

Summer Meeting hosted by the Irish Section, 16–19 July 2012, Translational nutrition: integrating research, practice and policy

Parental food involvement predicts children's diet quality

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Children's diets in the UK are low in fruits and vegetables and high in non-milk extrinsic sugars (NMES) compared to recommendations. In order to develop successful interventions to improve children's diets, the factors influencing food choice need to be understood. Parental influences tend to be greatest during the 'early' or pre-school years and one such influence is parental food involvement – the level of importance of food in a person's life⁽¹⁾. Low food involvement has been associated with poor diet quality (low intakes of fruits and vegetables) in women⁽²⁾. The aim of this study was to determine whether parental food involvement is associated with parents' and children's diet quality.

As part of a larger intervention study, 394 parents with children aged between 18 months and 5 years were recruited from children's centres in Cornwall and Islington, London. Questionnaires were used to collect baseline data on parents' socio-economic characteristics, their diets and attitudes towards food and child-feeding. The latter section included the validated 12-item Food Involvement Scale^(1,2). Children's diets (one child per family) were assessed using the multiple pass 24 hour recall method on four occasions⁽³⁾. The analyses focussed on consumption of fruits and vegetables and sugary snacks and drinks, since these were the outcomes of interest in the wider study. Therefore these food groups have been used as indicators of diet quality.

Parental food involvement was not associated with parents' age, employment or level of education. However, parental food involvement was higher in non-White parents ($p = 0.01$), male parents ($p = 0.04$) and parents with fewer children ($p = 0.04$). Parental food involvement (FI in table) was positively correlated with both parents' and children's consumption of fruits and vegetables and parents' consumption of alcohol. There were non-significant negative correlations with parents' and children's consumption of sugary foods/snacks and drinks.

Diet quality indicators	Parents' intake		Correlation of parents' intake with parents' FI	Children's intake		Correlation of children's intake with parents' FI
	Mean	SD		Mean	SD	
Total FV (grams)	279.2	190.3	0.140 ($p < 0.01$)**	227.0	123.3	0.167 ($p = 0.001$)***
Total FV (types)	4.3	2.5	0.134 ($p < 0.01$)**	4.8	2.1	0.197 ($p < 0.001$)***
Total alcohol (units)	0.5	1.3	0.148 ($p < 0.01$)**	/	/	/
Sugary drinks (ml)	295.9	411.1	-0.033 ($p = 0.515$)	159.8	216.3	-0.024 ($p = 0.639$)
Sugary foods (portions)	1.2	1.4	-0.047 ($p = 0.325$)	/	/	/
Sugary snacks (occasions)	/	/	/	1.1	0.7	-0.070 ($p = 0.167$)
Sugary snacks/drinks	/	/	/	2.1	1.4	-0.084 ($p = 0.095$)

In conclusion, parental food involvement may influence food choice decisions for themselves and their young children. These findings indicate that parental food involvement may influence consumption of 'healthy' foods more than 'unhealthy' foods. Further studies are needed to investigate how food involvement mediates dietary changes, for example by encouraging parents to act as healthy eating role models. Nutrition interventions targeting pre-school children should include activities to increase parents' (and children's) food involvement (including acquisition, preparation, consumption and enjoyment of food) and the importance they attach to food.

1. Bell R & Marshall D (2003) *Appetite* **40**(3): 235.
2. Barker M, Lawrence W, Woadden J *et al.* (2008) *Appetite* **50**(2): 464.
3. Nelson M, Erens B, Bates B *et al.* (2007) *Low income diet and nutrition survey*. London: Food Standards Agency.