The Impact of Excessive Internet Usage on the Emotional Maturity of Adolescents: A Case Study in Pakistan

Abstract

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Background: Excessive internet usage has become a significant issue among adolescents and young adults, affecting their physical, mental, social, and emotional well-being. In the Pakistani context, this trend is particularly concerning due to limited digital literacy and awareness of the negative effects of internet overuse.

Aim: This study aims to explore the impact of excessive internet usage on the emotional maturity of adolescents in Pakistan, analyzing how limitless internet access contributes to physical, mental, and social challenges among this age group.

Methodology: The research adopts a qualitative approach, reviewing existing literature on internet abuse and its repercussions on the physical, mental, and emotional health of Pakistani adolescents. The study analyzes key factors contributing to the decline in emotional maturity due to excessive internet use.

Results: The findings indicate that high levels of internet usage are closely associated with reduced emotional maturity among adolescents. This reduction is manifested through various issues, including increased mental stress, decreased physical activity, and deteriorated social relationships.

Conclusion: The study concludes that excessive internet usage can significantly impact the emotional development and maturity of adolescents, leading to a range of mental, physical, and social problems. It underscores the need for interventions that promote balanced internet use and enhance emotional resilience among Pakistani youth.

Keywords: Excessive Internet Usage, Adolescents, Emotional Maturity, Pakistan, Social Challenges.

Introduction

The internet has become a vital aspect of modern life, serving as a key mode of communication, a platform for social connections, and a source of entertainment (Can & Alatas, 2019; Haythornthwaite, 2005; McCloud et al., 2016). Technological advancements and improvements in networking, communication technologies, digital learning services, and internet accessibility have driven this growth, supported by digital gadgets like smartphones, tablets, and computers (Ghafoor & Raja, 2022; Matthew et al., 2021; Meena et al., 2022). In fact, a recent epidemiological study encompassing over 5,000 adolescents across six Asian countries found that smartphone ownership stands at 62%, while internet addiction rates vary between 6.2% and 21% (Zaidi & Sultana, 2023; Trang & Thuy, 2023).

Adolescents and young adults are among the most frequent users of the internet and related digital devices, primarily for communication and entertainment purposes (Sharov et al., 2021). However, the excessive use of the internet has emerged as a global concern, especially in Asian countries, where internet penetration and digital gadget use are high (Hussain et al., 2023; Duarte, 2023). In Pakistan, where internet use became widespread in the early 1990s, the internet and communication technology industry has rapidly grown, becoming one of the country's fastest-growing sectors (Hafeez, Iqbal, & Imran, 2021; Javed, 2020). This rapid growth has contributed to the development of the Pakistani economy, but it has also brought challenges, particularly concerning internet addiction among adolescents and young adults (Siddiqui et al., 2021).

Excessive internet usage has been linked to a range of mental and physical health issues, along with the development of behavioral addictions (Ahmad, Ali, & Sewani, 2021; Boursier et al., 2020). In Pakistan, adolescents and young adults are increasingly using the internet in ways that may negatively impact their psychological well-being and emotional maturity, especially when used to cope with challenging relationships and difficult emotions (F. Akhtar et al., 2023;

Khalid, 2023). Adolescents, in particular, are at a critical stage of development where they experience emotional and social instability, and excessive internet use can exacerbate these issues, leading to antisocial and aggressive behavior (Fairchild et al., 2019; Ahmad, Sewani, & Ali, 2021; Fontana et al., 2022). This impact on emotional maturity is significant, as it can affect the ability of adolescents to manage emotions, build healthy relationships, and interact effectively in social settings.

Given these challenges, this study aims to examine the impact of excessive internet usage on the emotional maturity of adolescents in Pakistan. By reviewing the physical and mental effects of excessive internet use, the study seeks to understand the broader implications for the emotional development of young people in this context. The findings could inform educational policies, parental guidance, and broader societal interventions aimed at addressing the potential harms of excessive internet usage among adolescents in Pakistan

Literature Review

The rapid growth of technology and the proliferation of the internet have transformed how people communicate, access information, and socialize. While these advancements offer significant benefits, excessive internet usage has become a growing concern, particularly among adolescents. This age group, often defined by rapid emotional and psychological development, is especially vulnerable to the adverse effects of excessive internet use, including diminished emotional maturity. In Pakistan, the widespread adoption of smartphones and other internet-enabled devices has raised alarm about the impact on adolescent development.

