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Childhood obesity: Designing evidence-based prevention policies using network analysis

Abstract:

Childhood obesity is a complex issue than can't be tackled but using a holistic and multidisciplinary approach and, among the quantitative methods, using Network Analysis. Its application is wide and only rarely applied to social issues but, where used, it showed its resolving power. The aim of this research is to create a comprehensive framework that clearly shows the multifactorial aspect of CO and keeps together five families of influences: genetics, socioeconomic status, social network, environment and impact of policies. Using the bi-partite network technique it is possible to visualize not only the directly responsible factors of CO but also their secondary causes and, overall, to get a clear image of how these factors simultaneously interact. Unlike almost every study on CO, using this approach, based on an extensive literature review and a specifically made survey, has been realized a visual product that, on one side keeps together the literature in an extremely synthetic layout, on the other side gives the scientist the possibility to communicate complexity in a simplified way outside academic context. This technique is particularly useful when prevention policies need to be designed or evaluated, since it gives the possibility to create simulation models based on system dynamics, such as Causal Loop Diagrams or Agent Based Models.

Biography

Antonio Casella is a junior researcher committed to social sustainability issues. His areas of interest are health, labour trends, and migration. With a master's degree in Sociology from Sapienza University of Rome, he collaborates with Italian and international research institutes such as Eurispes, Republikon Intezet (Hungary), Mediterranean Dialogue (Spain), and Sapienza. In his research journey, he combines qualitative and quantitative methods, from ethnography to advanced statistical approaches, to manage complexity and create dynamic models.