly diabetes epidemic: Disease linked to 26% rise in risk of cancer deaths  
By Gary Scattagood  
Type 2 diabetes (T2D) is associated with a 26% increase in the risk of death from cancer in Asians, with people in the region also at greater risk of death from certain site-specific cancers than those in the West.  
March 07, 2017  
Foodnavigator-asia.com/Nutrition  

‘Healthy’ breads contain more salt than a packet of chips, study finds  
By The George Institute for Global Health  
Researchers from The George Institute for Global Health analysed 1439 bread products from 2010-2017 and found some loaves contained more than a third of the daily recommended salt intake in just two slices.  
May 21, 2017  
The George Institute for Global Health  

Intestinal bacteria may protect against diabetes  
By University Eastern Finland  
A high concentration of indolepropionic acid in the serum protects against type 2 diabetes, shows a new study. Indolepropionic acid is a metabolite produced by intestinal bacteria, and its production is boosted by a fibre-rich diet. According to the researchers, the discovery provides additional insight into the role of intestinal bacteria in the interplay between diet, metabolism and health.  
April 11, 2017  
ScienceDaily  
https://www.sciencedaily.com/releases/2017/04/170411090159.htm

Sugary drink sales drop nearly twenty percent after community campaign  
By UConn Rudd Center  
A new study from the Rudd Center for Food Policy and Obesity at the University of Connecticut used objective retail sales data to measure the effectiveness of a community-led campaign to reduce consumption of sugary drinks.  
March 6, 2017  

**Academic Papers**

To view more academic papers, please visit the APFNC website and view the External publications page.

**Feature Article**

A multiliteracies approach to adolescent nutrition education  

By Samantha Baker, Professor Amanda Devine, Margaret Miller, Dr Julie Dare  

At the core of education is the need to provide students with the skills and capabilities to construct meaning and knowledge, and thus successfully navigate life. Literacy pedagogy has traditionally been seen to play a key role in achieving this. However, its value in today’s 21st century has been questioned due to its heavy reliance on teaching learning through reading and writing in a monolingual and monocultural manner (Barry, Haynes, Muller & Peters, 2015; The New London Group, 1996). With the expansion of globalised societies, a growing presence of
information and communication technologies and the influence of these on student learning processes, the notion of a ‘pedagogy of multiliteracies’ was coined by the New London Group in 1996.

Multiliteracies refers to a “type of pedagogy that acknowledges the need for a broad view of literacy” (Henderson, 2016, p. 22) and integrates consideration of a wide range of text types, including multimodals and hybrid texts. In recent years, several frameworks have been conceived which integrate a multiliteracies approach, due their capacity to challenge traditional pedagogies and how students engage with the learning process. However, little is known on how such multiliteracy frameworks can be adapted to a nutrition education context to facilitate student learning.

Current Australian research has investigated this area and developed a multiliteracies based nutrition education lesson planning framework relevant to the early adolescent years. A generic qualitative research approach was employed throughout this project and comprised of three sequential phases. The first phase involved an extensive literature review, establishment of a project reference group and qualitative protocol development. The second phase included a series of student focus groups (n=59) and teacher interviews (n=10) across six Western Australian non-government schools. Using thematic data analysis, focus group and interview transcripts were analysed which resulted in the development of a series of interconnected key themes. These data analyses, coupled with literature review findings, informed phase three; the development of the framework. This framework was then reviewed and refined by the project reference group and led to the finalised Multiliteracies approach, Engagement focused, Adolescent specific Lesson planning (MEAL) framework.

The MEAL framework is the first of its kind and contributes to public health and education research by connecting three distinct yet interrelated research areas – pedagogy, engagement and nutrition education. Specifically, the MEAL framework embeds the concept of a multiliteracies pedagogical approach. The pivotal focus on ensuring the MEAL framework is practical, aligns with the Western Australian curriculum, integrates current education research and was informed by both Western Australian teachers and students means it will provide teachers with the confidence in knowing their developed nutrition education lessons are relevant and engaging to students. Moreover, through the implementation of the MEAL framework, teachers have the capacity to contribute towards a positive change in how nutrition education is planned and delivered in the contemporary school environment and contribute to the overall health and wellbeing of adolescents.

