Early Childhood Development: What Matters MOST?

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OVERVIEW

What is missing from the discourse on effective policy for children? A concise review of the most powerful and consistent findings from child development research for parents, advocates, and policymakers. This issue brief outlines established research findings and clarifies common misconceptions regarding what matters most in early childhood development.

INTRODUCTION

A rich, complex and extensive body of research has generated a number of core concepts regarding child development that are relatively undisputed among scientists. Jerome Kagan, one of the nation's leading scholars in child development, asserts that the flood of exaggerations in media reports of "the latest findings" often buries these empirical truths.[1] This information glut with its rolling ticker of new "facts" creates, at best, confusion, and at worst, dangerous generalizations about what children truly need. Kagan also claims that we would never tolerate such a permissive attitude about scientific truth from our surgeons or architects.[2] We want to know that medical science supports the practices and recommendations of our physicians. We want to know that the architect who builds our home is using substantiated principles of geometry and design, not a hunch as to what may or may not support a roof.

Why then, do we allow the lives of our children to be shaped by exaggeration of scientific findings?

There are two primary answers. First, we all want what is best for our children, and the science of early childhood development is often viewed through highly personalized and sharply politicized lenses.[3] If fictional or abstracted claims are intuitively sensible, or seem to resolve social problems, we tend to support them. Second, child development research takes place largely within the walls of academic institutions, and is published in technical scientific journals. When research findings are translated for public consumption, it usually happens in sound bytes and hyperbole. We simply haven't sufficiently bridged the chasm that exists between scholarly knowledge about child development on one end and public discourse about child development on the other.

This issue brief will help construct that bridge. Parents, advocates, and policymakers all have enormous responsibility for ensuring the health and well-being of children and families. You are called to make difficult decisions about policies that claim to support and/or improve the lives of children. To make informed decisions, you need a concise, readable summary of the established research findings regarding the best contexts for healthy child development.

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CORE CONCEPTS: WHAT DEVELOPS AND HOW?

...THE DEVELOPMENT OF WHAT?

Before we go any further, it might be helpful to answer the question "What is "development" the development *of*?"

If you asked a roomful of developmental psychologists to identify the most vital achievement of early childhood, you would hear, not a unanimous report, but a range of responses from "adaptation to different environments" to "trusting, caring relationships" to "self-regulation." The fact is, all of these and other capacities are developing at an incomprehensible rate of speed, and all are essential to optimal functioning, but self-regulation is a cornerstone of development, as it cuts across all domains of behavior.[4]

What *is* "self-regulation?" Stated simply, it represents the gradual shift from helplessness to competence, from depending on others to guide and direct our emotions, behavior and learning to acquiring the ability to manage our emotions, behavior and learning ourselves.[5]

Now you're probably thinking, "How does *that* happen?" For developmental scientists, that is perhaps the most fascinating and wondrous of all the questions that concern us.

HOW DOES DEVELOPMENT HAPPEN?

It was the developmental scientist Jean Piaget who posited that development is a dynamic interaction between biology and experience. I would argue that we all, intuitively, know this. The real key here is the assertion of a "dynamic interaction." We know that human beings are biologically wired to explore, to seek, to learn. In fact, some have posited that an "explanatory" drive is responsible for a good deal of our development.[6]

Children learn by "acting on the world." Every new experience is an opportunity for discovery. Young children are like overzealous scientists, experimenting with every object within sight. Peas and carrots are not just dinner, but objects of research! The child wonders, "What will happen if I mash the green ones with the orange ones? And then hurl them at the dog?" And only a few years later, most parental directives are greeted with a reverberating "Why?" This is all evidence of the child's wish for explanation, the need to understand the nature of the world around her. But this answers the question "*Why* do we develop?" and I promised to tell you *how* development happens.

