



The First 1000 Days

To survive in life there are many contributing factor to ensure babies have everything they need to have the best possible chance at life, and it all starts in the womb. The first 1000 days refers to the moment a child is conceived, up to 2 years of age. The first 1000 days is significant as this is a period of rapid development. It is during this period that the brain, body and immune system is developed (pregnancybirth&baby, 2019).

Brain Development



The brain starts developing in the womb and continuously develops through a child's life into adulthood. The brain begins developing in the third gestational week of pregnancy. According to familydoctor.org (2020) after conception the baby begins the embryonic period. This is where the embryo cells multiply and develop to form all the cells needed to make a human body and a baby's major organs are developed, along with body parts beginning to grow and take shape. The embryonic period carries on through gestational week 8. By the end of this period a baby's rudimentary structures of the brain and the central nervous system have been formed. Also the major compartments of the central and peripheral nervous systems are defined (Stiles and Jernigan, 2010).

A baby is born with billions of brain neurons and minimal synapses. After birth a child goes through a period of rapid learning and development, it is during this period the billions of brain neurons send messages to communicate with each other. The connections become the foundation of brain development. Experiences and the environment determine what connections are used the most and the ones that are not go through a process called pruning. Pruning allows for the brain to create room to learn and develop more (The First 1000 Days, 2017).

Bruner's theory of cognitive development in children is proposed as three modes of representation. The first mode is enactive representation and takes place during the first year of a child's life. It is in this representation that a child builds muscle memory. The second mode is iconic representation, this is from 1 to 6 years of age. In this mode a child is able to store a mental picture in their mind and the third mode is symbolic. The symbolic mode of representation happens from ages 7 and above. It is at this mode a child's mind is able to use language to sort information into symbols (FirstDiscoverers, 2021).

Healthy Pregnancy



Having a healthy pregnancy is important as it sets the foundations for a child's life. While pregnant it is important for pregnant women to have the right nutrition. All nutrients are important for babies brain growth and functions however, there are certain nutrients that have a significant effect on babies early brain development (Cusick and Georgieff, 2016, p.3). It is recommended to take 400 micrograms of folic acid every day up to 12 weeks pregnant. Folic acid is important as it helps reduce

the risk of problems in a baby's development during the early weeks of pregnancy. It is also recommended to take vitamin D supplements (NHS, 2020). According to Tommy's (2021), pregnant women should take 10 micrograms of vitamin D supplement each day. this will provide the baby with enough vitamin D for their first few months of life. Vitamin D is important in pregnancy as it helps babies bones, teeth, kidneys, it helps their hearts and nervous systems to develop.

According to (Nyaradi, 2013, pp.1) there have been early studies which have investigated how nutrition is associated with cognitive development. The studies focused on individual micronutrients, a micronutrient is referring to a vitamin or mineral (Centers for Disease control and prevention, 2021), micronutrients such as omega-3 fatty acids, folic acid, iron, vitamin B12 and iodine. From the research it was found micronutrients play an important role in the cognitive development in children.

Anthony Lake (2013) expresses the impact on children who do not receive the proper nutrition in those first 1000 days, from pregnancy, to the age of two. He explains in the video children can suffer from stunting if they do not receive the right nutrients. When a child is affected by stunting they are more susceptible to disease and health risks and their brain cells do not grow and form as they should, the connections in the brain fail to develop therefore, having an affected on a child's learning and education.

<https://www.youtube.com/watch?v=NymebwplL4c&t=20s>

In 2013 when this video was made it was reported 165 million children across the world were stunted, a more recent report from 2020 shows the number has decreased to 149 million children under the age of 5 globally are stunted. It also shows 45 million children were effected by wasting and 39 million were overweight, these are the three faces are malnutrition.



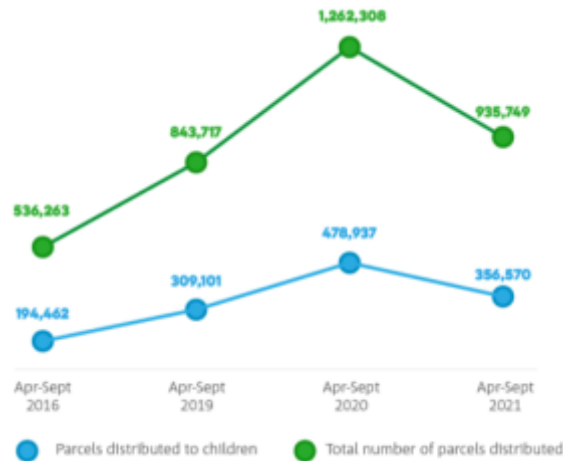
1 - (Source: UNICEF, 2021)

Poverty and Nutrition



(Source: thetrusselltrust, 2021)

People who are living in poverty are more susceptible to contracting illnesses and are more exposed to the environmental risks. Poverty can have an effect on nutrition throughout a child's whole life span and it starts in the uterus. (Pena and Bacallao, 2002. p.243). If the mother has a poor intake of nutrients it can have an effect on the growth and development and result in fetal growth restriction (Morrison and Regnault, 2016). This correlates to what Anthony Lake (2013) said about stunting. Poverty can have an effect on a mother's diet due to income or benefits. After paying household bills, some families are left with a small amount of money to buy food. Practitioners can support families who may be struggling to buy food by guiding them to their nearest food bank and information of other organisations and services who can provide them with advice, such as financial and how to deal with challenging times (Pacey, 2019). According to the Trussell Trust (2021) last year 936,000 emergency food parcels were distributed across the UK between April 1st 2021 and September 30th 2021. The Trussell Trust was providing almost 2000 parcels a day for children. Even before the pandemic parents were struggling to provide food for their children.



