



A COGNITIVE ANALYSIS OF CELL PHONE ADDICTION AND ITS EFFECTS ON CHILDREN'S PSYCHOLOGY AS AN INTERNATIONAL DILEMMA

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Abstract

The study uses a survey method using a simple random sampling methodology to examine the psychological effects of cell phone usage on children and adolescents. It is focused on 200 respondents from a community. The current study's theoretical framework is based on Vygotsky's socio-cognitive theory (1978). The hypothesis makes assumptions about how teenagers see the world and think. The questionnaire was designed to find out what the parents thought about their kids using smartphones and to assess the behavioral, psychological, and social effects of smartphone usage in kids up to 18 years old. The study provides important details on all the problems that children face as a result of using their phones excessively. Excessive smartphone use can lead to decreased social connectedness, stubborn conduct, immobility, and other activities. Smartphones serve as a pacifier, clock, dictionary, book, torch, computer, interactive guide, radio, camera, planner, and tutor. They can also be used as a preschool teacher for young children.

Keywords: Smartphones, Cell Phone Addiction, Children's Psychology, Parents' Supervision.

Introduction

Over the past few decades, the usage of digital media and technology has spread widely. It wouldn't be incorrect to describe cell phone use as an obsession. Wi-Fi and other widely available, affordable internet bundles have completely altered how people use mobile phones. Today, rather



than merely being used for communication, mobile phone usage is heavily related to various forms of entertainment like viewing movies and playing high-definition games. (Hussain, 2010). The widespread usage of cell phones is accompanied by a number of additional elements that might divide society. It has recently become a worldwide craze for children and adolescents to use their phones constantly. Children and teens are frequently amused by playing games or listening to music on their smartphones, not just in Pakistan but around the world.

Campbell (2005) described the mobile phone as transitioning out of a technological tool to a social tool in light of the present wave of smartphone adoption in our everyday lives. The landline telephone was first brought to the globe in the early 19th century for business communication reasons rather than for social connection (Campbell, 2005). However, since 1973, when Motorola became the first company to create a portable cellular device, the use of mobile phones and later smartphones has progressively outpaced the number of landline phones, with more than 5 billion users worldwide, bringing the landline phone close to extinction. (Statista, 2019)

It is quite astounding how quickly young people throughout the world have adopted the propensity of using a cell phone. In actuality, the mobile phone had been around for ten years before the youngsters actually benefited from its innovation. The surprisingly rapid adoption rate by teens throughout the world was aided by the lower cost, smaller size, and introduction of the prepaid cellphone card in the 1990s. Reputable and well-known mobile phone brands include Nokia, Siemens, Motorola, and Sony Ericsson (now Sony Mobiles) (MACRO, 2004). Numerous studies conducted throughout the world have found that young people's usage of cell phones is on the rise. In Norway, 80% of 13 to 20-year-olds reported owning a personal cell phone in 1999, and in the UK, 90% of children under the age of 16 did the same in 2001. In Italy in 2013, 70% of nine- to ten-year-old children reported owning a personal cell phone, with the remaining 30% expressing loyalty to their own device (Guardian, 2013). Young people in Tokyo appear to own personal cell phones at a rate of 100%. (Srivastava, 2005). A 2004 research in Australia indicated that 50,000 children between the ages of five and nine had a personal mobile phone, along with 33% of children between the ages of 10 and 13 and 45% of children between the ages of 13 and 15. (Allison, 2004). In addition, recent years have seen a considerable increase in the proportion of young people with a personal mobile phone, to the point where compared to their parents, their kids are far more likely to own a cell phone (Campbell, 2005).

Then the Android smartphone appeared, attracting people's full attention with its safe, modern, and simple user interface. Modern cell phones, another creation of civilization, have become an essential part of daily life. The sophisticated cell combines several, intricate functions. We now have access to features that we never imagined would be included in a cell phone. You may now read emails, produce word documents, check and respond emails, play a variety of games, snap photographs, create high quality movies, and browse the internet on an Android smartphone. The majority of the time, a mobile phone or smartphone serves as a social status symbol. The



introduction of the Android touch screen has transformed cellphones into endless entertainment. The ability to share data or capture lecture notes as images and audio on a smartphone is only one of the many benefits of cellphones. Even better, the cell phone comes with a fantastic programme that helps kids develop their conceptual thinking. Overall, smartphones have emerged as the invention that has spread the fastest in human history. (Hardell, 2017)