Development does not happen as a matter of course, it is a "dynamic" interaction between biology and experience. Hans Furth, who was a student of Piaget, was fond of telling his graduate students, "You can't develop unless you are disturbed!" Although one could argue that he was commenting on the eccentricities of his doctoral students, he meant that experiences that promote development usually place the child in a state of cognitive conflict. When we encounter something new, there is an imbalance between what we know and what we are encountering; we naturally try to right that imbalance by adapting our understanding.[7]

Piaget argued that infants are born with only a few inborn mental structures, which he termed "schemes," for organizing and adapting to the outside world. In the early stages of infancy, these schemes are very primitive and consist of innate reflexive actions, such as the sucking reflex.[8] Early on, a nipple most frequently activates the sucking reflex. But other objects, such as thumbs, spoons and sippy-cups, soon become targets for the sucking reflex, and the infant modifies her reflex to meet the characteristics of those objects. In so doing, her sucking scheme expands to comprise a variety of objects, and so becomes more complex and more adaptive.[9] This is just one example of how knowledge is constructed through organizing and adapting what we learn in our interactions with the outside world. The very same conceptual model is appropriate to describing how development happens throughout life.

Piaget posited, in fact, that what is developing is a view of the world.[10] Particular experiences with people and objects lead to general ways of understanding the world. Recall from our definition of development that it is a "dynamic interaction." There is no genetic blueprint that dictates a fixed schedule for developmental milestones. Neither are children passive spectators of experiences that unfold around them. There is, therefore, no fixed relation between a certain experience and a certain developmental outcome.[11] To the contrary, children are actively making sense of the world around them, interpreting events, forming expectations, and "constructing" their own development. They do so by attending to the consequences of their own actions on the world.

As Kurt Vonnegut wrote so beautifully,

> *"The Child does a little something to the Universe, and the Great Big Everything does something funny or beautiful or sometimes disappointing or scary in return. The Child teaches the Universe how to be a good playmate, to be nice instead of mean."* [12]

Certainly the kind of experiences matter a great deal, but the child's understanding and interpretation of experiences is often overlooked and is generally more critical to her development than the particular experience itself.[13]

A friend of mine likes to tell the story of how she was inundated with high-priced educational toys when she had her first son. But the toys ended up packed away in a footlocker because he spent a full year fascinated by Tupperware. Was my friend depriving her son of essential experiences by allowing him to focus so much attention on a Tupperware bowl? No. He was interested in it; at different times he imagined it a hat, a boat, a projectile! In fact, had she taken it from him and replaced it with a "developmentally-appropriate" toy that he didn't want, he wouldn't have understood why, and he wouldn't have been happy. Again, the child's construction of what the object means is more important than the thing itself. The focus of the next section is on the most adaptive contexts for this "meaning making."

CORE CONTEXTS: WHAT INFLUENCES DEVELOPMENT?

Established Findings and Unsupported Claims

In recent years, efforts to understand the process of early childhood development have revealed several fundamental truths. In the following pages, we highlight and explain those that are most relevant to current discussions of social policy.

ATTACHMENT

In addition to the drive to understand the nature of things, others and ourselves human beings are intrinsically motivated to develop emotional ties to others. Early relationships, we all know, are significant to healthy development. But again, science has explanations that differ a bit from those in the popular press.

Contrary to popular belief, "bonding" is not a now-or-never proposition that must take place in a critical period of time in the first months of life.[14] The relations between parents and children, just as all other relations, develop and change as both partners come to know and understand each other. The scientific idea about attachment is that early relationships are formative; babies form expectations, or "working models," about others' behavior based on their earliest relationships with parents/caregivers. But rather than being fixed, these working models are flexible.[15]

Just as the infant's sucking scheme adapts to new objects, these relationship schemes can grow and adapt given different experiences. This is why even repeatedly neglected children often escape long-term damage when there is someone in their lives who shows care and interest.[16] A relationship with a scout leader or teacher or grandpa can provide neglected children with a model for trusting, dependable relationships.

