

335

### Parenting styles and the dietary intake of pre-school children: a systematic review

Alissa Burnett<sup>1,\*</sup>, Karen E. Lamb<sup>3,2</sup>, Jennifer McCann<sup>1</sup>, Tony Worsley<sup>1</sup>, Kathleen E. Lacy<sup>1</sup>

<sup>1</sup> Deakin University, Burwood, VIC, Australia

<sup>2</sup> Department of Paediatrics, University of Melbourne, Parkville, Australia

<sup>3</sup> Murdoch Children's Research Institute, Melbourne, Australia

**Background:** The prevalence of childhood overweight and obesity has been increasing globally, with poor diet a key contributor. Eating patterns established early in life track into later years, with parents playing an influential role in the food intake of younger children. The associations of parenting styles (authoritative, authoritarian, permissive and disengaged) and parenting dimensions (warmth and control) with pre-school children's dietary intake are unclear at present. This systematic review examines these relationships.

**Methods:** A search of six electronic databases was conducted. Inclusion criteria included articles published in English including children aged between 2 and 5 years, measured and reported associations between parenting styles or dimensions and food intake.

**Results:** Seven articles met the inclusion criteria. Three articles focussed on parenting styles and four articles focussed on parenting dimensions. An authoritative parenting style was positively associated with fruit and vegetable intake ( $n=2$ ). High levels of warmth were associated with an increased intake of healthy foods ( $n=2$ ) and a lower intake of unhealthy foods ( $n=1$ ), whereas low levels of parental warmth were associated with a lower intake of fruit and vegetables ( $n=1$ ) and a higher intake of unhealthy foods ( $n=1$ ). However, several different measurement tools were used to identify the parenting styles ( $n=3$ ) and dietary intake ( $n=6$ ), with reliability and validity and reported in varying ways.

**Conclusions:** This review suggests that an authoritative parenting style or higher levels of warmth are associated with a healthier dietary intakes of pre-school children. Future research would benefit from using consistent measures of parenting styles and dietary intake. There is potential for future studies to explore the ways parenting styles may be modified through interventions to promote an authoritative parenting style, which may improve the dietary intake of pre-school children.

<https://doi.org/10.1016/j.orcp.2018.11.223>



336

### Can counter-advertising inoculate spectators against influence by unhealthy food sponsorship of sport?

Helen Dixon<sup>1,\*</sup>, Maree Scully<sup>1</sup>, Jeff Niederdeppe<sup>2</sup>, Simone Pettigrew<sup>3,4</sup>, Bridget Kelly<sup>5</sup>, Kathryn Chapman<sup>7,6</sup>, Melanie Wakefield<sup>1</sup>

<sup>1</sup> Centre for Behavioural Research in Cancer, Cancer Council Victoria, Melbourne, VIC, Australia

<sup>2</sup> Department of Communication, Cornell University, Ithaca, New York, USA

<sup>3</sup> Centre for Behavioural Research in Cancer Control, Faculty of Health Sciences, Curtin University, Perth, WA, Australia

<sup>4</sup> School of Psychology and Speech Pathology, Faculty of Health Sciences, Curtin University, Bentley, Western Australia, Australia

<sup>5</sup> Early Start, School of Health and Society, University of Wollongong, Wollongong, New South Wales, Australia

<sup>6</sup> School of Medicine & Public Health, University of Newcastle, Newcastle, New South Wales, Australia

<sup>7</sup> School of Life and Environment Sciences, Faculty of Science, University of Sydney, Sydney, New South Wales, Australia

**Background:** Energy-dense, nutrient poor 'junk foods' (JF) are heavily promoted through sport sponsorship. Strategies are needed to counter this.

**Aim:** To conduct a naturalistic trial assessing whether exposing young adult spectators to counter-advertising or public health advertising prior to viewing a JF sponsored elite sporting event, diminishes sponsorship effects and increases support for restrictions on JF sport sponsorship.

**Method:** An online panel was used to randomly assign 18–29 year olds who planned to watch the AFL Grand Final to one of four advertising conditions: (A) neutral ad (control); (B) counter-ad critiquing JF; (C) counter-ad critiquing JF industry; or (D) obesity prevention public health ad.  $N=1,316$  participants completed a pre-test questionnaire and viewed their assigned ad online 1–3 days before watching the 2017 AFL Grand Final (which featured JF sponsorship). Participants answered post-test measures in the days after the event ( $n=802$ ) and 1–2 weeks later ( $n=656$ ) to test for protective effects.

**Findings:** Participants found the counter-ad critiquing JF industry more believable, attention-grabbing, reassuring and encouraging than the counter-ad critiquing JF. At follow-up 1, the counter-ad critiquing JF industry promoted less favourable attitudes to sponsor brands, and the obesity prevention ad reduced preferences for fast food compared to the control condition. None of the ad interventions reduced favourable perceptions of brand image, brand preferences, or purchase intentions for sponsor brands, nor did the counter-ads increase support for restricting JF sport sponsorship.

**Conclusions:** Counter-advertising critiquing industry may detract from favourable attitudes to sponsor brands and obesity prevention advertising may detract from intentions to consume fast food, in the face of JF sponsorship exposure. However, with relatively brief exposure, such interventions appear insufficient to yield other substantive impacts. It may be difficult for small public health advertising campaigns to cut through and bolster spectators' susceptibility to influence by the surfeit of JF sport sponsorship.

<https://doi.org/10.1016/j.orcp.2018.11.224>

