



The First 1000 Days ECEY4005 Sara King (2105395)

What are the First Thousand Days?

When considering child development, 'the first 1000 days' refers to the significant period of a child's life from conception until their second birthday. Professionals in the fields of biology, early childhood development and neuroscience have gathered evidence that not only proves the significance of this period, but also the utmost importance of how external factors impact the developing child's over-all health and wellbeing. Research suggests that external factors within the first 1000 days not only affect the child during this period, but also beyond into later life. At this early stage of life, brain development begins shortly after conception and continues to develop at a rapid pace – the fastest speed it will ever develop during a person's lifetime (Thousand Days, 2018). Therefore, the first 1000 days are considered a critical time for the developing child as they are at their most adaptable which, in turn, also results in them being at their most vulnerable.

Contributing Factors



1 - (Source: O'Connor, 2017)

The first aspect to note is that babies and young children completely depend on their carers to take care of their basic needs and promote a healthy development. Maslow's Hierarchy of Needs can be used as a useful reference by parents and early childhood practitioners to identify what these needs are. Maslow (1943) positioned these needs into the shape of a pyramid, placing 'physiological needs' at the very beginning with self-actualisation being the ultimate goal.

Maslow claimed that an individual would not be able to 'climb' up the pyramid unless the former set of needs had been sufficiently met. For example, a child who is hungry and feels stressed or threatened cannot learn (How Young Children Learn, no date). In practical terms within a professional environment (for example, a nursery), practitioners should implement ways of ensuring the child's basic needs are met by incorporating opportunities to eat, drink and rest into the children's daily routines, as well as ensuring the nursery itself is of an adequate temperature. It is also important to consider that a practitioner's body language, choice of wording and tone of voice all contribute to how safe and secure a child feels within the setting. Without their physiological and safety needs being met, children will not be able to form healthy, trusting relationships and learning will be inhibited, resulting in low confidence and self-esteem issues.



2 - (Source: Parenting for Brain, 2022)

There is evidence from current brain research that has proven Maslow's theory to be true, as the brain of a child that feels emotionally and/or physically threatened produces chemicals that hinder their ability to learn (How Young Children Learn, no date). According to Moore (2017), viewing [brain development](#) from a purely biological stance regarding brain structure and making neuronal connections fails to acknowledge the contribution of external factors the brain requires to function healthily. He states that "brain functioning is not purely cognitive, and learning is not purely conscious" (Moore *et al.*, 2017, p.5). One cannot ignore the fact that biological factors have a huge impact on the developing brain – however, Moore *et al.* (2017) explains that all aspects need to be considered to ensure healthy brain development during this crucial stage, and goes on to explain that all contributing factors can be broadly defined into the following categories:

Biological Factors

Biological embedding – a process that occurs when the foetus/infant responds to early life experiences leading to changes in their biological processes. Biological embedding results in life-long consequences and outcomes during their adult life.

Synaptic Pruning – A foetus' brain will begin to develop neurons shortly after conception, but it is after birth that connections (synapses) are made between neurons. The rapid pace at which a baby's brain develops at this stage enables billions of neurons to connect, which also gives the infant the capacity to learn at a rapid pace. Stimulation through repetition of experiences strengthen the connection between neurons, whilst some connections become weaker as they are under-stimulated due to lack of experience. The weaker synapses are eventually eliminated as the brain perceives them as being no longer required.

Developmental Origins of Health and Disease – The theory of Developmental Origin of Health and Disease (DOHaD) suggests that environmental factors such as stress and poor nutrition during the

first 1000 days will impact an individual's health and wellbeing throughout their entire life. It suggests that a foetus is exposed to the same environmental factors as its mother, and that poor lifestyle choices made during pregnancy can lead to health complications for the baby that can be ongoing into later life Moore *et al.* (2017).



