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Review Article

IMPACT OF MOBILE ON CHILD PSYCHOLOGY

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A new digital wave of technology is sweeping the nation and the world, smart and mobile devices are everywhere and nearly everyone owns a piece of it. This new wave has embraced the idea of technology in the public sphere and not just in the home. Stores, restaurants, shops, cafes, and many more public areas allow for the usage of technology in what would normally be considered areas of social gathering. This new method of socialization, via a screen, has become widely accepted and has created some notable changes in the family dynamic.

Keywords: Mobile, Cellphone, social media, social, child, adolescent, psychology

INTRODUCTION

The learning benefits of smartphones technology cannot be ignored. Mobile phone can have both positive and negative impact on children depends on their age. It has been noticed that in more than 80% of the adolescents' screen-time is increased usage due to excessive usage of cellphones and are exposed to its dangerous radiation since pre-natal life. None of the former generation has been exposed to this kind of radiation during their childhood and adolescent time. The extended period of vulnerability to cell phone radiation has led to damaging changes at cellular level in the youths of today which is more menacing to health than smoking cigarettes. (1)

This technology is a source of speedy information and instant communication yet it is linked with complicated downsides such as changes in behaviors of young adults, their activities and it is also a leading cause of emergence of new diseases. Half of our youth confessed to use smartphones endlessly and the other half reported on getting online multiple times every single day. (2)

With ease of access to the cellphones in this century, around 96.6% of children are getting hold of it and most of them started using before the age of one. This early age exposure which was approximately 70% was due to parents handing over the device to their children themselves, so that they are able to run household chores without any interference from the young ones. (3)

The most detrimental aspect of mobile phone for children of this age are the deterioration of physical and mental condition. However, the use of mobile phone is important to stay ahead

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in today's world because if we want to know any information from the internet we use mobile phone, google various social media and they have become necessary for our daily life. And so, children should refrain from using mobile phones. Parents should not hand over the mobile phone to their child before certain age. (4)

Harmful effects of using excessive mobile

In addition, Children are affected by various diseases through the use of mobile phone and their mental thinking changes as they become addicted to various game. At one point they become so deeply addicted to mobile that they become disable without mobile. They don't want to eat they don't want to study they don't want to communicate with others, becomes antisocial for using mobile phone. Also mentioned below are the problems they face:

1. Insomnia:
   Excessive mobile use can lead to insomnia and those who use extra mobile especially children they use mobile all night without studying.
2. Antisocial:
   Excessive mobile phone makes children antisocial and self-centered without wanting to mix with others.
3. Physical problem:
   Excessive mobile phone use starts migraine problem in children and they see less in the eyes then before.
4. Inattentive about study:
   Using excessive mobile phone makes children inattentive their study, they loss their interest in study.
5. Impaired brain:
   Excessive use of mobile phone impaired the children brain, it hampered their daily life.(5)

Addiction

Addiction is commonly associated with harmful and repetitive behavior, such as drug use, gambling, and alcohol consumption, to name a few, and it is very difficult for the individual to stop the behavior, even if they know it's bad. There are several other forms of addiction in the world, one of them being use of technology, whether it be via tablets, phones, or any other form of mobile device. To explain how addiction works, the common association of drugs will be used, then be converted to how technology is an addiction as well when one is exposed to it for long durations and continual use. It should be noted that drug addiction and technology addiction are not the same thing; the example of drug addiction is being used to emphasize how addiction works with a common addiction association. Drug addiction is a serious and extreme problem for some people and has more impacts and implication than technology-based addictions.(6)

Addiction is a powerful thing, as it alters brain chemicals, namely the chemical dopamine,

which is responsible for a feeling of euphoria and pleasure. This feeling eventually wears off, which is why drug users often go back to using to experience this sense of euphoria again. Dopamine is meant to reward behaviors that help us survive, such as eating, sleeping, spending time with family, or even accomplishing a big project that took months of hard work to complete. Eventually, the continual release of dopamine via the use of drugs is reduced by the brain, in simple terms this means the person has built a tolerance to the drug and therefor more is needed in order to get the rush of dopamine they first felt when they started. This in turns alters other aspects in life which would have originally triggered a release of dopamine, such as eating, sleeping, socializing and so forth. Continual use also causes problems in the brain's other functions as well, for example: learning, judgment, decision-making, memory, stress, and behavior.[7]

A former employ of Google, Tristan Harris, explains how big companies get people to engage in the habits that they want, such as constant social media viewing. Like drug addiction, technology addiction can be harmful to its user. One just happens to be more socially acceptable and legal compared to the other, and technology is specifically designed to be addictive by its marketers and developers. Individuals are not addicted to the devices themselves, but rather what the devices contain, which are apps, internet access, and anything else that enforces gratification and dopamine. Mobile devices are so good at keeping people's attention and supplying an easy rush of dopamine because of the instant gratification they give when there is a notification on an app such as Facebook, YouTube, Instagram, Tumblr, dating site, or Twitter. The game apps, such as Candy Crush, provide that easy supply of a dopamine rush, refreshing social media apps waiting for a reply from someone also supplies that gratification and rush.[8]

