



Exploring The Impact Of Digitalization On Physical Health & Mental Health In Adolescents

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Abstract:

This review paper explores the multifaceted impact of digitalization on the physical and mental health of adolescents. The study investigates both the favorable and unfavorable consequences of adolescents' engagement with conventional and new digital media. It delves into the role of social and interactive digital platforms in early learning, exposure to novel concepts, social networking, and health information access. However, the review also addresses the risks associated with excessive use of social media, including sleep problems, attention issues, obesity, depression, cyberbullying, and exposure to inappropriate content.

Keywords: Digitalization, Conventional media, Cyber bullying, sedentary behavior

Introduction:

The rapid advancement of digital technology has brought about transformative changes in various aspects of adolescent life. Adolescents are avid users of both conventional and new digital media, with a significant impact on their physical and mental well-being. In the 21st century, the youth demographic has emerged as avid consumers of digital technology, with smartphones, tablets, and laptops becoming constant companions and extensions of their identity (OECD, 2017; Pew Research Centre, 2018). The omnipresence of digital devices raises critical questions about the impact of this mass consumption on the well-being of current and future generations. Although there are some positive benefits as well, the development of digital technology has

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resulted in significant changes in human interaction and mental health that need for a deeper understanding (Keles et al., 2019; OECD, 2018). As this study unfolds, it is crucial to acknowledge the contextual backdrop of the COVID-19 pandemic, a global phenomenon that has significantly heightened reliance on digital technology for connection, work, education, and socializing (Bansal, 2020). The events of 2020/2021, marked by the pandemic, racial justice movements, and ecological crises, have deeply influenced the narrative of this research. Research on youth mental health is more important than ever because of the abrupt switch to virtual reality for socializing and education during lockdowns, which has added layers of complexity to the lives of young people (Bartlett et al., 2020; UNICEF, 2020). Despite the pressing need for understanding, existing research often treats youth as observable subjects rather than active participants, limiting the richness of insights gained (McCartan et al., 2012; Middaugh et al., 2017). This review aims to provide a comprehensive analysis of the existing literature on the subject, addressing the positive and negative consequences of digitalization on adolescents' health.

Digitalization and Mental Health:

The rise of social media and digital communication platforms has created new avenues for adolescents to connect, learn, and share experiences. However, studies show a relationship between overuse of social media and heightened levels of anxiety (Primack & Escobar-Viera, 2017). Social comparison theory (Festinger, 1954) suggests that adolescents, in particular, engage in frequent comparisons, which can impact mental health. Positive interactions on social media boost self-esteem, while cyberbullying and exposure to inaccurate information can contribute to psychiatric illnesses (Myers & Crowther, 2009).

Individuals' self-esteem and body image are significantly influenced by their interactions on social media platforms. Unfavorable social comparisons and spending excessive time on these platforms can contribute to feelings of dissatisfaction with one's body (Scully et al., 2023). This section explores the psychological social media's effects on body image and self-esteem. Social networks addiction is increasingly recognized as a factor contributing to mental distress, anxiety, and depression. The phenomenon of social media fatigue, where the addictive use of these platforms induces stress, is a growing concern (Dhir et al., 2018). This section delves into the psychological consequences of social media addiction, encompassing both individual well-being and interpersonal relationships. Maintaining healthy relationships is a fundamental aspect of overall well-being, yet social media addiction poses risks to relationship satisfaction. Research shows that excessive usage of social media negatively impacts relationship satisfaction, which in turn exacerbates mental health disorders including anxiety and depression (Scott & Woods, 2016; Larcombe et al., 2016). This section delves into the complex connections among mental health, relational dynamics, and social media addiction. As technological advancements have redefined how individuals establish social connections, the dark side of digital media addiction becomes increasingly apparent. This section discusses the evolution of social connections facilitated

by social media platforms, as well as the adverse effects of excessive usage on genuine face-to-face relationships (Griffiths, 2013; Kuss & Griffiths, 2017).

