

Stress, Trauma, and Early Brain Development

From 1995-1997, more than 17,000 people participated in a study about the effect of “adverse childhood experiences” (ACEs). The study showed that two-thirds of the participants reported at least one and more ACE and 20% reported three or more. ACEs include emotional, physical, and sexual abuse; emotional and physical neglect; as well as domestic violence, substance abuse, mental illness, parental separation or divorce, and incarceration. The study also showed that more ACEs in childhood increase the risk of things like alcohol and drug abuse, depression and suicide attempts later in life. Research also shows that ACEs and other traumas or stressors, like accidents, war, poverty, and natural disasters, have a negative effect on the healthy development of a young child’s brain.

When children are very young, their brains are the most vulnerable to stress. Not all stress is bad for a developing brain, but when it lasts a long time or is extreme, it can permanently damage the brain’s wiring. Toxic stress (like abuse and neglect) can



prevent the healthy development of the connections in the brain that are the most important for later success in school and work.

The good news is that because the brain is very adaptable in early childhood—the bad effects of trauma and stress can be reversed with proper care and attention. If children have secure and stable relationships with their families or caregivers, the effects of previous trauma don’t have to be permanent.

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What this means for families, child care professionals, and communities

- Traumatic experiences early in life can affect a child's development, even when the child may not remember them.
- When young children exhibit problem behaviors, it's important to find out whether trauma occurred.
- Secure and caring relationships for young children support healthy brain development.
- Early intervention works, can help to prevent future problems, and is cost-effective. For example, a 2010 report from the PA Early Learning Council noted that high quality early childhood education, including care for the emotional well-being of young children, saves between \$4 and \$16 for every dollar invested.

R E S O U R C E S

Adverse Childhood Experiences study www.cdc.gov/ace/findings.htm

Improving the Development of Pennsylvania Infants and Toddlers. Recommendations from the Pennsylvania Infant-Toddler Systems Committee of the Early Learning Council. 2010. <http://bit.ly/2l3gGv1>

The Impact of Abuse and Neglect on the Developing Brain. Dr. Bruce D. Perry, John Marcellus. <http://bit.ly/2l8xkJU>

InBrief: The Impact of Early Adversity on Children's Development. Center on the Developing Child. <http://bit.ly/2lslKcN>

Programs and families can contact the program leadership directly at PAIECMH@pakeys.org with questions or concerns.

