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Health vs. hedonism: public communication of nutrition science

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Abstract

Do differences in narrative approach; hedonic language vs. scientific language, influence public perception and opinion of Nutrition and food consumption? Our study investigated this question using qualitative research via Focus Group (FG). The stimulus films and subsequent meals exemplified hedonic language and biomedical language respectively. The FG was chosen to elucidate alternative narrative tools for further research and public health communication. Five sessions were held over 4 weeks with 8–10 non-repeating participants at each session. Film clips were viewed in a dining room environment and food served in buffet style after viewing. 47 people participated in the focus groups (15 males, and 32 females [ages 18–78]). Recruitment was by social media, local news outlets, word of mouth, and printed material and followed up via email. Study eligibility included self-identifying as primary food provider/cook, being over eighteen years old, and providing informed consent. Qualitative content analysis and grounded theory was used for coding and analysis. Interpretive reading of the transcript identified manifest and latent content before a coding frame was arrived at based on the frequency of relevant categories. Cross-coding was undertaken and patterns identified according to our primary research question. Communication disparities suggested by previous research were confirmed in our findings with participants emphasizing that the personal impact of hedonic and psychosocial narrative on their personal food experience held greater weight than the 'health' narrative alone. We conclude that scientific nutrition communication paradigms are less effective than emotional narrative that engages passion, memory and deep feeling. The findings support a move towards nutrition communication strategies that incorporate wider human emotional experience through gastronomic narratives.

Keywords

Health communication; Public perception of science and technology; Public understanding of science and technology

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Background

Despite widespread dissemination of evidence-based Nutrition and food consumption advice in Australia through the Australian Dietary Guidelines, Dietetics practice and Public Health initiatives, public incidence of diet-related Non-Communicable Disease states continues to increase annually. In a recent study at The Australian National University's Centre for the Public Awareness of Science, we examined public attitudes to food, nutrition and wellbeing through the dual information filters of populist gastronomy (Nigella Lawson) and traditional nutrition science communication on middle-class/professional adults residing in a low SEI area of semi-rural NSW exhibiting greater than average diet-related morbidity.

Methods

Using a community based voluntary participatory research approach, we conducted a qualitative research study with 6 catered, audio-recorded focus group amongst adults (n=47) who self-identified as their own or one of their family's primary food providers (age = 18–78 years [15 male, 32 female]). The focus group topics were perceptions of current Dietetic or Government nutrition advice, the relative importance of flavour vs. health concerns in food choices, immediate neurogastronomical perceptions of a Nigella Lawson meal that conforms to current dietary recommendations, and the effects of hedonic vs scientific narrative on food choices, menu planning and consumption. Pre and post-prandial satiety was evaluated via Likert scale. A small team of investigators analysed all transcripts in full before reducing data to codes through consensus. Broader themes were created to encompass multiple codes.

Results

Results indicated that participants retain a robust understanding of evidence-based dietary guidelines and exhibit similar educated awareness regarding broader narrative influences on food consumption. We identified six themes consistent among all participants: (1) Solid understanding of current evidence-based nutritional recommendations, (2) Frustration, anger and scepticism arising from scientific language paradigms and perceived fickleness of message in Nutrition professionals and Dieticians, (3) Emotional/hedonic texts are more broadly engaging, (4) junk foods, food trends and chemicals have supplanted healthy, natural, traditional foods and food practises common to remembered childhood and family traditions, (5) healthy and hedonistic are perceived by the majority as antithetical terms and (6) The primary barrier to consumption of healthy food is the hedonic experience, both actual and linguistic. Placing nutrition within a broader context of sociocultural and gastronomic identity and a struggle to harmonize different lifestyles, media influences and worldviews, we proposed that an alternative communication framework focusing on gastronomic narratives and flavour/pleasure could harmonize scientific Nutrition perspectives with semi-rural Australian food culture and perceptions.

Conclusions

Our study demonstrated the manner in which hedonic gastronomic narrative influences and enhances public food understanding and dietary practises in educated Australian adults in semi-rural NSW. We concluded that current Nutrition Science communication narratives would benefit from a broader gastronomic focus with an emphasis on flavour, hedonism and emotional/psychosocial parameters.

