

Brain Development Research— What It Means for Young Children and Families

National Association for the Education of Young Children

New insights into brain development affirm what many parents and caregivers have known for years, 1) good prenatal care, 2) warm and loving attachments between young children and adults, and 3) positive stimulation from the time of birth, really do make a difference in children’s development for a lifetime.

In June 1996, Families and Work Institute held a conference at the University of Chicago entitled “Brain Development in Young Children: New Frontiers for Research, Policy and Practice.” Convening professionals from the neurosciences, medicine, education, human services, the media, business, and public policy, the conference focused on what we know about the developing brain and how that knowledge can and should inform efforts to improve results for children and their families. The following is taken from *Rethinking the Brain: New Insights into Early Development* by Families and Work Institute.

What have we learned?

1. Human development hinges on the interplay between nature and nurture.

The impact of environmental factors on the young child’s brain development is dramatic and specific, not merely influencing the general direction of development, but actually affecting how the intricate circuitry of the human brain is “wired.”

How humans develop and learn depends critically and continually on the interplay between an individual’s genetic endowment and the nutrition, surroundings, care, stimulation, and teaching that are provided or withheld.

2. Early care has decisive and long-lasting effects on how people develop and learn, how they cope with stress, and how they regulate their own emotions.

Warm and responsive early care helps babies thrive and plays a vital role in healthy development. A child’s capacity to control her own emotional state appears to hinge on biological systems shaped by her early experiences and attachments. A strong, secure attachment to a nurturing adult can have a protective biological function, helping a growing child withstand the ordinary stress of daily life.

3. The human brain has a remarkable capacity to change, but timing is crucial.

The brain itself can be altered—or helped to compensate for problems—with appropriately timed, intensive intervention. In the first decade of life, the brain’s ability to change and compensate is especially remarkable.

There are optimal periods of opportunity—“prime times” during which the brain is particularly efficient at specific types of learning.

4. The brain’s plasticity also means that there are times when negative experiences or the absence of appropriate stimulation are more likely to have serious and sustained effects.

Early exposure to nicotine, alcohol, and drugs may have even more harmful and long lasting effects on young children than was previously suspected.

These risk factors frequently are associated with or exacerbated by poverty. For children growing up in poverty, economic deprivation affects their

nutrition, access to medical care, the safety and predictability of their physical environment, the level of family stress, and the quality and continuity of their day-to-day care.

5. Evidence amassed by neuroscientists and child development experts over the last decade points to the wisdom and efficacy of prevention and early intervention.

Well-designed programs created to promote healthy cognitive, emotional, and social development can improve the prospects—and the quality of life—of many children.

The efficacy of early intervention has been demonstrated and replicated in diverse communities across the nation.

Where do we go from here?

1. **First do no harm.**

- The principle that guides medical practice should also apply to policies and practices that affect children.
- Allow parents to fulfill their all-important role in providing and arranging for sensitive, predictable care for their children.
- Parents need more information about how the kind of care they provide affects their children's capacities.
- Implement policies that support parents in forming strong, secure attachments with their infants in the early months, and make a concentrated effort to improve the quality of early care and education.

2. **Prevention is best, but when a child needs help, intervene quickly and intensively.**

- Warm, responsive care cushions children from the occasional bumps and bruises that are inevitable in everyday life.
- If children are given timely, intensive help, many can overcome a wide range of developmental problems.

- To have greatest impact, interventions must be timely and must be followed up with appropriate, sustained services and support.
3. **Promote the healthy development and learning of every child of every age, every demographic description, and every risk category.**
 - If we miss opportunities to promote healthy development and learning, later remediation may be more difficult and expensive, and may be less effective.

Implications for policy and practice

1. Improve health and protection by providing health care coverage for new and expectant parents and their young children.

Preventive health screenings, well-baby care, timely immunizations and attention to children's emotional and physical development is cost-effective and provides a solid foundation for good health and development.

2. Promote responsible parenthood by expanding proven approaches.

All parents can benefit from solid information and support as they raise their children.

Parent education/family support programs that promote the healthy development of children and improve the well-being of parents are cost effective.

3. Safeguard children in early care and education from harm and promote their learning and development.

The nation's youngest children are the most likely to be in unsafe, substandard child care.

More than one-third are in situations that can be detrimental to their development, while most of the rest are in settings where minimal learning is taking place.

4. Enable communities to have the flexibility and the resources they need to mobilize on behalf of young children and their families.

Support efforts to create the kind of community you and your children want to be a part of, develop goals and strategies for achieving this vision, determine how to finance your efforts, and make provisions for measuring your results.

Research taken from *Rethinking the Brain—New Insights into Early Development* and Conference Report—*Brain Development in Young Children: New Frontiers for Research, Policy and Practice*, organized by the Families and Work Institute, June 1996.

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