

A Survey of Infant and Young Child Feeding in
Hong Kong:

Parental Perceptions and Practices

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Hong Kong SAR Government

2012

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Acknowledgements

We would like to thank the advisors / contributors of the 'Infant and Young Child Feeding Project' for their invaluable comments on the conceptualization of the study as well as the analysis and interpretation of the data. We are also grateful to all the parents who participated in the focus group discussions and individual interviews in the two pilot studies and the main study. Their participation has contributed to the development of the questionnaires, and provided valuable information on current child feeding practices in Hong Kong.

Executive Summary

The first five years of life is the period when eating habits become established. The most important influence on children's eating behaviours is their parents' feeding practices. To facilitate children to eat an appropriate amount of a healthy diet, the optimal practice should involve a division of responsibility between parents and children. Parents are responsible for providing a supportive eating context and a wide array of nutritious foods to the child while the child is responsible for deciding what and how much to eat. The objective of the present study was to examine the feeding practices of Hong Kong parents with young children.

Methods

This was a cross-sectional survey. The target population was Chinese parents of children aged 6 months to 48 months living in Hong Kong. The source population were parents whose children had registered with Maternal and Child Health Centres (MCHCs), which covered more than 90% of children born to local parents. Parents with children aged 6 months, 9 months, 12 months, 18 months, 24 months and 48 months were recruited. The inclusion criteria were: (i) both parents being Hong Kong Chinese citizens; and (ii) the child being born full-term. Children with congenital abnormalities, chronic illnesses or developmental abnormalities were excluded. Participants were selected through simple random sampling with the MCHC register as the sampling frame. Parents were requested to complete a self-report questionnaire on perception and practices of feeding young children. Body weight and height/length were measured according to standard procedures.

Results

The Sample

Among 2849 parents sampled, 1893 were contactable and among them, 1474 participated. The participation and response rate were 51.7% and 77.9% respectively. Compared with the 2006 by-census, non-local born parents, parents with low educational attainment and low income, as well as older fathers were under-represented in the present sample. Local-born parents and parents with tertiary education were over-represented. Income level of our sample tended to crowd towards the middle range (i.e., between HK\$20,000 and HK\$39,999). There were more parents who were not married in our sample.

Children's Weight Status

Based on the WHO Child Growth Standard (2006), there was a higher percentage of overweight/obese children in the 24-month (4.7%) and 48-month (3.9%) group than expected (2.3%).

The Carer

In the majority of families, mothers were the main carers, responsible for making decisions about food purchase and cooking method, the actual cooking and feeding the child, followed by grandparents and domestic helpers.

Providing a Conducive Eating Environment

The majority of our parents set a fixed meal schedule, provided a suitable chair, talked with and encouraged their children during meal times. However, a fair proportion of parents allowed distractions such as playing with toys and television viewing during meal time, whereas only half of the 18 to 24-month-olds were dining with their family members.

Facilitating Children's Self-feeding Skills

A fair proportion of parents were over-concerned about cleanliness such as not allowing their children to grab food or frequently cleaning their faces during meals. Though the majority of 9-month-olds were able to grab food to eat, only a quarter of 12-month-olds were able to use a training cup, and a fifth of 18-month-olds could use spoon tidily.

Providing a Variety of Food

Preparing children's meals out of the family food basket was not a common practice among parents, with only a quarter of parents of 9-month-old children doing so, increasing to about 40% among parents of 18-month-olds. Most parents reported that they provided a variety of foods and used healthy cooking methods. Parents of older children were more likely to let their children eat junk and processed food. Over 80% of parents stored junk food at home but had them hidden away.

Respecting Children's Self-regulation

While most of the parents claimed they could tell whether their children were hungry or full, about half believed they should decide how much their children should eat. In practice, a substantial proportion never granted their children autonomy, either by limiting the portion size or demanding them to finish up their meals.