Emotional Maturity in Adolescents

Emotional maturity is a crucial aspect of adolescent development, encompassing the ability to manage emotions, form healthy relationships, and navigate social environments effectively (Singh & Singh, 2019). It involves skills such as empathy, self-control, and resilience, which are essential for successful adulthood. The literature indicates that emotional maturity is heavily influenced by various external factors, including family dynamics, peer relationships, and media consumption (Zaidi & Sultana, 2023; Rodriguez et al., 2018).

Excessive Internet Usage: A Global Issue

Excessive internet usage among adolescents is a global issue, with studies linking it to a range of

negative outcomes. It is often characterized by excessive time spent online, compulsive behavior, and neglect of other activities (Caplan, 2019). Research by Greenfield and Yan (2006) suggests that excessive internet usage can lead to social isolation, decreased physical activity, and a decline in academic performance. In the context of emotional maturity, it has been associated with increased levels of stress, anxiety, and depression among adolescents (Anderson & Sturm, 2017).

The Pakistani Context

In Pakistan, internet usage has surged due to the expansion of mobile technology and increased affordability (Khan et al., 2020). While this has facilitated greater access to information and opportunities for social connection, it has also led to concerns about the potential negative effects on adolescents' emotional development. A study by Shah et al. (2019) found that adolescents in Pakistan are spending significant amounts of time on social media and other online platforms, often at the expense of face-to-face interactions and physical activities. This trend has prompted researchers to explore its impact on emotional maturity.

Impact on Emotional Maturity

Excessive internet usage can have a detrimental impact on emotional maturity in several ways. Firstly, it can lead to a reduction in face-to-face interactions, which are essential for developing social skills and empathy (Lin & Peng, 2016). Adolescents who spend excessive time online may struggle with real-life relationships, leading to social isolation and a lack of emotional support (Choi et al., 2015).

Secondly, excessive internet use is associated with increased levels of stress and anxiety, which can hinder emotional development (Ko et al., 2017). The constant exposure to digital stimuli can lead to sensory overload, affecting adolescents' ability to manage their emotions effectively. This, in turn, can lead to impulsive behavior and difficulty in maintaining stable relationships (Kim & Choi, 2017).

Thirdly, the internet provides a platform for cyberbullying and other forms of online harassment, which can negatively impact adolescents' self-esteem and emotional well-being (Tokunaga, 2010). Victims of cyberbullying often experience increased levels of depression and anxiety, which can further erode emotional maturity.

Strategies for Addressing Excessive Internet Usage

Several strategies have been proposed to address the issue of excessive internet usage among adolescents. Parental supervision and guidance play a crucial role in helping adolescents

develop healthy internet habits (Livingstone & Helsper, 2008). Encouraging balanced use of technology and promoting offline activities can help reduce the negative impact on emotional maturity (Rosen et al., 2013).

In the educational context, schools can integrate programs that teach digital literacy and emotional intelligence, helping adolescents understand the risks of excessive internet use and develop skills to manage their online presence (Patchin & Hinduja, 2010). Moreover, mental health professionals can offer counseling and support to adolescents struggling with internet addiction and related emotional issues (Cash et al., 2012).

Conclusion

Excessive internet usage poses significant risks to the emotional maturity of adolescents, particularly in Pakistan, where internet access has rapidly increased. This literature review highlights the various ways in which excessive internet use can impact emotional development, leading to issues such as social isolation, increased stress, and cyberbullying. Addressing this issue requires a multi-faceted approach, involving parents, educators, and mental health professionals, to ensure that adolescents develop the emotional maturity necessary for successful adulthood.

Methodology

Research Design and Approach

The research design and approach for this literature review study on "The Impact of Excessive Internet Usage on the Emotional Maturity of Adolescents: A Case Study in Pakistan" encompass several key components that guide the study's methodology. This section outlines the overall research design, data collection methods, and the approach to analyzing the data.

Research Design

This study employs a qualitative research design to examine the impact of excessive internet usage on the emotional maturity of adolescents in Pakistan. The qualitative approach is appropriate for this topic as it allows for a deeper understanding of the complex dynamics surrounding internet usage and emotional maturity. By focusing on the experiences, perceptions, and insights from existing literature, the study can identify patterns and themes that contribute to a broader understanding of the topic.

