The connections between early institutionalization and brain development

by David Karas
July 10, 2017

The conditions of orphanages and other institutions for children in Romania – particularly during and immediately after the 1989 Communist revolution there – have been the subject of graphic media reports and significant global attention, as well as calls for interventions of care.

This is where the Bucharest Early Intervention Project (BEIP) comes in. Charles Nelson, a professor of pediatrics at the Harvard University Program in Neuroscience, has studied some of these very institutions – with the broad objective of analyzing the effects of early institutionalization on brain development and behavioral patterns of children.

The Bucharest Early Intervention Project, a joint collaboration involving researchers at institutions like Tulane University, the University of Maryland, and Boston Children’s Hospital, began in 2000 with the objective of not only assessing the impact of institutionalization at a young age – particularly before the age of two – but also the potential gains which could be derived from high-quality foster care as an intervention for affected children.

The BEIP was structured as a randomized controlled trial, with foster care as an intervention for young boys and girls abandoned at or around the time of their birth and placed in one of six institutions for young children in Romania’s capital of Bucharest. The study involved assessing a number of developmental variables, including physical growth, cognitive function, social-economic development, attachment and brain development.

The study, which has already followed study participants from infancy through the age of 12, has yielded some significant insights.

“Virtually without exception, infants placed early in life into institutions have poor developmental outcomes,” says Charles Nelson. “This includes reductions in IQ, language ability and executive functions, impairments in social-emotional development, negative effects on brain development, and increased rates of psychopathology.”

“Virtually without exception, infants placed early in life into institutions have poor developmental outcomes.”
Nelson is also the director of research in the Developmental Medicine Center of Boston Children’s Hospital. Starting in 1997, he directed a research network focused on early experience and brain development – a position which led him to the work of the BEIP and the opportunity to explore how early institutionalization, an experience which affects as many as 8 million children around the world, can play a role in shaping development.

Of the 136 children involved in the study at its inception, half were randomly assigned to high-quality foster care, and the other half remained in institutional settings.

“Almost without exception, children placed into foster care before their second birthday show improvements in most domains,” says Nelson, “whereas children placed after two years show relatively little improvement.”

In short, the earlier an institutionalized child can be placed in foster care, the better off they are in terms of cognitive, social-emotional and psychological development.

“Children placed into foster care before their second birthday show improvements in most domains.”

The key, he explains, is recognizing the effects of institutionalization in stymying development at an age when development should otherwise be occurring rapidly – particularly for children under the age of two – as well as in finding ways to introduce interventions, like foster care, to help remedy such conditions before too much time is lost.

Nelson explains that the study “has taught us a great deal about how early psychosocial deprivation impacts the developing brain.”

“It has shed light on how to facilitate recovery from early institutional care,” he says, adding that “it has taught us that children raised from early infancy in institutional settings have a greatly elevated risk of developing a variety of mental health problems.”

Research findings offer insights to caregivers, policymakers

The lessons learned through the BEIP have the potential to help practitioners and care providers to better serve institutionalized children and to address some of the developmental barriers imposed by such environments, Nelson believes.

“In many parts of the world children are often placed in institutions by judges who have removed the child from the home because of allegations of maltreatment,” he explains. “Judges often are unaware of the increased harm done to such children – specifically, that during critical periods of development exposure to adverse experiences can do permanent harm.”

“Children raised from early infancy in institutional settings have a greatly elevated risk of developing a variety of mental health problems.”

He continues, “the more we educate those overseeing the care and wellbeing of abandoned or orphaned children, the better decisions such individuals may reach and the better policies governments can implement to ensure successful development.”

Presently, the team is working to complete the 16-year follow up with the study participants, a
process which they hope will continue to yield valuable findings and knowledge to share with the broader field.

“There is no other study in which children growing up in institutions were tracked from infancy through adulthood,” he says, adding that the research findings “should help us better understand how such children make this transition and how best to help them make this transition.”

More about the Bucharest Early Intervention Project

This article was published on BOLD, the Blog on Learning and Development. If you would like to share it with others, please do not use this PDF but instead link to the original post at https://bold.expert/the-connections-between-early-institutionalization-and-brain-development/.