



## **THE PREDICTORS AND CONSEQUENCES OF SMARTPHONE ADDICTION**

**Richard Hamm**

Los Angeles, CA, USA

### **The Predictors and Consequences of Smartphone Addiction**

Smartphone addiction is excessively and compulsively using cell phones, leading to negative effects. Among young adults, 10% to 40% are addicted to their cell phone. American teenagers spend about 9 hours daily on their smartphones (Zauderer, 2023). Signs of smartphone addiction include compulsive use, loss of control, neglect of responsibilities, withdrawal, and harm to relationships

and health. Global studies reveal predictors of smartphone addiction and its harmful consequences. These studies highlight factors that make young adults more prone to becoming addicted to their phones, including mental health issues like depression and anxiety (Zauderer, 2023). For instance, 66% of teenagers feel anxious without smartphones, 34% admit that their addiction affects their daily lives, and 47% constantly check their phones (Zauderer, 2023). Moreover, adverse health effects such as insomnia and disrupted sleep patterns are common among addicted young adults. This paper will examine the predictors for cellphone addiction and the consequences of cellphone addiction.

### **Common Factors of Addiction**

#### **Depression**

The most common factors that predict smartphone addiction among college students are depression, anxiety, avoidant attachment, limited social support from family,

minimal social interactions, stress, and low self-esteem. Depression and anxiety are the primary predictors of smartphone addiction. Numerous global studies support this conclusion. For instance, one study involving 688 undergraduate students from Lebanon highlighted strong connections between smartphone addiction and depression and anxiety (Matar Boumosleh & Jaalouk, 2017). Another study of Turkish university students found that of 494 students, 6.47% displayed higher addiction scores linked to depression and anxiety (Aker et al., 2017). A study of 300 participants in Delhi, India also found a notable link between depression and smartphone addiction. A review of 27 studies examined by multiple researchers revealed a close association between smartphone addiction and depression and anxiety (Ratan et al., 2021).

### ***Avoidant attachment***

Another significant predictor of smartphone addiction is avoidant attachment. *Avoidant attachment*

often arises from receiving physical care from parents but lacking emotional support, leading to feelings of social isolation. This isolation may trigger low self-esteem and anxiety. In a study of 313 Korean university students, researchers found that avoidant attachment ranked as one of the critical indicators of smartphone addiction (Kim & Koh, 2018). Avoidant attachment can pave the way for smartphone addiction by offering an escape from emotional challenges, substituting real connections, and diverting attention from discomforting emotions. It can exacerbate social anxiety, foster the need for virtual validation, and act as a shield against vulnerability. This attachment style might also encourage reliance on online communities and immediate rewards, all contributing to patterns of addictive smartphone use. The link between avoidant attachment and smartphone addiction was found to be influenced by anxiety and low self-esteem.

### ***Familial Support***

Another factor that can predict smartphone addiction is the lack of familial support which involves family members helping, understanding, and encouraging each other for emotional and practical well-being. It includes listening, giving advice, and assisting during tough times. A study discovered that lack of familial support in one's life plays a significant role in predicting smartphone addiction (Aker et al., 2017). While familial support does not directly cause smartphone addiction, it can indirectly influence it if family members excessively use smartphones, making such behavior seem normal.

### ***Social Engagement***

Researchers have found that a lack of social engagement is another significant predictor of smartphone addiction. This is determined by studying problematic smartphone use (PSU) levels; high PSU is linked to reduced participation in social engagement (Pera, 2020).

When people have limited interactions with others, they often turn to smartphones as a substitute for genuine social connections. The allure of social media platforms and online communities can gradually become a habit as individuals try to satisfy their natural need for connection. Additionally, the instant gratification smartphones provide, such as notifications and likes, can serve as solid incentives, especially when regular social validation is lacking. This creates a cycle where increased smartphone use counters feelings of loneliness and boredom, reinforcing the addiction.

Over time, this reliance on smartphones can lead to a cycle where addiction worsens social isolation, making it harder to develop healthy interpersonal skills and intensifying addictive behavior. Thus, limited social engagement can contribute to the progression of smartphone addiction, highlighted by the growing

dependence on digital interactions to fill the gap left by real human connections.