3 - (Source: BBC, 2022)

Global Factors

The Mismatch Hypothesis – In approaching the recent issue of social climate change, where there has been a drastic change with regards to employment opportunities and circumstances surrounding families, there is now growing evidence that social and environmental changes have an impact on mental and physical wellbeing. The mismatch hypothesis proposes that when living beings are subjected to unfamiliar environments in an abrupt and intense way, a ‘mismatch’ occurs between evolutionary capability and the new environment, which results with the individual struggling to cope and contributes to the rise in non-communicable diseases and mental health issues. For instance, if a pregnant woman or new mother is living in an environment that has poor physical and/or social resources (for example, lack of sunlight exposure, poor diet, lack of family support), she is at greater risk of suffering with perinatal or post-natal depression (Vugt, 2018). In addition to evolutionary mismatch, the theory also suggests that ‘predictive mismatch’ can also occur due to the foetus responding to the mother’s physical and emotional state, causing it to adapt and alter bodily structures based on a prediction of the type of environment it will be born into.

Obesity – Increasing evidence suggests that childhood obesity, along with obesity related diseases in later life can be strongly linked to the first 1000 days. According to Pietrobelli, Agosti, and MeNu Group (2017), the behaviours of both parents are significant to the developing child, in particularly the mother. Parents should seek to achieve a balanced diet consisting of appropriate portions of fat and protein and rich in fruit and vegetables. Parents’ own weight also impacts the health of the child, and overweight/obese parents are encouraged to reduce weight before conception. Other behaviours during this crucial stage that are also linked to obesity are the mother’s smoking habits, her weight-gain during pregnancy, blood sugar levels and poor sleeping patterns.

Pandemics/epidemics – infectious diseases put added pressure on communities as they face new and unfavourable challenges. Since the outbreak of Covid 19 in 2020, communities and individuals

have encountered economic and financial instability, many of whom have become unemployed as a direct result. Furthermore, education, learning and development have been disrupted due to the on/off closure of schools and leisure facilities. Government research has also concluded that there have been major negative impacts on individual's physical and mental health due to jeopardised medical appointments caused by staff shortages and social distancing rules, and increased feelings of anxiety and loneliness with many people having to self-isolate and sacrifice social and physical contact with loved ones (Scottish Government, 2020).

Social Determinants Of Health

According to the Office of Disease Prevention and Health Promotion (2020), Social Determinants of Health (SDOH) refers to the environment and the conditions of a community that can either have positive or negative impacts on an individual's health and/or standard of living. SDOH can be broken down into the following 5 categories:

- **Economic stability**
- **Education access and quality**
- **Health care access and quality**
- **Neighbourhood and built environment**
- **Social and community context.**

Research has concluded that poverty during pregnancy hinders the child's development with regards to health, safety, and education. Poverty increases the risk of substance misuse before, during and after pregnancy, and mothers are at higher risk of being exposed to psychological stressors, for example, domestic violence, isolation, and poor living environment. Experiencing extremely stressful situations during pregnancy can throw the body's normal regulation of hormones off-balance, increasing the risk of growth delay for the foetus and a possibility of the baby being born prematurely.

Ecological Factors

Community environment – Deprived communities lack resources and opportunities for families and generally have higher rates of violence and crime. Safe housing, transportation, education, and work opportunities may be extremely limited, as well as access to healthy foods (Office of Disease Prevention and Health Promotion, 2020). Another aspect to note is that the sense of community within developed nations has been gradually decreasing. People often leave the areas in which they grew up in search of work and affordable housing, and advances in technology mean that people can develop social networks beyond the community in which they live. The social and physical environments of communities have a major impact on physical and mental wellbeing, particularly during pregnancy and adjusting to becoming a new parent. Lack of social support during the first 1000 days can leave expecting/new mothers in an extremely vulnerable state, increasing the risk of feeling isolated and depressed. It is during such a vulnerable state that expecting mothers are more likely to engage in risky behaviours during pregnancy, potentially leading to unfavourable consequences for the health and wellbeing of both mother and child (Moore *et al.*, 2017).

Physical environment – Dunn (2020) concludes that there is a direct link between housing and child health. The exposure of mould, vermin, physical hazards, temperature extremes and chemical hazards contribute to illnesses and poor health of parent and child. Similarly, Harker (2006) states

that there is a 25% increased risk of children suffering with illnesses and disabilities due to poor housing, and a higher possibility of suffering with mental health and behavioural issues.