For more information on the MEAL framework, please contact Samantha Baker: samantha.baker@ecu.edu.au

Further reading

Nutrition education blog
Promotion of healthy eating patterns and development of basic cooking skills in adolescence assists to optimize mental and physical well-being, with these benefits tracking through into adulthood. Improving nutritional knowledge and dietary habits of adolescents can be challenging in a modern world full of marketing, convenience foods and busy lifestyles, where the traditions of dining at home and home cooking are rapidly changing.
The APFNC Nutrition and Food Education Working Group established at the Jakarta workshop in November, is in the process of putting together a blog space. Designed primarily for secondary school students and teachers, the blog will aim to help inspire students (and their parents) to improve their diets, develop basic cooking skills, and share their recipe ideas and food traditions. For teachers it will provide structured lesson plans and nutrition education materials through a member only portal.

Each month the site will discuss an area relating to nutrition, diets and food, ranging from food and its impact on health; food the environment and sustainability; the psychology of what we eat; fad diets and so forth. The discussion will invite discussion between students, parents and teachers on the topic of the month.

The main aims of the blog space will be:

- Provide a forum for teachers, students and parents to engage in lively discussion on food and health, food and the environment, and the psychology of food
- Provide a space where teachers, students and parents to chat about the food they eat, how they cook it, and their food traditions
- Provide teachers with quality nutrition education materials

The Nutrition and Food Education Working Group, is led by Professor Tony Worsley, Institute for Physical Activity and Nutrition Research, Deakin University (email: tonyw@deakin.edu.au). If you would like to contribute materials to the website or become involved with the project in another way, please contact Stacey Ridley (email: s.ridley@deakin.edu.au). The blogsite will be hosted by Deakin University.

Recent publications by APFNC members

Neha Rathi, Lynn Riddell & Anthony Worsley

Food and nutrition education in private Indian secondary schools

http://dx.doi.org/10.1108/HE-04-2016-0017

The current Indian secondary school curriculum has been criticised for its failure to deliver relevant skills-based food and nutrition education for adolescents. The purpose of this paper is to understand the views of adolescents, their parents, teachers and school principals on the present food and nutrition curriculum and the role of the schools in developing food skills.
Design/methodology/approach
Semi-structured interviews were held with 15 students aged 14-15 years, 15 parents, 12 teachers and ten principals in ten private schools in Kolkata, India. The interview questions were primarily based on the content, merits and demerits of the curriculum. The digitally recorded data were transcribed verbatim and analysed thematically.

Findings
All the 52 interviewees observed that the food and nutrition curriculum created awareness in students about the importance of healthy eating. However, they also described certain weaknesses of the curriculum. These included lack of practical assignments, an out-dated and a limited curriculum, which failed to initiate critical thinking and was contradicted by sales practices in the school food environment. The interviewees prioritised the inclusion of food skills in the curriculum.

Practical implications
The emerging evidence suggests the need for the development of a skills-focussed food and nutrition curriculum to encourage healthy eating behaviours among adolescents.

Originality/value
Most of the work on food and nutrition education has come from developed nations – this is the first study in the Indian context of the secondary school food and nutrition curriculum.

Neha Rathi, Lynn Riddell & Anthony Worsley
Secondary school students’ views of food and nutrition education in Kolkata, India
Health Education, 2017; Vol. 117(3):310 - 322
http://dx.doi.org/10.1108/HE-08-2016-0030

School-based nutrition education programmes have the potential to reinforce healthy dietary behaviours in adolescents. The purpose of this paper is to understand the views of secondary school students in Kolkata, India, regarding the food and nutrition curriculum, food skill acquisition at school and home and barriers to learning food skills.

Design/methodology/approach
The sample of 1,026 year nine students was drawn from nine private, English-speaking secondary schools in Kolkata, India to participate in a cross-sectional, self-reported paper-based survey. Data analyses including descriptive statistics and χ2 analyses were performed.

