Parenting intervention associated with BMI of first and second-born siblings

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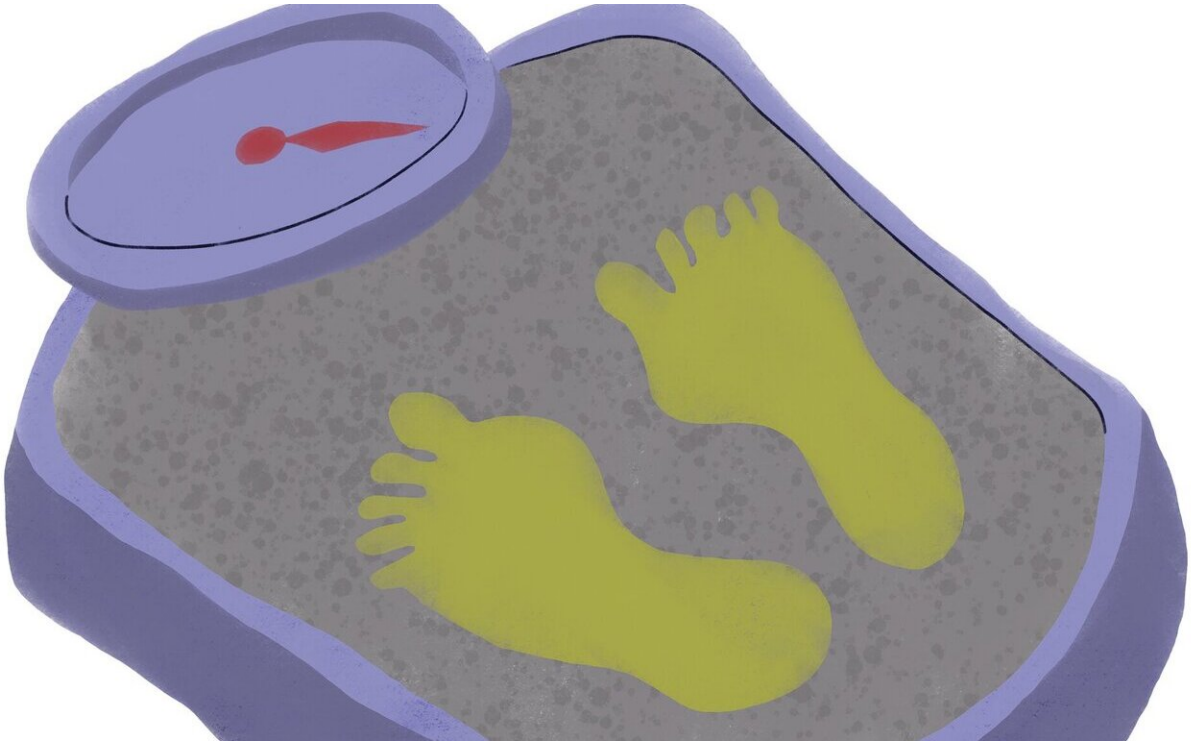

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A new study suggests that a parenting educational intervention for first-born children is robust enough to influence the weight of second-born children, according to a paper published online in *Obesity*, The Obesity Society's journal. The findings presented make the Intervention Nurses Start Infants Growing on Healthy Trajectories (INSIGHT) program the

first educational intervention for early obesity prevention delivered to first-born children to demonstrate "spillover" to sub-sequent offspring.

"This is remarkable because mothers received no INSIGHT responsive parenting booster messaging with their second-born children," said Jennifer S. Savage, Ph.D., associate professor in the Department of Nutritional Sciences, director of the Center for Childhood Obesity Research, The Pennsylvania State University in University Park. Savage is the corresponding author of the study.

The study's authors explain that previous data have suggested that first-born children have a higher prevalence of obesity than sub-sequent children with the same parents. There is a lack of prospective, however, within family sibling studies in the obesity literature. In contrast, findings from this prospective longitudinal study show that second-born children tend to be heavier, on average, than their older, first-born siblings at 12 months. A possible explanation is that parents must divide their time, resources, and attention after the birth of a sibling based on needs and demands, which may impact caregiving.

Study participants included 117 first-born infants enrolled in a randomized controlled trial and their second-born siblings enrolled in an observation-only ancillary study. The responsive parenting curriculum for first-born children included guidance on feeding, sleep, interactive play and emotion regulation. The control curriculum focused on safety. Anthropometrics were measured in both siblings at age 3, 16, 28 and 52 weeks.

Researchers discovered that first-born and second-born children whose parents received the responsive parenting intervention with their first child had BMI's that were 0.44 and 0.36 lower than controls, respectively. Linear and quadratic growth rates for BMI for first-born and second-born cohorts were similar, but second-born children had a

greater average BMI at 1 year of age. There was no difference between first-born and second-born children in birth weight or sex distribution.

"These findings are promising because they suggest that the resources we invest in the primary prevention of obesity within family contexts can have lasting effects. This study supports the idea that the transition to parenthood is a golden window of opportunity for supporting new parents. During this time, interventionists can shape parenting practices and styles, parent-child dynamics and the home environments in ways that support parents as they adjust to life with a new baby and promote healthy outcomes for babies. This study also adds to this idea by illustrating this early support provides continued benefits as additional children are welcomed into the family," said Alison Ventura, Ph.D., CLEC, FTOS, associate professor of kinesiology and public health, California Polytechnic State University, San Luis Obispo. Ventura was not associated with the research.

The study, titled "INSIGHT Responsive Parenting Educational Intervention for First-borns is Associated with Growth of Second-born Siblings," will be published in the January 2022 print issue.

The authors declared no conflicts of interest.

More information: "INSIGHT Responsive Parenting Educational Intervention for First-borns is Associated with Growth of Second-born Siblings," *Obesity*, onlinelibrary.wiley.com/doi/10.1002/oby.23301

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