Worrying about Children's Over/Under Weight and Over/Under Eating

Parents tended to under-estimate their children's weight, and worry about their children becoming underweight or not eating enough. Their worries were more strongly associated with their perception of children's weight (which tended to be an under-estimation) rather than their actual weight. Parental worries about under-weight and under-eating were associated with parental beliefs about children's self-regulation and controlling feeding practices.

Association between Parental Feeding Practices and Children's Avoidant Eating Behaviour

Picky eating and slowness in eating in children were associated with parental controlling feeding practices such as chasing the child to feed him, but not associated with under-weight status.

There was a higher percentage of children in the 24 and 48 months groups who were described by their parents as having difficulty in trying new food. Though most parents claimed to repeatedly introduce new food to children, only 20% made more than 10 attempts. About 50% of parents reported they would model eating new foods in front of their children.

Strengths and Limitations

This is the first large scale survey of feeding practices of parents of preschool children in Hong Kong.

The sampling frame was the registry of MCHC users, which covered over 90% of babies born to local parents. Probability sampling was used to obtain a representative sample. Compared with the 2006 by-census, non-local born parents, parents with low educational attainment and low income, as well as older fathers were under-represented in the present sample. There were more parents who were not married in our sample.

The development of the questionnaires was based on literature and views of local parents. Though the content validity of both sets of questionnaires was ensured through literature review and focus group discussion with parents, criterion validity and measurement properties were only investigated for the questionnaire of the 24- and 48-month groups.

The collection of data on feeding practices was based on parental report rather than actual observation of children's eating behaviour or parent-child interaction.

This was originally designed as a cross-sectional descriptive study to provide an overall picture of the beliefs, attitudes and feeding practices of parents of preschool children. No sub-group analysis (e.g., differences between socioeconomic groups)

was conducted. Associations between variables should not be interpreted as causal relationships, and could only be considered as exploratory, though the results were consistent with the literature. Age trends could be due to differences between groups of parents, rather than actual age differences.

Conclusions and Recommendations

Feeding of young children does not only serve a biological function to meet the nutrient requirements of children for daily activities and growth, but also a social function that involves complex parent-child interaction in the context of the home environment. In the present study, parental over-concern about their children being under-weight and not eating enough was associated with various controlling feeding practices which might result in a negative eating atmosphere and avoidant eating behaviours. In turn, these behaviours might drive parents to use more controlling strategies, thus creating a vicious spiral. To foster the consumption of a healthy diet and the establishment of developmentally and socially appropriate eating behaviour in children, parents are encouraged to follow these recommendations:

1. Scheduling meals
 - 1.1. While young infants should be fed on demand to meet their biological needs, they should gradually be socialized to follow family meal routines.
 - 1.2. By about 12 months, children should be provided with three main meals and two or three snacks per day.
2. Providing a conducive environment
 - 2.1. Children should eat with the family where parents could interact with them and model desirable eating behaviours.
 - 2.2. Children should be provided with a regular and comfortable seat at the family dining table.
 - 2.3. Parents should try to minimise distraction during meal times, e.g. removing toys and tablet computers and turning off the television.
3. Facilitating the intake of an appropriate amount of a varied diet: a division of responsibility between parent and child
 - 3.1. The prime responsibility of parents is to provide a variety of nutritious foods in different combinations of colours, tastes and textures.
 - 3.2. The child is responsible for deciding whether to eat a particular food and how much.
 - 3.3. When feeding a child, parents should be sensitive to the child's hunger and satiety cues, feed patiently and encourage the child to eat without pressure.
 - 3.4. To increase food acceptance, parents should use effective strategies, such as

repeated exposure and modelling.

4. Fostering independence

4.1. During transitional feeding, children should gradually move from being totally fed by parents (before 6 months), through parallel feeding, to eating independently by 24 months.

4.2. Parents should facilitate the development of self-feeding skills in children, through encouragement and provision of suitable feeding utensils.

5. Maintaining standards of behaviour

5.1. Parents should set rules and limits to facilitate the development of appropriate meal time behaviours.

5.2. Parents should use appropriate strategies and take prompt actions to prevent behaviour problems.