Given the exploratory nature of this study, a literature review is utilized as the primary method to gather information. The literature review involves collecting, analyzing, and synthesizing a wide

range of scholarly articles, reports, and other relevant publications related to internet usage, emotional maturity, and adolescent behavior. This method provides a comprehensive overview of the current state of knowledge on the topic and helps identify gaps in the literature that may require further investigation.

Data Collection

The data for this study is collected from secondary sources, including academic journals, books, conference papers, and online databases. Specific search terms such as "excessive internet usage," "emotional maturity," "adolescents," and "Pakistan" are used to identify relevant studies. The inclusion criteria for the literature review include:

Relevance: The sources must be directly related to excessive internet usage, emotional maturity, and adolescents in Pakistan.

Recency: Priority is given to recent studies, typically published within the last decade, to ensure the data reflects current trends and technology use.

Academic Rigor: Sources must come from reputable academic journals or publications with rigorous peer-review processes.

A systematic approach is adopted to ensure comprehensive coverage of the topic. This involves identifying key themes, trends, and findings from various sources, which are then categorized and analyzed to draw meaningful conclusions.

Data Analysis

The data analysis for this literature review involves a thematic analysis approach. This method is used to identify recurring themes, patterns, and relationships within the collected literature. Thematic analysis allows for a flexible yet structured way of analyzing qualitative data, making it suitable for synthesizing information from diverse sources.

The analysis process follows these steps:

Familiarization with Data: The collected literature is reviewed multiple times to understand the overall scope and context of the topic.

Identification of Themes: Key themes related to excessive internet usage, emotional maturity, and adolescents are identified. This step involves categorizing information into broader themes to facilitate analysis.

Theme Review and Refinement: The identified themes are reviewed and refined to ensure they accurately represent the underlying data. Any overlapping or redundant themes are consolidated

to maintain clarity.

Reporting and Interpretation: The final step involves reporting the identified themes and interpreting the findings. This step includes discussing the implications of the themes and drawing conclusions based on the literature review

Results and Discussion

Emotional Maturity

Emotional maturity reflects the concept of the emotional development of a person. An emotionally immature person is incapable of handling their emotions healthily (Gottman, 2011). Such a person usually has trouble making healthy and secure relationships with family or other people (Raza & Ahmed, 2017; Winnicott, 2013). They find it difficult to handle conflicts and adverse life challenges and are also hesitant to share their thoughts and feelings with others (Rickwood et al., 2007). An emotionally immature individual is unable to restrain their selves from lashing out and harming other people or behaving in inappropriate ways (Bushman & Huesmann, 2010). People with emotional immaturity may appear to have exaggerated reactions to normal stressors and may be perceived as maladjusted (Brown & Beail, 2009). Maturity is a consistent process that occurs in several areas throughout your life (Skidmore & Chapel, 2023):

- Physical Maturity: Physical maturity is termed as the development of a person's physical body. In physical maturity, the body of an individual passes four stages of growth namely being an infant, a child, a teenage/adolescent, and finally an adult.
- Mental Maturity: The growth of an individual's cognitive skills occurs in mental maturity. A person develops the skills of how to process information and reasoning through problems.
- Emotional Maturity: With growth and age, a person gains more control over their emotions and is likely to control their emotions better. As a person grows, they learn to replace emotional reactions with self-expression and introspection.

Young adults or adolescents are more likely to be emotionally immature due to excessive internet usage (Guan & Subrahmanyam, 2009). Internet-addicted adolescents comprise a greater degree of emotional regression, lack of independence, personality disintegration, emotional instability, and social maladjustments (Jamdar & Kakulte, 2023). The following are the determinants of emotional maturity and how excessive internet usage affects the emotional

maturity of adolescents.

Determinants of emotional maturity

Emotional States

Young adults and adolescents spend the majority of their time using the Internet, particularly for entertainment and academic purposes (Aslanidou & Menexes, 2008). While the Internet can be beneficial by increasing social interactions, using the Internet excessively is associated with numerous psychological and emotional problems (Weinstein & Lejoyeux, 2010). Various studies have been conducted which demonstrate that excessive Internet usage among adolescents and young adults is linked with life-long adverse effects such as anxiety, and sleep deprivation which can disturb neurological development resulting in suicidal behaviors and depression (Jamieson et al., 2020). Furthermore, eating disorders, low self-esteem, and issues with having a healthy relationship with family are also some of the potential impacts of excessive Internet usage because of the constant exposure to adverse online experiences, disturbed sleep schedules, and social isolation (Sohn et al., 2019), dopamine deprivation contributes in the aggravation and development of such mental and emotional conditions (Cyr et al., 2015). There are growing concerns about the harmful effects of the Internet on children. These effects include exposure to violent and sexual content, as well as a displacement of important aspects of their lives, such as social relationships, physical activity, and leisure-time activities like reading and playing (Lee & Kuo, 2002). Furthermore, there is evidence that the Internet may have a negative impact on children's psychological well-being, leading to feelings of loneliness and isolation (Huang, 2010).

