

Exploring Internet Use, Problematic Behavior, and Their Impact on Mental Health: A Comprehensive Review

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Abstract: This literature review examines the relationship between internet usage, problematic online behaviors, and their impact on the mental health of young adults and adolescents. As the internet and digital technologies become integral to daily life, concerns have grown regarding the consequences of excessive internet use, particularly problematic internet use (PIU). The review starts by systematically assessing the increasing prevalence of internet use among young individuals, emphasizing the need to differentiate regular usage from PIU. It also explores problematic smartphone use and its connection to psychopathology, especially anxiety and depression, which share characteristics with behavioral addiction. Furthermore, the review investigates longitudinal trends in internet use and trust levels among American adults and late adolescents from 1972 to 2012. It reveals a significant decline in trust and confidence, potentially associated with increased internet use. The review also examines the prevalence of Internet Gaming Disorder (IGD) and its co-occurrence with depression, offering insights into the diagnostic criteria for IGD. In summary, this comprehensive literature review underscores the need for further research to understand the evolving dynamics and develop effective interventions related to internet use. It emphasizes the bidirectional relationship between internet use and mental health and highlights the relevance of diminishing trust and confidence. These considerations are vital for shaping strategies to promote mental well-being in the digital age.

Keywords: Internet use, Problematic behavior, Anxiety, Depression, Adolescents, Social networking, Internet Gaming Disorder, psychopathology, Trust, Digital technologies.

1. Introduction

The 21st century has witnessed an unprecedented integration of the internet and digital technologies into our daily lives, and this integration is particularly profound among young adults and adolescents. These digital technologies offer a multitude of benefits, including easy access to information, communication, entertainment, and education. However, this extensive digital engagement has given rise to concerns about the potential consequences of excessive internet usage, especially regarding mental health. A growing body of research has been devoted to exploring the concept of problematic internet use (PIU) and its intricate relationship with conditions like anxiety and depression.

This literature review embarks on an in-depth exploration of the longitudinal research trends in internet usage patterns and their associations with PIU among young individuals. We also delve into the concept of problematic smartphone use and its pronounced links with psychopathology, specifically in the context of anxiety and depression. Additionally, we examine changes in trust and confidence levels among American adults and late adolescents in recent decades, and their connection with the increasing prevalence of internet use and digital technologies. All these aspects are critical in providing valuable insights into the complex and intricate relationships between internet usage and mental health.

2. Problematic Internet Use

2.1. Trends in Internet Usage and Problematic Internet Use

The systematic review conducted by Anderson, Steen, and Stavropoulos in 2017 [1] underscores the burgeoning prevalence of internet usage, a phenomenon most pronounced among young individuals in their adolescent and emerging adult years. This surge in internet engagement among this demographic has been the focal point of significant attention, underlining the pressing need to discern the potential repercussions of such extensive digital immersion. Particularly, this surge in internet usage has cast a spotlight on the phenomenon of problematic internet use (PIU).

PIU, as elucidated by Anderson and colleagues [1], encompasses uncontrolled and excessive internet use, leading to adverse outcomes and consequences. To gain a comprehensive comprehension of the implications of PIU, it becomes imperative to draw a clear distinction between standard internet use and the emergence of problematic usage patterns. This distinction forms the bedrock upon which we can truly appreciate the potential impact of PIU on mental health.

2.2. Problematic Smartphone Use and Its Association with Psychopathology

The widespread adoption of smartphones in recent years has opened up a new dimension in the realm of digital behavior, one defined by problematic smartphone use. In 2017, Elhai, Dvorak, Levine, and Hall [2] shed light on this digital dimension, providing an all-encompassing overview

of problematic smartphone use. Their focus rests on the intricate links this digital behavior shares with psychopathological conditions, especially anxiety and depression.

This conceptual framework endows us with the capacity to comprehend how problematic smartphone use seamlessly interweaves with the tapestry of mental health. Problematic smartphone use is typified by symptoms reminiscent of behavioral addiction, including withdrawal symptoms and a distinct lack of control over usage. Individuals exhibiting problematic smartphone use frequently grapple with heightened levels of anxiety and depression symptoms. These symptoms primarily manifest due to the pangs of social isolation, a consequence of excessive smartphone usage, and the perpetual fear of missing out (commonly referred to as FOMO) on social and online activities.

Apprehending the dynamic interplay between problematic smartphone use and psychopathology, especially anxiety and depression, becomes pivotal in the backdrop of the burgeoning dependency on smartphones among young individuals.

