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## Maternal perception of causes and consequences of sibling differences in eating behaviour

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### Abstract

**Objective**—To explore mothers' perceptions of differences between their children in the eating behaviour domain.

**Methods**—Twelve semi-structured interviews were carried out with mothers who had at least two children aged between 6 and 15 years, to discuss feeding experiences, particularly around healthy eating. Interviews were recorded and transcribed verbatim and analysed using Framework Analysis.

**Results**—Mothers frequently identified differences in appetite and food preferences between their children, which they attributed largely to genetic factors. These sibling differences meant that although feeding goals might be common, the pathways to the goals varied depending on each child's appetitive characteristics. The overall pattern was one of flexible responsiveness to each child. In contrast to perceptions of their own children's eating behaviours, feeding difficulties in other families were usually attributed to lack of parental control.

**Conclusion**—The feeding relationship is complex and interactive, resulting in parents modulating their feeding strategies to match each child's eating behaviour. Guidance to parents on healthy feeding needs to acknowledge the nuanced and interactive nature of feeding practices.

### Keywords

sibling; eating behaviour; feeding; parents; qualitative

### Introduction

Parental feeding practices have been shown to be related to children's weight (Birch et al., 2003; Francis et al., 2001; Moens et al., 2007), food preferences (Birch et al., 1980; Birch et al., 1982; Birch et al., 1984) and eating behaviours (Drucker et al., 1999; Fisher & Birch, 1999b; Fisher & Birch, 1999a; Orrell-Valente et al., 2007; Wardle et al., 2005). This has sometimes led to the conclusion that parental feeding practices have a causal influence on

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### Conflict of Interest

The authors declare no conflict of interest.

children's eating behaviours, and that some feeding practices may be "detrimental to children's eating behaviour and weight trajectories" (p. 1521, Blissett & Farrow, 2007). Parents are important players in the family feeding domain because they are the meal providers, they can coerce or restrict children's consumption and they can therefore determine what and how much children eat (Birch, 1998; Rozin, 1989). However, a number of studies have suggested that parents also modify their feeding styles in response to the child's eating behaviour traits or food preferences; in other words, parental feeding behaviours may be child-responsive (Baughcum et al, 2001; Moore et al, 2010; Webber et al, 2010). A recent analysis of differences between families found that parents were more likely to use restriction if they had a child who was more responsive to food cues and more likely to use pressuring strategies if they had a child who was fussier or easily sated (Webber et al., in press 2010).

One useful approach to investigating whether parental feeding styles are child-responsive is to investigate within-family differences. A recent study of sibling pairs aged 3-6 years (n=80 families) found that sibling differences in eating behaviours corresponded to differences in the mother's feeding practices (Farrow et al., 2009). Mothers were less likely to pressure the child who was more responsive to the sight or smell of food or had a bigger appetite.

Little is known about whether mothers perceive their children to be different from one another in appetite and food preferences, and if so, whether they view themselves as having contributed to the development or socialisation of these differences. Previous qualitative studies in the field have typically explored feeding interactions with one child per family, focusing on the feeding practices that the mother uses to influence that particular child's food intake (e.g. Kaiser et al., 2001; Moore et al., 2007; Sherry et al., 2004). The aim of the present study was to elicit mothers' descriptions of differences in their children's eating behaviour, and to explore their understanding of the origin of these differences between siblings. Based on previous literature, we hypothesised that mothers might differ in their feeding practices for each child in the family in response to perceived differences in the children's eating behaviour.

## Method

### Participants

A sub-sample of 38 parents who had more than one child and had been taking part in the Physical Exercise and Appetite in CHildren study (PEACHES), which is a longitudinal study of diet, activity and weight carried out between 2006 and 2010, agreed to take part in an interview about family eating habits. To gather a range of views, stratified sampling was used to include families where the children's vegetable intake fell either above or below UK recommended intake<sup>1</sup> ( 1 a day or 2 a day) as a marker for healthier or less healthy family diets. Interviewees were selected at random from families with higher (n=33) and lower vegetable intake (n=12), and a mutually convenient time for the interview was arranged. Data collection continued until thematic saturation was reached (Ritchie et al., 2003). A total of 12 interviews were carried out, 6 in each group, by a white, female researcher (aged 26)

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<sup>1</sup>Vegetable guidelines: <http://www.dh.gov.uk/en/PublicHealth/Healthimprovement/FiveADay/index.htm>

with experience in administering qualitative interviews. Because fathers and mothers have been shown to feed their children differently (Blissett et al., 2006), and mothers tend to be the primary caregiver even if they are employed (Park et al., 2008), only mothers were included.

