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Food knowledge, attitudes and preferences and BMI in children: The Gateshead Millennium Study

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Childhood overweight (OW) and obesity (OB) are global public health concerns in urgent need of effective preventive strategies. Interventions that are family based offer potential for success in OW and OB prevention but the evidence to inform approach and content of interventions is limited. The Gateshead Millennium Study (GMS) is a longitudinal study of 1029 children born in Gateshead in 1999/2000. A wealth of data were collected on the GMS cohort when the children were aged 6–8 years to identify potentially modifiable factors for the prevention of childhood OW and OB. The aim of this study was to examine the relationships between parental food knowledge and attitudes, child food knowledge and preferences and child BMI.

Questionnaires were completed by parents which included questions from the ‘Health in England 1995’⁽¹⁾ survey to explore their knowledge of and attitudes to food. Responses were used to generate a score for both parental food knowledge and food attitude. Children completed the ‘Thinking about Food Questionnaire’⁽²⁾ and the data collected were used to generate a score for child food knowledge and food preference. Child height and weight were measured and BMI [weight(kg)/height(m)²] calculated. Spearman’s correlations were used to examine the relationships between the food knowledge, attitude and preference scores as well as their relationships to child BMI.

Data from 509 parents (mostly mothers) and their children were included in the analysis. A weak but significant positive correlation was found between parent food knowledge and parent food attitude. Both parent food knowledge and parent food attitude were associated with child food knowledge. Children’s food knowledge was also associated with their reported food preference. However, no significant associations were found between any of the scores and child BMI.

Variables assessed		Correlation coefficient (r)
Parent food knowledge	Parent food attitude	0.209 ^b
Parent food knowledge	Child food knowledge	0.169 ^b
Parent food knowledge	Child food preference	-0.014
Parent food attitude	Child food knowledge	0.099 ^a
Parent food attitude	Child food preference	-0.046
Child food knowledge	Child food preference	0.088 ^a
Parent food knowledge	Child BMI	-0.050
Parent food attitude	Child BMI	-0.054
Child food knowledge	Child BMI	0.040
Child food preference	Child BMI	-0.019

^aSignificant at the 0.05 level. ^bSignificant at the 0.01 level.

Findings from this study demonstrate some positive associations between parental food knowledge and attitude and child food knowledge and reported preferences. Further work, however, is required to explore the relationship between children’s reported food preferences and their actual food choice and the potential impact upon child adiposity.

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1. Bridgwood A, Malbon G, Lader D *et al.* (1996) *Health in England 1995: What People Know, What People Think, What People Do*. London: HMSO.
2. Teeman D, Blenkinsop S, Kaye J *et al.* (2004) *Evaluation of the Big Lottery Fund’s National School Fruit and Vegetable Scheme*. London.