

Food and physical activity parenting practices and children's weight-related outcomes: A systematic review and meta-analysis

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Abstract

The objective of this study is to examine the associations between food parenting practices (FPP) and physical activity parenting practices (PAPP) with children's weight-related outcomes (WRO), using food and physical activity parenting practices conceptual frameworks. Two systematic reviews with meta-analyses were conducted following PRISMA guidelines. Eligible studies included observational research reporting associations between FPP or PAPP domains—structure, control/coercive neglect/control, and autonomy promotion—and WRO in children aged 3–12. A total of 33 studies on FPP and 15 studies on PAPP were included. Findings from the meta-analyses suggest a small negative association between structure FPP and WRO. No significant associations were found for autonomy promotion or coercive control FPP domains. Regarding PAPP, our results suggest a small negative association between structure practices and lower WRO, and a small positive association between neglect/control PAPP and WRO. Structure parenting practices showed small but consistent associations with WRO, whereas findings for autonomy promotion and control/neglect domains were largely nonsignificant or mixed. Our findings do not support robust links between most FPP or PAPP domains and children's WRO, but emphasize the need for high-quality longitudinal studies to clarify the predictive value and directionality of parenting practices on children's WRO.

Keywords

Food parenting practices, physical activity parenting practices, child weight-related outcomes, systematic review and meta-analysis

Introduction

Childhood overweight and obesity are serious health conditions that represent a major public health challenge worldwide, particularly in Western industrialized countries (Spinelli et al., 2019). The global prevalence of overweight, including obesity, among children and adolescents is approximately 20% (World Health Organization, 2025). Overweight and obesity in children are associated with lower levels of well-being and with heightened probability of developing physical and mental health issues at short and long term, with additional negative impact on educational and career opportunities (Barton, 2012; Förster et al., 2023).

Many factors impact children's health-related behaviors, contributing to the onset and maintenance of overweight and obesity. Nutrition and physical activity behaviors are critical lifestyle factors for children's well-being and health throughout life, including overweight and obesity. Children's nutrition and eating behaviors, such as high eating frequency (Blondin & Economos, 2016), low fruit and vegetable intake, and high energy-dense food consumption (Field, 2016), are known to contribute to children's weight status over time. Likewise, physical activity, such

as regular physical exercise and sedentary behavior, including exposure to screen time, is also known to affect children's weight statuses (Wyszyńska et al., 2020). These lifestyle factors are determinants of health from early ages. Evidence has shown that lifestyle behaviors developed in childhood, such as engaging in physical activity, tend to persist throughout life and shape lifestyle behaviors in adulthood (Telama, 2009).

The environment where a child is raised is complex and multi-determined, critically contributing to children's lifestyle behaviors and directly affecting their health. The relative importance of each source of influence contributing to childhood overweight and obesity varies within each developmental stage (Harrison et al., 2011; St George et al., 2020). Across child development,

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