

ORIGINAL ARTICLE

The Effect of Excessive Smartphone Use on Mental Wellbeing, Sleep Quality and Active Lifestyle Behaviours

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This article may be cited as:

Hamerla A, Gawron J, Szydłowski R, Bodera M, Porwolik H, Porwolik A, Czarniecki B, Kaźmierska A, Grajcarek L, Cyran P; The Effect of Excessive Smartphone Use on Mental Wellbeing, Sleep Quality and Active Lifestyle Behaviours. Pak J Med Health Sci, 2026; 20(01): 3-6.

Received: 02-08-2025

Accepted: 15-01-2026

Published: 30-01-2026



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**ABSTRACT**

Introduction: Mobile phone addiction has become a very common phenomenon among young people. It leads to a number of negative consequences for their health, both physical and mental. The aim of this paper is to present the most important consequences of excessive phone use in terms of mental health, such as depression, anxiety and feelings of loneliness. Issues such as the impact of phone addiction on sleep disorders, orthorexia and eating behaviour are also discussed. The paper highlights that excessive use of mobile devices can significantly affect the quality of life of young people, contributing to emotional disturbances and reduced psychological well-being. Conclusions point to the need for further research and educational activities to reduce the negative impact of this phenomenon.

Material and methods: For this work, we conducted a search in the PubMed and Google Scholar databases using the keywords: "phone addiction," "health," "lifestyle," followed by an analysis of the selected materials.

Aim of the study: The aim of this work is to analyse the impact of smartphone addiction on young people's mental health, with a focus on aspects such as depression, anxiety, sleep disorders, orthorexia, social relationships and feelings of loneliness.

Conclusion: Excessive use of mobile devices can have a significant impact on the quality of life of young people, contributing to emotional, sleep and eating disorders. Preventive measures are advisable, including education on sleep hygiene, limiting the time spent in front of screens before bedtime and promoting healthy lifestyles among young people and students.

Keywords: Phone addiction; health; lifestyle.

INTRODUCTION

The contemporary world can be described as one that has fast technological changes. This has rendered the use of digital gadgets including smartphones, tablets and computers to be a norm. This is especially evident among the youth and most especially the students who have access to smartphones where they engage with peers socially and in education. The smartphone users in the world have already attained the mark of 7 billion and it is expected to hit over 8 billion by 2028. The scale of the phenomenon is demonstrated in studies that indicate that nearly all students possess at least one mobile phone¹⁻³. Despite the numerous positive effects, including the ability to communicate easily, access to information or learning materials, there is a high chance of addiction associated with the overuse of smartphones. This issue is then known in the literature as smartphone addiction that may be likened to internet addiction.

As the time spent using smartphones increases, the likelihood of health and mental health problems such as sleep disorders, depression and anxiety increases. One of the main effects of excessive technology use is the deterioration of sleep quality^{2,12,14}. Studies show that people who spend more than three hours a day in front of screens are more likely to have sleep problems. Lack of adequate sleep among young people can lead to lower melatonin levels, which in turn increases the risk of mental disorders such as depression, anxiety and stress^{11,13}. Smartphone addiction has also been linked to other health problems, such as an excessive focus on healthy eating (orthorexia), unhealthy eating habits, and an increased risk of eating disorders²¹⁻²⁷. Furthermore, frequent smartphone use can lead to deterioration of social relationships and increased loneliness⁹⁻¹⁰.

The aim of this study is to analyse the impact of smartphone addiction on young people's mental health, with a focus on aspects such as depression, anxiety, sleep disorders, orthorexia, social relationships and feelings of loneliness. The analysis of existing research will provide a better understanding of this phenomenon and highlight the need for preventive action^{3,28-33}.

MATERIAL AND METHOD

This study is based on a review and analysis of existing scientific literature concerning smartphone addiction and its impact on mental health. Relevant studies were identified through academic databases, focusing on research related to depression, anxiety, sleep disorders, eating disorders, orthorexia, and social relationships among young people.