Again, development is dynamic, and subsequent experiences and relationships can modify substantially the long-term impact of these primary attachments. For

children who are raised in environments where nurturing, trusting relationships are missing or disrupted, one cannot underscore sufficiently the need for supports like quality child care and supportive social networks. [17]

BRAIN DEVELOPMENT

It is worthwhile to preface this section by underscoring the following: what happens during the first few months and years of development is extremely important, not because this period of development provides an indelible blueprint for later well-being, but because it sets either a sturdy or fragile stage for what follows.[18]

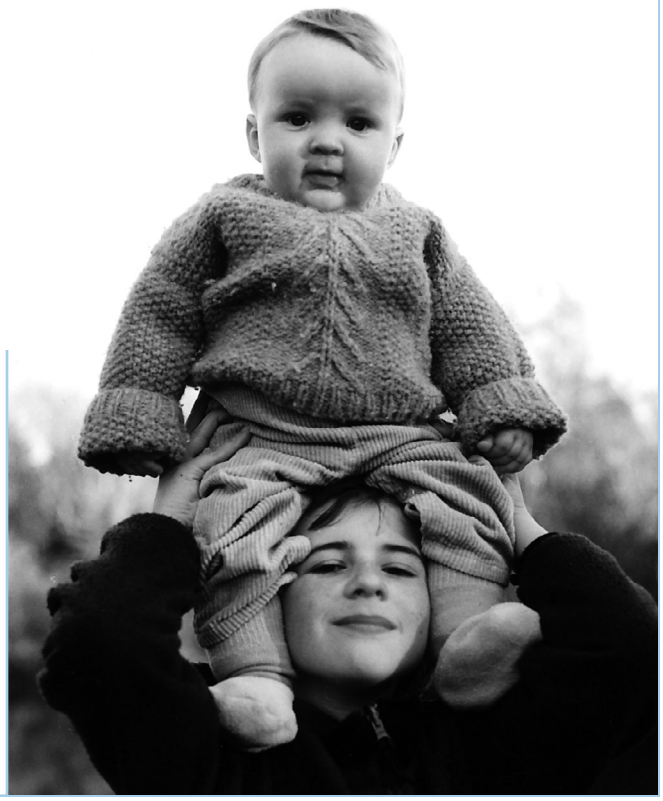
There is no debating the fact that early experiences have influence. Infants who are healthy, nurtured, and engaged by their caretakers are developmentally advanced over those who are neglected. Yet much of the public reporting regarding "the new brain development research" exaggerates the scientific truth by suggesting to parents that special enriching environments are needed for healthy brain development, and that failing to provide such experiences has irreversible effects on the brain's development.[19] This is remarkable for two reasons.

First, the brain development research focused mostly on the harmful conditions that can disrupt healthy brain development, not on conditions that might boost brain development.[20] What is interesting is that we've known for decades that these conditions - e.g., exposure to neglect, abuse, family violence, poor nutrition, poverty – are patently dangerous to all aspects of development, not just brain development. So what was "news" about findings from developmental neuroscience? It specified exactly *how such harmful environments affect the structure and function of the brain.*

Second, the scientific findings conclude that the kinds of experiences needed for normal brain development are the stuff of everyday life for most children: interacting with parents, exploring sights, sounds and objects. Nothing more enriching than the child's natural curiosity and a cupboard full of Tupperware is required for healthy brain function.

Given these facts, one might question why the public reports weren't focused on what we can do for children who are exposed to these known and cumulative threats to well-being, rather than the persistent emphasis on parent-infant interaction. There is no doubt that the advice is well-intentioned, but we cannot deny that there are social and political race and class issues at play in the public distortions of the scientific findings. Jerome Kagan cautions us that while it is much less expensive to urge poor parents to intensify their interactions with their babies, if the goal is healthy child development we should focus on improving the quality of education, housing and the health of children and families.[21]

Certainly we want parents to engage consistently with their babies, but telling poor parents that doing so alone will ensure healthy development is scientifically unfounded, masks the true culprits of compromised development, and diverts resources away from addressing the true and sustaining needs of vulnerable children and families. The quality of health care, child care, schooling, and the home environment *over the course of the child's development* will exert more important influences on a child's healthy development and life chances.[22]



SOCIOECONOMIC STATUS

One of the most consistent findings in all of social science research is the strength of the relationship between economic adversity and negative outcomes for children. Of all aspects of children's early environments, the family's socioeconomic status is most predictive of children's school preparedness, school accomplishments, physical and mental health symptoms and later occupational choice.[23] Understanding exactly how different family resources affect young children's lives is a difficult empirical task, but there is solid evidence of several means by which economic resources affect children's development.