Findings
The majority of the respondents (65.3 per cent) were female. Biology, Home Science and Life skills classes were the main places in which students acquired food and nutrition knowledge. Almost two-thirds of the respondents acknowledged the importance of acquiring food-related knowledge and skills. Approximately half (48.3 per cent) reported that the food and nutrition curriculum involved excessive memorisation while around the same proportion described the curriculum as interesting (47 per cent) and easy to comprehend (50.3 per cent). However, relatively few students said they enjoyed attending food and nutrition classes (38.7 per cent). Only a minority reported receiving food skills training, i.e. cooking skills (23 per cent), meal planning skills and food purchasing skills (12.3 per cent) at school. Despite some parental support received at home, time constraints (50.5 per cent) and lack of interest (26.3 per cent) were cited as prominent barriers to learning food skills.
Practical implications

These data underscore the need for a skills-focussed food and nutrition curriculum to improve Indian adolescents' food-related skills, nutritional knowledge and dietary behaviours.

Originality/value

This is the first cross-sectional survey to investigate the delivery of nutrition education and food skills in the Indian school context.

Deakin University: News

The Happy Academic Blog

Kylie Ball, Alfred Deakin Professor and NHMRC Principal Research Fellow in the Institute for Physical Activity and Nutrition (IPAN) at Deakin University recently launched a new blog, ‘Happy Academic’. The blog is aimed at early and mid-career researchers (EMCRs). Kylie recognizes that forging an academic research career has many challenges. Kylie has had many roles including Professor and research leader, and has mentored many EMCRs. Her blog aims to help answer questions and concerns of EMCRs and accompanies a complete career development program she is creating for EMCRs at IPAN

https://happyacademic.wordpress.com/

Recent scientific publications

Food: Literacy, education and communication


This paper evaluates the effectiveness of the Ministry of Food (MoF) cooking programme on self-reported food consumption and confidence with cooking. A quantitative and qualitative evaluation of the MoF 8-week cooking course, using a pre-test/post-test study. Pre, post and 6-month follow-up quantitative outcomes were measured using self-administered questionnaires to record number of portions of fruit and vegetables (F&V) consumed per day, number of snacks consumed per day and participants’ cooking confidence levels (highest score of 5). Qualitative evaluations were undertaken using structured telephone interviews. Setting: MoF centre in Leeds Kirkgate Market, UK. Subjects: Adults (n 795, 43 % male) on MoF courses from 2010 to 2014, 462 of whom completed questionnaires at all three time points. Six months after the course, self-reported F&V intake increased significantly by 1·5 (95 % CI 1·3, 1·6, P<0·001) portions per day to 4·1 (95 % CI 4·0, 4·3). The number of snacks reported decreased significantly over the same period by -0·9 (CI -1·0, -0·8, P<0·001) snacks per day. Cooking confidence increased over the same period by 1·7 (95 % CI 1·6, 1·9, P<0·001) to 4·4 (CI 4·4, 4·5). Age and disability, but not deprivation or ethnicity, were associated with changes in self-reported F&V intake and cooking confidence scores at 6 months; and gender with the latter outcome. Qualitative results supported quantitative findings and revealed specific beneficial gains in cooking skills/preparation, nutritional awareness, food purchasing and other social benefits.
Attracted by their high economic growth rates, young and growing populations, and increasingly open markets, transnational food and beverage corporations (TFBCs) are targeting Asian markets with vigour. Simultaneously the consumption of ultra-processed foods high in fat, salt and glycaemic load is increasing in the region. Evidence demonstrates that TFBCs can leverage their market power to shape food systems in ways that alter the availability, price, nutritional quality, desirability and ultimately consumption of such foods. This paper describes recent changes in Asian food systems driven by TFBCs in the retail, manufacturing and food service sectors and considers the implications for population nutrition. Overall, the findings suggest that market forces are likely to be significant but variable drivers of Asia’s nutrition transition. The carbonated soft drink market is the most highly concentrated and likely to be most harmful to population nutrition. The grocery retail sector is, in terms of increasing market concentration and thus market power, likely to be the most important driver of ongoing food systems change and ultra-processed food sales in the region. Given its rapid growth, the food service sector will also contribute significantly to ongoing dietary change.

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