### ***Stress***

Stress is another significant indicator of smartphone addiction. A study of 150 Romanian students solidly established a connection between stress levels and smartphone usage (Gligor & Mozoş, 2019). Stress, a response to demanding situations such as academic challenges and personal concerns, is a natural mechanism that aids us in navigating difficulties. However, excess stress can harm our overall well-being and functioning, including mental shifts like depression and anxiety. Stress frequently propels students to seek solace in their smartphones, especially within the intense context of college or university life. Playing games, watching videos, and engaging with social media platforms offer a transient respite from stressors. Nevertheless, relying on phones as a means of stress relief can gradually exceed its intended

purpose, potentially ushering in the development of smartphone addiction.

### ***Low Self-esteem***

Low self-esteem is a significant predictor of smartphone addiction. This was demonstrated in a study highlighting the potential escalation to more severe outcomes of smartphone addiction (Kim & Koh, 2018). Smartphone addiction then drives behaviors such as seeking online validation, using the digital realm to evade real-world insecurities, unfavorably comparing oneself to others on social media platforms, experiencing a fear of missing out, heavy reliance on social media, and reduced face-to-face interactions contribute to an escalating cycle. The dependency on smartphones can erode real-world relationships, creating a self-perpetuating negative feedback loop. Recognizing the substantial impact of smartphone use on self-esteem and pursuing healthier strategies for emotional management are pivotal to



addressing this predicament. Given the global prevalence of low self-esteem and associated mental health disorders, acknowledging their connection with smartphone addiction is crucial in preventing this digital dependency.

### ***Health Consequences***

Beyond predictive factors, smartphone addiction carries consequential health ramifications. Among these, insomnia and sleep disruption emerge as notable concerns. Insomnia, characterized by difficulties falling asleep or maintaining sleep, intersects with the broader disruption of standard sleep patterns, which can arise from various factors, including insomnia. Smartphone addiction exacerbates these sleep-related issues through exposure to blue light affecting sleep-regulating hormones, stimulation that delays sleep, irregular usage patterns altering circadian rhythms, and stress-inducing smartphone use that hampers relaxation.

Research findings reveal that a substantial portion of students experience worsened sleep quality due to excessive smartphone usage (Matar Boumosleh & Jaalouk, 2017). This is further underscored by a survey involving 1,492 students from a major Turkish university, which found a majority of the students reported health problems tied to smartphone use, with insomnia being a prominent concern (*Evaluation of Smartphone Addiction and Related Factors among University Students* | *Semantic Scholar*, n.d.). Another study of 494 Turkish university students firmly established insomnia as a predictive factor for smartphone addiction, as gleaned by comprehensive questionnaires (Aker et al., 2017). These findings emphasize the importance of addressing the intertwined relationship between smartphone usage, sleep quality, and well-being.

### ***Distractions***

Another consequence of smartphone addiction is distraction. With smartphones, the constant availability of digital content and notifications can divert individuals' attention from tasks, responsibilities, and real-world interactions. This perpetual stream of stimuli can fragment focus, disrupt concentration, and undermine productivity, reducing engagement with immediate surroundings and potentially impacting work, education, and social interactions. A study focusing on the effects of frequent smartphone use discovered that students were less likely to use their smartphones for their original intentions: to receive calls, emails, and read the news (Evaluation of Smartphone Addiction and Related Factors among University Students | Semantic Scholar, n.d.). Another study also showed that of 300 participants, 53.3% used their smartphones for social networking (Gaur, 2019).

## **Discussion**

The creation of a relentless cycle further compounds the repercussions of smartphone addiction. This cycle begins with the initial allure of smartphones, which progressively escalates into heightened usage, subsequently diminishing real-world engagement. This isolation fuels a growing dependence on digital interactions, reinforcing addictive behavior through instantaneous rewards. As interpersonal connections in the physical realm weaken, emotional well-being becomes increasingly contingent on virtual validation, perpetuating the cycle. Disrupting this cycle necessitates a conscious and deliberate endeavor to regain control, rebuild personal relationships, and restore equilibrium between online and offline experiences. The four distinct stages within the vicious cycle of smartphone addiction are awareness of withdrawal symptoms, encountering adverse consequences,

seeking refuge in smartphone usage, and persisting in addiction despite acknowledging the issue (Jin, 2017).

