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RESEARCH ARTICLE

Early Childhood Investments Substantially Boost Adult Health

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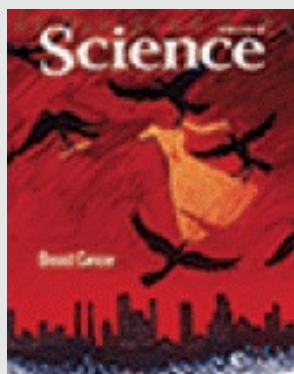
Look After the Child

Investing in children has been demonstrated to improve their lives, both during the school-age years and afterward, as assessed by outcomes such as employment and income; furthermore, these investments often help those in the most need. **Campbell *et al.*** (p. **1478**) report that these investments can also lead to improved adult health. Results from a randomized and intensive intervention that involved 122 children in four cohorts recruited in the 1970s suggest that full-day child care for the first 5 years of life has produced adults in their 30s with better metabolic and cardiovascular health measures.

Abstract

High-quality early childhood programs have been shown to have substantial benefits in reducing crime, raising earnings, and promoting education. Much less is known about their benefits for adult health. We report on the long-term health effects of one of the oldest and most heavily cited early childhood interventions with long-term follow-up evaluated by the method of randomization: the Carolina Abecedarian Project (ABC). Using recently collected biomedical data, we find that disadvantaged children randomly assigned to treatment have significantly lower prevalence of risk factors for cardiovascular and metabolic diseases in their mid-30s. The evidence is especially strong for males. The mean systolic blood pressure among the control males is 143 millimeters of mercury (mm Hg), whereas it is only 126 mm Hg among the treated. One in four males in the control group is affected by metabolic syndrome, whereas none in the treatment group are affected. To reach these conclusions, we address several statistical challenges. We use exact permutation tests to account for small sample sizes and conduct a parallel bootstrap confidence interval analysis to confirm the permutation analysis. We adjust inference to account for the multiple hypotheses tested and for nonrandom attrition. Our evidence shows the potential of early life interventions for preventing disease and promoting health.

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