Individual Factors

Child characteristics – According to the Early Years Foundation Stage (EYFS), every child is a ‘unique child’ that have their own individual set of characteristics and temperament (Early Years Matters, 2011). The rate in which they develop and mature is unique to them and therefore will vary from one child to another

Family and interpersonal relationships – Morales-Murillo, Garcia-Grau and Fernandez-Valero (2020) point out three types of patterns regarding interaction within a family structure that play a crucial role in a child’s development: 1) parent-child interactions 2) childhood experiences provided by the family 3) the level of wellbeing and security provided by the family. Bowlby (1958) introduced the ‘attachment theory’ which emphasises the importance of an emotional bond between a child and his/her primary caregivers. Bowlby maintained that if caregivers are unresponsive to the baby’s needs, it will negatively affect the child’s emotional and psychological state, affecting their ability to develop healthy relationships in later life (NSPCC Learning, 2021). Researchers at Harvard University conclude that ‘serve and return’ interactions are essential for promoting healthy brain development for the infant. Back and forth interaction and responding to baby’s babbling, crying and gestures are fundamental to the child’s learning and development (Harvard University, 2015). However, there are several issues that may hinder or prevent parents from providing the support needed for the wellbeing of the foetus/infant. For example, mental health issues, substance and alcohol misuse, parental conflict, domestic violence, and previous childhood trauma experienced by the parent(s). These issues can negatively impact the parent’s ability to bond and interact with their child, leading to devastating consequences as the infant will be unable to form the secure attachment it needs to thrive (UK Parliament, 2019).

Holistic Development

The significance of embracing a holistic approach in child development is increasingly acknowledged and accepted around the world. The curriculum for early years in New Zealand, known as Te Whariki, is a literal translation for ‘woven mat’, where different areas of children’s learning, wellbeing and development are viewed as separate threads that, once intertwined, create a foundation of strength and resilience. (Brodie, 2018).

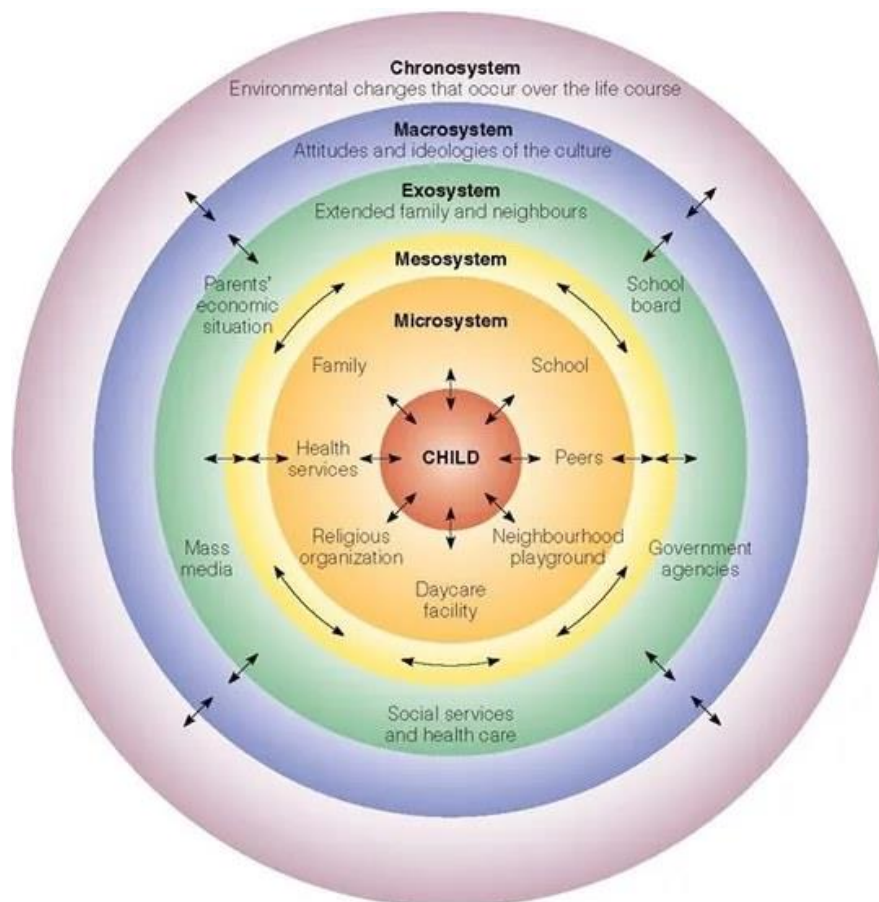
Indeed, the contributing factors previously discussed are subdivided into their own categories, however, it cannot be denied that all factors have a knock-on effect on one another and therefore need to be viewed as a whole for the wellbeing and development of the foetus/child. Take for example a biological factor such as synaptic pruning; it is directly affected by the child’s interactions and experiences provided by the caregivers, however, the quality of these experiences and interactions greatly depends on the surrounding circumstances, entwining this biological factor with at least one other factor from a separate category.

