



THE ANTI-POVERTY SOLDIER

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Community Action

What are we doing to our children? Multiple studies demonstrate severe effects of poverty on brain development

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The message is not if you are poor, then your brain will be smaller and there is nothing that can be done about it. That is absolutely not the message. Improving access to resources that enrich the developmental environment could potentially change the trajectories of brain development for the better.

- Dr. Elizabeth Sowell

In May of 2016 a panel of experts in the fields of neuroscience, human genetics, and social work gathered at a public forum titled *Poverty, the Brain and Mental Health*. However, as two-time Pulitzer Prize winning author and columnist for *The New York Times* Jim Dwyer notes, this symposium “could have been called *This is Your Brain on Poverty. Or: Don’t Give Up on Little Kids.*”

In 1995, the Centers for Disease Control and Prevention and Kaiser Permanente commissioned a study on how the experiences of children potentially affect their overall health and wellness throughout their life. Although somewhat controversial at the time, Dr. Mary Travis Bassett, epidemiologist and commissioner of the New York City Department of Health and Mental Hygiene argues that the pioneering results of this study have stood the test of time.

Now, two additional studies published in 2015, one in the *Journal of the American Medical Association (JAMA) Pediatrics* and the other in *Nature Neuroscience* take the research even further by citing the quantifiable physical and emotional effects that poverty can have on the brain development of young children. In light of these studies, Professor of Pediatrics at Harvard Medical School and Boston Children’s Hospital, Dr. Jack Shonkoff tells *Newsweek* that “We have long known about the social class differences in health and learning outcomes.” Nonetheless, he suggests that this latest research has changed the game regarding how neuroscientists, epigeneticists, educators, and policy makers consider the relationships between social class, environment, and child development.

These findings have generated substantial coverage in publications such as *The Guardian*, *The Washington Post*, *Science Magazine*, and also garnered attention from the World Health Organization, American Association for the Advancement of Science, and the National Center for Children in Poverty. And, in the March 2017 issue of *Scientific American*, Dr. Kimberly Noble, Director of the Neurocognition, Early Experience and Development Lab at the Columbia School of Medicine, highlights her most recent study titled *Socioeconomic Gradients Predict Individual Differences in Neurocognitive Abilities*.

In her research, Dr. Noble assessed approximately 1,100 children and adolescents from a range of socioeconomic backgrounds focusing on measures such as language skills, cognitive control, perception of special relationships, short-term memory, and memory of facts and events. She found that not only do children

living in poverty exhibit losses in cognitive development, but the deeper the poverty the more severe those losses are.

There are certainly positive environmental factors that can foster healthy brain development in low-income children. And as Dr. Noble confirms the scientific evidence in these studies is only correlational stating that “The brain is not destiny. I can’t predict with any accuracy what a particular child’s brain size will be based on their family income.” Other scientists add that the human brain’s resiliency and “ability to adapt” mean that socioeconomic circumstances don’t have to determine the life chances of a child.

I imagine what is encouraging as this research advances, is that scientists, education professionals, and policy makers have the potential to develop new strategies and guidelines to improve the outcomes of low-income children. Yet, as the quote above this column hints, we still fail to provide adequate resources and investment in the education and health of our youngest Americans.

Of course, that is not news to anyone. We already knew that. So I guess the question is what are we going to do about it? The War on Poverty was declared by the Johnson Administration 53 years ago. And while anti-poverty programs have helped millions throughout this nation, some still feel that there is a war on the poor. It would seem that a number of recent political and economic proposals will only exacerbate that war.

As Dr. King famously noted, a budget is a “moral document.” Yet among the developed nations that make up the Organization for Economic Cooperation and Development, the United States investment in early childhood education ranks 21st out of 35. Furthermore, preschool participation for three-year-olds and four-year-olds in America rank 24th and 26th respectively.

Where are our morals? What are we doing to our children?

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