



Relation Between Parents' Nutrition Knowledge and their Children's Caries Status

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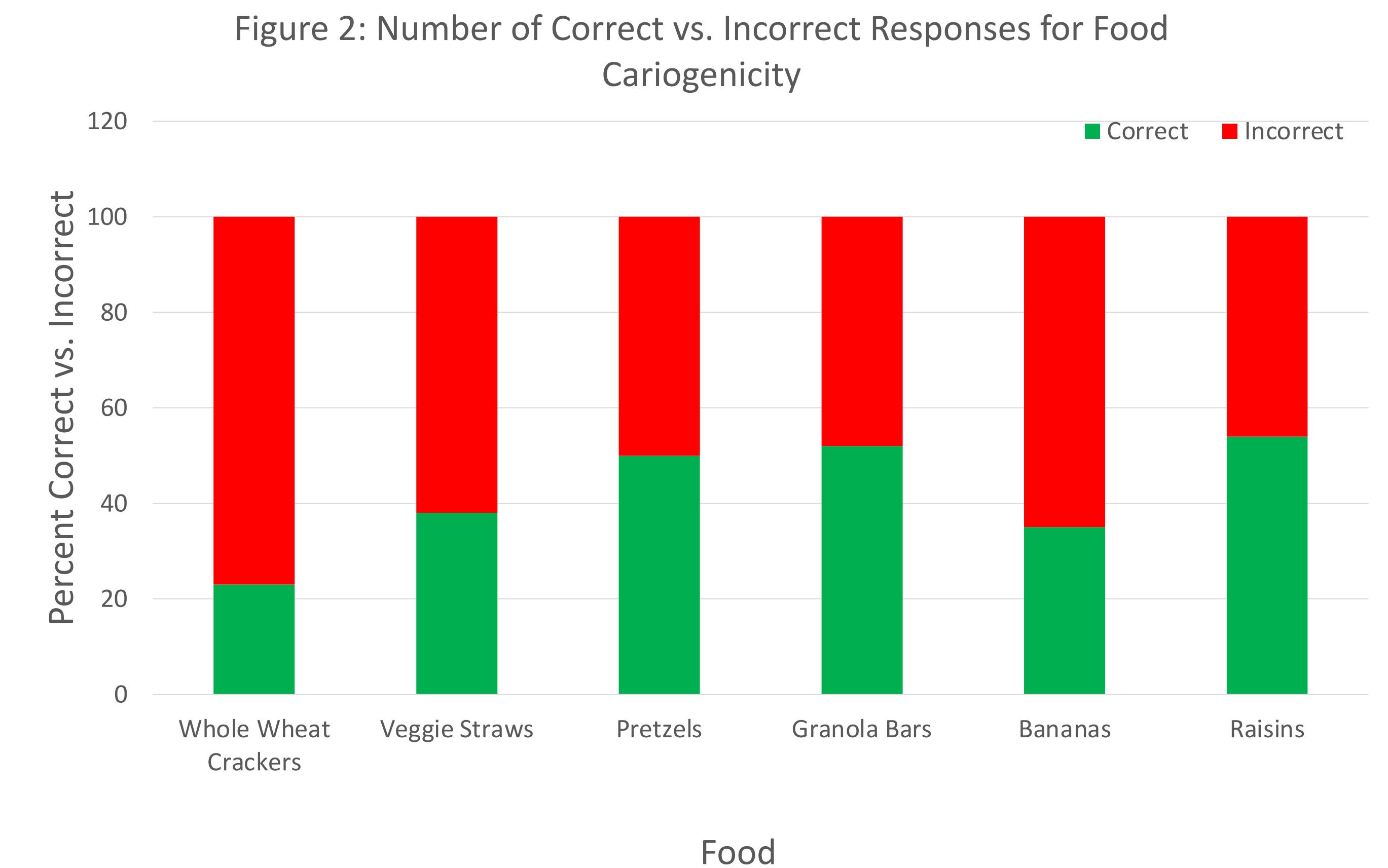
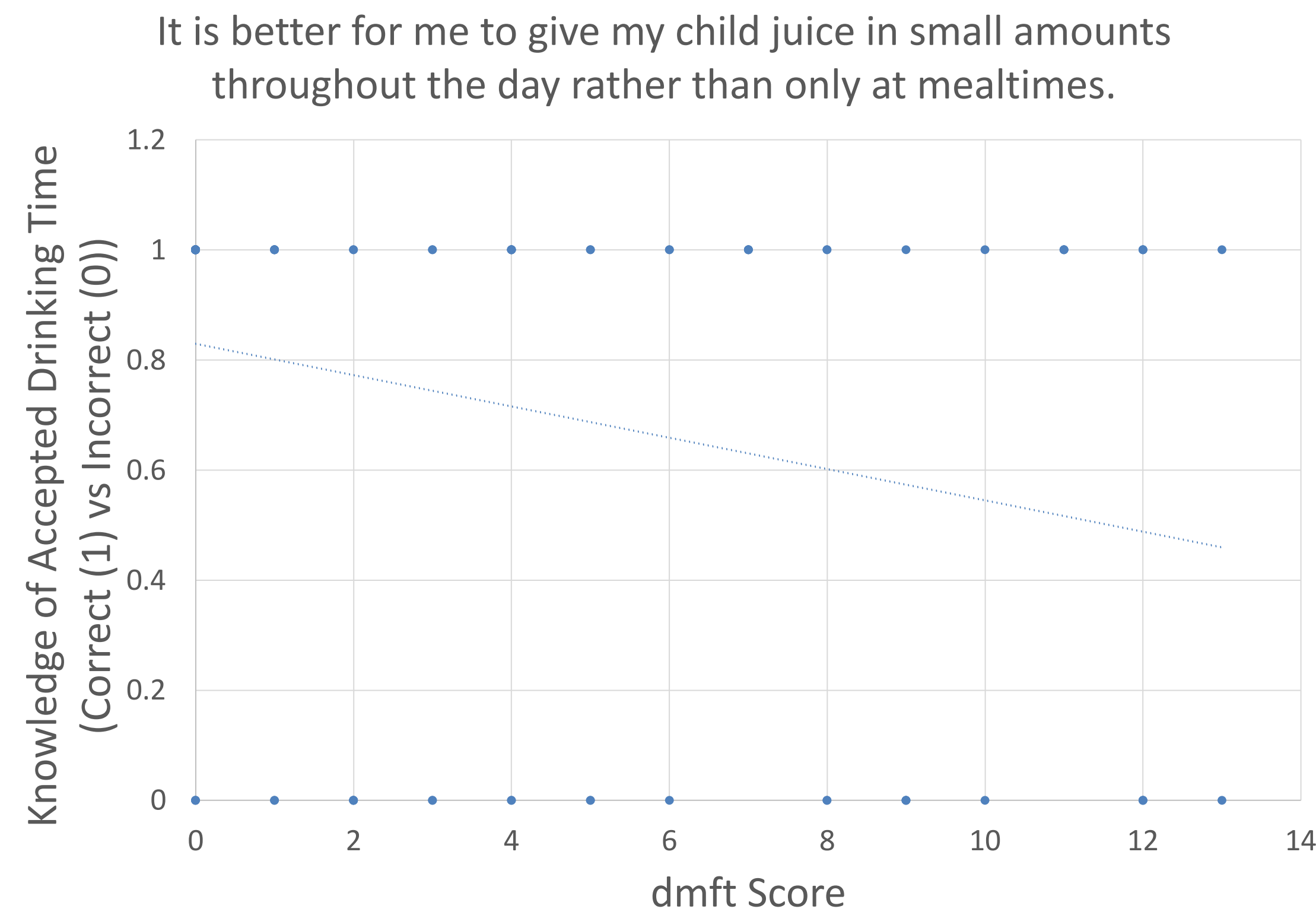
Introduction

