



Research Article

Investigating differential effects of interventions to prevent obesity in children and young people: a novel analytic framework

Francesca Spiga,^{1*} Annabel L Davies,¹ Jennifer C Palmer,¹ Eve Tomlinson,¹ Maddie Coleman,² Elizabeth Sheldrick,² Lucy Condon,² Theresa HM Moore,^{1,2} Deborah M Caldwell,¹ Fiona B Gillison,³ Sharea Ijaz,^{1,2} James D Nobles,⁴ Jelena Savović,^{1,2} Rona Campbell,¹ Carolyn Summerbell^{5,6} and Julian PT Higgins^{1,2}

¹Population Health Sciences, Bristol Medical School, University of Bristol, Bristol, UK

²NIHR Applied Research Collaboration West, University Hospitals Bristol and Weston NHS Foundation Trust, Bristol, UK

³Department for Health, Centre for Motivation and Behaviour Change, Centre for Qualitative Research, University of Bath, Bath, UK

⁴Health, Nutrition and Environment, Leeds Beckett University, Leeds, UK

⁵Department of Sport and Exercise Sciences, Durham University, Durham, UK

⁶Fuse – Centre for Translational Research in Public Health, Newcastle University, Newcastle upon Tyne, UK

*Corresponding author f.spiga@bristol.ac.uk

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Plain language summary

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The number of children who are obese is very high in many countries. Although countries are trying to tackle this problem, the numbers are still rising. Why is childhood obesity a concern? We know that a child who is living with obesity can experience poor physical health and mental health. This, in turn, can impact on their social and educational development.

So, what types of strategies are being used to try and tackle childhood obesity? Which strategies are working better than others? Most strategies are taking place in schools or the local community. They encourage healthy eating, physical activity, or both. Some have been tested to see how well they work in a type of research experiment called a randomised controlled trial. Randomised controlled trials are considered the gold standard of tests. In a big review that we completed recently, we found over 200 randomised controlled trials that aimed to tackle obesity in children aged 5–18 years. We found that these strategies have small beneficial effects on average, but some worked much better than others – but why?

We started by reading lots of research papers and developed a long list of key characteristics of strategies that might make the difference – the ‘magic’ ingredients if you like. We then asked children, parents, schoolteachers and health workers what they thought were the most important characteristics on the list and whether we had missed anything off. Our final list of 12 key characteristics included things like whether the strategy was based in schools or in the home, whether it targeted diet or physical activity and whether it included (what we called) a ‘fun factor’. We then used this list to code the strategies in randomised controlled trials in our big review. Importantly, the children helped us with the coding of the ‘fun factor’ to make sure we got it right.