Association Between Parental Feeding Styles and Excess Weight, and Its Mediation by Diet in Costa Rican Adolescents

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Objectives: Parental feeding styles (PFS) influence children's diet and weight; we aimed to evaluate this relationship in adolescents.

Methods: Cross-sectional study in 686 Costa Rican adolescents (13–18y). Parents responded to a questionnaire from which four validated PFS scores were derived: promotion (verbal encouragement of healthy eating); verbal sanctions/scolding (indirect control of healthy food intake); direct control over diet; instrumental/emotional (food to regulate emotions). Adolescents completed a 3-day food record, from which the validated Traditional Costa Rica Adolescents Diet Score (TCRAD) was defined. Excess weight was dichotomized following standards. Multivariate regression-based mediation analysis estimated the natural direct, indirect, and total effects (NDE/NID/TE) of the following pathway (general/sex-stratified): PFS → TCRAD → excess weight.

Results: Excess weight was present in 33% of adolescents. TCRAD mean was similar between excess weight categories. Each additional point of the direct control PFS score was associated with higher odds of excess weight [(TE-OR: 1.55; 95%CI: 1.04–2.31; $p = 0.033$), (NDE-OR: 1.52; 95%CI: 1.02–2.27; $p = 0.039$)]. This association was accentuated in boys *vs.* girls. A non-significant tendency for lower odds of excess weight was observed for the emotional PFS in boys [(TE-OR: 0.44; 95%CI: 0.19–1.05; $p = 0.064$), (NDE-OR: 0.43; 95%CI: 0.18–1.02; $p = 0.056$)] and the promotion PFS in the total sample (TE-OR: 0.74; 95%CI: 0.47–1.17; $p = 0.202$). TCRAD seemed to have a mediation role between the promotion PFS and excess weight (NID-OR: 0.94; 95%CI: 0.88–1.00; $p = 0.056$).

Conclusions: Healthy eating behaviors encouraged by parents might benefit Costa Rican adolescents' weight via dietary intake. In contrast, parents directly controlling food access and intake may adversely influence adolescents' weight, especially in boys. Our work constitutes a first approach studying PFS and obesity among adolescents. Further research is needed to confirm the role of the promotion PFS in obesity prevention and evaluate the contribution of PFS to other diet-related outcomes among adolescents in diverse cultural contexts.

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