The reported intakes of sugar sweetened beverages by 10–11 year old children participating in the CHANGE! healthy eating intervention

G.L. Stone¹, I.G. Davies², R. Dagger³, K. Mackintosh⁴, S.J. Fairclough⁵ and J.C. Abayomi²
¹Faculty of Health and Social Care, Edge Hill University, St Helens Road, Ormskirk, L39 4QP., ²Faculty of Education, Health and Community, Liverpool John Moores University, Barkhill Road, Liverpool L17 6BD, ³Faculty of Science and Social Science, Liverpool Hope University, Liverpool L16 9JD., ⁴Applied Sports Technology Exercise and Medicine Research Centre, College of Engineering, Swansea University, Swansea SA2 8PP. and ⁵Faculty of Arts and Sciences, Edge Hill University, St Helens Road, Ormskirk., L39 4QP

Free sugars in foods and particularly sugar sweetened beverages (SSB) have increasingly, and somewhat controversially, been the focus of public health concerns(1). SSB are considered to form part of an ‘unhealthy diet’ which with other dietary and lifestyle factors, contribute to total disease burden in England(2). According to the National Diet and Nutrition Survey(3), ‘non-alcoholic beverages’ contributed 27–30 % of non-milk extrinsic sugars (NMES) for children aged <10 years old. A 20-week teaching curriculum was developed for The CHANGE! Project (Children’s Health, Activity, and Nutrition: Get Educated!) and aimed to promote the benefits of healthy eating, including a reduction in SSB intakes, by making small behavioural changes. This curriculum was delivered by teachers to Year 6 children (n = 290 total; n = 138 intervention; n = 152 control) in the intervention schools in Wigan, following completion of the baseline (BL) data collection.

The participants completed a validated 24-hour recall food intake questionnaire(4) at BL and post-intervention (PI). There were no significant differences in each groups’ reported intakes of SSB, between BL or PI (p > 0.069), or between the groups at BL and PI (p > 0.371). There was also a trend towards increased intakes of fizzy drinks and diet fizzy drinks for the intervention group between BL and PI. Cordial drinks appeared to be the most popular type of SSB. (Figure 1).

These results demonstrate that solely educating children about how to make changes to their beverage consumption habits does not automatically lead to behaviour change. Alongside the issues of age-related recollection bias and inaccurate recall of food intakes(5), children’s eating habits and behaviours are typically influenced by those of their parents and carers(6). Involving the family as part of the education process could help to encourage more positive food choices. The recently announced levy on SSB for the UK, is anticipated to help towards reducing sales and consumption of these types of drinks. The effect of targeting one food source to reduce contribution to disease burden is debateable, however, the association between SSB and health issues is a complex one, so a multifactorial approach to improving children’s food choices is essential.

Fig. 1. frequencies of the reported intakes of SSB.