In addition to its great aspects and advantages, a smartphone also has significant health risks. Let's discuss these risks immediately. Medical research has shown that using a smartphone might have negative impacts on kids. A number of studies have been conducted in the last years to determine the effects of electromagnetic radiation produced by smart phones on human health. In addition, smartphones create a lot of electromagnetic waves. Children's heads are sensitive, and their skull bones are thinner and delicate than adults'. Adults are more susceptible to RF radiation exposure due to their greater conductivity in the brain tissues and increased radio frequency (RF) electromagnetic radiation (EMR) exposure in general. The growing brain, which is in a stage of development until about the age of 20, becomes increasingly sensitive to a radiation and rays. The longer the exposure of their minds, the more notable the absorption of Radio wave per unit of time, and the greater the risk of a developing tumor in the developing brains. (Hardell, 2017)

Cell phones have become indispensable to today's youth. Despite having their school books on board, many students arrive at school with their cell phones. They talk on the phone during their free time and exchange texts throughout their class sessions. As a result, they miss the activity in class and lag behind their classmates. (Arshi, 2019)

Objectives

The following are the aims that address the latest developments.

- 1-To determine whether or not the youngsters own a mobile phone before the age of 18.
- 2-To discover how a mobile phone affects a child's or an individual's habits and psychological behavior.
- 3-To learn what parents believe about mobile phone usage and kid ownership.

Literature review

When the mobile phone was first introduced in Pakistan in 1992, both incoming and outgoing calls to mobiles were charged, unlike modern call and SMS bundles. The use of mobile phones has changed significantly in the present. It has grown so much that traditional phones are now hardly ever seen. Along with the ability to call and text distant contacts, additional capabilities like radio, audio, music, video recording, internet browsing, and gaming have drawn large crowds, which has increased the selling of mobile phones.

The impact of mobile phone use in schools is something that hasn't been appreciated much and might lead to a lot of problems in the future. According to Campbell (2005), the mobile



phone has been crucial in fostering human connections. It also has an impact on the growing closeness within the family, particularly due to the connected power that the children's mobile phones give them in terms of security and other wellbeing-related concerns. Schools and other technical institutes, as well as educational settings, claim that students' mobile phone use disrupts the learning process and lessens attention in class, which has a detrimental impact on academic performance. (Campbell, 2005)

Another research has investigated the effects of mobile phone use on students' psychological development. Parents must be aware of current trends, be knowledgeable about a certain dialect, and employ elements that can alter our children's life in both positive and negative ways as the habit of smartphone adoption continues to grow. Including the way people behave, work with others, and see the world. The relevance of these data for further research is remarkable. (Tunio & Soomro, 2009)

The kids insisted that possessing a phone is now a requirement. This is not surprising because children who are raised in the era of advanced technology are almost always open to new ideas. Today's youth use their phones not just as a means of communication but also as a means of getting their point across. Additionally, having a mobile phone these days is seen as a sign of prestige. The more costly mobile device has a more fashionable and wealthy reputation. (Okabe, 2004)

A different survey highlights concerns of mobile users including safety and socializing in the open air. Additionally, the technique of advertising initiatives to persuade teenage girls to buy a certain cell phone brand is also covered. This put a strong emphasis on elements like personality development, autonomy, and realizing one's sense of being distinctive. Since the invention of mobile phones, the rate of cybercrime has regrettably increased. The parents and other responsible members of the family of these children should carefully examine the scope of this type of intimidation. Due to the possibility that it may enter houses and children's bedrooms, this is especially important. (Cilliers & Parker, 2011)

Van Dan Bulc (2003) observed in his study that developing a mobile phone use habit might consequently interfere with sleep patterns. When people use text messaging on their cell phones but do not receive a response from the persons they have messaged, this can be upsetting. When their friends don't respond to their questions, children become anxious, which makes them irritated and causes them to stay up late. Lack of rest and sleep has negative impacts and harms a person's psychological wellbeing.

Lever and Katz's (2007) study suggested a comparison of cell phone usage among the general public. The inquiry was conducted across the country at several locations, including libraries at colleges and institutions. Most people consider the library to be a calm and quiet setting. Therefore, a cell phone's loudness can often cause annoyance and disruption. There has recently been a



noticeable increase in usage, and this has created a pressing need for social reform. Because of this vulnerability, libraries have established policies to try to control or restrict the usage of cell phones.

