

The impact of teacher attitude on the success of the Food Dudes Healthy Eating Programme

C. McDermott, C. Martin, S. Bel Serrat, M. Heinen and C. Murrin
University College Dublin, Ireland

Despite the many health benefits of fruits and vegetables (FV), less than 25 % of European schoolchildren consume the recommended daily servings of these foods⁽¹⁾. Globally, many dietary interventions have been introduced in primary schools, though the results have been mixed⁽²⁾. In Ireland, the Food Dudes Healthy Eating Programme (FDHEP) is a dietary intervention that aims to increase sustained FV consumption by primary school children. While teachers are often responsible for implementing dietary interventions in schools⁽³⁾, no studies have researched the effect of teacher attitude on the success of these interventions. The primary aim of the current study is to evaluate the impact of teacher attitude toward the FDHEP on the success of increasing FV consumption by Irish primary school students.

Two non-random blocks of primary schools were chosen for this study: Senior pupils (aged 8–12) from 13 schools participated in an 8-day intervention, while Junior pupils (aged 4–8) from 31 schools participated in a 16-day intervention. On each of the intervention days, students received small portions of FV and were encouraged to eat the foods by receiving prizes. To determine the portions of FV consumed, photos of students' lunchboxes before and after lunch were taken by research assistants on pre- and post-intervention evaluation days. Additionally, teachers completed two surveys assessing the proportion of students that consumed FV before and after the FDHEP, as well as their attitude toward certain aspects of the intervention. To determine the effect of teacher attitude on consumption, univariate logistic regressions were analysed for fruits and vegetables separately.

After completion of the programme, both consumption of vegetable portions and the proportion of students who consumed at least one portion of FV each day increased among Senior pupils ($p < 0.05$). Junior pupils showed similar results, while also increasing fruit consumption ($p < 0.05$). We found that teachers reporting a positive attitude toward certain aspects of the intervention have increased odds of intervention success (Table 1). Interestingly, Senior students were impacted by teacher attitude more than Junior students for both fruit and vegetable consumption. In particular, the odds of increasing vegetable consumption were much higher (OR 11.9 (95 % CI 1.6–90.6)) for students whose teachers found the research assistant visits throughout the intervention helpful compared to teachers who did not find the visits helpful.

Table 1. Logistic Regression of Teachers' Attitudes to FDHEP and FV consumption

	Senior Pupils		Junior Pupils	
	OR Fruit	OR Veg	OR Fruit	OR Veg
Class Implementation: Easy/Hard	1.7	2.7*	0.9	1.1
Research Assistant Visits: Helpful/Not Helpful	1.2	11.9*	1.0	1.4
Class Difficulties: Few/Many	0.9	2.7*	1.1	1.7*
Child Enjoyment: Very Much/Not at All	1.9	0.7	1.3	1.5
Intervention: Successful/Not Successful	2.7*	2.2*	1.2	1.8*
National Implementation: Beneficial/Not Beneficial	2.2*	3.9*	1.0	1.9*

*indicates $p < 0.05$.

The results from this study provide evidence that teacher attitude towards aspects of a dietary intervention can have an impact on the success of the programme. Despite teachers from each block showing similar patterns of attitude, younger students are more likely to respond to the intervention and are less likely to be impacted by teacher attitude. Further studies are needed to better examine this relationship and determine if additional variables can influence success.

1. Lynch C, Kristjansdottir AG, Te Velde SJ, *et al.* (2014) *Public Health Nutrition* 17, 2436–2444.
2. Evans CE, Christian MS, Cleghorn CL, *et al.* (2012) *The American Journal of Clinical Nutrition* 96, 889–901.
3. "Interventions on diet and physical activity: What works" (2009) *World Health Organization*, 15–16.