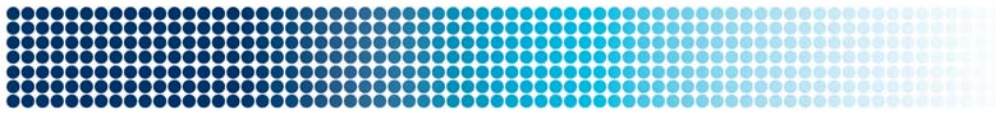


Understanding the nature and significance of early childhood: New evidence and its implications

A summary of key points by Dr. Tim Moore

Centre for Community Child Health



We are at a transitional point in our understanding of the nature and significance of the early years – we are becoming much more aware of their importance but not yet committed to a course of action that will ensure that children’s experience of this period is optimal.

To optimise the health, development and wellbeing of children and their families, it is crucial that decision making is informed by developmental evidence.

The key points listed below are based on a presentation at a Centre for Community Child Health seminar devoted to a consideration of the Productivity Commission’s Draft Report on Child Care and Early Childhood Learning. A full version of the paper [*Understanding the nature and significance of early childhood: New evidence and implications*](#) is available online.

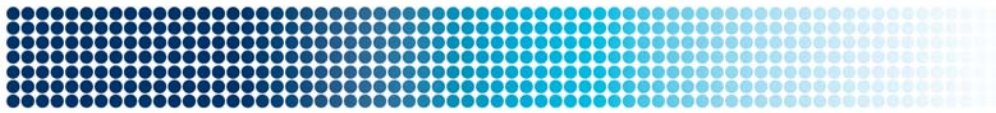
Evidence regarding child development

Prenatal development and experiences

- What happens during the prenatal period can have both immediate and long-term consequences for health and development.
- While the foetus was previously thought to be protected from all external influences in the womb, we now know that it is not protected against drugs, alcohol, smoking, environmental toxins or maternal stress.
- Furthermore, the foetus actively responds to changes within the intrauterine environment to predict the kind of world it will be born into, and makes changes designed to maximise its adaptation to that environment, sometimes with adverse consequences for later health and development.

Postnatal development and experiences

- What happens during the early postnatal years can also have life-long effects on the later achievements, social adjustments, mental health, physical health and longevity of individuals.
- Adult conditions that were previously regarded solely as products of adult behavior and lifestyles are now seen as being linked to processes and experiences occurring in pregnancy or infancy.
- While infants were previously thought to be passive recipients of care, we now know that they are active partners and learners from birth
- The nature of the environments in which children spend their time – their relational and physical properties, and the learning opportunities they provide – shape children’s development for better or worse.
- Infants and young children adapt physiologically and neurologically to these environments in ways that help them survive and even thrive in the short term, but may have long-term adverse consequences for later development, health and wellbeing.



- The period of maximum developmental plasticity during which these critical adaptations occur extends from conception to the first two or three years postnatally.
- Children are differentially susceptible to environmental experiences, with some children doing well in most environments while a minority flourish in positive environments but react particularly badly to negative environments.

Long term impact of early childhood experiences

- Experiences in the prenatal and immediate post-natal periods can have life-long effects on later achievements, social adjustments, mental health, physical health and longevity of individuals.
- Three key ways in which early childhood experiences can have long-term effects have been identified: biological embedding, accumulation effects, and developmental escalations of risk over time.

Neurological development and plasticity

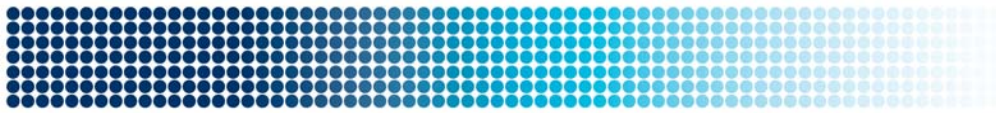
- These early learnings and adaptations are critical because learning and development are cumulative, with later development and learning building upon earlier development, with the result that the gaps between those doing well and those not doing well progressively widen.
- Much of our most important emotional and interpersonal learning during our first few years occurs before we have the necessary cortical systems for conscious awareness and memory, and therefore many aspects of our lives are controlled by reflexes, behaviours, and emotions learned and organised outside our awareness.
- The brain is not a stand-alone bodily system, but is intricately connected to other major bodily systems, including the immune, endocrinal, cardiovascular and metabolic systems – these systems shape and are shaped by each other.
- Thus, what is ‘learned’ in the prenatal and first two to three years of life affects not only the neurological system but also the other bodily systems to which the brain is connected, with potentially profound consequences over the life course.

Neurobiology of interpersonal relationships

- Healthy development depends on the quality and reliability of a young child’s relationships with the important people in his or her life, both within and outside the family – relationships are the medium through which young children learn the skills that enable them to become fully participating members of society.

‘Social climate change’

- Rapid social, economic, demographic and technological changes over the last few decades have made the world a more challenging and complex place, and altered the conditions under which they are raising children.



- While most families have benefited from these changes, poorly-resourced families find the heightened demands of contemporary living and parenting overwhelming, and there is an increase in the numbers of families with complex needs, and poor health and developmental outcomes.
- In this changed world, the stakes have risen: a competitive global market and, national productivity has become even more important, and improving productivity involves people to master more complex skills required by rapid advancing technologies.
- It is no longer acceptable to have children arriving at school poorly equipped to benefit from the learning and social opportunities schools provide, and therefore at risk of not developing the skills and qualities needed in a modern economy.

Economic analyses of investments in the early years

- Economic analyses show that investments in the early years are more cost effective and beneficial than later investments, and that the cumulative costs of not intervening early are prohibitive.

Social inequalities and their effects

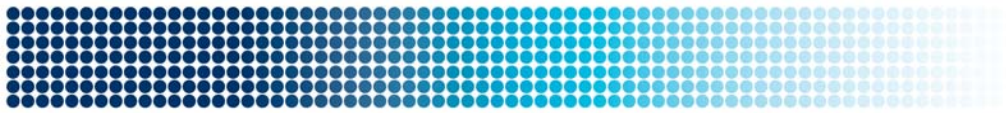
- In every society, regardless of wealth, differences in socioeconomic status translate into inequalities in child development across a wide range of developmental, health and well-being indicators.
- Discrepancies between children from advantaged and disadvantaged backgrounds emerge early, and progressively widen, with advantages and disadvantages accumulating throughout life.

Measurement of key indicators of child development and functioning

- Significant numbers of children are arriving at school poorly equipped to benefit from the social and learning opportunities that schools offer, and schools struggle to make up the gap between those children and their peers.

Implications

- This accumulation of new knowledge about the impact of prenatal and early childhood experiences on health, wellbeing and development in later childhood and over the life-course must change how we view the early years.
- It is no longer appropriate nor useful to view the first two or three years of life as a period to simply keep children healthy and safe, while allowing development to take its course until they reach school age.
- We need to be taking steps to ensure that children are provided with early childhood environments and experiences that build attachments, competencies and skills from birth, and protect them from escalating chains of adverse experiences.
- Caregivers and professionals need fundamental relational skills and qualities supplemented by more sophisticated and purposeful set of skills that enable them



to provide children with the kinds of environments that will promote their development and wellbeing.

- Acquiring an additional level of sophistication requires appropriate pre-service training, as well as ongoing training, supervision and support.
- As a society, we have long-standing commitments to the public funding of hospitals and schools – but, as yet, no corresponding commitment to some form of early childhood provision, or even an agreement across society as to what that provision should be.

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