

Yoga as a Remedy for Smartphone Addiction: A Bio-Psycho-Social Approach

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ABSTRACT

In today's digital world, using smartphones too much has become a serious problem. It affects our mind, body, and social life in a bad way. This habit changes the brain by increasing dopamine, which makes people want to use their phones again and again. Mentally, it can cause stress, anxiety, depression, and less self-control. Socially, it can weaken family and social relationships. Yoga can be a helpful solution to control this addiction. Yoga practices like physical postures (asanas), breathing exercises (pranayama), and meditation improve mental peace, self-control, emotional balance, and physical health. Yoga also helps in digital detox, making people aware of their habits and guiding them toward a healthier life. This article explains the causes and effects of smartphone addiction from a biological, mental, and social point of view, and discusses how yoga can help solve this problem.

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1. INTRODUCTION

Today, technology has spread everywhere. In the modern digital world, devices like smartphones, tablets, laptops, and other digital tools have become an important part of our daily life. On one hand, technology has made communication, access to information, and work easier, but on the other hand, its overuse is causing many mental, emotional, and physical health issues. Among all digital devices, smartphones are the most common and easily available. Almost every person in a family owns one. The most important thing is that people are using smartphones even when they don't want to. It has become a necessity in today's life. Since smartphones were introduced, the way people use devices has completely changed. No matter what a person's age, gender, or financial background is, everyone is affected by it.

Smartphones allow users to perform many tasks such as making calls, checking emails, sending messages, browsing the internet, conducting online transactions, listening to music, and playing games. However, frequent and repeated use often turns into habitual behavior. People tend to

check their phones constantly, even without a real need. Earlier, addiction only referred to substances like drugs or alcohol, but now this term also applies to certain behaviors like excessive gaming or internet use (Billieux et al., 2015; Panova & Lleras, 2016; Andreassen et al., 2012). This behavior is similar to addiction. Addiction is not just about alcohol or drugs; it can also refer to behaviors like spending too much time gaming, using the internet, or being on a smartphone. Studies show that smartphone use is highest among young adults aged 18 to 29 years (Mikhaylova, 2025; Boero et al., 2025; Peters et al., 2024; Li et al., 2023; Brito & Soares, 2023; Park et al., 2021; Haug et al., 2015). Even though the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders) and ICD-10 (International Classification of Diseases) do not officially classify smartphone addiction as a mental disorder, research estimates suggest that 10% to 20% of people may be affected (Billieux et al., 2015).

Research from different countries shows how serious this problem is. For example:

- In the United Kingdom, around 10% of children and teenagers use smartphones too much (Lopez-Fernandez et al., 2014).
- In Switzerland, the rate is around 16.9% (Haug et al., 2015).
- In South Korea, it rises to 30.9% (Cha & Seo, 2018).
- In India, about 31% of young users are affected (Schacht et al., 2013).
- A broader survey conducted across six Asian countries showed that 62% of people displayed signs of smartphone-related internet addiction (Mak et al., 2014).

Research also indicates that excessive smartphone use shares similar characteristics with other addictions such as gambling, substance abuse, smoking, and alcoholism. It is becoming a behavioral addiction and is linked to serious psychological and social problems. However, recent studies suggest that yoga and meditation may offer effective solutions. Yoga helps build a deeper connection between the mind and body. It promotes self-awareness, emotional balance, mental calmness, and physical activity, which can reduce dependency on digital devices (Brito & Soares, 2023; Putchavayala et al., 2022; Sharma et al., 2020; Sahni et al., 2021; Jagadambal, 2025). Practices such as asanas (yoga postures), pranayama (breathing exercises), and meditation help improve self-control and reduce the urge to overuse smartphones. The techniques described in ancient yogic texts can help address behavioral problems like smartphone addiction. These techniques can be used therapeutically to manage such behavioral patterns. These abilities can play an important role in understanding, managing and overcoming smartphone addiction.

2. A BIOPSYCHOSOCIAL UNDERSTANDING OF SMARTPHONE ADDICTION

A biopsychosocial approach to smartphone addiction is important because it addresses a combination of biological (such as sleep quality), psychological (such as anxiety and depression), and social (such as social isolation) factors. Understanding how these aspects interact requires considering biological, psychological, and social aspects.