The full study can be accessed at: https://www.researchgate.net/publication/331318241_Nutrition_Nigella_and_Neurogastronomy_Changing_the_Narrative_in_Public_Communication_of_Nutrition_Science

Commentary

Evidence-based Nutrition science is communicated to the public through the Australian Dietary Guidelines, The Dietitians Association of Australia, and qualified Nutritionists. Despite this, the Australian population is getting steadily **fatter and sicker**. What if it's not what we're communicating, but how?

The public response to both gastronomic films and television programming is something of a 21st century phenomenon [Bellman, 2004; de Solier, 2005; Prince, 2014]. Films like *Julie & Julia*, *Babette's Feast*, and *Eat Drink Man Woman* reflect the vital social role that cuisine plays in the human experience. The enormous viewerships of a host of celebrity chefs; Nigella Lawson, Jamie Oliver, Heston Blumenthal, and the *Masterchef* and *Iron chef* franchises further reinforces our fascination with food aligned with masterful storytelling. Food and gastronomy have become a pop-culture phenomenon. As Lisa Abend summarized in *The Times* [2010]: "*our alienation from food and its preparation is matched only by our obsession with it*". This phenomenon is not overtly surprising if you examine current Nutrition research. Nutrition scientists are starting to understand that despite the advances made possible by reductionist approaches, — people eat food, not nutrients [Tapsell et al., 2016]. In many ways, Gastronomy is Nutrition uncompartimentalized. It is a movement away from a reductionist approach to human food experiences and stems from the realization that a more realistic and holistic approach to food is required if we are to effectively address the rising tide of current global food/health problems [Maberly and Reid, 2014].

Despite the availability of evidence-based national government dietary guidelines in the majority of the countries of the world [World Health Organisation (WHO), 2003], diet-related non-communicable diseases (NCDs) like cardiovascular disease, cancer, obesity and type-2 diabetes are increasing in incidence every year [Hyseni et al., 2017]. The field of Nutrition science is at a crossroads. Health communicators are increasingly frustrated over the inability or reluctance of significant portions of the public to accept and act on scientific findings relating to nutrition and obesity [Rowe and Alexander, 2018]. While both downstream (behavioural/individual) interventions, and upstream (policy/healthier environments) interventions have been proposed and implemented internationally [Brownson, Seiler and Eyler, 2010], it isn't working. Obesity and related non-communicable disease states are still on the rise [Popkin, Adair and Ng, 2012]. Indeed, communication disparities have been widely cited as an urgent area of research in public health and nutrition [Kreps and Maibach, 2008; Bernhardt, 2004; Fischhoff, 2013]. A move towards a

more gastronomic focus was highlighted in findings from the 2016 Food Forum of The National Academies of Science, Engineering, and Medicine, the purpose of which was to address communication failures and food literacy in the public. The following summarized findings of the forum are congruent with using popular gastronomic entertainment to elucidate public understandings of food & nutrition:

- (1) It was identified that nutrition writing is convoluted and unduly complex, with less than 1% of qualified health claims being considered easy to read.
- (2) The vocabulary used by nutrition/dietetics professionals is 'unfriendly'.
- (3) The story keeps changing leading to scepticism/disbelief in scientific messages
- (4) The inherent neutrality embedded in scientific writing ignores the fact that emotion-laden texts are more likely to be engaged with
- (5) Impersonal or generic messages meant for 'everyone' end up resonating with no one
- (6) The primary reason for people resisting the consumption of healthy food is that they do not want to eschew flavour/pleasure.

The forum representatives went on to recommend that Nutrition science embrace the creation of tight, accessible, friendly communications; use consistent terms, formats and storylines; tell complete stories that incorporate full context and hedging; be positive and emotive; keep food *taste* in mind; and road test the message [National Academies of Sciences, Engineering and Medicine (NASEM), 2016]. Our study's use of an emotion-laden hedonic excursion into food appreciation as exemplified by Nigella Lawson, compared to a traditionally scientific nutrition explanation to identify public understanding of food was robustly supported by a comprehensive review of current nutrition and science-communication research.

