

THE IMPACT OF DIGITAL TECHNOLOGIES ON MENTAL HEALTH

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Abstract. *This article explores the influence of digital technologies on human mental health. With the growing presence of smartphones and social media in daily life, psychological issues such as stress, depression, loneliness, and digital addiction are becoming increasingly widespread. Young people, in particular, are experiencing lower self-esteem and a decline in face-to-face interactions. The article also suggests ways to reduce the negative psychological effects of technology, emphasizing the importance of digital hygiene and mindful usage as key factors in maintaining mental well-being.*

Keywords: *Digital technologies, mental health, stress, depression, loneliness, digital addiction, social media, psychological effects, emotional fatigue, cyberbullying, youth, online communication, digital hygiene, psychological well-being, responsible technology use.*

Introduction

Modern life is unimaginable without digital technologies. Smartphones, computers, social networks, artificial intelligence, and other digital tools have become integral parts of our daily routines. They enable people to access information quickly, communicate with others, and expand their knowledge. However, along with these advantages, concerns about the impact of digital technologies on mental health are growing.

Research shows that constant online activity, exposure to idealized lives on social media, and frequent notifications can increase stress, anxiety, depression, and social withdrawal. Digital technology may even influence hormonal balance in the body. Among young people, excessive dependence on technology has been linked to lower self-esteem and increased feelings of loneliness. Therefore, it is important to examine

both the positive and negative effects of digital technologies and explore strategies for preserving mental health.

Main Body

In recent years, the rapid advancement of digital technologies has affected nearly all aspects of human life. The internet, smartphones, social media platforms, AI-based services, and mobile applications offer many conveniences. At the same time, there is ongoing debate among experts, psychologists, and sociologists about their impact on mental health.

Firstly, it is important to recognize the positive aspects of digital technologies. They allow people to access information quickly, stay in touch with friends and family, and engage in remote work or learning. For many users, technology serves as a social support tool. For example, during the COVID-19 pandemic, virtual conversations and online communities helped people avoid feelings of isolation.

However, there are also negative psychological consequences. Constant connectivity, frequent notifications, and over-attachment to virtual life can lead to emotional exhaustion, cognitive overload, and even anxiety disorders. Young people are especially vulnerable to comparing themselves with the “perfect lives” portrayed on social media, which often results in lower self-worth and contributes to depression.

International studies conducted between 2020 and 2023 have shown that people who spend more than 2–3 hours per day on social media experience increased loneliness, critical self-evaluation, and difficulty in real-life social interactions. Moreover, using digital devices at night disrupts sleep quality, which in turn affects mood and concentration. Furthermore, the mental health of children and adolescents is also at risk due to the improper use of digital devices. Many young users grow accustomed to living in a virtual world, neglecting real-life communication skills. In some cases, this leads to digital addiction, which is now recognized as a clinical psychological disorder.

Another serious concern is cyberbullying, which is increasingly common through digital platforms. This issue especially affects school-age children, often causing severe emotional harm and, in extreme cases, leading to suicidal thoughts or actions.

The term "digital autism" is used to describe the cognitive and emotional effects of overexposure to screens. It is believed to have both direct and indirect negative

impacts not only on psychological well-being but also on the hormonal system. Below are some key examples:

1. Decrease in Melatonin Levels (Sleep Hormone)

Using screen-based devices at night exposes the brain to blue light, which suppresses melatonin production.

This results in sleep disturbances.

Children go to bed later and do not get enough rest.

Lack of sleep negatively affects the production of other hormones as well.

2. Increase in Cortisol Levels (Stress Hormone)

Overstimulation from digital content, intense gaming, or constant engagement with online media raises cortisol levels.

This puts the child in a persistent state of stress.

As a result, they may experience chronic anxiety, irritability, and emotional instability.

3. Disruption of Dopamine Regulation (Pleasure and Reward Hormone)

Digital games, videos, and social media activate the brain's reward system through likes, achievements, and constant new content. This overproduction of dopamine can alter natural reward responses, making real-life activities feel less rewarding.

Digital technologies, while offering significant advantages in making life easier, also pose serious threats to mental health when overused or misused. Therefore, mindful and moderate use of digital tools, creating a psychologically healthy environment, and promoting digital hygiene have become urgent and essential priorities.

Conclusion

Digital technologies have become an integral part of modern human life, enhancing daily activities, communication, education, work, and entertainment. However, uncontrolled and excessive use of these tools can negatively affect mental health. Numerous studies and real-world observations confirm this.

This article has outlined not only the positive aspects of digital technology but also its psychological drawbacks, including stress, anxiety, depression, loneliness, and digital dependency. Among adolescents and youth, excessive interest in social

media often leads to low self-esteem and social withdrawal. Issues such as poor sleep, lack of focus, and emotional exhaustion have also been linked to overuse.

In addition, the rising number of cyberbullying cases among school students and university youth highlights a significant mental health threat. All of this underscores the need to develop a culture of responsible technology use within families, schools, and society as a whole.

Therefore, using technology for constructive and balanced purposes, promoting digital hygiene, expanding psychological support services, and guiding youth toward mentally healthy lifestyles are among the most important tasks of our time.

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