The first regards tangible resources, and is well established. Poor families have fewer financial and social resources. Many of the negative outcomes associated with poverty are caused by a repeated history of exposure to poor nutrition, inadequate housing and inadequate medical care, as well as diminished access to supports such as transportation and quality child care.[24]

Second, when families work hard, but live paycheck to paycheck, cannot build savings, and do not have access to such supports, parents' psychological well-being is affected. There is, in other words, also a psychological cost to economic insecurity. Low-income parents are at greater risk for depression and other forms of psychological distress.[25] A further concern is that poor mental health is related to inconsistent, harsh, and detached parenting.[26]

Finally, if you recall from our discussion of how development happens, we underscored that a child's interpretation of an object, event or relationship is of great significance. This is relevant to how socio-economic status affects development as well. As with social prejudice based on race, mental or physical disability, sexual orientation and so on, there is a subjective means by which socioeconomic status affects developmental outcomes, where children become trapped by an assumed fate established by these factors, not by their own abilities. In other words, *social* disadvantage and alienation are powerful predictors of negative psychological outcomes.[27]

Further, the negative outcomes correlated with socioeconomic class are most profound in societies where there is great affluence, and where material goods are associated with self worth.[28] The continuing misconception among many Americans that hard work is all that is necessary to obtain economic security contributes to both social prejudice and personal attributions of shame associated with low socio-economic status. Therefore, social and economic policies that value and support working families, and that seek to ensure that equal opportunity is afforded to all children can have an enormous impact on the health and well-being of all children and families.

FAMILY STRUCTURE

In part because of rising divorce rates over the past 30 years, and, more recently, the greater numbers of children born to unmarried women, there has been consistent inquiry into the effects of family structure on child development. Understanding research findings on the links between family composition and child well-being is extremely important, particularly in current times, as policies and programs to address child support and promote marriage are at the forefront of public policy discussions.

Studies focused on children of divorced parents have found that the majority of children grow up without serious or enduring problems, though many experience short-term behavior problems during or just after the divorce.[29] At the same time, studies have found that children of divorced parents have more adjustment and school-related problems than do children of never-divorced parents. However, many of the psychological and behavioral symptoms seen in children of divorce can be explained by measures of marital conflict. Numerous studies have shown that marital conflict is more likely than any other family variable to have adverse effects on children, and of course such discord is likely to precede separation and divorce, which are emotionally stressful experiences for all family members. Furthermore, the stress of parental separation and divorce often leaves children in the greatest need of emotional support when their parents are least capable of providing it.[30]

Regarding single parents, much of the research has studied all children of single-parents as one group (i.e. whether living with a separated, divorced or widowed parent, or a never-married single-parent). Nonetheless, Census and other data on family and household structure reveal that the overwhelming majority of single parents are women, and families headed by single mothers are more likely to be economically disadvantaged and socially isolated than other families. Further, all single parents, whether male or female, experience stress in terms of time constraints that may affect the ability to supervise their children and participate in activities. This is significant because parental supervision and monitoring is a significant predictor of a range of children's functioning, from academic performance to later risk for teen pregnancy.[31]

There is a large and growing body of research on the relationship between family structure on child development; nonetheless, it is fair to assert that the particular family structure (i.e. married, divorced, gay or lesbian parent(s), single-parent) per se is not a direct cause of the difficulties some children experience. The impact of family structure on child outcomes cannot be addressed without considering the quality of the relationship between parents and the social and economic standard of living of custodial parents. Both the immediate and long-term adjustment of children is closely related to these factors, as well as to the quality of the relationship between parents and their children.[32] In fact, given the association between parental conflict and negative outcomes in children, when divorce also terminates parental conflict, it can generate a healthier context for a child's development.