Is it a lack of understanding?

With 51% of adults not eating the recommended fruit intake, and 66% not eating enough vegetables [Australian Institute of Health and Welfare (AIHW), 2018], it is easy to jump to the conclusion that the public is not 'understanding' the science. However the [current study](#) on regional Australian adult consumers has found that understanding is not the problem — engagement and trust are.

People find current food and nutrition communication convoluted, complex and [inconsistent, impersonal, and devoid of emotional engagement and pleasure](#) [Lockley, 2019]. The 'medicalization' of food consumption and the avoidance of pleasure or 'hedonism' in meals holds very little appeal. Food reduced to a measurable set of 'nutrient' and 'health' parameters that ignores flavour, pleasure, story, environment and embedded memory/tradition makes people [anxious... even angry](#). The following responses are a representative sample of those collected from Focus Group participants. The Moderator's question was designed to elucidate prevailing attitudes to institutionalized Nutrition Science communication.

Moderator: What are the first words or thoughts that come to mind when you hear the words 'Dieticians advise you to...?'

*"F*ck off!" [Ni]*

"They just make you feel nothing but guilt" [nu]

"unrealistic. They are top-down dogmatic, and my rebellious genes respond to that" [Ni]

"dieticians are primitive individuals who have been trained many years ago, and who don't really understand how diet affects mood and the whole body" [Ni]

Ignoring or down-playing emotional and pleasure narratives in food and health is just bad communication [Townsend, 2014]. Even worse, it results in people 'throwing the baby out with the bath-water' and ignoring the science completely in favour of a more relatable personal narrative [Van Edwards, 2016]. This in turn makes them 'sitting ducks' for pseudo-science, fad diets, and the cleverly woven emotional marketing of unhealthy foods. So, if not nutrition science, who and what do consumers value and prioritize when they're deciding what to eat?

Nutrition and gastronomy

The same meal — one that conforms to the Australian Dietary Guidelines and the famed Mediterranean Diet model consumed under different narratives [Lockley, 2019], has vastly different effects on both the amount of food consumed and the consumer's emotional state.

The story makes a difference, and not just emotionally. Language/narrative forms actively change healthy food consumption behaviours [Turnwald, Boles and Crum, 2017], and hedonic language descriptors can alter biochemical hunger responses [Crum et al., 2011]. Further research strongly suggests that *anhedonia* — a lack of pleasure in eating is a key constituent of affective eating disorders at both ends of the spectrum [Kringelbach and Berridge, 2009; Cho et al., 2018].

Consumers may be ignoring or outright rejecting Nutrition communication, but they love Gastronomy! We're tuning out of science and tuning in to celebrity chefs and competitive cooking shows in our millions. Where we'll appreciate but largely ignore the macro and micronutrient analysis of the Mediterranean diet and its health benefits, we'll gobble up Nigella Lawson sashaying about a comforting kitchen and flirting with both us, and her ingredients. No real wonder — it's a better watch. It's a comforting, enticing, *sexy* story this 'Gastronomy'. It's familiar. It speaks to either our actual experience, or even more importantly, the one we wish to have. Nutrition and Gastronomy as entirely separate disciplines is utterly insane. They're both FOOD.

Tell a better story science

Research shows that Nutrition communication isn't working, and yet we trot out the same methods, the same yawningly awful Dietary Guidelines and charts year after year. We scrupulously train our dietary 'experts' and widen the gap between those that are allowed to know about food, and those that are forever the 'laity'. At the same time we wring our hands and wail that the public somehow doesn't 'understand', and that we must try harder...

There's a popular definition of insanity as 'doing the same thing and expecting a different result'.

The public is perfectly capable of understanding, they just don't buy the story. It's high time we started listening to them. Expert voices fluent in 'science-ese' preaching about nutrients from ivory towers and artificially separated disciplines may continue to to-and-fro amongst themselves, but if it's public engagement we're after, it's time to do away with "Oh but Nutrition is science, and Gastronomy is...not", and start telling a better story. Listen carefully to the boredom, the frustration and the anger, and focus on replacing it with our most basic and hard-wired motivator — pleasure. It's not a dirty word.

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