Both cross-sectional and longitudinal studies were considered, with particular attention to large sample sizes and validated assessment tools such as psychological scales and self-report questionnaires. The collected data were analysed qualitatively to identify common patterns, relationships, and mechanisms linking smartphone use with mental and physical health outcomes⁴⁻⁸.

RESULTS

Depression

In the WHO International Classification of Diseases ICD-11, a depressive episode is characterised as a lowered mood or loss of interest in activities that occurs for most of the day, almost every day for at least two weeks. According to the World Health Organisation (WHO), depression is one of the leading causes of illness and suicide worldwide⁴.

Research indicates a strong, often bidirectional relationship between excessive social media use and symptoms of depression and anxiety. Heavy smartphone users, especially those spending more than four hours daily or checking devices frequently, report significantly higher levels of depressive symptoms^{6-8,31}. Reduced physical activity appears to be a key mediating factor⁸.

Loneliness

Smartphone addiction can reduce real-life social interactions, leading to isolation and reduced social adaptability⁹⁻¹⁰. Studies suggest a U-shaped relationship, where both excessive and minimal internet use are linked to higher depression risk, while moderate use may be protective⁸. Gender differences also exist, with women more likely to use social media for emotional coping^{4,5}.

Impact on Sleep Quality

Problematic Smartphone Use (PSU) is strongly associated with poor sleep quality, shorter sleep duration, and difficulty falling asleep^{12-15,20}. Night-time usage and excessive engagement with digital content contribute significantly to sleep disturbances, especially among students and young adults^{11,13}.

Impact on Eating Disorders

Excessive smartphone use is linked to unhealthy eating behaviors, obesity, and emotional eating²¹⁻²⁴. Social media addiction correlates with increased BMI and compulsive behaviors. Indirect factors such as stress and poor interpersonal relationships (e.g., phubbing) also contribute to disordered eating patterns²²⁻²³.

Impact on Orthorexia

Smartphone and social media use are associated with orthorectic tendencies, particularly due to exposure to

idealised body images and diet-related content²⁵⁻²⁷. Although causality is unclear, frequent engagement with such content may increase obsession with healthy eating²⁶⁻²⁷.

DISCUSSION

In light of the research, the impact of phone addiction on young people's mental and physical health is multidimensional. With the increasing popularity of social media and digital entertainment, especially during the COVID-19 pandemic, significant risks have emerged, including increased depression, anxiety, sleep disorders, and eating-related issues^{4,5,28-30}.

Although smartphones and social media offer benefits such as communication and access to information, their excessive use is associated with serious consequences. Young individuals, particularly those with low self-esteem, are more vulnerable to body image concerns and eating disorders due to unrealistic online portrayals²⁵⁻²⁷.

Healthcare professionals and caregivers should monitor digital exposure and guide responsible usage. Preventive strategies, including education, parental guidance, and regulation of digital content, are essential. Future research should focus on long-term effects and diverse populations to better understand these relationships³²⁻³³.

CONCLUSION

Phone addiction is a major concern for mental health, particularly among teenagers and students, increasing the risk of depression, anxiety, sleep disturbances, and eating disorders. These effects are often mediated by reduced physical activity and poor social interaction^{4-8,12-15,21-27}.

At the same time, moderate smartphone use may have beneficial effects by supporting communication and healthy habits. Preventive measures such as promoting sleep hygiene, limiting screen time before bed, and encouraging a balanced lifestyle are essential to reduce the negative impact of smartphone use on young people^{2,3,28-33}.

DECLARATION

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All authors have read and agreed with the published version of the manuscript.

Conflict of interest

The authors report no conflict of interest.

Financial disclosure

The study did not receive any funding.

Institutional Review Board Statement

Not applicable.

Informed Consent Statement

Not applicable.

Data Availability Statement

Not applicable.

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