## Materials

Through understanding of the existing literature and discussions between the authors, a topic guide was designed to prompt mothers to describe mealtime occasions in their family including how they get their children to eat something healthy, and how they respond when a child requests food they don't want him/her to eat (see table 1). Questions were as neutral and open as possible, and the topic guide was applied flexibly. General prompts such as 'can you tell me more' were used. Participants were told that the aim of the study was to find out about the role of food in family life and their experience of family mealtimes. They were also told that there were no right or wrong answers and all information would be kept anonymous. They were encouraged to consider all their children when discussing mealtimes, and when appropriate, to make comparisons between them. Two pilot interviews with mothers known to the researchers were carried out and interview length was estimated at 25-40 minutes. Interviews were recorded and transcribed verbatim at the semantic level with all words spoken and other features (e.g. false starts, pauses) included (Smith & Osborn, 2009).

## Analyses

An in-depth description of mothers' experience of the feeding relationship was produced using thematic framework analysis (Ritchie et al., 2003; Ritchie & Spencer, 1994). Transcripts were coded at both the semantic (surface meaning) and latent (underlying ideas, assumptions, concepts) by re-reading the transcripts. Codes were arranged loosely into a broader set of key themes and sub-themes using Atlas.ti software (ATLAS.ti Scientific Software Development GmbH, Berlin, Germany) to form a thematic framework. This framework was revised throughout the coding process to ensure it was appropriate for the data, then applied systematically to each of the transcripts. Two researchers independently generated codes and themes, and then together produced a thematic framework to guard against researcher bias and help ensure the data accurately reflected the perception of the interviewees. A measure of inter-rater reliability of codes and themes across two transcripts was carried out to ensure internal validity of the interpretations made. Cohen's Kappa was .77 for themes and .79 for codes, demonstrating 'substantial agreement' between raters' based on Landis and Koch's (1977) criteria. Following Marshall's (1986) reflexive checklist and through critical examination throughout the analysis, the researchers aimed to remain aware of their own and their co-researcher's influence on the interpretation of the data.

## Results

### Sample characteristics

Sample characteristics are presented in table 1. All families in the sample had two parents living at home and at least two children; one family had five children, five had three

children, and six had two children. Half of the families had a child whose vegetable intake fell below recommended guidelines and half at or above.

### Emerging themes

Four themes central to the topic of sibling difference in eating behaviour emerged, described as: i) perceived causes of sibling differences in eating behaviour, ii) between-family comparisons in child eating behaviour, iii) mothers' responses to differences between children, and iv) mothers' feeding strategies and children's responses. Examples of each theme are presented in boxes 1-4.

**1) Perceived causes of sibling differences in eating behaviour**—All mothers identified differences between their children in both eating behaviour and food preferences, and could easily give examples (Box 1,A). Even from babyhood, mothers recalled striking feeding differences (Box 1,B). They were often surprised that their children were so different, but viewed this as beyond their control (Box 1,C) and tended to endorse 'hard-wired' characteristics (e.g. genetics or personality) as the cause of these differences. There was little sense that mothers viewed it as their responsibility to make their children less fussy or more 'satiety responsive'. Eleven out of 12 mothers appeared to see their children's characteristics as simply something they had to deal with (Box 1,D).

Only two mothers mentioned age and sex as issues when describing differences in eating behaviour. One mother had expected her son to have a bigger appetite because he was a boy, but didn't seem particularly surprised that this expectation was not met. One mother cited age as a reason for changing taste preferences and eating behaviours (Box 1,E).

**2) Between-family comparisons in child eating behaviours**—Mothers often downplayed their own children's eating difficulties by comparing them with much worse-behaved children in other families; often representing themselves as lucky that their children ate better than those in other families. In doing this, contradictions about how difficult their children were to feed emerged within interviews (Box 2,A).

It appeared that most mothers considered (lack of) parental control to be the primary cause of eating behaviour problems in *other* children. One mother described lack of parental control as the reason why her brother's children didn't eat well (Box 2,B). Another linked lack of parent control to weight gain; saying that if her children wanted to eat all the time, she would deal with it by not buying the foods she didn't want them to eat.

