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Tech Tantrums

iPhones causing a lack
in children's development



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Apple's release of the iPhone 10 years ago impacted the world greatly. It changed the way we use our mobile phones and ultimately reinvented the way society interacts with the world. Today, parents are increasingly turning to their iPhones as a key parenting tool. To be fair, the iPhone does have many parenting benefits such as educational tools, play, rewards, and even a pacifier. Researchers warned that using a smartphone to divert a child's attention could be detrimental to their social-emotional development. The iPhone was never intended to become the new "nanny", so how is this change in how our children interact with the world really affecting them now and in the future?

"If these devices become the predominant method to calm and distract young children, will they be able to develop their own internal mechanisms of self-regulation?" (Walters, 2017).

Many parents wrongfully assume that giving their children their iPhone is a successful parenting style. It keeps their children calm and engaged. In reality, a number of fairly

harmful processes are unleashed this way. Researchers argue that the neuroplasticity of a child's brain is compromised by the lop-sided reinforcement of the brain's reward-center responding to the game-structure of digital content subsequently impoverishing the brain for other activities (Kompa, 2017). The iPhone, along with most other digital content, emphasizes real-time information processing. This response is activating the right side of the brain, leaving the left side (responsible for logic, reasoning and language development) under stimulated. Along with this reduced activity of the corpus callosum, the 'super-highway' between both parts of our brain allowing for higher order emotional-cognitive functions. With such a large percentage of the brain being under stimulated, children will lack the development of attention and focus, motivation, behavioural controls, critical assessment of information and review of emotions, as well as logic, reasoning and literacy skills (Kompa, 2017).



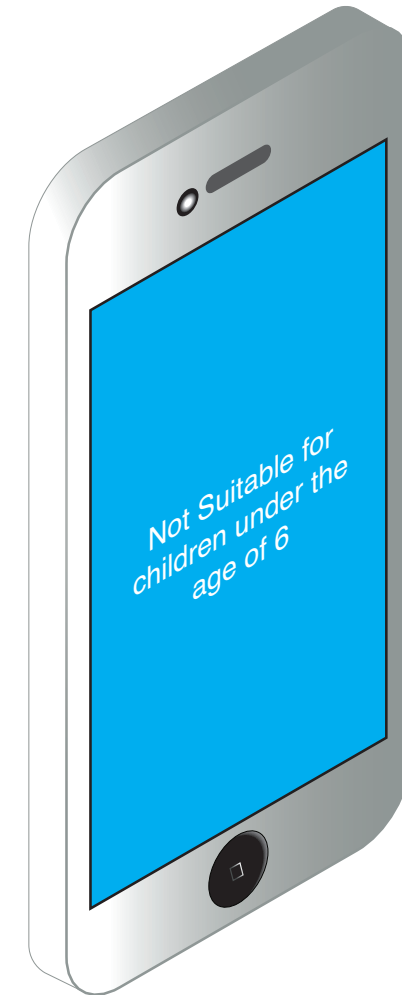
Three years and below is when these critical life skills are developed. Today, children so young they are unable to even speak yet, can navigate their way through an iPhone to their apps of choice. Horrifying, right? Well, it gets worse. Kim Knull a Registered Psychologist says, "Screen time desensitizes the brain's reward system. What that means is, there's too much dopamine that's being released in our brains, and these rewards pathways are then overused" (Knull, 2017).

Most drugs of abuse directly or indirectly target the brain's reward system by flooding the circuit with dopamine (NIDA, 2014). This suggests that if parents use their iPhones as a pacifier or reward system, the affects could lead to addiction, subsequently triggering unwanted bad behaviour when the device is wanted and/or not provided. This ease of parenting isn't so easy anymore.

Over use of iPhones is not just in children, but adults too can suffer huge effects on their mental health. The worst problem being iPhone use before bed. Instead of

a bedtime story like you might reminisce about, children are often sent to bed with a said amount of iPhone time. "Even a few minutes of playing on your iPhone before bed actually delays your melatonin release, so of course that's going to impact a person's mood simply from a sleep deprivation perspective." Knull says (Knull, 2017). A study of 1,101 youths aged between 13 and 16 found that the adolescents who used phones after nightfall tended to have worse self-esteem, were more depressed and were poorer at coping with problems (Fernandez, 2017). If this is the case for young teens, then just what can we expect the effects to be on young children.