2.1 Biological Aspect

Excessive smartphone use increases the release of a neurotransmitter called dopamine in the brain, which provides primary feelings of pleasure and satisfaction. The constant notifications and

digital stimulation can lead to the development of behavioral addictions. Over time, the brain becomes accustomed to these stimulations, requiring more dopamine to achieve the same satisfaction. This process can affect the neurological structure of the brain, resulting in a tendency to repeatedly check the phone. This reduces satisfaction from normal activities and increases dependence on digital media.

2.2 Psychological Aspect

The psychological implications of excessive smartphone use are profound, especially as social media and constant notifications impair our local and long-term memory. It can also negatively impact mental health, increased levels of anxiety, loneliness, depression and diminished self-worth. Cognitive consequences can also occur, such as decreased concentration, difficulty concentrating, and impaired decision-making. Furthermore, in many cases, people often use smartphone to manage stress or emotional distress, which further reinforces unhealthy behaviors.

2.3. Social Aspect

From a social perspective, social media addiction can weaken relationships because it reduces face to face interactions, leading to social isolation, diminished social skills, and relationship difficulties. Spending too much time on smartphones prevents people from interacting directly with each other, weakening family and social relationships. First, it will affect your health physically, mentally and spiritually so it is best to put your phone aside and increase your activities to socialize with others. Furthermore, excessive reliance on the virtual world can hinder emotional connections in the real world.

3. UNDERSTANDING THE NATURE OF SMARTPHONE ADDICTION THROUGH YOGA

Smartphone addiction has now become one of the major concerns in this modern digital world, and it is affecting both mental and physical health. The effects of this addiction include sleep disturbance, problems with mental health, social isolation and physical problems. It affects our emotional well-being, relationship and physical health. Because people are becoming more dependent on digital devices, excessive use of smartphones is disturbing day to day activities. Yoga, in such a situation can act as a very effective therapy that could help in minimizing the mental and physical effects of this habit.

4. IMPACT OF SMARTPHONE ADDICTION ON HEALTH

The effects of smartphone addiction are profound and operate on both the mental and physical levels. On a mental level, frequent excessive smartphone use is associated with stress, anxiety, depressive symptoms and decrease cognitive focus and concentration. On a physical level, people often report eye strain, sleep problems, decreased physical activity and muscle problems especially in the neck and back areas. These findings highlight the need for holistic interventions that address both the mind and body.

4.1. Yoga as a Therapeutic Modality

It includes integrated practices such as posture, breathing techniques and meditation all constituting an overall method to manage symptoms and internal causes of smartphone addiction.

Some aspects enlisted below further reveal the potential of yoga as an effective behavioral intervention in this regard:

4.1.1. Improvement in Mental Health

Excessive use of smartphone influences an increase in symptoms of mental stress, anxiety and depression. Regular practice of yoga, particularly techniques of meditation and calming postures, contributes to the reduction of stress, anxiety and emotional dysfunction, thus enhancing psychological resilience. These practices help in restoring emotional balance, which is often disturbed due to Digital overexposure.

4.1.2. Enhancement of Physical Health

Prolonged continuous smartphone use can lead to a variety of physical problems, such as dryness, irritation or redness of the eyes, numbness or pain in the fingers and stain or pain in the neck and back. Regular yoga asanas make the body more flexible, healthy and strong effectively reducing these problems.

4.1.3. Development of Self-Control

Breathing and meditation practices improve self- regulation and impulse control. This is especially important in reducing compulsive behaviors associated with smartphone use. Yoga increases mindfulness which helps people recognize their cravings and break out of automatic behavior patterns.

4.1.4. Promotion of Emotional Balance

Yoga and meditation are highly conducive to emotional stability and help manage negative emotions such as anxiety, stress and depression. By fostering a positive emotional state, yoga reduces dependence on digital devices, making it a psychological escape.

4.1.5. Enhancement of Self-Awareness

Regular yoga practice increases self- awareness of one's habits and behavior. Through regular practice, people become more aware of their thoughts, behaviors and internal states. This increased awareness helps them understand the nature of smartphone addiction and take the necessary steps to overcome it.

5. CONCEPT AND IMPACT OF DIGITAL DETOX

Just as we fast to keep our bodies healthy, we can also engage in digital detox to keep our minds healthy. A digital detox involves consciously choosing to limit or completely refrain from using digital devices for a set period. The goal is to reduce stress, enhance self-awareness, and restore mental clarity and cognitive efficiency. In an era dominated by virtual interactions, digital detox provides a counterbalance that promotes emotional resilience and mindful living. Research by Radtke et al. (2022), Mirbabaei et al. (2022), Mursaleen et al. (2024), Ansari et al. (2024), and Setiya et al. (2025) highlights the immense benefits of this practice.

