



Addiction of Smartphones: Effects on Mental Health

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Abstract

Mobile devices and smartphones have proliferated as a result of recent technical advancements, and they now constitute the primary means of communication and entertainment in 21st-century modern civilization. According to GSMA real-time intelligence statistical data, there are 5.13 billion mobile device holders globally. 66.5% of the world's population is represented by this, of which 2.71 billion people, or 35.13%, are smartphone owners. After China, India has become the second-largest market for mobile phone handsets. Psychologists, sociologists, and academics in the field of education have begun to pay attention to mobile phone addiction as a mental disorder brought on by contemporary technology. Around 66.53% of the world's population, according to a recent Statista poll on children and cell phone statistics, owned a device. It is expected that this figure would rise to 4.68 billion in the next years. Mobile phone addiction has been linked to serious negative effects on one's mental and physical well-being according to multiple studies as well as social adaptation, resulting in issues with health, academic performance, and interpersonal relationships. Anxiety, despair, stress, and addiction have all been linked to overuse of mobile phones. The prime focus of this paper is to understand the concept of mobile phone addiction, to examine its symptoms and causes and take a look at how mobile phones affect adolescent lives, their physical and mental well-being.

Keywords: Smart phone, Smart phone addiction, Symptoms and Causes, Impact on Mental Health

Introduction

There are numerous advantages and services provided by information and communication technology for people. Mobile phones are regarded as among the most important inventions of the 20th century. They are lauded for their technological advancements, bridging communication and information gaps between individuals. It should also come as no surprise that a large percentage of this population is comprised of teenagers. A cell phone serves more as a necessity than a perk for them. When they were first invented, cell phones could only be used for phone calls. Now, individuals may use them to send texts, play video games, send emails, conduct internet research, and access social networks. According to the Ministry of Information and Broadcasting, India has more than 1.2 billion mobile phone customers, including 600 million users of smart phones. People check at their cell phone as soon as they get up in the morning and as soon as they retire to bed at night (Lee at al., 2014). In recent years, developing nations have seen an increase in mobile phone usage, particularly smart phones. In India, the smartphone penetration rate was 54% in 2020, and it was predicted to be 96% in 2040. Numerous factors, such as improved mobility, discounted subscription, dropping pricing, and more value-added services, can be blamed for the mobile phone's quick uptake. Mobile phone addiction is incredibly common and is stealthily affecting young people. New generation can't envision their lives without cell phones as technology becomes more accessible. On average, teenagers use their phones for over seven hours every day. Children between the ages of 8 and 12 spend over five hours each day on phones, time that is not relevant to their academics. (Rideout & Robb,

2019). Around 11- or 12-years old adolescents purchase their first cell phone on average (Rideout & Robb,2019). Teenagers use mobile phones more frequently for communication purposes compared to older generations (Mackay & Weidlich, 2007). Even though they provide a lot of convenience, mobile phone addiction can have severe consequences, including extreme emotional swings and even substantial physical responses.

Objectives

1. To study the smart phone addiction.
2. To explore symptoms and causes of smart phone addiction.
3. To study effects of smart phone addiction on mental health.

Smart phone Addiction

For young adults, mobile phones are seen as a double-edged sword. Mobile phone use helps young people increase the frequency of their social interactions, strengthen their bonds with others, and make new acquaintances. On the other hand, the improper use of a cell phone, has a detrimental impact on young people. The prevalence of issues related to cell phone addiction is rising alarmingly fast worldwide. According to the WHO (WHO Expert Committee, 1964), addiction is defined as dependence, which is the ongoing use of something for comfort, excitement, or relief that frequently results in cravings when it is not there. Addiction is a condition where a person loses control of his or her will and has harmful effects. Smart phone addiction is classified as a high reliance on a phone combined with uncontrollable actions that has an adverse effect on individuals (Leung, 2007). According to some experts, Internet addiction, alcoholism, gambling addiction, and drug addiction are all similar to mobile phone addiction (Yi, 2006). Several terms including "Smartphone addiction" [Casey 2012; Lee, et al. 2013], "mobile phone addiction" [Park 2005; Ahmed, et al 2011; Szpakow, et al. 2011], "problematic mobile phone use" [Billieux, et al. 2008; Takao, et al. 2009], "mobile phone dependence" [Satoko, et al. 2009; Cholz 2012], "compulsive mobile phone use" [Matthews, et al. 2009] are all been used to describe the situation, where, individuals are so absorbed in their phone use that they overlook other aspects of their lives. The phrases "mobile phone addiction" and, more recently, "Smartphone addiction" are most frequently used to describe this sort of addictive behaviour.

