ECHO
Environmental influences on Child Health Outcomes
A program supported by the NIH

Study Summary

ECHO Study Finds Caregivers' Experiences of Discrimination Not Significantly Linked with Child IQ

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Who sponsored this study?

The Environmental influences on Child Health Outcomes (ECHO) Program, Office of the Director, National Institutes of Health supported this research.

Why was this study needed?

Children's early brain development helps shape how they learn, think, and solve problems. Although average IQ scores sometimes differ across population groups, research indicates these differences are explained by differences in social, economic, and environmental conditions.

One possible factor is discrimination experienced by caregivers, which may affect children through stress or changes in the home environment. However, many past studies have focused on individual or economic factors and have not fully explored how caregiver experiences with discrimination might be related to children's cognitive development. ECHO researchers aimed to better understand whether discrimination experienced by caregivers, along with income, education, and neighborhood opportunity, was associated with children's IQ.

What were the study results?

In this study, caregivers' reports of discrimination were not linked to children's overall IQ scores for either Black or White children. Children tended to have higher IQ scores when their caregivers had higher income and more education. Neighborhood opportunity—as measured by the Child Opportunity Index that reflects neighborhood-level resources, such as access to healthy food, high-quality early childhood education, and economic opportunity—did not explain differences in children's IQ scores after the researchers accounted for other factors. Across income levels, a much higher share of Black families lived in neighborhoods with low or very low opportunity. Black caregivers also reported more discrimination overall than White caregivers.

What was the study's impact?

The study did not find a link between caregiver discrimination and child IQ. At the same time, the results highlight that caregiver income and education remain important factors linked to children's brain development. The researchers emphasize that current measures may not fully capture the different levels of discrimination experienced by caregivers.

Who was involved?

The study included 1,079 children ages 3 to 8, including 259 Black children and 820 White children, and their caregivers from eight ECHO Cohort Study Sites across the United States.

What happened during the study?

Researchers used existing ECHO Cohort data that included measures of caregiver discrimination, child IQ, household income, caregiver education, and neighborhood opportunity. The researchers then used statistical methods to examine whether caregiver discrimination and these other factors were associated with child IQ scores.

Footnote: Results reported here are for a single study. Other or future studies may provide new information or different results. You should not make changes to your health without first consulting your healthcare professional.

What happens next?

Future studies could help researchers better understand the complex relationship between caregiver discrimination, other social and environmental factors, and child brain development.

Where can I learn more?

Access the full journal article, titled "Perceived Caregiver Discrimination and Neurocognitive Development: An Analysis from the ECHO Cohort," in *Journal of Racial and Ethnic Health Disparities*.

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