5.1 Types of Digital Detox

Digital detox may take several forms, depending on a person's habits and lifestyle. However, some common detoxes include the following:

- **Social Media Detox:** Abstaining from platforms like Facebook, Instagram, Twitter, etc., to reduce comparison, anxiety, and digital noise.
- **Screen-Free Time:** Allocating specific hours in a day without interacting with any screens to regain focus and balance.
- **Digital Fasting:** Observing complete digital abstinence during weekends or specific days to rejuvenate mentally.
- **Notification Management:** Turning off non-essential notifications to reduce distraction and enhance focus.

These detox strategies provide relief from overstimulation and help re-establish a healthy digital-personal life balance.

5.2. Psychological and Physiological Impacts:

Research shows that digital detox can bring both psychological and physical benefits: reduced symptoms of anxiety and depression, improved sleep quality, increased concentration and cognitive efficiency, and stronger personal relationships. Furthermore, a new approach to psychological disturbances, developed by modern science, is an effective way to address the modern psychological challenges of the digital age, such as:

1. **Technostress** – Technostress is a condition of mental, emotional, and physical stress caused by excessive or continuous use of digital technology. It arises due to the complexity of digital devices, constant flow of information, and the pressure to stay constantly connected. Individuals may feel fatigue, anxiety, and irritability.
2. **FOMO (Fear of Missing Out):** FOMO is a psychological state where a person fears missing out on important or enjoyable experiences, especially after seeing others' activities on social media. For example, social media content creators may feel anxious about missing trending videos or audio. Common symptoms include:
 - Constantly checking phones or social media
 - Feeling restless when alone
 - Dissatisfaction after comparing with others' lives
 - Compulsion to stay digitally connected
3. **Nomophobia:** Nomophobia refers to the fear or anxiety of being without a mobile phone. When a person feels uneasy, nervous, or stressed due to lack of access to their phone, no signal, low battery, or being away from it, it is termed as nomophobia. The term comes from "No Mobile Phone Phobia".
4. **Brain Rot (Informal Term):** A gradual decline in cognitive functioning due to overexposure to digital content. It affects attention span, memory, emotional responses, and decision-making, which has been described as a structural deterioration of the brain's prefrontal cortex and limbic system due to overstimulation (Rabinovici & Miller, 2010). This can negatively affect:
 - Attention span
 - Memory

- Emotional responses
- Decision-making abilities

This condition is linked with the gradual weakening of neurons and synaptic connections in the prefrontal cortex and limbic system of the brain.

6. THE COMBINED IMPACT OF DIGITAL DETOX AND YOGA

In today's digital age, smartphones and other digital devices have become an integral part of our daily lives. However, excessive use of these devices poses significant challenges to both mental and physical health. Digital addiction can lead to problems such as anxiety, stress, eye strain, insomnia, and reduced physical activity. In such situations, Digital Detox emerges as a necessary process. Yoga, when integrated into the digital detox journey, serves as a powerful and effective medium to enhance mental health, physical vitality, and sleep quality.

7. CONCLUSION

Smartphone addiction has become an emerging concern in modern society, adversely impacting mental, physical, and social well-being. In the digital age, complete disconnection from technology may not be feasible; however, its mindful and balanced use is essential. The findings and existing literature converge to suggest that digital detox, when practiced mindfully and systematically, allows individuals to regain control over their time, attention, and cognitive faculties. However, digital detox in isolation may not be sustainable for many, particularly given the embeddedness of digital tools in work, education, and social interaction.

In this context, yoga emerges as a complementary and holistic solution that supports and strengthens the process of digital withdrawal. Through its practices including asanas, pranayama, and meditation yoga fosters self-awareness, emotional regulation, and physiological balance. Incorporating yoga into your daily routine can significantly enhance the results of a digital detox. It not only develops a disciplined routine and improves mental well-being but also facilitates a deeper connection with oneself, which is essential for combatting uncontrolled digital addiction. Regular yoga practice creates a balance between mental and physical health, enhance emotional regulation, and leads one towards stability and overall well-being. Raising awareness about responsible smartphone usage and incorporating yoga into daily life are crucial in today's world. This combination helps people overcome smartphone dependence and strengthens both personal health and digital well-being.

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