Theoretical Framework

The socio-cognitive theory of Vygotsky (1978) has been used as the theoretical foundation for the current investigation. The hypothesis makes assumptions on children's perceptions and thought processes. Children create their perceptions, and their personal relationships determine how their knowledge grows. Vygotsky made a point of emphasizing how children's social interactions shape their cognitive development. (Bunyakarte, 2010)

Piaget's (1936) theory of cognitive development is the second hypothesis for empirical inquiry. According to the thesis, everyone in the world gains knowledge as a result of their experiences and thoughts. (Mcelod, 2018)

Research Questions

- RQ1: Do the youngsters have cell phones before they become 18?
- RQ2: How a mobile phone affects a child's or an individual's routines and psychological behavior.
- RQ3 what do parents believe about their children owning and using mobile devices?

Hypothesis

H1 Before the age of 18, children own a cell phone.

H2- the cell phone usage negatively effects the children's psychosocial behavior.

H3 After turning 18, parents should permit their children to get a personal smartphone.

Research Methodology

Parents of children and adolescents up to the age of 18 were the target audience for the survey, which was undertaken as part of this research. By delivering the questionnaires to the sample of 200 persons in Karachi, the survey was completed. The survey method has been carried out with the use of a random selection strategy of families with children whose ages range from toddler to 18 years.



Findings

The Chi-square technique was used to evaluate the study's premise. Chi square tests and contingency tables from SPSS are used to display the results.

Testing Hypothesis 1

To find out do the children keep the mobile phone in their teenage life

- HA - Children who are younger than 18 own a cell phone.
- Ho- Children who are younger than 18 don't own a cell phone.

Table 1

Age? * Does your children own their personal mobile set Cross tabulation				
Count				
		Do your children own their personal mobile set		Total
		yes	No	
What is your age?	1 to 3 years	36	3	39
	4 to 6 years	32	1	33
	8 to 10 years	27	4	31
	14 to 18 years	42	1	46
Total		137	12	149

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.122 ^a	4	.538

Since we used nominal variables, we decided to apply the Chi-Square test to analyze the findings. As a consequence, the P value, which indicates the level of significance, came out to be .536, which is higher than 0.05. The null hypothesis, which asserts that the youngsters don't own a mobile phone before the age of 18, is therefore retained.



Testing Hypothesis 2

HA: the cell phone usage negatively effects the children’s psychosocial behavior.

Ho: the cell phone usage does not negatively effects the children’s psychosocial behavior.

What are the behavioral changes adopted by children due to heavy mobile usage? * Generally due to heavy mobile usage your children avoid chit chat with other family members or guests Cross tabulation				
Count				
		Generally do you to heavy mobile usage your children avoid chit chat with other family members or guests		Total
		yes	No	
What are the behavioral changes adopted by children due to heavy mobile usage?	they are getting stubborn	52	23	75
	children do not take interest in any other activities	46	15	61
	No change	11	2	13
Total		109	40	149

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.716 ^a	3	.633

The findings of the chi-square test were used to determine the impact of a mobile phone on a person. According to Table 2, the significant value of P is 0.633, which is larger than .05. This shows that our null hypothesis is true, demonstrating that a person's habits and psychological behavior are unaffected by using a cell phone.

Testing Hypothesis 3

HA: After turning 18, parents should permit their children to get a personal smartphone.

Ho: parents should not let their children own a personal smartphone even after turning 18.



Do you think that today people use mobile phone more as an entertainment tool * According to you, in which age children should own a cell phone Cross tabulation							
Count							
		According to you in which age children should own a cell phone					Total
		12 years	15 years	18 years	22	33	
Do you think that today people use mobile phone more as an entertainment tool?	yes	15	30	89	1	1	136
	no	1	3	6	1	1	12
Total		16	33	95	2	2	148

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.948 ^a	4	.041

The chi-square test was run to determine the influence of mobile usage on youngsters regardless of whether or not parents permit their children to have personal devices when they turn 18. The chi square test findings indicate that, in accordance with the guideline, the P value is finally less than 0.05, indicating that parents should permit their children to possess their own cellphones once they turn 18. The alternative theory is therefore accepted.

Discussion

The vast majority of respondents' children utilized mobile phones, guaranteeing the highest possible response rate. Out of 200 respondents, 60% were under the age of ten, while 40% were between the ages of eleven and eighteen. The majority of mobile usage among youngsters is 1 to 2 hours, with the remaining 31% and 9% spending a minimum of three and five to seven hours on mobile, respectively.

