



EARLY CHILDHOOD BRAIN DEVELOPMENT

We know that children need proper nutrition, safe homes, access to health care, and good parenting in order to thrive. With recent technological advances, we are also beginning to understand more about how a child's brain develops and what we can do to promote optimal brain development.

policy brief

What Do We Know About How a Child's Brain Develops?

- Brain development occurs rapidly in the fetus, during infancy, and throughout childhood until the age of 12.
- The first three years of life are very important, laying the ground work for subsequent brain development.
- During the first three years of life, the brain is highly sensitive to environmental factors, both positive and negative.
- Early environments that are characterized by warmth, nurturance, stability, and stimulating experiences contribute to positive cognitive, social, and emotional development.
- Early environments that are characterized by stress, low-levels of stimulation, instability, and insecurity are associated with greater risk of inadequate brain development.
- Although negative environmental influences on brain development occur in many family types, they are most likely to occur in families that are experiencing poverty, domestic violence, mental illness, or substance abuse.

The Parent's Role

Parents and other family members are primarily responsible for facilitating optimal child development, including brain development.

- Parents with knowledge about basic child development concepts influence child development in positive, lasting ways. For example, their children have better cognitive and social skills and are better prepared to enter kindergarten. These parents demonstrate more confidence in their parenting skills, are more involved in their children's schooling, and read to their children more often. Similar effects have been found for poor, at-risk families who participate in parent education.

The Role of Early Childhood Professionals

Not only do parents play a role in enhancing child development, but so do early childhood teachers. Today's young children spend a significant amount of their day in the care of others.

- Three out of five young children spend part of their day in non-parental care. Sixty-five percent of mothers with children under the age of six are in the workforce, and 55% of infants under the age of one have mothers in the workforce.

The Importance of High Quality Early Childhood Education

- High quality early childhood programs and positive caregiving are characterized by low teacher-child ratios, small group sizes, higher levels of teacher experience, and education related to child development, as well as safe and stimulating environments. All of these factors have been correlated with children's intellectual and social development in the short-term as well as into the early elementary years.
- Most early childhood settings are rated as providing inadequate to mediocre quality care.
- Infants and toddlers receive the lowest quality of care. For example, 40% of infant classrooms in child care centers are of such poor quality as to jeopardize children's development.
- Typically, higher quality care is related to higher salaries and better benefits for teachers, and subsequently higher cost of care. This puts high quality care out of reach for many families with low-incomes .

The environment provided for young children by parents and early childhood professionals must be nurturing and offer stimulating activities and experiences for children. Early environments need to meet both the social-emotional and intellectual needs of young children to fully support brain development. The discrepancy between optimal quality and actual quality of early childhood programs jeopardizes the healthy brain development of many children.

Policy Recommendations

Promote quality parenting by:

- Supporting parent education programs, focusing heavily on reaching out to families with low incomes, those experiencing high levels of stress, and families with young children.

Promote high quality early childhood educational experiences by:

- Funding professional development programs
- Increasing wages for early childhood teachers
- Increasing subsidies for accredited centers
- Expanding Head Start and Early Head Start programs
- Supporting collaborative efforts for a statewide plan to enhance the quality of early childhood programs

Selected References

- Children's Defense Fund (2005). Child care basics. Retrieved June 6, 2008 from http://www.childrensdefense.org/site/DocServer/child_care_basics_2005.pdf?docID=282
- Kotulak, R. (1997). *Inside the brain: Revolutionary discoveries of how the mind works*. Kansas City, MO: Andrews McMeel Publishing.
- National Research Council and Institute of Medicine. (2000). *From neurons to neighborhoods: The science of early childhood development*. Committee on Integrating the Science of Early Childhood Development. Jack P. Shonkoff and Deborah A. Phillips, Eds. Washington, D.C.: National Academy Press.
- Shore, R. (1997). *Rethinking the brain: New insights into early development*. New York: Families and Work Institute.
- Zero to Three (2002). Brain development: Frequently asked questions. Retrieved June 6, 2008 from http://www.zerotothree.org/site/PageServer?pagename=ter_key_brainFAQ

(Compiled by Amy Halliburton & Amy Watson, February, 2003; Updated 2008)

For a complete list of references or more information about this topic, contact the Center for Family Policy & Research

The Center for Family Policy & Research is housed in the Department of Human Development and Family Studies at the University of Missouri. The Center's mission is to create and disseminate research-based analyses to promote the well-being of families through informed public policy & programs.

Visit us on the web at <http://CFPR.missouri.edu>