**3) Mothers' responses to differences between children**—It emerged that although mothers' goals were for their children to have a healthy diet, the specific foods that they fed them often differed depending on each child's preferences. Mothers seemed to believe their own behaviour was essentially the same, it was just the children's behaviour that differed (Box 3,A).

All but one mother imposed consistent mealtime structures ensuring that the children ate in the same place and at the same time. They also attempted to feed them the same foods; but this was where the shared food environment stopped. All of the mothers modified their

feeding practices, sometimes subtly, in response to each child's appetitive characteristics and preferences. For example, when trying to get their children to eat vegetables, mothers often described having to encourage one child more than another (Box 3,B).

Most mothers described monitoring or limiting snacking before meals, although not necessarily at other times. Again there were examples of different feeding interactions with each child depending upon their food requests or refusals, with (unhealthy) snacks being more actively limited for children who requested them more (Box 3,C).

Problematic eating behaviour sometimes resulted in mealtimes being difficult, and mothers responded differently to each child to create a calmer environment. In some cases, this involved cooking different foods for each child. For example, one mother said that when she cooked a meal for the family but one child refused to eat it, she might well cook that child an alternative meal (Box 3,D). In this domain, mothers often contradicted their own statements about how strict they are about feeding; with preparing separate foods for one fussy child being an example. Mothers usually said that they would definitely *not* cook two or three different meals (as they perceived other parents to do), yet sometimes went on to describe cooking different foods when one child disliked the food that the rest of the family were eating (Box 3,E).

**iv) Mothers' feeding strategies and children's differing responses**—Mothers described using a variety of strategies when a child did not want to eat vegetables, such as threatening to withhold dessert (Box 4,A), or negotiation and asking the child to 'taste/eat a little' (Box 4,B). Because of sibling differences in eating behaviour and food preferences, siblings were described as responding differently to the same feeding strategy, indicating that mothers' experience of the same context differed (Box 4,C).

## Discussion

The overriding impression from this study was that mothers perceived their children to differ both in their general enthusiasm for eating and their willingness to eat novel or less palatable foods (notably vegetables). Almost all mothers explained this in terms of innate differences in appetite. This contrasted with their explanation for eating difficulties in children in other families, which were usually ascribed to lack of parental control.

Part of the reason that mothers attributed sibling differences in appetite to genetic factors was that they had often recognised them very early in life, sometimes while the children were still milk-fed. Behaviour geneticists described parents as: "environmentalists until they have more than one child" (p.8, Plomin, 1990); a view confirmed in the general parenting literature (Himmelstein et al., 1991; McGillicuddy-DeLisi, 1982). Evidence that appetitive traits such as food responsiveness or speed of eating are highly heritable in children indicates that genetic attributions have some validity (Carnell et al., 2008; Cecil et al., 2007; Fisher et al., 2007; Llewellyn et al., 2008). These mothers were confirming from their experience what is found in the scientific literature.

Interestingly, sex differences did not emerge as a salient explanatory factor in mothers' views about differences in their children's eating behaviour or in how they fed them. In one

sample of girls, positive associations between children's eating behaviour and weight and/or controlling feeding practices have been found (Birch & Fisher, 2000; Birch et al., 2003; Fisher & Birch, 1996; Fisher & Birch, 2002; Fisher et al., 2002) and the generalisability of these findings to boys has been discussed (Birch et al., 2003). However, studies including both boys and girls generally do not find sex differences in child eating behaviour or in mothers' use of feeding practice (Fisher & Birch, 1999a; Montgomery et al., 2006; Spruijt-Metz, 2002; Webber et al., 2009; Orrell-Valente et al., 2007; Webber et al., in press JADA 2010).

Mothers rarely reported any sense of personal responsibility for their children being fussy eaters or refusing vegetables, and were usually fairly positive about their own feeding practices. In contrast, any eating behaviour problems they observed in other children were usually attributed to (lack of) parental control rather than genetics. This kind of attribution bias (Heider, 1958) in which dispositional factors are used to explain one's own children's behaviours while situational factors explain other children's behaviours has been noted in other areas of parenting (e.g. Sturm et al., 1997).