Early childhood professionals have a duty to achieve the best possible outcomes for children, and therefore need to take responsibility for the development of the “whole child.” Implementing a holistic approach into practice is vital so that children can discover their identity, meaning and purpose in life. It is a professional’s responsibility to appropriately guide children to make connections to the community, the natural world and promote positive values (Raise Learning, 2012).

Moss (2016) describes the idea of 'conceptual integration' as combining the holistic view of the child with the holistic idea of early childhood provision, or, in other words, viewing the child's upbringing, care and education as a whole, rather than perceiving these as separate areas.

Many theorists have acknowledged the need for a holistic approach within the early years care and education sector, including Bronfenbrenner (1977) who introduced the 'Ecological Systems Theory.' His theory draws focus on how social environments impact an individual's development, as well as the importance of interpersonal relationships, determining five types of nested systems, each encased within the following:

1. **Microsystem** – The direct relations a child has within their immediate environment, for example, parents, siblings, peers, childminders and teachers.
2. **Mesosystem** – the interaction between a child's microsystems, for instance, the communication (or lack of) between a child's parents and their teacher.
3. **Exosystem** – The social structure that doesn't directly involve the child, but still has an impact. Take for example, mass media, extended family and communities and parent's economic situation.
4. **Macrosystem** – The impact of how cultural elements affect a child's development, including ethnicity and social class.
5. **Chronosystem** – Environmental changes that occur during a child's lifetime, including life transitions such as starting school, moving house or parents separating (Guy-Evans, 2020).



One of the most important considerations of adapting a holistic approach into practice is knowing how and when to implement it. The wellbeing of mother and child are entwined from the beginning of the first 1000 days, and arguably, even before (Thousand Days, 2018). Therefore, it is crucial for the expecting mother to attend to her own wellbeing in a holistic manner, for the child's benefit as well as her own. The [NHS](#) (2021) provide guidance for new and expecting mothers to make positive lifestyle choices and gives advice on what other steps can be taken to increase the likelihood of a child developing healthily, such as:

- Nutrition, vitamins and supplements
- Healthy diet and exercise
- Alcohol, tobacco and substance misuse guidance
- Mental Health support
- Domestic violence support
- Antenatal care.

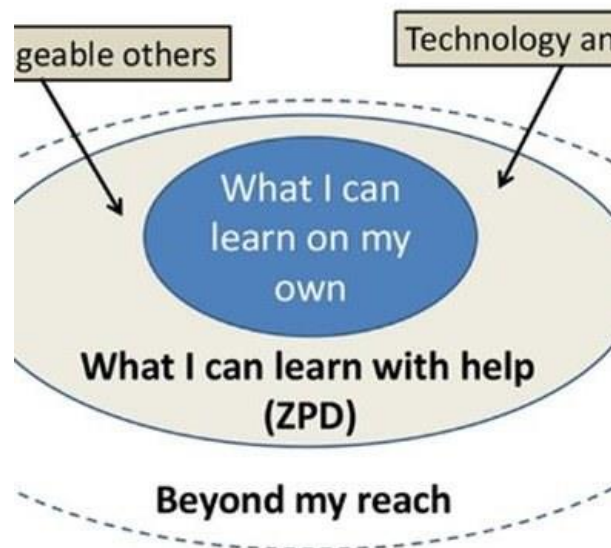
The UNCRC states that it is the child's right to be supported by their parents to grow and develop. However, new and expecting parents may need practical support to meet their child's needs. Bronfenbrenner recognised the importance of these partnerships between parents and early years practitioners (mesosystem), and therefore practitioners are encouraged to provide information, practical and emotional support, and develop strategies for supporting parents to engage with their children's learning. This can be achieved through regular interaction with the parents, providing opportunities to talk during handovers and through being friendly, approachable and sympathetic to their needs, as well as providing information leaflets and letters that would help support them during their parenting journey (Education Scotland, 2015).

