Children’s fruit and vegetable intake, programme evaluation

Evaluation of the Food Dudes programme by Upton et al.

Madam

The paper ‘Increasing children’s lunchtime consumption of fruit and vegetables: an evaluation of the Food Dudes programme’ by Upton et al. investigated the effectiveness of a Food Dudes programme implemented in six primary schools by Wolverhampton Primary Care Trust. The authors concluded that further development work is required to ensure the short- and long-term effectiveness of such interventions in promoting fruit and vegetable consumption in children. These conclusions need to be seen in context.

First, the authors argue it is crucial that all behavioural interventions, such as Food Dudes, should support long-term maintenance of behaviour change. We agree and, indeed, this is why current Food Dudes programmes now include a second key phase, which runs each year in primary schools. We call this Food Dudes Forever and it is designed to maintain and further strengthen dietary improvements established in the initial phase of the programme.

Recognising the powerful impact of the kinds of food provided at lunchtime in school and how they are presented to children we have also developed a Choice Architecture for School Catering scheme, again to strengthen and sustain the effects of our interventions. Current catering practices, while they usually comply with nutritional guidelines in their food provision, nevertheless often do little to help children choose and eat fruit and vegetables in preference to energy-dense and nutrient-poor food. If not redesigned, these environments can fundamentally undermine any motivational intervention such as Food Dudes.

Wolverhampton was the first Primary Care Trust to pioneer the Food Dudes programmes in the UK, and when it did so, the Food Dudes Forever and Choice Architecture for School Catering schemes were not yet available. Wolverhampton is currently in the process of introducing these components and exploring a whole-environment approach to ensure that the effects of the Food Dudes programmes will be further strengthened and sustained.

Second, wherever Food Dudes is run, and whichever version is used, the effects vary across geographical areas, particular schools and even classes within schools. We have learned that these variations are caused not so much by the children involved as by the adults who implement the programme. If teachers and other staff do not implement the scheme faithfully, then the effects are reduced. As with all such interventions, a lack of programme fidelity, or the emergence of programme ‘drift’, can seriously undermine effectiveness and the maintenance of effects over time. Because we have come to appreciate just how important this is, we have introduced monitoring systems, under our direct control, into all our programmes in recent years. We continue to refine these systems. They are crucial to ensure programme fidelity and for understanding why variations in outcomes occur.

We did not, as we should have done, have these processes in place for the Wolverhampton scheme and, in fact, we had no direct control of its implementation. We are therefore not in a position to assess what was or was not implemented and to what extent there may have been issues that impeded success. For example, the authors note that, in the schools participating in the study, children who entered the dining hall later in the lunch session found that fruit and vegetables were not reliably available. Clearly, one cannot expect a scheme to increase consumption of fruit and vegetables at school, let alone measure its effects accurately, if these foods are not available to be consumed.

Third, there are other measurement issues and details about which we would like further information in order to understand the reported findings better. To take just one example, it could be argued that the most important indicator of children’s dietary change is total daily consumption, which includes food eaten both in school and home. The study conducted by Upton et al. did, indeed, take this measure, which is detailed in their full report of the project.

They showed that, across the day, at long-term follow-up in the intervention schools there were large increases in total consumption of fruit and vegetables (increasing from 6.6 portions/d at baseline to 9.8 portions/d at the final follow-up) and substantial decreases in consumption of foods high in fat and sugar (decreasing from 2.7 portions/d at baseline to 1.5 portions/d at final follow-up); these changes were statistically significant and ‘of large practical importance’. This was not true of the control schools.

These are, admittedly, very high levels of overall fruit and vegetable consumption shown in these figures, which in itself raises further questions, but to ensure a rounded picture, it would be helpful to know why these results were not reported in the published paper.

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