

I. Early child development: silent emergency or unique opportunity?

I. EARLY CHILD DEVELOPMENT: SILENT EMERGENCY OR UNIQUE OPPORTUNITY?

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The early years of life represent a critical window of opportunity for a child's development, a time when the brain is most sensitive to external influences. Early childhood is not only a period of special sensitivity to risk factors, but also a critical time when the benefits of early interventions are amplified, and the negative effects of risk can be reduced. This is underscored by the evidence from neuroscience¹ which emphasizes the importance of nurturing care (adequate health, nutrition, responsive care, opportunities for learning and protection from harm and abuse) to all young children to enable them to reach their full potential. The first 1,000 days of life shape a child's future. Nurturing care plays a vital role in giving children the best possible start in life: the mantra 'Eat, Play, Love'² summarizes the need for opportunities in the environment of the young child for adequate nutrition, opportunities for play and safety and security. This brain architecture is a critical foundation for all future learning, behaviour and health. And while neural connections continue into adulthood, how these early connections form determine whether later connections have strong or weak foundations. As demonstrated by Heckman,³ the smartest investments in human development are those done earliest in the lifespan, as returns to ECD investments are considerably higher compared to equivalent investments in the later years – primary school, secondary school and after.

The healthy development of a baby's brain depends on nurturing care, which benefits children, but it also about the knowledge and resources their families and other caregivers require to provide it. It refers to the enabling conditions created by public policies, programmes and services to ensure children's good health and nutrition, protect them from threats and give them opportunities for early learning, through interactions that are responsive and emotionally supportive.

To support the development of their children, parents need time, resources, and services. This is made available through a) enhanced enabling (policy) environments; b) integrated services (for example frontline workers including health, social work, education nutrition); c) knowledge and agency for caregivers and parents such as tools, guidance, masterclasses and information; d) financial support and resources including financial literacy, child benefits, cash transfers and e) amplification of caregivers' voices through social and digital media, parenting voices in community and policy platforms.

While the Covid-19 pandemic exacerbated the crisis of care and learning, it has also provided an opportunity to elevate the needs for parenting and family support and care. To continue to promote ECD services and interventions and ensure that every child is enabled to not only survive but thrive we must strengthen formative research

models and enhance implementation research on ECD; leverage existing routine touchpoints to elevate the importance of holistic ECD; invest in system strengthening and capacity building of frontline health workers through innovative tools; raise awareness and partners including with parents and caregivers themselves to ensure child health and development; enhance direct support to parents through community engagement initiatives; and, empower policy makers and key stakeholders with the latest evidence and advocate for enhanced investments in ECD and parenting support programmes.

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II. Early child development through the lifecourse: lessons from international birth cohorts

II.I EXPERIENCES THAT SHAPE OUR HEALTH – FINDINGS FROM THE FINNBRAIN BIRTH COHORT STUDY

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The FinnBrain Birth Cohort Study (www.finnbrain.fi) is a general population-based pregnancy cohort, based at the University of Turku, Finland, Europe.¹ To date, the cohort has been ongoing for 10 years. We present a comprehensive overview of the cohort's key findings on how prenatal and early post-natal stress influence offspring development and health. Potential targets for interventions are described. Finally, the concepts of developmental origins of health and disease (DoHaD) as well as toxic stress and adverse health outcomes related to it are discussed.

The cohort participants were recruited during a pregnancy ultrasound visit, at gestational week 12. The methods of data collection comprised questionnaires, register linkage, a range of biological samples, multimodal brain imaging and neuropsychological assessments.¹ The number of children at baseline was 3808, while the cohort's sub-studies with intense multidisciplinary designs and measurements typically include hundreds of children.¹ The current follow-up ranges from pregnancy to the child age of five years, and the next data collection sweep of nine-year-old cohort participants will start in January 2022. Statistical methods include latent growth mixture modelling by which the longitudinal course of maternal distress symptoms has been depicted.

We have identified differential courses or trajectories of maternal distress symptoms. These trajectory categories relate to maternal characteristics and physiological stress measures: for example, consistently elevated depressive