Emotional Instability

Excessive use of the internet can cause emotional instability and a lack of emotional intelligence among students, particularly those in college or university (Beranuy et al., 2009). This is often associated with poor academic performance (Kolachi & Memon, 2022). Students who experience emotional instability are unable to manage or control their stress levels well, making it difficult for them to perform well in exams (Yasmin et al., 2020). Additionally, students face challenges in balancing their classes, tests, exams, assignments, curricular and extracurricular activities, and social life (Wilson, 2009). Numerous studies have shown that internet use has an effect on the emotional instability of university students. Students who use the internet excessively

show extreme tension and anxiety while performing any kind of task (Lepp et al., 2014). This can lead to poor time management for academic, social, or recreational activities. Individuals who spend most of their time on the Internet are prone to emotional disturbances. When feeling anxious and agitated, their emotions can negatively influence their behavior and relationships with others (Dangwal & Srivastava, 2016). Emotional instability, also known as neuroticism in the Big Five Personality trait, refers to negative emotions such as anxiety, insecurity, moodiness, nervousness, and depression (Sherry et al., 2014). Numerous studies show that internet addiction causes not only physical and social problems but also creates a psychological disturbance that affects emotional instability and the Big Five Personality trait (Cerniglia et al., 2017).

Social Maladjustment

A study by Novaković et al. (2023), determined that there is a positive interlinkage between daily Internet usage of adolescents and emotional, hyperactivity-inattention symptoms. Such problems are responsible for social maladjustment including social isolation and loneliness (Reißmann, 2017). Excessive internet usage significantly affects and reduces the academic and social functioning of an individual (Suhail & Bargees, 2006). It is an undeniable fact that children from broken homes often struggle to adjust socially. Excessive use of the internet inevitably reduces face-to-face interactions with parents and peers (Gökçearslan et al., 2016). This can impair relationships with family members leading to a reduction in social support (Agbo, 2023). As a result, adolescent healthy development may be hindered, ultimately leading to maladjustment in multiple aspects (Agbo, 2023; Gökçearslan et al., 2016). Due to excessive internet usage, adolescents and young adults have a maladjusted social life. They suffer from poor academic performance, isolation, poor relationships with parents, and impaired parent-child relationships (Gao et al., 2020; Wang et al., 2021).

Self-regulation

In recent years, numerous studies have investigated the link between individual differences in self-regulation and the development of excessive internet usage (Gökçearslan et al., 2016). This is because excessive internet usage has been classified as an addictive behavior and self-regulation has been shown to be a crucial factor in such disorders (Billieux & Van der Linden, 2012). Several studies have explored the relationship between excessive internet usage and self-reported

impulsivity, which is linked to a range of behaviors that are often poorly thought out, expressed too soon, too risky, inappropriate to the situation, and which can have negative consequences (Bachoo et al., 2013; Martín-Perpiñá et al., 2019; Meda et al., 2009; Paaver et al., 2006). Individuals who are considered internet addicts have higher levels of self-reported impulsivity compared to control participants (Reed et al., 2015). Moreover, impulsivity is positively associated with excessive internet usage in online gamers and undergraduate students (Li et al., 2021). Recently, some studies have focused on the association between excessive internet usage and the ability to inhibit a prepotent response, which refers to the ability to deliberately control or suppress an automatic response (Argyriou et al., 2017; Bari & Robbins, 2013; Billieux & Van der Linden, 2012). Using the internet excessively declines the self-efficiency and self-regulation of adolescents having a significantly negative effect on their academic regulation and learning skills (Gökçearslan et al., 2016).

In conclusion, the studies collectively demonstrate that the emotional development and maturity of adolescents are significantly affected by excessive internet usage. The factors contributing to the emotional development are negatively influenced by extreme Internet usage which consequently affects the mental, physical, and emotional health of adolescents (Ali, et al., 2020).

