



Fighting Inequality Starts with Early Childhood Development

Income inequality may have the greatest impact on society's most vulnerable: very young children. Without addressing early childhood development, efforts to close class gaps may fall short.

A growing body of research indicates that income inequality is playing an ever-greater role in shaping the destinies of children across the world. From **health to education**, the statistics show that rich and poor kids are on increasingly divergent tracks, a global condition with grave implications for the future of developed democracies. Perhaps even more troubling than the numbers themselves is the lack of political consensus about what should be done, not to mention the political will and capacity to take timely action.

Some believe that **affordable higher education** is the most effective counterweight to mounting inequality. In his address of the State of the Union in January, President Barack Obama laid out a proposal to offer two tuition-free years of community college. Others have argued that the most effective way to help those struggling at the bottom of the economic ladder would be through **tax interventions**, for example, through expanding the earned income tax credit.

But the literature on early childhood development strongly suggests that such measures would touch many people too late in life. One's chances for success as an adult, many studies show, largely depend on the acquisition of certain intellectual and interpersonal skills in early childhood – skills that are more difficult to obtain in conditions of economic

hardship. As inequality lengthens the distance between rungs on the class ladder, helping poor families understand and cultivate these skills early in a child's life becomes essential to maintaining social mobility.

The Self-Control to Succeed

Research across multiple disciplines from economics and sociology to neuroscience, and developmental psychology suggests that many important predictors of future success take shape even before a child enters school. "Self-control" – whether a person foregoes short-term temptations to prioritise higher pursuits – in particular has been implicated as a major causal factor in a child's later life successes. One of the best-known studies on self-control is Walter Mischel's **marshmallow test**. In the late 1960s and early 1970s, Mischel, then a psychology professor at Stanford, ran a series of experiments where he placed nursery school students in a room and gave them a treat.

He made the following deal with the kids: they could eat the marshmallow right away, or wait 15 minutes until the tester returned to the room. If they waited, they would get two marshmallows. Mischel followed the children over time and found that the children who had shown the ability to resist the temptation to eat the treat right away got better grades, were

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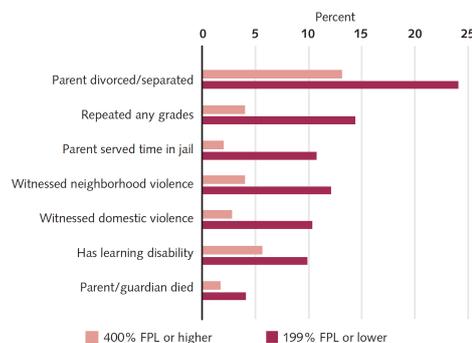
healthier, enjoyed greater success on the labour market, and even proved better at staying in relationships. Mischel concluded that self-control and patience and being able to tame one's impulses are just as important as intelligence in predicting life success.

But is self-control a purely innate quality, or is social conditioning involved in its development? In 2012, a group of psychologists from the University of Rochester **re-did the marshmallow experiment**, with a key difference: Before offering the marshmallows, testers established their own credibility or lack thereof by promising the preschoolers a set of crayons, and fulfilling that promise for only half the kids. All but one of the kids for whom the crayon promise was broken didn't wait for the second marshmallow; the majority of the fulfilled-promise group did.

This experiment shows the development of self-control is strongly conditioned by social trust. Kids growing up in an environment where promises are always broken and outcomes are far from reliable – circumstances seen more often in working-class contexts than wealthy ones – will likely find it rational to opt for immediate over delayed gratification.

Growing Up at Risk

Children from low-income families are at a much higher risk of adverse experiences associated with poor adult health, alcoholism, drug use, depression, and poor job performance. In our **recent study**, we analysed data from the **2011/2012 National Survey of Children's Health** and found that children from poor families are more likely to lose a parent before turning 17 and to live with a parent who has served time in prison than children growing up in wealthier families. Low-income children are also more likely to have witnessed or been victims of domestic violence or violence in their neighbourhood. Low-income children are also more likely to grow up in households where one resident parent suffers from mental illness or substance abuse problems.



Source: Snellman, Silva, and Putnam (2015) | FPL = Federal Poverty Line

The biological mechanism that links early adversity and future problems is stress. Children who experience chronic stress in early childhood find it harder to concentrate, to control impulses, and to follow directions. The part of the brain most affected by early stress is the prefrontal cortex, which is linked to self-regulation and a set of cognitive skills known as *executive functions*. Executive functions are a bundle of higher-order mental abilities. When these are impaired, learning becomes much harder. Also impacted by high, sustained stress levels in early life is the hippocampus, a part of the brain that plays an important role in the consolidation of information from short-term memory to long-term memory. Damages to the hippocampus can lead to impairments in learning, memory, and the ability to regulate certain stress responses.

The Comfort Gap

Fortunately, the negative effects of early stress can be mollified if not totally cancelled out by the right type of parenting behaviour. Parents who have a warm, nurturing relationship with their children can help them to build resilience. Psychologist Gary Evans observed middle school children playing the frustration-inducing game *Jenga* with their mothers and found that for kids whose mothers were particularly emotionally responsive during the game, life stresses such as poverty and divorce had little to no effect on stress hormone levels. Psychologist Mary Ainsworth found that babies whose mothers were quick to react to their crying became more self-reliant and intrepid adults.

However, there is a significant class difference in the amount of warmth and affection parents show their children. Analysing data from the 1997 **Panel Study on Income Dynamics**, I found that 75 percent of mothers with less than a high-school education hug or show physical affection to their child at least once a day, compared to 87 percent of mothers with a high-school diploma, 91 percent of mothers with some college, and 94 percent of mothers with college degrees. Similarly, more college-educated fathers (77 percent) report hugging their child daily

than do fathers with less than a high-school education (68 percent) or fathers with a high-school diploma (70 percent).

Recommendations

A key insight stemming from the research on early childhood development is that the major determinant of child disadvantage is the quality of the nurturing environment, rather than just the number of parents in the home or financial resources available. Another important insight is that if we want to make a difference, we have to start early.

In a 2014 report, the U.S.-based Robert Wood Johnson Foundation Commission called for a **shift in funding priorities** to improve childrens' health with an emphasis on early childhood education, community revitalisation, and a broader scope of healthcare. "Although the United States invests significantly in [these areas]", the Commission wrote, "it does not invest as heavily in the earliest years when children's brains are developing." The report called upon leaders to "ensure all children have access to early childhood development programmes by 2025."

Of course, we cannot ignore that the welfare of parents and children are deeply interwoven. Mothers who have had their share of adversity and insecure attachments in early childhood are less likely to establish a secure, nurturing relationship with their own children. To end the vicious circle of childhood adversity, we should design programmes that help mothers to overcome these problems.



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