

Maternal and child parameters associations with maternal feeding practices

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Summary

This study examines how maternal feeding practices are associated with mother's concern about her child's weight and her idea of what is the desirable weight for her child. The role of child characteristics, such as age, gender and body mass index (BMI) was also examined. The participants were 182 mothers with their 5-12 year-olds. The findings suggest that mothers who were concerned about the child's weight were more restrictive, while those who wanted them to add weight were more pressing and closer monitoring. Feeding practices were also associated with the child's BMI.

Introduction

Besides genetic factors, health problems and physical activity, diet is also responsible for the development of obesity. Dietary behaviours and practices are shaped in childhood and are likely to persist into adulthood (Klesges et al., 1991). Therefore, unhealthy diet and bad eating habits in childhood will have implication throughout life. Parents influence their children's diet in many ways, but mostly in terms of what and how they feed them (Clark et al., 2007). Parental feeding strategies, either directly (restriction, pressure to eat) or indirectly (monitoring, modelling), are an influential way to affect child's eating (Kröller & Warschburger, 2008).

It is well documented that there is a relationship between parental feeding practices and a child's weight (Faith et al., 2004). The cause-effect relationship is often considered to run for the parent to the child (Clark et al., 2007). However, we now recognise it is

bidirectional and that child characteristics, or parents' perception of these characteristics, can also affect parental feeding practices (Webber, et al., 2010).

The aim of this study is to examine: a) how mother's concerns about the child being or becoming overweight and her aim for the desirable weight for the child, are associated with her feedings practices; b) how child's age, gender and BMI, are associated with maternal feeding behaviours.

Methods

Participants

182 mothers with their children aged 5 to 12 were recruited from local schools. Questionnaires were sent home for mothers to complete, while the children were examined in their school setting.

Measures

The questionnaires for the mothers contained the following measures:

a) *Concern about the child's weight*. This was assessed using the 3 items of "concern about child weight" sub-scale of the Child Feeding Questionnaire (CFQ) developed by Birch et al. (2001).

b) *Desirable weight for the child*. Mothers were asked whether they wanted their child to gain weight, loose weight or remain the same.

c) *Maternal feeding practices* (MFP). They were assessed by administering the Restriction, Pressure to Eat and Monitoring sub-scales of the CFQ.

Children's height and weight were assessed at school in order to determine their BMI.

Results

The distribution of the participants BMI was: 36% normal, 49% overweight and 15% obese. Figure 1 presents mothers' desirable weight for their child. As can be seen, 72% and 21% of the mothers with overweight and obese children respectively wanted their child to remain in the same, while 25% and 79% of the mother with overweight and obese children respectively wanted their child to loose weight. Thirty-one percent of the mothers of normal-weight children wanted them gain weight.

The mean scores for restriction and pressure to eat scales were approximately 3, at the mid-point of the 5-point scale, while monitoring was nearly 4. In order to find how maternal concerns and

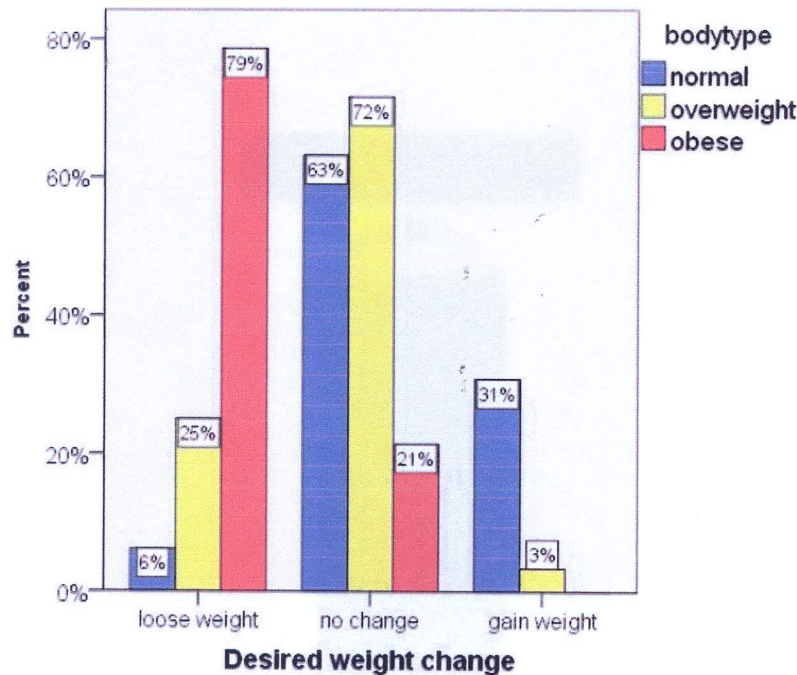


Figure 1. Mothers' desire for their children's weight

desires about the child's weight were associated with MFP, Pearson's correlation coefficients were computed. As shown in Table 1 restriction was highly associated with weight concerns about the child's weight. Pressure to eat had to do with the desired weight change. Mothers who wanted their child to gain weight were more pressing. Also, mothers who wanted their child to add weight were closely monitoring.

The univariate analysis of the child characteristics (Table 2) revealed that restriction was negatively associated with age. The older the children got the less they were restricted. Pressure to eat was negatively associated with the child's BMI. Heavier and older children were less monitored. Child's gender did not affect MFP.

Stepwise regression models containing both mother and child characteristics were also assessed. Results show that for restriction and pressure only the mother characteristics remained in the model, while for monitoring the only child characteristic that made it was BMI.

Parameter	Restriction	Pressure to Eat	Monitoring
Concern about weight	0.28**	0.05	0.002
Desired weight	- 0.03	0.36**	0.12*

* $p < 0.05$, ** $p < 0.01$

Table 1. The univariate association of the mother parameters in MFP

Parameter	Restriction	Pressure to Eat	Monitoring
Gender	0.06	0.07	- 0.09
Age	- 0.15*	- 0.10	- 0.18*
BMI	0.11	- 0.28**	- 0.19*

• $p < 0.05$, ** $p < 0.01$

Table 2. The univariate association of the child parameters in MFP

Conclusions

Consistent with previous studies (Carnell et al., 2005) mothers had a misconception about their child's weight: the vast majority of mothers of overweight wanted them to remain the same or even add weight, suggesting that they underestimated the child's weight and could not recognize those at risk for obesity. This finding has implications for obesity prevention programmes; for a programme to be successful, parents should recognize whether their child has extra weight.

Feeding practices were associated with what mothers consider to be the desirable weight of their child, a factor overseen by the existing research, and their concern about the child's weight. Restrictive practices were associated with mothers concern about her child's weight. Although the design of the study does not allow for cause-effect relations, it is possible that mothers, who are concerned about their child becoming overweight, apply more restrictive feeding strategies. Mothers who wanted a heavier child were pressing more and monitoring closer. Child parameters were associated with feeding practices. Mothers with heavier children were more restrictive and less pressing, but, surprising also less monitoring.

The findings suggest that the feeding strategies mothers adopt have largely to do with their concern about the child's weight, a result also found by Webber et al (2010) and their weight desire for the child that is often unjustified by the child's actual weight. Prevention and intervention programmes of child obesity should target parents' misperceptions since they seem to affect their feeding practices.

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