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## Influences on the dietary patterns and eating behaviours of 18–36-month-old toddlers in Ireland

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Inadequate dietary intakes are widespread amongst pre-school aged children, with 56% of preschool children worldwide suffering from a deficiency in at least one of iron, zinc or vitamin A<sup>(1)</sup>. The neurological and physical development of children is sensitive to changes in micronutrient status, with nutrient deficiencies at this age likely to have irreversible effects on childhood development<sup>(2)</sup>. This study aims to evaluate the major influences on the dietary patterns, feeding practices and eating behaviours of young children in Ireland.

A self-administered, web-based survey was administered to parents/guardians of 18-36 months old children. The survey consisted of 103 questions, delivered across 5 sub-sections (demographics, parental nutrition knowledge, feeding practice, barriers to healthy eating and dietary patterns). Validated questionnaires were used to assess fussy eating (Child Eating Behaviour Questionnaire, CEBQ) and parental feeding practice (Child Feeding Questionnaire,

CFQ)<sup>(3–5)</sup>. Adherence with the 2020 FSAI *Scientific Recommendations for Food-Based Dietary Guidelines for 1-5-Year-Olds in Ireland* was evaluated using FFQ-style questions to estimate consumption patterns of food groups.

Parents/guardians (n = 1141) answered with respect to 608 male and 529 female toddlers, with a mean ( $\pm$ SD) age of 26.2  $\pm$  5.8 months. The greatest barriers to healthy eating reported by parents/guardians were *food fussiness* (49%), *time to prepare healthy foods* (47%), *provision of unhealthy foods by caregivers outside the home* (47%), *the short shelf life of “healthy foods”* (42%) and *the marketing of unhealthy foods to children* (42%). The children’s food pyramid was recognised by 76% of parents. A large number of toddlers met the FSAI’s dietary recommendations for consumption of fish (70%) and fruit and vegetables (97%). Fewer children met the FSAI’s recommendations for consumption of processed meat (24%), beverages (40%), red meat (52%) and confectionary (57%).

Using the CEBQ food fussiness scale, 36% had a score indicative of moderate to severe fussy eating (Score  $\geq$  3). Higher levels of food fussiness were noted among children who did not meet recommendations for consumption of red meat (2.81 vs 2.64,  $p = 0.001$ ), fish (2.82 vs 2.68,  $p = 0.010$ ) and confectionary (2.85 vs 2.62,  $p < 0.001$ ). The nutrition knowledge assessment showed that parents had a mean ( $\pm$ SD) knowledge score of 58.0  $\pm$  14.6%. Higher knowledge scores were observed among parents/guardians of toddlers who met the dietary recommendations for dairy (64% vs 47%), fish (59% vs 56%), red meat (59% vs 57%), confectionary (59% vs 57%) and fruit and vegetables (58% vs 55%) (all  $p < 0.05$ ).

This study highlights a multitude of interrelated and dynamic factors, particularly fussy eating and parental nutrition knowledge, that influence the dietary intakes and patterns of toddlers. Understanding these factors may help to guide the development of targeted multi-factorial interventions to improve dietary quality among toddlers.

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### References

1. Stevens GA *et al.* (2022) *Lancet Glob Health* **10**, e1590–e99.
2. Georgieff MK (2017) *Am J Clin Nutr* **106**, 1588S–93S.
3. Birch LL *et al.* (2001) *Appetite* **36**, 201–10.
4. Wardle J *et al.* (2001) *J Child Psychol Psychiatry* **42**, 963–70.
5. Steinsbekk S *et al.* (2017) *Int J Behav Nutr Phys Act* **14**, 2.