2 - (Source:trussell trust, 2021)

The graph above shows there were 194,462 food parcels delivered to children in 2016. In the peak of the pandemic the Trussell Trust provided 478,937 food parcels to children and a staggering 1,262,308 as a whole in the year 2020.

According to The First 1000 Days evidence paper (2017) there is now evidence coming to light on the effects poverty has on brain development. Studies are showing the areas responsible for learning, memory and regulation of emotion and stress in the brain are weaker in those who are from a low income family, apposed to those who come from a higher income family . They go on to say the level of weakness in the brain depends on the length and degree pf the poverty the child has been exposed to.

The school gate initiative was set up at schools, jobcentre plus and local authorities employment advisers. Findings from the report showed that schools, jobcenter plus and local authorities employment advisers can play an important role in support parents and moving them from low income towards work. They also found for initiatives like this to work there needed to be more support available. Building the relationships with the parents is key to ensuring they feel comfortable enough to share they need help (Marangozov and Dawson, 2011). This is one approach that could help families in poverty.

Breast Feeding



It is recommended on the NHS website to give a baby nothing but breast milk for the first 6 months of their life. After 6 months babies can be given breast milk alongside solids for as long as mother and baby want as it will help them to grow and develop. Breast milk is designed specifically and naturally for a baby. It contains all the right amount of nutrients a baby needs and also contains antibodies to help protect the baby from infection. Breast feeding provides many benefits for baby and mother. The benefits for the baby include breast milk containing growth factors that help with mental development, dental health and are less likely to become obese and have childhood diabetes (Birth to Five, 2005, p. 7). An executive director for UNICEF once said breastfeeding acts as a safety net for those in the effects of poverty and it is as if breastfeeding is able to take an infant out of poverty for the first few months of their life, in order to give them a fairer start to compensate for the injustice of the world they have been born in (UNICEF, 2022).

Environment

According to Jones and Sumnall (2016) their report concludes an area does not contribute to alcohol consumption rather it is individual residents of an area and the situations they might find themselves in for example, having a low income and financial problems. Consuming large amounts of alcohol can cause damage at any time throughout a pregnancy. If a pregnant woman does find herself in a situation and alcohol is involved during the first few weeks of her pregnancy it can cause a strong impact on the embryo. During this time the embryo is still developing and at a vulnerable state. Binge drinking on a regular basis when the embryo is still developing into a fetus can have an impact on the baby's physical features such as small eyes (Gerhardt, 2014, p. 16).

The environment a baby grows up in is detrimental to how they develop. Parents play a crucial role in a child's development and their early life experiences. Babies learn social interaction through mirroring others. This action of mirroring and copying others plays a key role in the cognitive development and visual processing of others, their behaviour and regulating social interactions (Rayson et al, 2017, p. 1).

Bandura's social cognitive theory shows how children are impressionable and will copy others. The video link below demonstrates an adult causing harm to a Bobo doll in the presence of a child, the adult then leaves the room. What transpired after was the children who saw how the adult treated the doll then copied their behaviour but not only copy then then proceeded to find alternative ways they could harm the day.

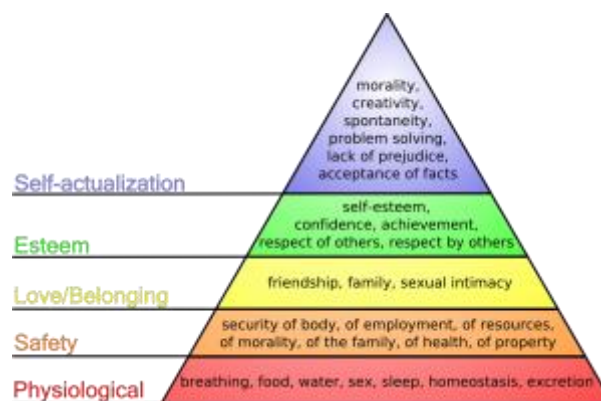
https://www.youtube.com/watch?v=NjTxQy_U3ac

This theory suggests the role of the adult and the environment a child is in differ in children depending on their influences.



3 - (Source:wikipedia, 2019)

Another theorist is Maslow, his theory represents the different needs children have in order for them to thrive in life and reach self actualisation. For babies parents to need meet the first three stages of Maslow's Hierarchy of needs these are, physiological, meaning their basic needs such as food, water, clothes, shelter, air. The next stage is safety and the third stage is love and belonging.



