Concurrent Session 8: Dietary Patterns and Intakes

Degree of balance of televised health promotion in New Zealand
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Background – Society is growing more conscious of the benefits of a balanced lifestyle. Notwithstanding this, information and persuasion through televised advertising may not be reflecting such balance, thus promoting a health climate biased towards a particular lifestyle (i.e. health climate).

Objective - To establish a baseline of the advertising balance offered in New Zealand’s free-to-air television as a precursor of the health climate which is both reflected and promoted by such advertising.

Design – An estimated 230 hours of observations of health advertising were carried out on five free-to-air New Zealand television channels. Observations were statistically controlled by month, day and time as possible interventional variables. The two main dependent variables were the type of product being advertised and the nutritional balance of specific food products. The main independent variable was the channel in which the products were advertised. Statistical analysis focused on means differences between channels by way of t-test analyses.

Outcomes – Health promotion in New Zealand is heavily unbalanced towards nutrition and in detriment of fitness. TV1 offers a significantly more balanced health climate than the remaining channels (T=3.11, df 265, P<.01), with a load of 85% of nutrition-related advertising, versus 15% of fitness-related advertising. Furthermore, when the nutritional balance of specific food products is analysed, results show that these food products are highly unbalanced for all channels (BNI=112 –in contrast, a balanced BNI=0). Significant differences among channels only appear when the amount of advertising is taken into account. In general, TV1, TV2 and TV3 advertise more products at a relatively low rate (ratio=1/5), and render a more balanced climate (BNI<111). These are significantly different to Channel 4 and Prime, which advertise less products at a higher rate and render a more extreme climate (BNI>139).

Conclusions – The existing marketing efforts in New Zealand reflect and/or sustain a health climate where nutritional content is advertised six times more often than fitness content. This nutritional content is not balanced, either. The ‘quality’ of the products is poor, although similar for all channels. However, it gets amplified by a differential advertising across channels. Overall, TV1, TV2 and TV3 seem to be the channels preferred by manufacturers and retailers, and tend to promote a less unbalanced health climate. Channel 4 and Prime, however, are the channels preferred by selected manufacturers and retailers, and offer the most unbalanced health climate.

Eating behaviour and biomarkers of nutritional status in young women
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Background – Restrained eating behaviour is reported as an adaptation to limit weight gain or promote weight loss and is prominent amongst young women. The effects of such behaviour on key biochemical markers of nutritional status are not known.

Objective – To investigate biochemical markers of nutrient status and eating behaviour in young women.

Design – Females (n=308; age 22.6 ± 3.8y; BMI 21.4 ± 3.2 kg/m²; mean ± SD) were recruited to participate in a cross-sectional study. Inclusion criteria were: existing enrolment at The University of Sydney, not taking any medication, and when applicable, cessation of nutritional supplements. Blood samples were obtained and analysed for biomarkers of iron, folate and vitamin B12 status, and the concentration of homocysteine (Hcy) in serum. Eating behaviour was assessed by using the Three-Factor Eating Questionnaire (TFEQ).

Outcomes – Iron deficiency anaemia was found in 11% of subjects (haemoglobin <120g/L), 32% of subjects had iron stores below 15 ug/L, and 16% had serum transferrin saturation below the optimal level (< 15%). Eight % and 5% of subjects were vitamin B12 deficient based on their vitamin concentration in plasma or methylmalonic acid concentration, respectively. Serum folate concentrations above the optimal range for serum and erythrocytes were found in 62% and 94% of all subjects, respectively. One female had serum Hcy concentration above the reference range (>15μmol/L). Mean restraint was 8.1 ± 5.2 (equivalent to medium restraint), mean disinhibition was 6.5 ± 3.4 (low) and mean hunger was 5.1 ± 3.1 (medium). Vitamin B12 levels were positively correlated with restrained eating (P < 0.001). In addition, restraint was positively correlated to disinhibition or overeating (P < 0.001).

Conclusion – Disordered eating and a deficit of iron and vitamin B12 are present in educated women of childbearing age, including those studying nutrition. The effects of dietary restraint and food choices on markers of micronutrient status require further investigation.

References