

**SOCIAL DETERMINANTS OF CHILDHOOD OVERWEIGHT
AND OBESITY IN SOUTH AUSTRALIAN FAMILIES:
PARENTING, WORK PATTERNS, AND GENDER ROLES**

**Stephanie L E Champion
BSocSc, BHIthSc (Hons)**

**Discipline of Public Health
School of Population Health
Faculty of Health Sciences
The University of Adelaide
Australia**

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Thesis Abstract

Obesity in children has increased rapidly in Western countries over the past three decades. Childhood obesity is a major public health issue because it contributes to immediate health and psychosocial problems in children, as well as increased risk of adult obesity and associated chronic disease, and restricted life opportunities. Obesity represents an inequality in health as, in Western countries, it is now most common in the most disadvantaged groups. However, it is not clear how the prevalence of childhood obesity has come to be socially patterned.

A relatively small body of literature provides theoretical insights as to what might be occurring in families of low socio-economic status (SES) to increase the likelihood of childhood obesity. From recurrent organising explanations, three were selected for investigation: food-related parenting beliefs and practices; parental work patterns; and gender roles within families. Each of these domains is shaped by broader ideologies and structural arrangements. Briefly, it is argued that contemporary parenting beliefs and practices may lead parents to oblige children's food requests, even when not in the child's nutritional interests. Furthermore, parents may lack the ability to negotiate with children around food or to be firm when denying requests for unhealthy food. These parenting beliefs and practices may be most common in low SES families. Secondly, in contemporary society it is common for both parents to work, sometimes by choice, but often simply to achieve a reasonable standard of living. Work hours and the demands of work have increased over recent decades, contributing to time pressure for parents which in turn may compromise the family food environment. This could be most common in low SES families, lacking resources to alleviate time pressure in other ways. Thirdly, despite women now occupying a wider range of roles in society, gender stereotyping persists. In families, this means that women are responsible for food provisioning and childrearing, regardless of other demands on their time. This may be more common in low SES families than in other families, potentially contributing to SES differentials in childhood obesity.

A cross-sectional study was undertaken within an existing birth cohort, when children were 9-10 years old, to investigate the extent to which the three aspects of family life were associated with obesity and overweight in children and whether this contributed to the social patterning of childhood overweight/obesity. Families in the sample were recruited during the mother's pregnancy. Between 1998 and 2000, pregnant women were recruited from one public hospital and three private obstetric practices located in Adelaide. Mothers who agreed to participate in the 9-10 year interviews were invited to complete a structured personal interview, as well as several self-complete questionnaires. Children were invited to have their height and weight assessed, from which body mass index (BMI) was derived. Families who participated in the interviews are predominately Caucasian but otherwise broadly representative of the state population.

Results presented in this thesis are based on the first 300 interviews completed. Maternal educational attainment at the time of the 9-10 year interview was selected as the indicator of SES (with categories of incomplete high school, high school completed, Technical and Further Education (TAFE) qualification, and university degree).

In the study sample, 16 percent of children were overweight and a further 4 percent were obese at 9-10 years. Maternal educational attainment at this time point was the only family characteristic clearly associated with the combined outcome of childhood overweight/obesity. However, there was not a strict gradient in this relationship. Instead, childhood overweight/obesity was most prevalent in families in which the mother had gained a TAFE qualification. This may reflect the diverse nature of TAFE qualifications and the fact that around half of the women in this category had not completed high school.

A set of 10 self-complete items was developed to characterise relevant parenting beliefs and practices. When considered separately, only the belief that children have unalterable food preferences was associated with child weight status: mothers who held this belief were *less* likely than other mothers to have overweight/obese children. When the beliefs and practices were amalgamated using factor analysis to form subscales reflecting Obliging, Influence and Firmness, the Obliging score were associated with child weight status: more obliging mothers were *less* likely to have overweight/obese children. However, there was limited evidence for differences in Obliging, Influence and Firmness scores for mothers in different SES groups. On balance, it seems most likely that these findings reflect changes in food-related parenting beliefs and practices subsequent to children becoming overweight or obese. This underscores the need for longitudinal research in this domain.

Two parent families were the focus of analyses concerning parental work arrangements. In particular, the circumstances in which parents frequently worked family-unfriendly work schedules (at night, after 6pm weekdays or on weekends) was investigated. Attention to fathers' employment patterns is a relatively novel aspect of this research. The strongest research finding in this thesis was that when the partner of the study mother worked family-unfriendly schedules, children were most likely to be overweight or obese. While this did not appear to explain the higher prevalence of overweight/obesity in the lowest SES group, it was relevant to childhood overweight/obesity in families where the mother held a TAFE qualification. Additionally, almost half of children in families where both parents worked family-unfriendly work schedules were overweight or obese, although this was a minority of families. Mothers who reported poorer work-life balance (characterised using the Work-life Interference sub-index of the Australian Work And Life Index) were (marginally) more likely to have an overweight or obese child; this appeared to be most relevant to families in the highest SES group. Arguably, structural solutions are needed to address parents' problematic work schedules and work-life balance. There is a role for government, employers, employees and wider society in rectifying these aspects of current work environments.

The division of responsibilities in families and attitudes towards gender roles was analysed for two parent families. The sharing of domestic tasks was significantly associated with child weight status: where fathers did much less than their fair share children were most likely to be overweight/obese. There was evidence that this contributed to childhood overweight/obesity specifically in families where mothers held a TAFE qualification. A similar trend (not statistically significant) was observed for sharing of childrearing tasks. There was some indication that where partners were strongly encouraging or strongly disciplining around child food choices and eating behaviours, children were less likely to be overweight or obese. Overall, the extent to which mothers endorsed traditional gender stereotypes or supported transcending stereotypes was measured using the Social Roles Questionnaire. Analyses showed that mother's gender role beliefs were not significantly associated with childhood overweight/obesity. However, mothers with the highest SES did not endorse traditional gender stereotypes to the same extent as other mothers and there was some indication that this reduced the likelihood of childhood overweight/obesity. Addressing the imbalance in parents' responsibilities and roles would reduce the 'double-shift' undertaken by mothers and, potentially, its impact on childhood overweight/obesity. Challenging the policies and structures (such as the gender-pay gap) that reinforce traditional gender stereotypes for mothers and fathers is difficult, but would be necessary to achieve change on a broad scale.

The findings of the thesis do not provide major insights about the excess of childhood obesity in the most disadvantaged families in society. Nevertheless, they point to potential benefits for all families of family-friendly work schedules, satisfactory work-life balance and improved gender equity in fulfilling family responsibilities. Public health advocacy and initiatives around these matters is warranted for many reasons, not least the health of the children.

Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

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Stephanie Louise Emma Champion

Date:

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