Unfortunately, there are children who do not come for a home exuberating with love. There are children who are faced with neglect from a young age, this could be physically in the sense of their basic needs not being met, relating back to Maslow's hierarchy of needs, children having poor hygiene, ill-fitting clothing, and not having a sufficient amount of food and water. Neglect can also come in the form of emotional neglect. A video from 1965 shows the difference between 2 children from an emotionally secure home and children who have been institutionalised. In the video the children are presented with blocks, the 2 children from the emotionally secure home are seen to be invested in the toys placed in front of them, playing with them independently. The children who are institutionalised may pick up and hold the block but not appear to show an interest in them. They are more aware with the adults present in the room. During the time of this video there was a correlation made the emotional deprivation caused autism, they made this correlation on the basis of some children presented a vague look. However, the correlation can be disproven, today as evidence suggests autism may be genetic and likely to have multiple genes, not the result of emotional deprivation.

<https://www.youtube.com/watch?v=ChoOExRLT4Q&t=1s>

Emotional neglect can be the result of new mothers experiencing a form of postpartum depression. Mothers can suffer from postpartum mood disorders. A study found mothers with postpartum depression and post-traumatic stress disorder showed a greater impairment in bonding with their baby during the first 6 months. Depending on the histories of the mothers the studies showed the mothers to be emotionally withdrawn from their child, passive, they show more frequently hostile

caregiving behaviours and they use physical punishment in their parental practice (Muzik *et al*, 2012, p.3)

According to Jenna Carberg (2021) in the United States 10%-20% of new mothers face a form of clinical postpartum depression and approximately 70%-80% of new mothers experience having the 'baby blues'. She also goes on to say that studies found 10% of new fathers experienced having signs of depression during postpartum.



4 - (Source: The Guardian, 2017)

This article from The Guardian is about a mother of two, who took her own life after suffering with mental health and postnatal depression after the birth of both her daughters. In the article the mother's GP states there had been warning signs as to the danger she posed to herself however, her mental health could be unpredictable. The article also says she was admitted into hospital for her mental health, self-harming and sectioned. Before the mother of two took her own life she told her own mother how she wanted to get help and not feel the way she was feeling. Unfortunately the mother did not receive the help she desperately wanted and took her own life. On the day of her death she told staff at Westlands mental health unit she wanted to buy cigarettes and was allowed to leave, at 11:10 she was hit by a train and died instantly.

<https://www.theguardian.com/society/2017/nov/08/woman-who-killed-herself-was-let-down-by-mental-health-services>

Enabling Adults and Environments



An enabling adult is someone who sets out the environment that is communication rich, emotionally safe for learners to support them and allow for them to start to express and regulate their feeling and behaviours in positive ways. Enabling adults understand the needs of their individual learners and how to support them, they are responsive, they make positive and appropriate relationships with their learners by valuing them and their thoughts and feeling and they also model learning to be joyful (Welsh Government, 2021). According to Pacey (2021) an enabling environment plays an important role in supporting children in their learning and development. Children learn and develop

best where they are in an environment which is caring, supports their individual needs and allows them to play and explore.

Enabling adults need to provide children with enabling experiences that are meaningful and purposeful. These experiences should promote children to become independent, allow for their social and communication skills to develop. Enabling experiences will help children to develop an understanding of symbolic representation. Symbolic representation is having the ability to show their ideas through the use of words, sounds and objects during play. According to Lee, G *et al* (2019) symbolic play is one of the most important basic skills children develop and usually happens when children are 2-3 years of age. However, children who are on the autistic spectrum may find this skill harder to develop. Children need to have the opportunity to have experiences indoors and outdoors and also multi-sensory. Having multi-sensory experiences will allow children to develop their problem solving skills, be critical thinkers and develop their creativity (Enabling Pathways, 2021).

Using Bruner's theory of the three modes enabling adults are able to prepare an environment for children suitable to their age to support their developing brains and encourage them to become independent thinkers, to use their imagination in the form of symbolic play.

Children need to have an environment that is language rich. To have a communication rich environment enabling adults need to provide children with every opportunity for them to use language (aussie deaf kids, 2015). To have effective communication by interacting in an appropriate manner, sharing thoughts and ideas and taking turns to allow others the chance to express their thoughts and feelings by being inclusive.

The principles to the Pikler approach (2022) are to build healthy attachments as overall these attachments will support the well-being of a child's emotional and physical development. In the Pikler approach she believes care-giving moments such as, feeding, bathing and changing, provide the vital opportunities to build secure trusting relationships between child and adult. Babies build secure attachments through respectful and tender care routines. These care routines should be done with a child and not to a child by sharing attention, speaking to the child in soft, gentle tones and announce what they are doing.

The first 1000 days are detrimental as to how a baby grows and develops, there are different factors that all play a part that either mean a child will thrive or face some challenges however, practitioners are the enabling adults who can support a child and their family to ensure that receive help they need to also thrive in life.

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