It has been firmly established that certain dietary factors contribute to the progression of caries [1]. Parents and teachers should follow recommended nutrition guidelines and eating patterns in order to reduce caries risk in pediatric populations [1]. Prior studies have found that mothers' nutrition knowledge has a direct influence on their children's dietary intake. Furthermore, while there have been several studies that have proven parents' nutritional knowledge has a statistically significant effect on their children's diet and eating habits [2], there has been limited research on the specific relationship between parents' knowledge of oral health nutrition recommendations and their children's current oral health status. Thus far, there is a lack of research in understanding the correlation, if any, between parents' knowledge of nutritional guidelines as they pertain to oral health and their child's current oral health status. The purpose of this project is to understand whether or not there is a statistically significant association between parent knowledge of accepted nutritional guidelines and their preschooler children's oral health status.

Methods

A nutritional knowledge survey was administered in-person to parents of 2-5 year olds presenting in the NYU Dentistry Pediatric Dental Clinic. Survey questions assessed parents' knowledge of the cariogenic potential of specific foods, guidelines of daily snacking and sugar-sweetened-beverages and perception of feeding habits. The survey also contained questions screening for food security and parental supervision. A chart review of the pediatric subject was then completed to record the dmft (decayed, missing, filled teeth) score. 4 participants were excluded due to incompleteness of at least 20% of the survey. Data was analyzed using t-tests and correlation coefficients.

Results



96 Surveys Analyzed:

- Significant negative relationship between parents' knowledge of beverage consumption times and their children's dmft score
- Significant negative relationship between parents' knowledge of cheese sticks' cariogenicity and their children's dmft score (following removal of supervision bias)

- 77% of parents incorrectly marked whole wheat crackers as low in cariogenicity
- 62% of parents incorrectly marked veggie straws as low in cariogenicity
- 50% of parents incorrectly marked pretzels as low in cariogenicity
- 48% of parents incorrectly marked granola bars as low in cariogenicity
- 65% of parents incorrectly marked bananas as low in cariogenicity
- 46% of parents incorrectly marked raisins as low in cariogenicity

Conclusions

While our study showed no statistical significance between parents' food cariogenicity knowledge and their children's dmft, there is still a lack of understanding amongst the parents and their knowledge of food cariogenic potential. This highlights the need for more education for parents as it relates to nutrition and oral health, particularly as it relates to timing of beverage consumption (i.e. between meals or during meals).

References

- [1] Tinanoff, N., & Palmer, C. A. (2000). Dietary determinants of dental caries and dietary recommendations for preschool children. *Journal of public health dentistry*, 60(3), 197-206.
- [2] C Vereecken, L. Maes Young children's dietary habits and associations with the mothers' nutritional knowledge and attitudes *Appetite*, 54 (2010), pp. 44-51