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A family-oriented psychosocial intervention reduces inflammation in low-SES African American youth

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Abstract

Children from families of low socioeconomic status (SES) are vulnerable to a variety of health problems. These risks begin in early childhood and persist across the lifecourse. Studies hint that nurturant parenting may offset these health risks, but it remains unclear whether these findings reflect a causal process and have clinical utility. Here we describe a randomized controlled trial, which sought to improve parenting and build youth competencies in low-SES African American families. The endpoint was low-grade inflammation, a process that underlies many health problems to which low-SES youth are vulnerable. Eight years after the intervention, youth who participated had significantly less inflammation than controls. If substantiated, these findings may provide a strategy for narrowing some of America's social and racial disparities in health.

Abstract

Children of low socioeconomic status (SES) are at elevated risk for health problems across the lifespan. Observational studies suggest that nurturant parenting might offset some of these health risks, but their design precludes inferences about causal direction and clinical utility. Here we ask whether a psychosocial intervention, focused improving parenting, strengthening family relationships, and building youth competencies, can reduce inflammation in low-SES, African Americans from the rural South. The trial involved 272 mothers and their 11-y-old children from rural Georgia, half of whose annual household incomes were below the federal poverty line. Families were randomly assigned to a 7-wk psychosocial intervention or to a control condition. When youth reached age 19, peripheral blood was collected to quantify six cytokines that orchestrate inflammation, the dysregulation of which contributes to many of the health problems known to pattern by SES. Youth who participated in the intervention had significantly less inflammation on all six indicators relative to controls (all P values < 0.001; effect sizes in Cohen's d units ranged from -0.69 to -0.91). Mediation analyses suggested that improved parenting was partially responsible for the intervention's benefits. Inflammation was lowest among youth who received more nurturant-involved parenting, and less harsh-inconsistent parenting, as a consequence of the intervention. These findings have theoretical implications for research on resilience to adversity and the early origins of disease. If substantiated, they may also highlight a strategy for practitioners and policymakers to use in ameliorating social and racial health disparities.

Footnotes

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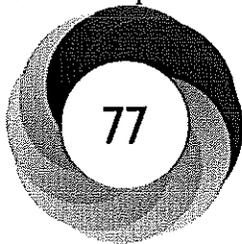
Author contributions: G.E.M., G.H.B., and E.C. designed research; G.E.M. and T.Y. contributed new reagents/analytic tools; G.H.B. and T.Y. analyzed data; and G.E.M., G.H.B., and E.C. wrote the paper.

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