Since smartphones contain all the characteristics and capabilities of an operating system in a laptop, today's mobile phones have essentially become a little laptop. According to the survey, 90% of the cases supported the idea that cellphones are more frequently used for amusement than for communication. Users of Android phones now have access to an engaging and dynamic user interface that enables them to access the internet and, as a result, play and watch a variety of games and movies. According to the study's findings, youngsters prefer to watch cartoons on YouTube in a smaller majority of 55% cases than they do to play games on their mobile devices, which account for 61% of all cases.



The majority of respondents—35%—who were between the ages of 10 and 18 said they would like having a cell phone for recording entertaining videos and occasionally sharing them on sites like Tiktok, Facebook, and WhatsApp.

Nowadays, it's kind of common to see kids with smartphones in their hands.

It is necessary to learn what parents think about their children using cellphones at such a young age. According to the poll, 63% of kids have their own smartphones, with the bulk of them being between the ages of 15 and 18. The remaining 36% don't have smartphones of their own but instead use their parents' smartphones for fun and enjoyment. The children range in age from an infant to 14 years.

The majority decided that a youngster should have to be 18 years old before they may acquire a personal smartphone. However, a smaller majority of 28% and 10% agreed that a kid should wait until they are fifteen and twelve years old, respectively, to begin using and owning a mobile device. Only one responder made the statement that they would permit the kids to own a mobile phone when they were married. In a different research location, 90% of the parents expressed their opinions about how the growing use of smartphones has harmed children, contributing to their social and physical incompetence. This is consistent with the study of Daramola (2015) that explains the outcomes seen after the kids engaged in heavy smartphone usage. The study also shows that, no matter how watchful a parent is, it is difficult to always supervise a child when they are using a cell phone.

In an effort to determine the rationale behind why parents permit their kids to use a phone before the age of 10, even if it's not their own. According to 55% of the respondents, they let the child to use his phone in an attempt to placate him and cheer him up. According to 30% of the respondents, it would be hard for them to feed their infant if they did not provide their child access to a smartphone so that he would be engrossed in the mobile movies and not fuss over his food.

The remaining 10% of respondents claimed that they had several household responsibilities to attend to at once, and that frequently, the children's constant whining became intolerable. As a result, they gave the kids the phone to calm them down.

The majority, 93%, agrees that children's study habits are negatively impacted by mobile phone use. Additionally, when parents oppose and limit their child's excessive mobile phone use, they would endure intolerable fights that force them to be forgiving with their kids. The study also reveals that children's conduct has changed as a result of rising smartphone usage. The excessive use of smartphones among youngsters has been linked to stubborn conduct, poor tolerance, and reports that the majority of kids are just interested in using their phones.



The researcher has given a quick review of the psychological implications of mobile/smartphone use among children in this publication, ranging from toddlers to teens. The lavish usage of smartphones is obvious among the many sectors of today's society. The information gathered from the respondents broadens our understanding of smartphone usage and its drawbacks. On one end of the scale, the study comes to the conclusion that children and teens' growing propensity for mobile devices and smartphones implicates more psychological risks than advantages.

Conclusion

The dangers of excessive smartphone use include decreased social connectedness, stubborn conduct, immobility, and a drop in other activities besides using a smartphone. On the other hand, the present study went into more detail on the advantages that smartphones have to offer. Despite being few in number, the advantages do exist.

The fact that children are quickly distracted and consoled by the appearance of a smartphone screen when they encounter an uncomfortable scenario reveals a child's psychological reaction to the device. As a result, in this scenario, the smartphone serves as a pacifier. A cell phone may now serve as more than simply a communication device; it can also serve as a clock, dictionary, book, torch, computer, interactive guide, radio, camera, planner, and tutor. While many of them use their smartphones to complete their assignments, the adolescents read all sorts of stories online. Furthermore, a cell phone acts as a preschool teacher for the young children.

Recommendations

- The study reveals that having a smartphone before the age of 16 may be harmful to your health from a health standpoint since your body isn't strong enough to withstand the radiation.
- When conversing on a call, children should utilize a headset or a hands-free device.
- Experts advise against using a cell phone when there are poor signals.
- Cell phone usage should be kept to a minimum near children.
- The mobile set shouldn't be left on the bedside in a teenager's room.



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