



Glasgow Educational Psychology Service

Kinship Carer Training – Early Brain Development

Transcript

Introductory Slide

No voiceover.

Slide 1

Even before we are born, your baby's brain is busy making connections. The neurons, or nerve cells, are making links all the time.

Slide 2

How the brain grows and develops is dependent upon the child's experiences; interactions with other people and objects are vital nutrients for the growing developing brain, and different experiences can cause the brain to develop in different ways.

Slide 3

The brain is a very flexible and adaptive organ so even if a child has not had the opportunity to build all the positive pathways and connections in the brain during early childhood, through their relationships and experiences with you as their kinship carer, the connections can continue to develop throughout their childhood.

The adaptive nature of the brain is known as 'brain plasticity'; the plasticity being the brain's ability to modify or adapt its connections and rewire itself. Therefore, you as kinship carers have an important role to play in helping your young person build their connections and the stronger relationship or experiences with you, such as giving lots of cuddles and attention, playing games with them or going out for a walk in the park, the stronger the connections made.

Slide 4

Brains go through a remodelling process during adolescence. This remodelling is also referred to a 'pruning'. In other words, to allow those regularly used brain connections to become stronger, the connections that are not used as often become weaker and are removed.

Whether or not connections are pruned depends on the quantity and quality of experiences the developing child has with the world around them.

OFFICIAL

Slide 5

All children and indeed, all human beings, experience stress. In small amounts, stress can be a normal part of a child's everyday life and can have positive influences, for example, before a test or swimming competition.

The hormone associated with stress is called cortisol. If there is a high level of cortisol present, this can impact on development. Regularly high levels of cortisol can affect a child's ability to think, retrieve information and remain emotionally regulated.

Slide 6

To help explain this further, let's look at the structures and functions of the brain. As you can imagine the brain is a very complex organ so to make this process easier, we can picture the brain like a two-storey house, with an upstairs and a downstairs.

Just like a house, the downstairs brain is the first to develop and this contains the basic functions to keep us safe, such as breathing, strong emotions such as anger and fear, and watching out for danger. You remember the introduction of cortisol in the previous slide – the cortisol is what helps the body to respond to danger through the fight or flight response.

The upstairs brain is a lot more complex and again, like a house, takes longer to develop. The upstairs brain is responsible for thinking, problem solving, learning, and making good decisions. For the brain to be doing its job properly we want the upstairs and the downstairs brain to be working well together so the staircase is really important to join the upstairs and the downstairs brain

Slide 7

When the staircase is strong, the upstairs and downstairs brain share information allowing the upstairs brain to make sense of and rationalise the strong emotions that live downstairs. However, whilst the downstairs brain is complete at birth, the upstairs brain is not fully developed until a young person reaches the age of 25 so this means the staircase can be very fragile in children.

Slide 8

You will have heard the term 'flipping a switch'. What this refers to is the process by which the upstairs and downstairs brains have become completely cut off from one another.

When a child perceives danger, a switch is flipped that breaks the staircase in order to respond quickly and keep the child safe. There is no time to reach the upstairs brain, to think about what to do or try and problem solve. This can happen when there is no actual danger; the perceived threat of danger is enough.

OFFICIAL

OFFICIAL

Slide 9

If only the downstairs brain is available, this will lead to a flight or flight reaction so in school, it might be hitting out at another child or staff member – ‘fight response’ – or running out of the school building – ‘flight response’.

There are a number of ways to re-join the upstairs and downstairs brain such as practicing deep breathing exercises, going to an agreed quiet and safe area within your home - for example, the child’s bedroom- or school – for example, somewhere near the classroom – and learning how to relax your muscles.

Slide 10

The most important thing adults can do is to build warm, trusting relationships with children by showing them that they are valued, loved, wanted and worthwhile. A strong positive relationship between an adult and a child can help the child feel relaxed, safe and cared for which in turn will promote their social and emotional wellbeing and development.

Going back to the staircase analogy, the stronger the staircase made, the stronger the staircase between the upstairs and downstairs brain will become.

Slide 11

So, in summary, building strong relationships with a child or young person impacts on their brain development by forming a stronger connection between their downstairs brain which controls the basic functions like breathing and emotions and those higher order functions housed in the upstairs brain, such as body control, problem solving, empathy and thinking skills.

Therefore, it is the relationships built that are key to a child or young person’s positive development and growth and this includes their social and emotional development and their learning.

Slide 9

No voiceover.

End of transcript.

OFFICIAL

July 2022