Policies that support the financial and psychological well being of parents – such as child-support enforcement, income supports, and counseling – can have an enormous impact on the healthy development of children.

CHILD CARE

In the past decade, widespread enrollment in child care has become a way of life for most American families with children. This is a dramatic change from the recent past, though throughout history, women's multiple responsibilities in the family have necessitated sharing the care of their infants and children with others. In the past, child care was shared primarily with other women relatives and older children.[33] But the nature of both men's and women's work today (i.e., long hours away from the home), along with the geographic diffusion of extended family has produced a reliance on paid care by nonrelatives. Further, for many parents today, there is no real choice between remaining at home full-time or being employed. Having two incomes has become an economic necessity for millions of American families.

When women began entering the labor force in large numbers, researchers began to investigate whether child care disrupted the mother-infant relationship or introduced other risks to the child's development. Over the past 30 years, research has established that child care is not a risk factor; in fact it has many positive attributes: early socialization with peers, positive relationships with other adults, and providing a context for early learning and discovery.

One large-scale, recently published research study suggests the need for further investigation into the developmental effects of time spent in child care,[34] yet one of the most consistent and repeated findings is that the quality of child care children receive is linked to virtually every developmental outcome that has been measured to date – cognition and language, social and emotional development, etc. Unfortunately, the reality is that only 10% to 15% of current child care is considered to be of high quality.[35]

What is high quality care?

- Fundamentally, the environment for care must be safe and stimulating
- A low child-to-caregiver ratio is one of the most predictive indicators of high quality care
- There is a strong relationship between staff wages and child care quality

- Quality is evidenced when caregivers offer responsive supervision (e.g. promoting quality play among children) and verbal and cognitive stimulation (e.g. reading, music and arts), and provide children with individualized attention, and opportunities for stable relationships.

The weight of the evidence on the positive benefits of high-quality child care for children, families, and society in general is reassuring. Some of the most promising findings are the positive, long-term results for poor and low-income children with sustained participation in high-quality child care (e.g., math and reading achievement, high school completion, low rates of juvenile crime).[36] Unfortunately, those low-income children who have access to high-quality child care are overwhelmingly outnumbered by those who do not. The children who are most likely to receive the greatest benefits of quality child care are the children who are least likely to receive it.[37]

Child care is a necessity for most families today. Many children participate in child care over the entire course of their early years, and often after entering school as well, particularly in established after-school programs. There is clearly a significant need for policy-makers to create more accessible and effective systems of high quality child care that are available to parents of all income levels.[38]

CONCLUSIONS: MEETING THE NEEDS OF CHILDREN

Given the decades of multidisciplinary research on human development, the multiplicity of findings, and the fact that scientific inquiry is a work in progress, can we establish core principles of what matters most that will stand up over time and serve to guide both policy and practice? We have endeavored to do just that throughout this brief, and offer the following by way of review:

- Development is a dynamic process; children learn by attending to and making sense of the results of their actions on the world
- There is incontrovertible evidence of the positive developmental effects of stable and nurturing relationships
- Serious threats to healthy development are caused by early and cumulative damage – whether in the form of economic hardship, neglect or repeated psychological stress

So what matters most? Ensuring the contexts that promote equal opportunity for healthy development. As Jack Shonkoff and Deborah A. Phillips, editors of the wonderful "From Neurons to Neighborhoods: The Science of Early Childhood Development" note, the challenge today is in addressing the marked social and economic changes in our culture that have made it much more difficult for parents of all income levels to successfully negotiate the demands of work, economic security and the care of children.[39]

Indeed, if policymakers responded to these social and economic changes by addressing family economic support policies, including child care, we could have a profound and revolutionary impact on helping families secure both economic self-sufficiency and the healthy development of their children.

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