Our results indicated that mothers adapt their feeding practices in response to their children's eating behaviours, and are flexible in their approach. Future work should discover ways of empowering mothers to respond appropriately and effectively to their children's problematic eating behaviours so that they feel they can steer them in healthier directions. In a similar vein, when mothers made comparisons between their own and other families in relation to children's eating behaviour, they often downplayed problems with their own children. A recent qualitative study explored teachers', adolescents' and parent's views on healthy eating. The results showed that teachers blamed permissive parenting for adolescents' unhealthy eating, adolescents blamed situational factors, and parents blamed it on their child's lack of appetite or fussiness (Power et al., 2010).

Mothers' main goals in feeding their children appeared to be i) getting them to eat enough food to supply their energy needs, ii) avoiding them having too much snack food, and iii) getting them to eat enough vegetables. The last was the most difficult of all. But the routes to these goals often differed between siblings because of differences in the children's appetites and preferences. Previous studies have also indicated that mothers modify their feeding goals (Moore et al., 2010) and strategies (Moore et al., 2007) in response to the child's behaviour and preferences to achieve appropriate intake. This demonstrates that children play a role in creating their own feeding environment by influencing their mothers feeding practices.

Appetitive differences between children meant they also responded differently to the same feeding strategy; for example verbal encouragement to try a new food might work for one child but fail with the sibling. This sometimes led to the mother trying another strategy, or even cooking alternative food for that child, suggesting that although parents have an ideal dietary end-point, they are flexible in how they get there. One implication of this is that guidance for parents on how to achieve a healthy diet needs to acknowledge differences between children, and recognise that parents are likely to see themselves as responding flexibly to these differences. In support of this, a recent qualitative study found that mothers

did not want 'official' guidance on portion sizes because they believed children have varied appetites and require different portion sizes based on their individual needs. Instead, they wanted information on techniques to improve their children's diet (Crocker et al., 2009).

This study has strengths and limitations. Inclusion of more than one child per family is novel, and selecting families with more and less healthy eating patterns (based on the children's vegetable intake) meant that a range of views was represented. However, the majority of mothers were white, well-educated, and appeared highly motivated towards healthy eating. To broaden the ecological validity of this study further work is needed to establish whether there are SES and ethnic differences in perceptions of children's eating behaviours and to understand attributions made by fathers or other caregivers. Qualitative work has the limitation of potential researcher bias because construction of knowledge is just one interpretation of reality. The interviewer's research interest rests on an implicit way of thinking that has been socialized by their research group, and is influenced by their social background, age and gender. The present study attempted to minimise the influence of the individual researcher's values and understandings on the interpretation of the data, by involving two researchers in the construction of codes, themes and a thematic framework, both of whom worked reflexively. Inter-rater reliability was high. However, we cannot rule out some element of bias, which is inherent in qualitative research involving one primary researcher. Framework Analysis potentially involves the loss of immediate context; although this was minimised during the data management stage of the analysis, but it is widely viewed as one of the best methods because it follows a 'well-defined procedure' allowing ideas to be refined at each stage so that the analysis is carried out rigorously (Ritchie & Spencer, 1994). A final limitation is that qualitative methods are time consuming, and usually only feasible with small samples, limiting their representativeness, so this study was exploratory rather than hypothesis-driven.

This study demonstrates that mothers with more than one child have a strong sense of differences in the way the children respond to food, which they attribute largely to genetics. This has implications for the development of public health messages; suggesting that a 'one size fits all' approach to parental feeding advice is unlikely to be well-received. Parental guidance should acknowledge differences between children while providing advice that helps parents to achieve their nutritional goals.

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**Box 1****Perception of sibling differences in eating behaviour****A. Differences between children**

“she’s always been a picky eater compared to her brother who will eat anything” (ID 3089).

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**B. Differences from babyhood**

“When he was born he didn’t feed well on the bottle. whereas they [the girls] were like double the amount in the week, so I think perhaps he just doesn’t want as much filling up as the girls” (ID 1043). “I think children do vary a lot even in families. If I was going to have another child now, I wouldn’t assume that they were going to be the same. I think the parents have a certain amount of influence but children all come out different really” (ID 4019).