In the contemporary digital age, technology use has become essential to day-to-day existence, influencing various aspects of societal functioning. Technology's effects on health, especially when it comes to excessive internet use, has garnered attention from researchers exploring its societal repercussions. The intersection of technology and health is a complex landscape, marked by a growing body of research that elucidates both positive and negative consequences. Studies conducted by Ko et al. (2009), Weaver et al. (2011), & according to Wei (2007), there is a direct link between excessive internet use and poor interpersonal skills, strained family relationships, a poorer standard of living, and a greater susceptibility for violence. The implications extend beyond the individual level, permeating societal structures and interpersonal relationships.

Digitalization & Physical Health

Notably, the influence of technology on sexual behavior has been explored, with Peter and Valkenburg's (2011) study finding a link between exposure to pornography and risky sexual behavior, particularly among males. Moreover, cyberbullying, a phenomenon intertwined with regular internet use, has been associated with detrimental effects on mental well-being (Aricak et al., 2008). Kim and Chun's (2005) research, focusing on Korean teenagers, expands the understanding by connecting significant internet addiction to a compromised diet and decreased frequency of exercise. The health effects of extended technology usage are not limited to mental and interpersonal domains. Physical effects included headaches, stomachaches, eyesight issues, increased daytime drowsiness, and bad eating habits in children were highlighted by studies conducted by Do et al. (2013), Nuutinen et al. (2014), and Mazer and Ledbetter (2012). Do et al. (2013) further highlight a concerning association between extensive internet use and self-reported suicidal thoughts among Korean teenagers. Understanding the psychological toll, studies by Mazer and Ledbetter (2012), duToit et al. (2004), Gackebach and Kuruvilla (2008), Cao et al. (2007), and Ha et al. (2006) uncover the links between obsessive internet use, internet gaming addiction, and various mental health issues. Insomnia and psychiatric illnesses are reported among frequent internet users (Jenaro et al., 2007), emphasizing the broader impact on mental well-being. Digitalization has introduced both challenges and opportunities in the realm of obesity. Increased screen time, sedentary behavior, and the influence of digital platforms on dietary habits contribute to obesity (Hetherington, 2018; Straker, 2009). However, the advent of mobile health (mHealth) applications and wearable devices provides tools for health monitoring, potentially aiding in weight management (Primack, 2017). The impact of digitalization on obesity is a complex interplay of various factors, requiring a nuanced approach in leveraging digital resources for promoting a healthy lifestyle. The proliferation of digital devices has led to concerns about the impact on musculoskeletal health and posture. Prolonged screen time, often involving non-ergonomic positions, contributes to issues such as "text neck" and poor posture (Hinduja, 2010). Muscular imbalances resulting from constant use of digital devices may lead to chronic pain and discomfort (Clark, 2018). Despite

these challenges, People are becoming more conscious of the significance of ergonomics and proper posture in the digital age, providing opportunities for mitigating potential harm. The pervasive influence of social media in contemporary society has profoundly changed how people connect with one another, providing both opportunities for connectivity and potential risks to physical and mental well-being. This paper seeks to comprehensively investigate the multifaceted the consequences of social media addiction on individuals' physical health and mental wellness, shedding light on various aspects such as obesity, muscular pain, eyesight problems, self-esteem, relationship satisfaction, and overall mental distress. The increasing reliance on social media platforms has been linked to several physical health problems, like obesity, muscular pain, and eyesight problems. Studies indicate a clear link between an overly sedentary lifestyle and digital media use, contributing to health concerns (Scully et al., 2023). Understanding the physical health consequences of social media addiction is crucial for promoting holistic well-being. Expanding beyond internet usage, Punamaki and associates' (2007) research delves into the effects of extensive mobile technology use, revealing fatigue during the day and disrupted sleep patterns. The intricate web of consequences associated with technology use demands a nuanced exploration of its multifaceted impacts on individuals and society.

Conclusion:

This review highlights the complex relationship between digitalization and adolescents' health. While digitalization brings about numerous advantages, including early learning opportunities and access to health information, it also poses significant risks, particularly in the realms of mental health, obesity, and musculoskeletal problems. In order to effectively navigate the digital age, we must find a balance between utilizing the advantages of digitalization and putting policies in place to lessen any possible negative impacts on the wellbeing of adolescents.

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