### **Conclusion**

It is evident that smartphone addiction negatively affects mental and physical health. Analyzing its impact on young adults, common precursors such as depression, anxiety, avoidant attachment, social isolation, stress, and low self-esteem constitute primary factors driving susceptibility to addiction. These elements intertwine, forming a complex nexus that culminates in addictive behavior. The ramifications are profound, encompassing issues like insomnia, reduced focus, and the perpetuation of a self-sustaining cycle of addiction. Acknowledging these patterns is paramount in cultivating healthier technological practices and prioritizing the overall well-being of young adults globally.

Methods to combat smartphone addiction include setting usage boundaries, minimizing notifications,

practicing mindfulness, and using productive apps.

Engaging in offline activities, prioritizing face-to-face interactions, and establishing a charging station outside the bedroom can also help. Finally, one should set goals, seek support, and gradually build a healthier smartphone relationship.

## References

- Aker, S., Şahin, M. K., Sezgin, S., & Oğuz, G. (2017).  
 Psychosocial Factors Affecting Smartphone  
 Addiction in University Students. *Journal of  
 Addictions Nursing*, 28(4), 215–219.  
<https://doi.org/10.1097/JAN.0000000000000197/>
- Alhassan, A. A., Alqadhib, E. M., Taha, N. W., Alahmari,  
 R. A., Salam, M., & Almutairi,  
 A. F. (2018).  
 The relationship between addiction to smartphone  
 usage and depression among adults: A cross-  
 sectional study. *BMC Psychiatry*, 18(1), 148.  
<https://doi.org/10.1186/s12888-018-1745-4/>
- Evaluation of smartphone addiction and related factors  
 among university students |  
 Semantic Scholar. (n.d.).  
 Retrieved July 27, 2023, from  
<https://www.semanticscholar.org/paper/Evaluation->

of-smartphone-addiction-and-related-Zencirci-  
 Aygar/038a2b6f742cf56dab7a0ecf5d193e8aeb48b6  
 3/

Gaur, A. (2019). Relationship between Smartphone  
 Addiction Severity and Depression among  
 College Students.  
[https://www.semanticscholar.org/paper/Relationship-between-Smartphone-Addiction-Severity-  
 Gaur/cf4bad9b8c834167fdb83c7e85cc6706ccb0afb/](https://www.semanticscholar.org/paper/Relationship-between-Smartphone-Addiction-Severity-Gaur/cf4bad9b8c834167fdb83c7e85cc6706ccb0afb/)  
 b/

Gligor, Șerban, & Mozoș, I. (2019). Indicators of  
 smartphone addiction and stress score  
 as university students.  
 Wiener Klinische Wochenschrift, 131(5), 120–125.  
<https://doi.org/10.1007/s00508-018-1373-5/>

Jin, Juhye. (2017). Experiences of Smartphone Addiction  
 among University Students. Journal



of Digital Convergence, 15(2), 421–429.

<https://doi.org/10.14400/JDC.2017.15.2.421/>

Kim, E., & Koh, E. (2018). Avoidant attachment and smartphone addiction in college students: The mediating effects of anxiety and self-esteem. *Computers in Human Behavior*, 84, 264–271. <https://doi.org/10.1016/j.chb.2018.02.037/>

Matar Boumosleh, J., & Jaalouk, D. (2017). Depression, anxiety, and smartphone addiction in university students- A cross-sectional study. *PLOS ONE*, 12(8), e0182239.

<https://doi.org/10.1371/journal.pone.0182239/>

Pera, A. (2020). The Psychology of Addictive Smartphone Behavior in Young Adults: Problematic Use, Social Anxiety, and Depressive Stress. *Frontiers in Psychiatry*, 11. <https://www.frontiersin.org/articles/10.3389/fpsyt.2020.573473/>

Phone Addiction: Warning Signs And Treatment. (n.d.).

Addiction Center. Retrieved

August 14, 2023, from

<https://www.addictioncenter.com/drugs/phone-addiction/>

Ratan, Z. A., Parrish, A.-M., Zaman, S. B., Alotaibi, M. S.,  
& Hosseinzadeh, H.

(2021). Smartphone Addiction and Associated

Health Outcomes in Adult Populations: A

Systematic Review. *International Journal of*

*Environmental Research and Public Health*, 18(22),

12257.

<https://doi.org/10.3390/ijerph182212257/>

Zauderer, S. (2023, October 5). *79 cell phone/smartphone  
addiction statistics*. Life-Changing

ABA Therapy - Cross River Therapy.

<https://www.crossrivertherapy.com/research/cell-phone-addiction-statistics>