Parental influences on weight gain in infants and young children from low socioeconomic and indigenous backgrounds: a review.

Georgina Russell1, Sarah Taki1, Rachel Laws2, Karen Campbell1, John Lynch1, Kylie Ball2, Leva Azadi2, Elizabeth Denney-Wilson1

University of Technology, Sydney1; Deakin University2; University of Adelaide1

Background

- Children and infants from low socioeconomic and indigenous backgrounds are at greater risk of obesity.
- The evidence base outlining how, when and why such infants and young children develop greater rates of obesity remains poorly understood.
- Parents have a fundamental influence on the formation of children’s weight-related habits and weight status.
- We aimed to generate new insight by conducting a review of the literature on how parents and infants or young children interact within disadvantaged families, and how these interactions are associated with greater weight gain.

Methods

- Searches of relevant electronic databases (e.g. Medline, PsycINFO) were conducted using a combination of search terms related to parenting, child or infant, low socioeconomic, indigenous, obesity, diet, eating, physical activity and sedentary behaviour.
- Studies of any design from OECD countries with children aged 0-5 years that involved direct and indirect parental influences on children’s eating, physical or sedentary behaviours and weight gain were included.
- Two independent reviewers screened studies and extracted data according to eligibility criteria.

Search Output

- The initial search yielded 3117 unique titles.
- After screening, 26 papers were included in the review.

Study Characteristics

- The majority of studies were from the USA, and a minority from Europe. Only two studies were in indigenous populations.
- Samples often included cultural minority groups (e.g. Hispanic Americans).
- The majority were not based on a theoretical framework.
- Mixture of study designs including prospective and retrospective cohort, cross-sectional survey and randomised controlled trial.
- Parenting variables related to (a) milk feeding practices, e.g. breastfeeding duration, bottle feeding; (b) feeding practices, e.g. restriction, age of introduction to solid foods; (c) maternal cognitions: e.g. weight concern; (d) maternal psychosocial factors, e.g. resilience; and (e) mother’s dietary intake, e.g. consumption of soft drinks.
- Outcome variables included poor dietary intakes (e.g. soft drink consumption), television viewing time and weight status.
- A wide range of measurement tools, definitions and cut points was used. Few were adapted or developed for use in low SES or indigenous groups.

Results

- Results were inconsistent across studies.
- Inconsistencies may relate to the wide range of definitions, measurement tools and cut-points used, a reliance upon parental self-report, as well as the influence of confounders.
- A majority of studies tested associations but could not tease out causality or mechanistic effects.
- Interactions were observed between parenting variables and ethnicity in relation to child outcomes.

Conclusions

- The evidence base linking parenting in low SES and indigenous infants and young children to overweight is fragmented and inconclusive.
- Currently it is hard to separate socioeconomic disadvantage from ethnic influences.
- Causality is unclear.
- There is inconclusive evidence on the effects of parental feeding practices and type and duration of milk feeding on infant weight in low socioeconomic and indigenous populations.
- There remains a great need to better understand how, when and why infants and young children from disadvantaged backgrounds remain at greater risk of overweight and obesity.

Contact: Georgina.Russell@uts.edu.au