

Foster family placement leads to sustained cognitive gains after severe early deprivation

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Millions of children worldwide are under legal guardianship of the state, often due to abuse, neglect, parental death or other circumstances—leaving governments to determine how best to care for

them. The Bucharest Early Intervention Project has shed light on ways to improve the quality of caregiving for children. Initiated in 2000, the BEIP is a randomized controlled trial of foster care as an alternative to institutional care for children who experienced severe psychosocial deprivation.

A new study published in the *Proceedings of the National Academy of Sciences* examining cognitive ability among [children](#) with a history of institutional care suggests that higher cognitive functioning is best supported by long-term family placements such as foster care. The study was led by Kathryn Humphreys, assistant professor of psychology and human development at Vanderbilt Peabody College of education and [human development](#), and found that children randomly assigned to foster care had IQs in early adulthood that were nine points higher than children randomized to care as usual—often meaning prolonged care in orphanage settings. The difference in cognitive functioning is sizable, equating to larger than half of a standard deviation.

The BEIP project arose after hundreds of thousands of Romanian children were raised in squalid orphanages in the decades after dictator Nicolae Ceausescu banned abortion and birth control in 1966. The world learned of the orphanages during the fall of Communism in 1989, when approximately 170,000 Romanian children lived in 700 overcrowded and impoverished facilities.

In their new study, Humphreys and colleagues examined longitudinal data from 95 of the original trial participants from the BEIP intervention. While the intervention did not specifically target children's cognitive function, the researchers had assessed participants' IQ scores when they were 18 years old and found long-term differences based on whether or not children were randomized into foster care. This prolonged intervention effect is especially important because other studies have reported that robust early intervention effects fade over

time. The results from the BEIP find large gains due to the intervention that are consistent from early childhood to early adulthood.

The researchers probed possible mediators for the effect of family placements on IQ scores in early adulthood, including whether higher-quality caregiving explained these effects. They also tested six other possible mediators of the cognitive gains: height, weight, head circumference, motor development, cortisol reactivity to a stressor, and attachment security, which is a marker of the caregiver–child relationship.

"We find evidence that both caregiving quality and attachment security explained meaningful variance in the foster care intervention's effect on IQ," said Humphreys. "Importantly, however, attachment security is promoted through high-quality caregiving, which was the direct target of the intervention. In other words, placing children in families improved the quality of caregiving they received, which in turn led to forming more secure attachment relationships. Variation in these caregiving relationships in [early life](#) predicted later cognitive ability."

Humphreys and her team also compared the IQs of the 95 BEIP trial participants to 40 never-institutionalized community comparison Romanian children. They found that the IQs of the institutionalized group were, on average, 26.21 points below the never-institutionalized group and that they had similarly lower scores on all four cognitive domains assessed: verbal comprehension, processing speed, perceptual reasoning and working memory. These differences in scores are consistent with prior work documenting the impairing effects of institutional care. The lack of complete remediation to the typical IQ range for those assigned to the foster care group suggests that even when children are placed into high-quality caregiving environments at a young age, it may not be enough to rectify the effects of early exposure to psychosocial deprivation.

In the wake of the Romanian orphanage crisis, governments across the globe have sought to minimize the use of institutional care for children. When the state must take children into its custody—either because of the parents' inability to care for their children or because government policies lead to an increase of abandoned children—governments need a clear alternative for providing care. Humphreys' study indicates that children in state custody should be placed with families, ideally with those willing and able to care for the children long-term, so they can achieve better cognitive functioning outcomes.

"The U.S. model of [foster care](#) often involves placement changes, which impair attachment formation," said Humphreys. "We should strive to place children in long-term, high-quality family settings where they can develop relationships with their caregivers that allow them to feel safe and explore their environments. As cognitive function is associated with critical life outcomes, such as social, academic, and occupational success, providing the best possible care for abandoned or orphaned children is essential to their lifelong well-being and, in turn, the greater good of our society."

More information: Kathryn L. Humphreys et al, Foster care leads to sustained cognitive gains following severe early deprivation, *Proceedings of the National Academy of Sciences* (2022). [DOI: 10.1073/pnas.2119318119](#)

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