

Fish 'N' Kids: What are parents being told?

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BACKGROUND

Seafood consumption rates are worryingly low in young children in Scotland^[1] despite current dietary goals targeting an increase in the population's oily-fish intake^[2] and World Health Organization (WHO) recommendations to regularly include fish into the diet of infants.^[3] Mothers receive and use advice on early years feeding from a variety of information sources, family and friends, health professionals, and the media over the period of their child's development.^[4-6] Evidence suggests that commercial books and the internet are referred to more often than National Health Service (NHS) information however these NHS resources are considered more trustworthy and unbiased by mothers of young children.^[7]

AIM

The aim of this study was to investigate the representation of seafood and its beneficiary and cautionary messages compared to other food types (meat (including poultry and red meat) and vegetables) in early years feeding information leaflets.

METHODS

- Resources were identified from a list of leaflet resources distributed by health visitors in Scotland and were obtained from searches of Tayside and Grampian NHS libraries, and from the websites for NHS Health Scotland, the Department of Health (DH), and reputable charities.
- A survey of early years feeding information resources (n=13) was conducted in March 2013 to investigate the inclusion of seafood.
- Data on the type and content of recipes and messages was extracted using a systematic protocol. An independent double extraction method was conducted and any discrepancies between the researchers were discussed and agreed upon.
- Resources targeting difficult eaters, specific nutrients, portion sizing, and school-aged children were excluded.
- Non-parametric comparative analysis was conducted. P-values <0.05 were considered statistically significant.



RESULTS

Information Resources Content

- Meat citations were significantly lower in information resources (median 3) compared to seafood (11) and vegetables (12) ($p \leq 0.001$).
- Only two of the thirteen resources contained main meal recipes and ideas. Seafood had six recipes (20.7% of total recipes) and 16 ideas (15.7% of total ideas) the lowest of all food types.

Seafood Species (Figure 1)

- Shellfish (n=9) was the highest cited seafood species followed by oily fish (n=8). Tuna was the highest individual seafood species (n=5) cited.
- 47.4% of the seafood species cited within the information resources were mentioned in a negative way.

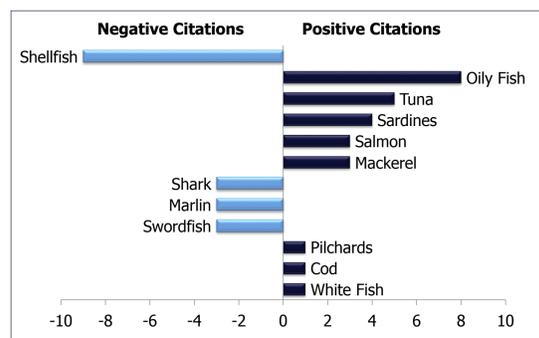


Figure 1: Total number of seafood species cited within resources.

Beneficiary and Cautionary Claims (Figure 2 and Table 1)

- Vegetables received significantly more beneficiary claims (median=3) than the other food types (both median=1) ($p \leq 0.007$).
- Seafood had an equal number of beneficiary claims to the meat group (median=1) however seafood also had a significantly higher number of cautionary claims (median=6) ($p \leq 0.001$).

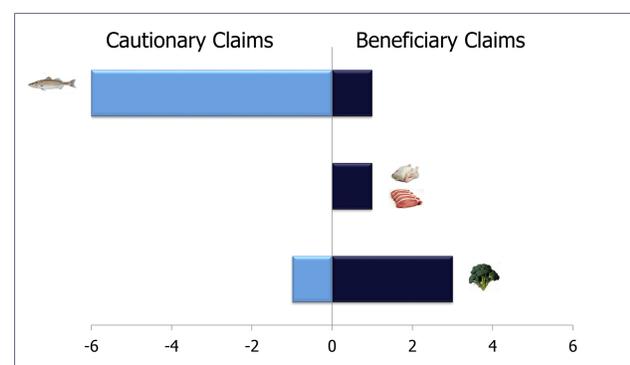


Figure 2: The number of beneficiary and cautionary claims cited for each food type.

- Individual beneficiary messages (generally nutritious, high in specific nutrients) were not statistically significant between food types ($p \geq 0.073$).
- Individual cautionary messages (avoid, limit intake, allergy risk, choking risk) were statistically significant between food types ($p \leq 0.029$).

Table 1: The median and minimum and maximum range of cautionary claims cited within resources.

	Cautionary Claims				
	Avoid	Limit Intake	Allergy Risk	Preparation & Cooking	Choking Risk
	Median (Range)				
Seafood	0* (0,4)	0* (0,5)	2* (0,8)	0 (0,2)	1* (0,3)
Meat	0 (0,1)	0 (0,6)	0 (0,0)	0 (0,2)	0 (0,3)
Vegetable	0 (0,1)	0 (0,0)	0 (0,0)	0 (0,2)	0 (0,2)

*Significantly different across food types $p(\leq 0.029)$ determined by Kruskal-Wallis Test

CONCLUSIONS

- Seafood inclusion in recipes and ideas was under-represented compared to other food types within the information resources.
- Parents who wean their infant based on the information resources' guidance are predominantly provided with oil-rich fish options to give to their infants.
- Parents who read information resources for guidance in feeding their infant may be exposed to some beneficiary claims and a variety of recommended seafood species however, this may be counteracted by the prominence of negative, cautionary seafood messages which may confuse and/or deter parents from including seafood into the diet of their infant.

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