Clearly this is not benefiting our children, as the early years of one's life are the most crucial time to start developing a list of detrimental life skills and attributes. The excessive use of iPhone and other technologies influenced by iPhone, are not allowing this to happen and causing horrific effects on youth all over the world.



References

- Walters, J. (2017). Tablets and smartphones may affect social and emotional development, scientists speculate. [online] the Guardian. Available at: <https://www.theguardian.com/technology/2015/feb/01/toddler-brains-research-smartphones-damage-social-development> [Accessed 27 Sep. 2017].
- Kompa, J. (2017). Children & Device Dependency. [online] Joana Stella Kompa. Available at: <https://joanakompa.com/2014/05/11/children-on-electronic-drugs-workings-consequences-treatment/> [Accessed 25 Sep. 2017].
- Knull, K. (2017). How to handle your child's smart-screen 'addiction'. [online] CBC News. Available at:

<http://www.cbc.ca/news/canada/edmonton/over-use-of-ipads-iphones-and-smart-screens-hurting-kids-1.3221491> [Accessed 26 Sep. 2017].

Fernandez, C. (2017). Teens who use phones at night more likely to be depressed. [online] Daily Mail Online. Available at: <http://www.dailymail.co.uk/sciencetech/article-4552732/Teens-use-phones-night-likely-depressed.html> [Accessed 25 Sep. 2017]

NIDA. (2014, July 1). Drugs, Brains, and Behavior: The Science of Addiction. Retrieved from <https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction> [Accessed 26 Sep. 2017]

Normal Brain Usage And Chemical Levels - Brain *Without* iPhone

LEFT DEVELOPES

- Analytic Thought
- Logic
- Literacy Skills
- Reasoning
- Science + Math
- Right Hand Control

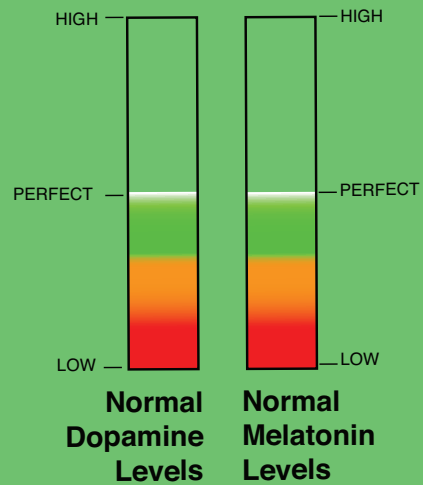


RIGHT DEVELOPES

- Creativity
- Imagination
- Intuition
- Insight
- Music Awareness
- Left Hand Control



=EQUAL USAGE OF BOTH HEMISPHERES OF THE BRAIN
Ideal for optimum development



CHARACTERISTIC CONSEQUENCES

- Articulate
- Logical
- Patient
- Able to Obtain Focus
- Creative
- Intuitive
- Imaginative
- Happy



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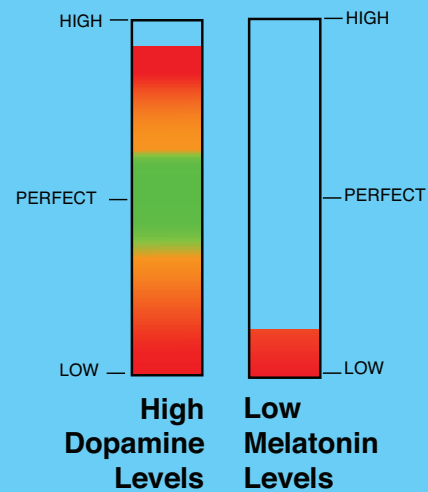
RIGHT DEVELOPES

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= LACK OF USAGE OF LEFT HEMISPHERE OF BRAIN

Negative impact for brain development



CHARACTERISTIC CONCEQUENSES

- Poor Literacy
- Poor Language
- Irrational
- Poor Focus
- Slow Language Development
- Higher Risk of Mental Illness