Symptoms of smart phone addiction:

(Ross, 2011) highlighted three characteristics of mobile phone addiction: i) Frequent user of mobile phones and never turn them off. ii) Despite having a landline at home, they frequently utilise their mobile phones. iii) They frequently struggle financially and socially as a result of their extensive use of mobile phones. Other indicators of smartphone addiction include:

- Shows aggressive, disgusting attitude when forced to turn off the phone.
- Avoiding face-to-face conversations in favour of gazing at screens while conversing with others.
- Prefer social and personal connections made over the phone, avoiding in-person interactions.
- Arrival delays brought on by excessive phone use in unnecessary circumstances.
- Continuously checking calls, texts, and other notifications.
- Constant urges and ideas to use a phone, whether when biking, crossing the road, or driving.
- Relying on a cell phone for solace when feeling lonely and depressed.
- Use of phone impairs and delays performance and productivity.

Causes for smart phone addiction:

There are several factors that contribute to mobile phone addiction. According to a few journals, some of the key causes are as under:

- An excessive reliance on more recent technologies as a result of a constant need to discover and try new things.
- Use a social network like Facebook, Instagram, etc. to look for support and agreement.
- Young people frequently use social networking sites in the hopes of discovering new connections and widening their friend circles. Consequently, it frequently leads to addiction.
- A false sense of reward results from pursuing prizes like game points, likes on social media network profiles, and other such things, which leads to a constant need to obtain those benefits.
- Smartphone application design has a significant impact on how the human brain functions. Numerous marketing and design strategies are used to grab users and broaden the audience for the application. This leads to a strong attachment to one's phone.
- Our mobile phones can now do far more than they ever could thanks to technological advancements. Smartphones are starting to become a need in our daily lives, whether it's for texting or safely storing work-related materials. As a result, they often wind up becoming an extension of the person.

Effects on Mental Health

Srivastava and Tiwari investigated the consequences of excessive cell phone use on adolescent mental health and quality of life (2013). They discovered that compared to unrestricted users, those who use their phones less frequently have better mental health and a better quality of life.

1. Loop with Negative Feedback

Loss of interest in previously enjoyed activities, worry when unable to send or receive messages, and impatience when away from a phone are all symptoms of cell phone addiction. Azi (2009) found a substantial positive association between neuroticism and the hazardous use of mobile phones.

2. Aversion to missing out

A study conducted in 2016 on the impact of computers on human behaviour, which included 165 men and 143 women, revealed a link between anxiety symptoms and problematic smartphone use. The objective of the study was to ascertain whether there was a relationship between respondents' cell phone use and mental health. The majority of those who scored highly on the fear of missing out tend to use their phones frequently. On tests for depression and anxiety, these people perform exceptionally well. This is because excessive smartphone use makes it challenging to interact socially, which exacerbates sadness.

3. Lack of Productivity and Attention

Studies revealed that excessive use of smart phone reduces people's attention spans, both at work and in school. They even got diverted during phone calls or when receiving smartphone notifications. Other research showed that these people who used social media frequently had less grey matter in their brains. Controlling attention is a function of this grey area.