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**C. Surprise about these differences**

“I think that was a bit of a shock...because I thought he would be just the same but he wasn’t, he just doesn’t seem to have the same appetite as the girls have” (ID 1043) “I think children do vary a lot even in families. If I was going to have another child now, I wouldn’t assume that they were going to be the same. I think the parents have a certain amount of influence but children all come out different really” (ID 4019)

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**D. Innate characteristics**

“There is a pattern of slow eating on my mother’s side of the family - they’re very different children. I can certainly see it in terms of the genetics but you know the kind of characters that they are ... xxx is brilliant actually, the slower eater, he’ll try anything!” (ID 3039). “I don’t know .biological I guess” (ID 4007). “like chalk and cheese. You know they’re twins right? xxx is a lot more outgoing and gregarious and is a very fast eater, xxx likes her food, she’s a foodie ... my son is excessively slow” (ID 3039).

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**E. Age and sex differences**

“because the girls were always hungry and wanting something to eat and when they got their dinner they’d eat it so quickly, I felt that being a brother he’d be the same, and being a boy, thought he’d be even worse wanting food, but he wasn’t. He’s very much an individual and he’ll eat when he wants to eat more. He’s more difficult to encourage to eat than the girls, a more stubborn character as well” (ID 1043). “my son, he’s older, he’ll eat most things I put in front of him, he’s a good eater, always has been. xxx is a little bit more fussier, but maybe that comes with age, she has certain dislikes” (ID 1006).

**Box 2****Between-family comparisons in child eating behaviour****A. Downplaying eating difficulties**

“But compared to her brother who will eat anything, she doesn’t eat a huge amount of carbs and she has quite strong opinions about what she does and doesn’t like” (ID 3089). Later she said: “I guess I’ve been fortunate to be able to take that for granted ‘cause they’ve always drunk their milk, they’ve always eaten their food ... they’ve always liked their vegetables. Watching some of my nieces and nephews, it’s an absolute nightmare watching them trying to eat something” (ID 3089).

“I’d cook something separate for them because they don’t like Chinese, my daughter; she’s becoming a little bit fussier. I’m not going to make her eat if she doesn’t want it” (ID 1006). But later she said: “I would say they’re quite easy to feed ... I know friends, their children are a nightmare to feed, they live on cereal and toast and things like that for their main meals” (ID 1006).

**B. Lack of parental control**

“I remember being in my sister’s and all the kids were there and her two children ate all night long, they were coming down and raiding the cupboards relentlessly without even asking a question. I was stunned at that lack of parents’ control” (ID 3039); “I’ve noticed a lot of the children have started to put on weight in the school and I’m wondering if it’s that they’ve got more control over what they eat and how easily they can access the cupboards, and do things without their parents realising. If I had to deal with that I would not buy that sort of food.” (ID 4007); “when I watch my brother and sister-in-law with their two children I didn’t think that they were intolerant enough. It sounds like we’re completely draconian but my expectations always been, you’ll eat your food, you’ll try something new, at least try it, and I just found [they] gave up a bit too quickly. I was stunned, their parents went in too quickly and ate the rest of the food for their kids, so just let them off the hook really quickly” (ID 3039).

**Box 3****Mothers' responses to differences between children****A. Perception of feeding children similarly**

"no, no, no I haven't [fed them differently], but you know, they both get good nourishment ... like xxx will eat carrots, and just loves carrots and things like that, and xxx will eat apples, so long as I get some sort of fresh fruit and vegetable down them I feel it's ok" (ID 1006). "I didn't do anything differently with them no, it was how they took the food that was different. I don't think I had any influence over it" (ID 1043).

**B. Modifying feeding practices to child eating behaviour**

"But they still eat the same, just most of the time I just have to encourage her" (ID 4074); "It's funny, I've had to work harder to make the younger two accept the foods I want them to eat, whereas the older one is just normal as I see it" (ID 3004).

**C. Limiting snacks in response to child requests**

"I'm quite relaxed about snacking, they can help themselves. If it's too near tea time I'd say no because you're having tea in half an hour or something" (ID 1040); "I'm actually going to put a lock on one of my cupboards and put stuff like crisps and stuff like that 'cause my son just doesn't know when to stop and I need to sometimes address that" (ID 1041); "they're constantly hungry - the girls more than the boy - I just try and judge how often they've had sweets during the day. With the girls I say if you're hungry have some fruit" (ID 1043).

