

Parental Investments and School-Based Programs to Foster Early Socioemotional Development and Nutritional Health in Chile

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Abstract

Childhood obesity and mental health are among the major public health challenges of the 21st century. Evidence suggests that timely nutrition and responsive care from home and the school environment can prevent excessive weight gain and behavioral difficulties. However little is known about the effects of scaled-up programs as they interact with parental behavior to foster nutritional health and socioemotional development. In this dissertation I use a national administrative dataset from Chilean students to quantify the causal effects of the Chilean school meal program on body mass index for different levels of socioemotional development, as well as the potential role of parental time investments on both body mass index and socioemotional development.

Effects on the socioemotional development on body mass index are locally identified using a Regression Discontinuity design based on the program eligibility cutoffs over a household vulnerability score. Participation in first grade reduces average body mass index of girls by 0.2 standard deviations. The effect is equivalent to a local reduction of 5 percent points in the obesity prevalence. Effects are concentrated among overweight or obese children and driven by improvements in nutritional quality of meals. Non-sedentary students, children with higher socioemotional development, and those receiving mental health services reap larger benefits from the school meal program. Continued participation from first grade reduces boys' average β at fifth grade by 0.4 standard deviations, relative to never participants.

In addition, I estimate production functions for socioemotional development and body mass index as a function of parental time investments, while accounting for endogeneity that can arise from correlation between production function shocks and residuals in the investment equation. Estimates are computed at each decile of the distribution allowing for heterogeneity on factor productivity. Results suggest that accounting for child characteristics and family composition, access to public goods, social support and self-efficacy are important drivers of parental time allocation. In turn, increased frequency of parental time investments can substantially boost socioemotional development and reduce obesity risk, particularly for vulnerable children. Children in the bottom of the socioemotional development distribution could gain 0.4 standard deviations for a one standard deviation increase in time investments. A similar increase can lead to a reduction of 0.8 SD in body mass index among severely obese students. The results are consistent with experimental evidence from interventions targeted to vulnerable children. Additional analyses indicate that socioemotional development in Kindergarten is a strong predictor of health behaviors and improved task performance in first grade.

Overall, this dissertation contributes significant evidence that providing support and resources to caregivers on adequate nutrition and responsive care can have a substantial effect on the quality and quantity of material and time investments towards children's development and optimal nutrition at pre-school and beyond.

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