

Developing a Foodtalk Game as a nutrition and health training tool for early years staff

Background:

In England there are approximately 105,000 childcare providers (NAO, 2016). A large proportion of the lives of under 5s are in the care of such providers and this period, prior to a child starting school, is one of the most influential times in relation to growth, development and dietary exposure. 'Nutrition Matters for Early Years' (2016) states that our health during childhood and adulthood are influenced by our established eating patterns in the first few years of life. Giving every child the best start in life is crucial to reducing health inequalities in the duration of life.

One in five children are already overweight before they start school. With a large proportion of children's nutrition being provided in child care, the responsibility of child health lies heavily within these settings. Yet, a survey of 700 early years settings conducted by the Pre-school Leaning Alliance and London Early Years Foundation (2016) found that the majority of settings (79 per cent) do not receive any external nutrition advice (EYNP, 2016).

Foodtalk is a Community Interest Company run by Paediatric Dietetics and specialising in community nutrition interventions for families. Foodtalk has worked with hundereds of early years practitioners, most of whom express concern about their lack of nutrition education, however they have neither the time, nor the funds, to commission traditional training modules. This shows the need for a simple and cost-effective tool that could train early years practitioners in the basics of nutrition and healthy habits for children aged 1-5. By increasing staff knowledge and confidence, there is potential to impact millions of children and thus, bring about real and measurable change.

Practice Development:

Our aim was to develop an interactive training tool to train early years staff in the basics of nutrition and health for ages 1-5. The process of developing an early years nutrition training tool started with a survey of early years settings to determine barriers to accessing nutrition training for staff. Cost was cited as the main barrier along with high staff turnover and lack of time.

This led to a review of innovative training methods and it was decided that an educational board game would be used. Research shows that board games as a method for training are proven to be engaging and significantly effective in improving both knowledge and confidence within health and social care workers. Additionally, they are low cost, can be used repeatedly by new members of staff.

The Foodtalk Game was developed in 2015 as an educational board game designed for anyone working in Early Years. It provides staff with a basic knowledge of early years nutrition and health, which can then be disseminated to both the children and their parents during informal conversations, developmental reviews or routine appointments. The game was designed to be grounded in current evidence, it is aligned to the 'Eat Better, Start Better' guidelines and it meets both local and national public health strategies including The 5 Year Forward View, Sustainability and Transformation Plans, Public Health Outcomes Framework and the Healthy Child Programme. Locally, the game aligns with most public health team's childhood obesity or early years nutrition strategies.

Once developed, the Foodtalk Game was piloted across 4 London boroughs, including staff in children centres, nurseries and a Health Visiting Team. In addition to playing the game and monitoring outcomes, participants were consulted on design, wording, topics, complexity of questions and game play. Over the course of a year, the development of the board game was shaped by the results of the consultation, as well as input from Dietitians, marketing experts and the board game development team.

Measuring impact:

The Foodtalk Game was commissioned by the London Borough of Brent to be integrated into their Healthy Early Years award. The game was played by early years staff in nineteen settings and results showed 78% of participants increased their knowledge and 86% increased overall confidence in supporting families.

"I played [the Foodtalk Game] with a team of 12 people and we loved it! Everyone was so excited and eager to find out what the next question would be. People talked about the answers and shared their opinions/knowledge on various things. The feedback from the staff was great and our action would be to play it with a targeted group of parents."

Children's Centre Manager

The game was also independently analysed by a team at Plymouth University. Analysis showed Median scores of all five knowledge questions combined increased from 1.0 at baseline to 5.0 (p = <0.001) post-intervention and median confidence scores changed from 3.0 at baseline to 4.0 (p = <0.001) post-intervention.

A small-scale (n=29) trial in Hertfordshire was conducted using the game as a method to train parent nutrition champions. Results showed **100%** of participants felt likely to share the knowledge they had gained with other parents. This

demonstrates the game is also an effective method for disseminating important nutrition messages to families.

"it was a laid back way of learning important information, I think it will stick in my mind more than a factsheet or other ways of learning"

Parent, Hertfordshire

The Foodtalk Game costs £60 and achieves comparable outcomes to traditional staff training modules which range from £300-£500. Additionally, it can be used as a Tier 1 childhood obesity intervention providing an even bigger return on investment for local authorities.

Learning:

Developing and evaluating the Foodtalk Game provided an opportunity for many key learning points and takeaways.

The first key learning point arose during the background research prior to developing the game. We knew that in order to develop a useful intervention is was important to conduct a needs assessment with the target audience (Early years practitioners). This was done through an informal consultation and questions around previous nutrition training and barriers to accessing nutrition training were asked. However, we did not ask any questions around how much of a priority settings place on nutrition training, or, in fact, even on what they define as nutrition training. Because of our internal biases around the importance of early years nutrition we unconsciously assumed that all early years practitioners would deem it important as well. However, this seemed not to be the case and a study conducted by our nutrition intern in 2017 showed that nursery staff put a very low importance on nutrition as part of their role. Many felt it was the role of the cook only and that frontline staff had very little to do with food and nutrition thus requiring no nutrition training. Additionally, most nurseries interviewed felt that Food Safety and Hygiene training was equivalent to nutrition training and sufficient for their staff. Had we known the low importance nursery staff place on nutrition training prior to devoping the game we would have included more questions and marketing material on why it is important and how nutrition training can improve your setting.

The second key learning point is around the use of an educational board game. Although board games are used for training in a variety of health and social care topics, they can still be seen as juvenile or childish. Because the Foodtalk Game is targeted at the early years, many settings assumed it was for the children and not for the staff. In retrospect, referring to the Foodtalk Game as an "interactive training tool" instead of an "educational board game" may have helped to avoid

some of this confusion.

The third key learning, came during the development of the individual questions for the board game. As with any health topic, early years nutrition can often be complex with no specific right or wrong answer and as Dietitians we had a tendancy to want to display these complexities within the game and account for all eventualities. However, long complex questions and answers do not make for good game play and after much back and forth with the board game "experts" we eventually had to simplify both our topics and language resulting in much better game play.

REFERENCES

National Audit Office (NAO, 2016) Department of Education https://www.nao.org.uk/wp-content/uploads/2016/03/Entitlement-to-free-early-education-and-childcare.pdf

Public Health (2016) Nutrition matter for the early years: Guidance for feeding under fives in the childcare setting. HSC Public health Agency [online]

HM Government (2016) Childhood Obesity: A Plan for Action

EYNP (2016) The Early Years Nutrition Partnership: A collection of Views from Partners. [online]

http://www.eynpartnership.org/sites/default/files/eyn_partnership_a_collection_of_views_from_partnerviews_october_2016.pdf

Vahed Et.al. The Tooth Morphology Board Game: An Innovative Strategy in Tutoring Dental Technology Learners in Combating Rote Learning. Conference: 2nd European Conference on Games Based Learning (ECGBL) Proceeding 2008

Blakely et.al. Educational gaming in the health sciences: systematic review. J Adv Nurs, 2009

Royse, M, et.al. How gaming is used as an innovative strategy for nursing education. Nurs Educ Perspect. 2007.