4. Depression

According to the study conducted among teens titled "Do Cell Phones Cause Anxiety and Depression?" the prevalence of depression is increased by the use of cell phones. This study found that children who spent more time away from screens were happier than those who were constantly on their phones. Excessive mobile phone use poses physical health problems such as fatigue, musculoskeletal issues, headache, ear infections, and a heat sensation.

5. Contributes to Stress in Relationships

People are continuously on their phones in order to communicate with distant family members. Smartphones, on the other hand, can have the opposite effect. Using a phone, for example, during a meal with family or an outing with friends could detract from them and strain the bond.

6. After Dopamine

Any addiction is mostly influenced by brain chemicals, and dopamine is typically to blame. A neurochemical messenger called dopamine carries impulses that are responsible for motivating reward-seeking. Addiction develops as a result of the process, which leads to a neuroplastic modification. Every time the brain receives a phone notification, dopamine is released. The more frequently this happens, the more dopamine your brain releases even before you receive the notification. To elicit the identical neural responses, you must check your phone because of the earlier dopamine release. You will eventually spend more time on your phone and less time doing other important things.

7. Disorders of Sleep

Numerous things, including using your phone frequently, especially late at night, might disrupt your sleep. Overusing a phone at night is detrimental for the brain. This is brought on by the blue light that mobile phone screens produce. The brain is confused by this light since it appears to be the sun's brightness.

8. Anxiety

Different ways that people use of smartphones can make them anxious. First, some people get anxious when they aren't using their phones. For some people, stress might even cause symptoms that resemble withdrawal. Smartphones can become psychologically addictive when used excessively, and being without it can be stressful.

9. Biological effects

Cell phone radiation can dramatically change the quality of sperm, according to Agrawal et al. (2008) in terms of quantity, viability, motility, morphology, and a few DNA alterations.

The actions listed below can be taken to enhance one's mental health:

- Promoting sound sleep habits in children and adolescents could help them avoid future health issues.
- A diagnosis should be made if young users exhibit several symptoms of dependent syndrome, such as a disdain for other social obligations such as family and offline friends, in everyday life.

- Young adults may build a respectable digital footprint that will support their mental wellbeing, safeguard their career and reduce their susceptibility to marketers and scammers by understanding privacy concerns and utilising social media responsibly.
- To effectively cope with cyberbullying and social anxiety, parents or guardians must actively engage with younger adults and adhere to the rules or legitimate restrictions, such as age restrictions.
- Establish an unplugged zone: turn off Wi-Fi, unplug all gadgets, and keep them out of sight or out of reach.
- Eliminate pointless and addictive applications.
- Plan a time slot to keep your usage to a minimum throughout this period.
- Stop using phones as a substitute for enjoyment.
- Create constructive habits to combat loneliness.
- In challenging circumstances, ask for advice, direction, and assistance.
- Create fresh work schedules and carefully assign different jobs to avoid the prolonged isolation that can cause MPA.
- Even if it's challenging, always choose chores that don't involve using a cell phone in any way.
- Take on new challenges in life and seek the physical presence of friends and family.

Conclusion

In the context of this study, the term "mental health" refers to a wide variety of activities that are either directly or indirectly related to the component of mental well-being. Addiction to technology-based devices, such as smart phones, is on the rise, particularly among young people. Addiction to social media among young people is probably going to have both good and bad consequences on their mental health (D. Souza, 2019). Individuals bear enormous responsibility for themselves, and taking responsibility is the first step in overcoming addiction. We tend to become more and more reliant on technology as we integrate it into every aspect of our lives. Addiction follows this dependency. It takes a tremendous amount of work to bounce back from mobile phone addiction once it has taken control of a victim's psychological responses. Only with the collaboration of many groups of people, including parents, educational institutions, the government, the workplace, etc., can the addiction problem be overcome. Every technology has drawbacks, and as a species, we must learn how to adapt and deal with these problems more successfully. The proper way to keep a synergistic balance between technology and its detrimental consequences is to acknowledge their harm and exert self-control, and resist futile temptations.

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