



Irish Section Conference, 22-24 June 2021, Nutrition, health and ageing — translating science into practice - Part A

## Factors associated with cheese consumption in preschool children

E. Greene<sup>1</sup>, M. Heinen<sup>1</sup> and C. Murrin<sup>1</sup>

 $^1$ School of Public Health, Physiotherapy and Sports Science, University College Dublin, Belfield, Dublin, Ireland

Osteoporosis is a global public health issue of particular concern in ageing populations, such as Ireland, where hospitalisations due to osteoporosis-related fractures are increasing. The projected cost of which is estimated to be  $\in 304,350,613$  for  $2046^{(1)}$ . Adequate calcium intake in childhood is essential for the optimisation of peak bone mass and dairy products are an important source of calcium in children's diets. Preschool age is also an important period for the development of taste preferences, and it is recommended that Irish 1–5-year-olds consume 550 ml of milk or equivalent amounts of dairy products per day<sup>(2)</sup>. However, there is a lack of research examining the factors which influence the consumption of individual dairy products in this age group. The aim of this research is to explore the factors associated with cheese consumption among 2–5 year-old children.

This is a cross-sectional analysis of questionnaires completed by parents of 2–5 year-old children as part of the evaluation of a pilot of a milk provision and nutrition education intervention in 12 Irish preschools. Logistic regression was used to examine the association between children's cheese consumption and child-related factors (infant feeding; demographics; consumption of fruit and vegetables, milk, yoghurt and sugar-sweetened beverages) and parent-related factors (food choice motives, parent consumption, parental education).

Questionnaire responses from 319 parents of 2–5 year-old children (49.5% female) were included in the present analysis. Ninety-two percent of respondents were mothers of preschool children and fifty-six percent of parents had achieved third level education or higher. Twenty-three percent of children consumed cheese daily. In a logistic regression model (N = 281), daily consumption of cheese among preschool-aged children was positively associated with yoghurt consumption (OR = 6.622; 95% CI = 3.044, 14.403; P < 0.001) and children were six times more likely to consume cheese daily if their parents also consumed cheese daily (OR = 6.315; 95% CI = 2.973, 13.414; P < 0.001). Children's cheese consumption was significantly associated with age of introduction to cheese. Children were less likely to consume cheese daily if they were introduced to cheese before they were six months old, than if they were introduced at six to nine months (OR = 0.235; 95% CI = 0.081, 0.683; P = 0.008). There was no significant difference in cheese consumption among children who were introduced to cheese later than nine months old, compared to those introduced at six to nine months.

Parents have a direct influence on preschool children's cheese consumption, through their own consumption, and should be considered when designing dietary interventions for this age group. This analysis suggests that introducing cheese to infants at an earlier age than what is recommended (six to nine months), may contribute to lower consumption at preschool age. Further research is necessary to explore the influence of weaning practices on dairy consumption in childhood.

## Acknowledgements

This research was funded by the Department of Agriculture, Food and the Marine. We would like to thank the children, parents and preschool staff who participated in the evaluation of the School Milk Scheme preschool pilot.

## References

- 1. Kelly MA, McGowan B, McKenna MJ, et al. (2018) Ir J Med Sci 187(3), 601-8.
- Scientific Committee of the Food Safety Authority of Ireland (2020) Scientific Recommendations for Food-Based Dietary Guidelines for 1 to 5 yearolds in Ireland