Conclusion

The outcomes of this study revealed that excessive usage of the Internet negatively affects the emotional development and maturity of adolescents. The factors contributing to emotional maturity are also significantly influenced by the excessive use of the Internet. The Internet affects the emotional state of adolescents which results in numerous psychological and emotional problems including, depression, anxiety, and sleep deprivation. Emotional instability is also associated with excessive Internet usage. High screen time results in various emotional issues such as individuals with high screen time are prone to having poor time management for social, academic, and recreational purposes. The excessive use of the Internet negatively influences social maladjustment due to the face-to-face interaction with family, parents, and peers which results in impaired relationships with parents, families, and peers lastly, using the Internet excessively affects self-regression resulting in impulsiveness and aggressive behaviors primarily among Internet addict adolescents which indulge in online gaming. To sum up, the study concluded the

negative influence of excessive Internet usage on the emotional development of adolescents along with their physical, social, and mental health.

Implications for Academia

Curriculum Development

Schools, colleges, and universities can use the study's findings to refine their curricula, ensuring they address the adverse effects of excessive internet usage on adolescents. This includes integrating digital literacy into educational programs, focusing on responsible internet use and the importance of maintaining a balance between online and offline activities. Educational institutions can also emphasize the development of emotional maturity, with modules or workshops that promote self-awareness, empathy, and social skills.

Mental Health Support

The study indicates a strong link between excessive internet usage and mental health issues among adolescents. Academic institutions should increase support for mental health by providing counseling services and fostering a culture where students feel comfortable seeking help. Schools and colleges can work with mental health professionals to identify at-risk students and offer early interventions to prevent emotional and psychological problems.

Teacher Training and Professional Development

Teachers play a crucial role in guiding students' internet usage and promoting emotional maturity. The study suggests that educators need training in recognizing signs of excessive internet usage and its effects on emotional development. Schools and colleges can develop professional development programs to equip teachers with the skills and knowledge to manage classroom dynamics in a digital age and to foster a healthy learning environment.

Implications for SDG 2030

Quality Education (SDG 4)

The study's emphasis on balanced internet use aligns with SDG 4, which promotes inclusive and equitable quality education. Schools and colleges that incorporate lessons on digital literacy and emotional intelligence contribute to a broader educational goal of preparing students for a responsible and balanced life. By addressing the impact of excessive internet usage, institutions support the broader aim of promoting lifelong learning and fostering sustainable educational practices.

Good Health and Well-being (SDG 3)

SDG 3 focuses on ensuring healthy lives and promoting well-being for all. This study's findings on the adverse effects of excessive internet usage on adolescents' emotional health highlight the importance of encouraging healthier lifestyles and reducing screen time. Schools and universities can develop initiatives that promote physical activity, social interaction, and mental health support, contributing to the achievement of this SDG.

Reduced Inequalities (SDG 10)

Excessive internet usage can exacerbate social inequalities, as adolescents with limited access to offline activities may face more significant challenges. By addressing this issue, schools and colleges can contribute to reducing inequalities, supporting SDG 10. Programs that promote diverse extracurricular activities and create inclusive environments can help reduce the gap caused by excessive internet use.

Future Directions

Research on Effective Interventions

Future research can focus on identifying and evaluating effective interventions to combat excessive internet usage among adolescents. This could involve exploring different strategies, such as parental controls, educational programs, and digital detox initiatives, to understand what works best in reducing the negative impact on emotional maturity.

Longitudinal Studies on Internet Usage and Emotional Development

Longitudinal studies tracking adolescents over time could provide deeper insights into how excessive internet usage impacts emotional maturity in the long run. These studies could help establish causality and offer a more comprehensive understanding of the long-term effects.

Cross-Cultural Comparisons

To broaden the scope of research, future studies could conduct cross-cultural comparisons to explore how different cultures and societies approach the issue of excessive internet usage among adolescents. This could reveal best practices from around the world and identify universal strategies that could be applied across diverse contexts.

Collaboration with Technology Companies

Given the role of technology companies in shaping internet usage, future research could explore partnerships with these companies to develop tools and features that encourage healthier internet

habits. Collaboration with tech companies could lead to the development of apps or software that promote balanced internet use and help adolescents maintain emotional health.

Overall, these implications and future research directions provide a roadmap for addressing the impact of excessive internet usage on adolescents' emotional maturity. They guide academia and broader societal goals, emphasizing the importance of fostering a balanced approach to technology in education and daily life.

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