2.3. Longitudinal Trends in Internet Usage and Trust Levels

In 2017, Twenge, Campbell, and Carter [3] embarked on a comprehensive study, investigating the decline in trust levels directed towards others and the waning confidence in institutions among American adults and late adolescents. This extensive research encapsulates the years from 1972 to 2012, a period marked by significant socio-cultural transformations and the meteoric rise of the internet and digital technologies.

The findings of the study conducted by Twenge and her associates signal a substantial decrease in trust and confidence levels during this period [3]. This decline synchronizes with the widespread adoption of the internet and digital technologies. It is imperative to bear in mind that the amplified use of the internet can contribute to social isolation, which, in turn, can exacerbate symptoms of anxiety and depression.

The decline in trust levels within society, particularly in institutions and interpersonal relationships, may intersect with the growing prevalence of internet usage and digital engagement. This interplay can substantially influence the mental health of young individuals, a demographic that comprises some of the most avid users of the internet and digital technologies.

3. Internet Addiction and Mental Health

3.1. Prevalence of Internet Gaming Disorder and Its Comorbidity with Depression

In 2015, Rehbein, Kliem, Baier, Mößle, and Petry [4] delved into the prevalence of Internet Gaming Disorder (IGD) among German adolescents. IGD is a condition characterized by excessive online gaming and a noticeable lack of control over gaming behavior. This study illuminates the diagnostic criteria essential for identifying IGD and provides invaluable insights into its implications for mental health.

A profound understanding of the prevalence and diagnostic criteria for IGD plays a pivotal role in comprehending the far-reaching implications of this disorder for mental health. The research conducted by Rehbein and her colleagues [4] underscores the urgent necessity to identify and address IGD,

particularly among adolescents whose involvement in online gaming activities is extensive. A primary focal point of their work revolves around the provision of diagnostic criteria for IGD, a fundamental step in recognizing cases and initiating timely interventions.

In 2018, Wang, Cho, and Kim [5] explored the co-occurrence of depression in individuals diagnosed with DSM-5 Internet Gaming Disorder. Their study places a spotlight on the concurrent emergence of depressive symptoms in individuals afflicted with IGD. This co-occurrence underscores the potential consequences of immersive online gaming, which encompass social isolation and heightened anxiety levels.

The study by Wang and her collaborators [5] underscores the exigency of comprehensive assessments and interventions for individuals grappling with IGD. It highlights that depression frequently accompanies IGD, thus underscoring the pivotal role of intervention strategies in enhancing mental health outcomes for individuals dealing with this condition.

3.2. Simultaneous Usage of Social Networking Sites and Internet Addiction

In 2016, Muller, Dreier, Beutel, Duven, Giralt, Wölfling, and Aiken [6] embarked on a study that scrutinized the intense and addictive usage of social networking sites (SNS) among adolescents. While their study does not exclusively revolve around internet addiction, it delivers valuable insights into the potentially addictive nature of SNS usage. These insights are of paramount importance because they offer a broader perspective on digital behaviors and their association with psychopathological conditions.

The research conducted by Muller and her team demonstrates [6] that, despite not constituting a formal addiction, excessive SNS usage can exhibit addictive qualities. This is a cause for concern, as these addictive characteristics may contribute to symptoms of psychopathology through mechanisms such as social comparison and the erosion of self-esteem.

Understanding the potentially addictive nature of SNS usage and its connections with psychopathology holds pivotal significance in recognizing the broader spectrum of digital behaviors and their implications for mental health.

4. Conclusion

This comprehensive literature review uncovers the intricate and multifaceted relationships that exist between internet usage, problematic digital behaviors, and symptoms of anxiety and depression. It is unequivocally clear that as internet usage continues to evolve and proliferate, further research remains imperative to elucidate the intricate dynamics and to design effective interventions that can curtail potential detrimental consequences on mental health. Recognizing the bidirectional relationships between internet usage patterns and mental health outcomes becomes indispensable in structuring targeted approaches that can navigate these multifarious challenges.

Furthermore, the evident decline in trust and confidence levels observed in society, particularly among young individuals, may interact with internet usage, thereby influencing mental health in a compounded manner. This interaction adds another layer of complexity to the already intricate relationship between the digital age and psychological well-being.

Understanding these complex interplays and their effects on mental health is of paramount importance in formulating comprehensive strategies and interventions aimed at fostering mental well-being in the digital age.

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