**D. Avoiding mealtime friction by feeding children differently/cooking diff food**

"I've got a younger son who's 5, who doesn't eat well and that always causes some friction. He'll just sit there and drink and talk but just won't eat" (ID 1043), "I'm not going to make a really bad atmosphere. During the week I give them things that they're very familiar with and there's less fuss about it really" (ID 4019); "I try and make things that she does like and so I'm not going to make it into an issue, but quite often you know she'll sit down and say oh I'm full up but I know she's snacked on biscuits. She's not a brilliant eater and it does sometimes get quite fraught with her" (ID 1041). "And if they don't like it and haven't had hardly anything to eat, I'll do them beans on toast or something like that. Then I know that they don't like that for another time and I'll cook something different for them." (ID 1006)

**E. Within and between family contradictions about strictness**

"He would never get a separate meal, the only time that we might be getting a separate meal for him might be because we know he doesn't like something and we have prepared two" (ID 3085). "I know certain families you know they'll cook three different foods, and the mum and dad will have something different to the children, that's something I decided a long time ago that I wasn't going to get into ... sometimes you'll like things more and sometimes you might like things less, but that's tough!", then later said: "what I always try and do is give one or two vegetables that I know at least they'll eat. So if I'm doing something, and I know they won't eat peas, then I'll do sweetcorn"; and "he really didn't like it, so I just thought there's no point, I just ended up making him cheese on toast." (ID 1040).

**Box 4****Maternal feeding strategies and children's responses****A. Withholding dessert**

"I say, if you're not going to eat half of it, you're not going to have pudding" (ID 4019).  
"if you can't eat vegetables then you can't be hungry so you won't have any pudding". [Q: and do you find that's effective?] Yes, 'cause they love pudding!" ..... "they will always try it even if it's only a tiny little bit, they're quite good about that. (ID 1043).

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**B. Negotiation**

"I usually expect them to eat as much as they can, or will say well eat half of it if you don't like it. She seems to think that's a fair deal really. I expect them to try everything but not finish. I think it's important for the atmosphere" (ID 4019); "I don't actually force him to eat anything that he really hates but we do have things that he doesn't like much and he just has a small portion of it" (ID 3004). "he usually does, he'll eat some, even if he holds his nose he'll eat it! That's mostly vegetables that happens with" (ID 1043).

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**C. Response differences between children**

"I don't think xxx was that keen but she ate it, but xxx, he wouldn't eat any of the vegetables, he didn't like the noodles, he didn't like how they tasted, there's no point making him" (ID 1040), "my older one is more likely to get on and eat it and my younger one, xxx is a bit more of a fuss really. She used to ask me to feed her but she doesn't do that so much now" (ID 4019).

**Table 1**

## Interview topic guide

1) Introduction Mothers were told that the interviews were about mealtimes and the role of food in families.
2) Mealtimes Mothers were asked to describe a typical mealtime in their family. <i>Probes: Are there any rules around mealtimes? Has feeding your children been how you expected it to be? Can you describe the atmosphere? Are there any sibling similarities/differences?</i>
3) Feeding a healthy food Mothers were asked to describe a time when they tried to get their child to eat a vegetable or healthy food and they refused. <i>Probes: Was this effective? What happens if they don't try it? What were the difficulties? Where did your ideas come from to do this?</i>
4) Restricting an unhealthy food Mothers were asked to describe what they would do if their child was requesting an unhealthy food that they didn't want them to have. <i>Probes: How effective was it? How does your child respond? Where did your ideas come from to do this?</i>

Table 2

Characteristics of each family by maternal ID.

Vegetable intake group	ID	Mothers age	Ethnicity	Education level <sup>1</sup>	Number of children	Age in yrs (range)	Sex	
							Male	Female
Low	1040	44	White	2	3	(6-10)	2	1
	1041	40	White	2	3	(5-9)	1	2
	3004	42	White	2	3	(8-13)	2	1
	3085	48	White	2	2	(9-11)	2	0
	4007	37	non-white	1	5	(2-17)	3	2
	4074	40	White	2	2	(6-10)	2	0
High	1006	45	White	1	2	(8-10)	1	1
	1021	39	White	2	2	(9-11)	0	2
	1043	41	White	1	3	(9-11)	1	2
	3039	45	White	2	2	(8)	1	1
	3089	51	White	2	2	(9-11)	1	1
	4019	45	White	2	2	(8-12)	0	2

<sup>1</sup> GCSEs (high school certificate) and below = 1, A-levels (academic qualification gained between age 16 and 18) and above = 2.