One aspect looked at was the psychology used by companies to create more consumers and users, psychologists are hired to use their knowledge to change people's behavior, the example use was that of a dog and clicker. When trying to get a dog to sit via a clicker, the clicker symbolizes the behavior wanted (sitting) and a treat usually follows to reinforce that behavior. The same thing is being done with phones and social media, instead, replace the dog with a person and a clicker with a device usage and the treat with "like" or "comment". In addition to this user are hooked via variable rewards, that is rewards such as; comments, likes, retweets, tags, and shares that don't appear on a set schedule so therefore users are forced to constantly check their feed in search of their instant-gratification-dopamine-

high. Harris commented though that the most successful sites and apps though were those who prayed on human needs, such as a need to be popular or cool. Just like with drugs though, more use and time is required to continue feeling that sense of euphoria when receiving a notification, message, or even achieving a new high score on a game. There is no set amount of time needed to qualify being addicted to a mobile device, but rather, like a drug, the excessive use and altering of one's life in a negative way is the indicator.[9]

These can take the form of ignoring family to browse social media at dinner tables, hiding someplace where you can use the mobile device in private, constantly checking the device while at work, using it for longer periods of time where it cuts into family activities or sleep, and checking it while driving. It can also include isolating one's self, fear of missing out, or fear and anxiety of not having the device on one's person (nomophobia), a feeling of dread or anxiety with low battery power, and phantom vibrations or ringing to where the user thinks they feel the device receiving a notification and go to check it, but there is no such notification. It's evident that there is a rise of technology use and that it is affecting adolescents to the point where there is a noticeable change in how they socialize and that the wonderful power and accessibility that they possess is difficult to turn away from. These adolescents are showing signs of an early-stage addiction. This was evident in South Korea, as stated in the previous section where a young girl has been going to therapy to treat her nomophobia.[10]

Social, Cognitive, and Emotional Development

Through the lens of social, cognitive, and emotional development children and adults continue to develop but in different ways. For adults' social networks have already been established and strengthened and continue to build on top of that network, and those with strong bonds can help give a sense of meaning and purposeless for the individual. It's even been found that those with a good social group may have strengthen their cognitive function, that is tasks that require complex thinking, problem solving, reasoning, and any form of language, and prevent fast deterioration such dementia.[11]

Even having a good supportive social and emotional group helps with faster cognitive recovery for some health problems that impaired it in the first place, like a stroke. It's even been found that it helps support physical health, if the relationships are positive and supportive. The key building blocks for a prosperous social relationship in later adult years starts with childhood, what they experience as a child with their guardians they will bring into their adult years regarding both

partnerships and friendships. This alone can have implications for children of this new generation when they reach adulthood and their social and emotional experiences have been met only with technology. Overall adult development appears to continue to build off developmental foundations established in childhood; this is different for child development because the child is usually going through the first stages of development.(12)

This is important to understand because adults have the capacity and network to understand the effects of technology and to understand how it affects child development, based on what they learn from experiences and each other. Young children do not have that capacity, nor do they have the emotional maturity to understand and use technology. Some children believe that the characters and people they are watching are in the devices, and that the characters can see and hear them. Others think that the screen is a "magical window" that is capturing the real-world events of a different world, and that the characters stories and lives continue normally off screen. However, the article did not mention how this data was collected nor did they go into detail as to why children thought this way, it only discussed that they do and thus it should be addressed. In a different article however, it's discussed that children go through several stages of development and don't form a sense of maturity at which they can responsibly engage and view technology until about age twelve. Up until age four, children just blindly watch anything without giving much thought to plots or character developments or even the content of what they are engaging with or watching. That doesn't mean that they suddenly understand what their watching or engaging with at age four, but they start to try and understand and pay attention longer, they don't usually grasp what their engaging with till about age eight. The age in which children have begun to reach a form of cognitive maturity to understand the information they've been engaging and watching doesn't happen till about adolescence. This means it takes nearly thirteen years for a child to fully understand what technology is capable of, and even then, there is still new information and entertainment coming out every year that can be accessed via mobile devices.(13)

Of course, it doesn't take just cognitive development but emotional and moral development to understand technology. Emotion is tied with cognition because it requires logic and thinking to follow and understand what's going on in a story and how to respond appropriately emotionally to the situation. When it comes to moral development, children are born without morality and require their guardians to take care of them and show or tell them right from wrong. Children can also

learn morals from what they engage with and view, if they watch something or play with something on a mobile device, they can learn morals form that. (14)

Additionally, their knowledge and view about the world can be altered, this means altering their schemas or associated characteristics of people, as well as their behavioral scripts which oversee understanding how certain people react in certain situations. This can become a problem in some cases, so for example a guardian leaves their child with a mobile device to watch YouTube videos. YouTube has this unique ability to go from normal viewing material that was searched for to other content that was not searched for and is possibly disturbing to some viewers. AutoPlay doesn't have to be on, the child can just continue to click the next recommended video and suddenly they are down a rabbit hole of content they didn't start out with. This doesn't mean that YouTube will always suggest odd videos, but it's not hard to end up in the odder areas of YouTube if one isn't careful in their viewing habits.(15)

CONCLUSION

This paper has explored the wide world of mobile devices and its effects on children not only in their early years but in their adolescents as well. It's clear that there are problems arising but it's still unclear as to what the final and everlasting outcome will be for the generation raised with a digital childhood. What is known is that mobile devices effect children's language at an early age, an important milestone for cognitive development, sleep is also impacted which is harmful for children's overall development when it comes to learning and growth. Lastly, there are some indications that it's affecting socialization, an important aspect in nearly every person's life to create friends and partners. It's evident that technology problems for kids are all over the world.

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Conflict of Interest

The authors declare that they have no conflict of interest