

Investigating system-level drivers of obesity with adolescents: a group model building exercise

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No competing interests

Natalie Savona is an early career researcher and Talia Macauley is a research assistant.

Background

Capturing voices of young people on issues that affect them is crucial for developing effective, relevant public health policies. We report on using group model building to identify, with young people, their views on the drivers of adolescent obesity. This is the first stage of the Co-Create project, designed to ultimately develop – with adolescents – potential interventions to reduce obesity prevalence.

Methods

Co-Create employs an innovative, participatory, multi-staged methodology underpinned by a systems approach. We followed a ‘group model building’ script to generate, with 16-18 year-olds (mean n=14) in three UK schools, causal loop diagrams (CLD) of factors they perceive to contribute to diet and physical activity and hence, obesity. Schools were recruited to represent three quartiles from the Index of Multiple Deprivation ranking of local authorities.

Findings

All CLD show that participants identified advertising, the relatively low cost of and easy access to unhealthy food, social media, lack of physical activity and stress, body image and other mental health factors as drivers of diet and physical activity, and hence, obesity. There were no notable differences in themes between the CLD. The GMB process creates a helpful abstraction from individual behaviour by drawing out system- rather than individual-level drivers of obesity, though findings are limited to the perceptions of the participants and these results represent only urban environments

Interpretation

Using GMB, a participatory systems methodology, captures obesity-drivers pertinent to the young people, the way the drivers are intertwined and potential leverage points for action. The results from this first stage of Co-Create help generate system-level hypotheses on policy responses to obesity that resonate with young people. In subsequent Co-Create work-streams, adolescents will be recruited to ‘alliances’ to explore interventions that will be discussed with policy-makers and other stakeholders. The potential effects of the co-created, obesity-related interventions will be simulated using systems dynamics modelling.

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