Enabling Environment

A child's environment is a critical factor in supporting and extending a child's development and learning. Babies and young children thrive when their environment enables them to explore and play safely. Piaget (1936) developed his theory of cognitive development, believing that children take an active role in their own learning process and described the stage of cognitive development for 0-2 year olds as the 'sensorimotor' stage. Piaget claimed that during this stage, infants and toddlers' entire learning experiences are through basic reflexes, senses and motor responses. It is during this stage that children go through a period of rapid growth and development, and it is through their interaction with the environment that they make new discoveries and learn about how the world works (Cherry, 2020). Recognising the importance of an enabling environment, the role of the adult and childhood experiences, the Welsh Government (2021) produced the 'Enabling Pathways' document which provides guidance of how to plan and implement an appropriate curriculum for early years learners, and states that both the indoor and outdoor environment is a key component for children's learning experiences. It also states that an enabling environment should provide opportunities to explore and problem-solve, encouraging learners to be creative and to challenge themselves physically so that gross and fine motor skills can be further developed.

Observation is another important factor to support children's development and well-being. The significance of observation has been demonstrated through the work of many theorists, including Vygotsky. Vygotsky (1978) introduced the Zone of Proximal Development (ZPD) after observing and

recognising the significance of child – educator interaction. The ZPD refers to what an individual can achieve without help and what they are able to achieve with support and guidance. He believed that educators can assist learners to move through the zone of proximal development through social interaction and allowing the learner to observe and practice their skills. The process of supporting and finding activities for the learner to move through the zone of proximal development to achieve new skills and greater independence is known as ‘scaffolding’ (McLeod, 2019).



5 - (Source: Research Gare, 2018)

Through observing children, we can determine their needs, skills and progress, and plan appropriate set-up of the environment with clear, achievable goals in mind. Swift (2021) describes things to be considered to achieve an enabling environment, such as:

- Is it accessible and inclusive for all?
- Safety – ensure risk assessment has been conducted before hand
- Is it stimulating? What resources are available and are they age/stage appropriate?
- Will it challenge children to explore, be creative and problem solve whilst allowing them to feel safe and secure?

Sensory [activities](#) during this early stage of development should include opportunities to explore textures, colours, sounds and music, as well as allowing the freedom to crawl, move and discover. ‘Treasure Baskets’ are good example of an appropriate activity for babies and toddlers. According to Goldschmied (2004), treasure baskets offer opportunity for exploration and choice, to discover natural resources and provide sensory experiences.

When supporting children and families, we must consider ‘professional love.’ The University of Sheffield (2015) describes professional love as a sensitive approach to caring for the needs of very young children and being able to read what the child requires to feel safe, secure and loved. Implementing professional love into practice requires the professional to be gentle, caring and attentive to the child’s emotional and physical needs.

Conclusion

To conclude, the first 1000 days are critical to the future health and wellbeing of the child and a holistic approach is required to meet the needs of both mother and child – “A healthy baby begins with a healthy mother” (Thousand Days, 2018). Professionals must always have the child’s best interests at heart and form effective partnerships with parents, colleagues and other professionals in order to plan for ways to promote the best possible outcomes for the child. Practitioners’ attitudes, values and approach to care and education should be positive and encouraging, viewing each child as unique. Research has proven that healthy lifestyle choices are critical to the wellbeing and development of a child, and opportunities for healthy snacks, meals, rest and exercise should be implemented into the child’s daily routine. A child is more likely to reach their potential within a safe and stimulating environment which allows them to explore, learn about the world and discover new skills.

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