

Birth weight and eating behaviors of young children from three European birth cohorts

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ABSTRACT

Objective: To evaluate the relationships prospectively between birth weight (standardized for gestational age) and problematic eating behaviors, as reported by the parents, at different ages in 3 birth cohorts: Generation XXI (Portugal), Avon Longitudinal Study of Parents and Children (United Kingdom), and Etude des Déterminants pre et postnatals précoces du développement et de la santé de l'ENfant study (France) – HabEat project. We also aimed to explore the effect of child's current body mass index (BMI) in these relationships.

Study design: Problematic eating behaviors were assessed at 4-6, 12-15, 24, and 48-54 months, based on caregiver's perception. Children born small, appropriate, and large for gestational age were defined based on sex-specific Kramer growth references. Associations were tested by logistic regression (OR, 95% CI) adjusted for maternal age, education, BMI, smoking, breastfeeding duration, older siblings, birth type and, in a second step, for child's current BMI World Health Organization z-score.

Results: Parents of children born small for gestational age (compared with appropriate gestational age) reported more often feeding difficulties and poor eating patterns (eating small quantities or needing stimulation to eat) at 4-6 months (Generation XXI: OR 2.02, 95% CI 1.40-2.94; Avon Longitudinal Study of Parents and Children: OR 1.36, 95% CI 1.14-1.62; Etude des Déterminants pre et postnatals précoces du développement et de la santé de l'ENfant OR 3.24, 95% CI 1.50-6.96), but this effect was weaker at older ages. Overall, the effects decreased, after adjustment for child's BMI, but remained significant.

Conclusions: Low birth weight for gestational age was related to later difficulty in eating behaviors, primarily in the first 4-6 months