

to the vending policy, which included a competitive tender process. The tender required compliance with the HCG plus standard financial and operational criteria. A photographic audit of 29 machines on one campus before the implementation of the HCG vending classified food and drinks as 64.8% Red, 13.7% Amber and 18.2% Green (3.3% of product lines were empty). There are currently 35 new HCG-compliant vending machines on four campuses which offer 50% Green (an increase of 31.8%), 30% Amber (an increase of 16.3%) and 20% Red (a decrease of 44.8%) drinks and snacks. This process highlighted the necessity for senior leadership support and for compliance with the HCG to be embedded into contractual arrangements. This has led to a large increase in the availability of Green drinks and snacks across a complex university environment. Implementation of the HCG will now extend to catering and retail within this setting.

2.129. *Twenty-Four Hour Urinary Volume of Children: A Systematic Review of the Literature*

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Urinary iodine excretion from 24-h urine samples (UIE, $\mu\text{g}/24\text{-h}$) is considered to be the most accurate measure of daily iodine intake, although urinary iodine concentration (UIC) from spot urine samples are used to determine the iodine status of populations. UIC is assumed to be indicative of iodine intake based on the assumption of an average 1L urine excretion in children in 24 h, although this has never been verified. This study aimed to determine the average 24-h urinary output of children. A systematic literature search was conducted to identify studies which reported the mean 24-h urinary volume of children (>1 y and <19 y). Studies were categorised into two groups, younger (2–11 years old) and older children (12–19 years old). Thirty-seven studies were included, 12 of which reported results by gender. The overall mean (SD) urine volume reported was 728(251) mL/24-h. Older children had a significantly higher mean urine volume (973(195) vs. 650(214) mL/24-h, $p < 0.001$). There was no difference in volume by gender. In conclusion, the average urinary output of children is less than 1 L. Therefore, studies utilizing spot urine samples to classify the iodine intake of children where the mean urinary output is less than 1 L could contribute to an overestimation of the iodine intake of the population.

2.130. *A Case Study of Grandparents' Attitudes and Perceptions Regarding Healthy Lifestyle Behaviour in Their Young Grandchildren*

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Grandparents can have a significant influence on young children's eating and activity behaviour, particularly if they are the primary carers of young children. This case study aimed to gain insight into the perspectives of custodial grandparents regarding the eating and activity behaviour of their young grandchildren. Semi-structured interviews (30–60 min) were conducted with custodial grandparents ($n = 7$), recruited through Grandparents for Grandchildren SA Inc. in Adelaide. Interview questions aimed to determine grandparents' beliefs, opinions, perceptions, knowledge, and support around the healthy eating and physical activity behaviour of their grandchild/ren aged 1–5 years. Interviews were coded in a four-phase process by three researchers who met frequently to discuss and agree on coding and emerging themes. Thematic analysis revealed four themes: (1) intergenerational differences in 'parenting' approach; (2) prioritisation of

grandchildren's health and environment; (3) strong health awareness, beliefs and rules; and (4) high self-efficacy, low perceived requirement for support. These findings highlight that custodial grandparents adopt a different parenting approach the 'second time around' due to previous experience, have a perceived high level of knowledge, and a perceived high level of responsibility for their grandchild's wellbeing. Consequently, custodial grandparents are confident in their abilities and have strong beliefs and practices regarding the promotion of a positive nutrition and activity home environment. This case study suggests that support around young children's eating and activity behaviour is not desired, and perhaps not required, by this unique group of grandparents. This is a complex psycho-social topic that warrants further investigation in a larger cross-section of custodial grandparents.

2.131. Predictors of Parental Unhealthy Food and Beverage Provision Using the Health Action Process Approach Framework

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Globally, children's intake of unhealthy foods and beverages is excessive. A key limitation of past research is the lack of a theoretical model to explain parent behaviour beyond the intention to limit the provision of unhealthy foods. This study aimed to utilise the Health Action Process Approach (HAPA) theoretical model to explain parents' intentions and behaviour in terms of limiting the provision of unhealthy foods and beverages to children within the home. Parents ($n = 162$) with children aged 4–7 years completed an online, self-reported questionnaire providing data on HAPA model constructs (risk perception, outcome expectancies, self-efficacy, intention, planning), child and parent demographics and potential confounders. The HAPA model includes the motivational phase, which leads to intention and the volitional phase that results in behaviour. Bivariate associations and multiple linear regression analyses, adjusting for predictors and confounders, were conducted. Model of fit statistics were appropriate in both models. In the motivational-phase-adjusted model, three risk perception variables, two outcome expectancy variables and action self-efficacy accounted for 36% of the variance in parents' intentions ($F(13,123) = 5.21, p < 0.001$). In the volitional-phase-adjusted model, maintenance self-efficacy, two action planning variables, coping planning and three recovery self-efficacy variables explained 15% of the variance ($F(13,123) = 1.70, p < 0.068$). The HAPA model captures several post-intentional factors and provides a framework to understand predictors of parental intentions and behaviour. Understanding these predictors may assist in designing interventions to support parents in executing and maintaining the intended food provision. Further research is needed to understand the complex interplay of factors that move parents from intentions to behaviour change.

2.132. Reducing the FODMAP Content in the Breastfeeding Mother's Diet Alleviates the Symptoms of Infantile Colic: A Randomised, Controlled, Double-Blind, Crossover Study

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Infantile colic, a common cause for presentation to emergency departments, lacks evidence-based therapies, yet 'windy-foods' are reduced by breastfeeding mothers. The study aimed to compare via a randomised, double-blinded, crossover study the effects of a maternal low-FODMAP diet (fermentable carbohydrates) and a typical Australian diet (control) in exclusively breastfeeding mothers on the crying–fussing duration of infants aged ≤ 9 weeks with colic and address mechanisms. After a seven-day baseline period, mothers were fed a 10-day low-FODMAP or control diet and then crossed over to the alternate diet. All meals were provided. At baseline and on day 10 of each diet, mothers completed a depression, anxiety and stress scale (DASS), and collected samples of breast