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DIGITAL ADDICTION AMONG CHILDREN AND ADOLESCENTS AS AN INDICATOR OF DETERIORATING MENTAL HEALTH: LITERATURE REVIEW

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ABSTRACT

Digital addiction is a phenomenon that is increasingly prevalent among children and adolescents in the digital age and represents a significant indicator of the deterioration of mental health within this age group. The concept of digital addiction refers to excessive and compulsive use of the internet, which results in negative consequences affecting various psychological, social, and functional aspects of an individual's life. This theoretical review aimed to shed light on the concept of digital addiction, identify the psychological and social factors that contribute to the increased prevalence of digital addiction among children and adolescents, and examine its psychological and social effects on this population. This was achieved through a comprehensive theoretical review of numerous scholarly studies that have addressed the same topic. The findings revealed that digital addiction is a broad concept for which no unified definition exists. It is a complex, multidimensional construct influenced by intertwined psychological, social, and cultural factors. The study also found that children and adolescents are the most vulnerable to digital addiction due to their strong desire to seek social acceptance and self-esteem through digital interaction. This vulnerability leads to a range of serious developmental, psychological, and social problems, rendering them more fragile in the face of the negative effects of digital addiction. Moreover, the results indicated that family structure, patterns of family communication, and parental psychological support play crucial roles in protecting children from digital addiction. Conversely, family conflicts weaken parental monitoring, thereby increasing excessive internet use among children. In light of these findings, the researcher recommended organizing seminars, workshops, and training programs for families and school counselors to raise awareness of the dangers of digital addiction and its negative effects on children and adolescents.

Keywords: Addiction; Digital Addiction; Adolescents; Mental Health

highlight a significant increase in the number of active digital users, with adolescents representing one of the most intensive user groups. This trend reflects their developmental needs for social interaction, self-expression, and exploration—needs that are fundamental during adolescence. Similarly, Akbarizadeh *et al.* [5] point to adolescents' growing inclination to follow news and current events, as well as to share their thoughts and emotions regarding various issues. Despite these advantages, a growing body of research highlights numerous negative aspects associated with digital technology use [2], which have led to profound impacts on the social, academic, and psychological development of children and adolescents [6]. Health institutions have likewise begun to recognize that excessive use of digital devices contributes to adverse mental and physical health outcomes, particularly among adolescents [7].

Digital Addiction

The widespread proliferation of internet use has led to a marked increase in vulnerability to what is known as internet addiction, particularly among children, as this age group is the most affected due to the incomplete development of their cognitive functions [8]. Internet addiction has been addressed in the medical literature under the term Internet Gaming Disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), while the International Classification of Diseases (ICD) refers to it as Gaming Disorder, with the recognition that certain digital

Introduction

Digital devices have become indispensable pillars of contemporary life, and they now rank among the most prevalent forms of entertainment for children and adolescents. The widespread and intensive use of these devices has given rise to what is commonly termed "digital addiction," a phenomenon that has generated a complex landscape of challenges, particularly with regard to individuals' mental health. The widespread proliferation of digital technologies—such as smartphones, tablets, and continuous internet connectivity—has led to the emergence of a permanently connected reality, commonly referred to as the digital age [1]. The number of internet users has increased significantly, driven by the numerous advantages it offers, including rapid access to up-to-date information, enhanced opportunities for communication with others, and greater ease in online shopping and remote work [2]. Furthermore, this rapid technological advancement and the intensive use of digital devices across various domains of life have contributed to a profound and far-reaching transformation of individuals' social, academic, and psychological dynamics [3].

Numerous recent studies indicate that between 65% and 78% of children and young people engage in excessive daily internet use, and that smartphone addiction affects all segments of society. Notably, around 15% of youth spend more than four hours per day online [4]. In the same context, Shiferaw *et al.* [1]

Andrade & Viñán Ludeña [12] argue that behavioral addictions share similar neurobiological and psychological mechanisms with those associated with substance use disorders. Consequently, they are classified as non-substance-related disorders, characterized by intense cravings, impaired self-control, withdrawal-like symptoms, and the neglect of meaningful daily activities.

In this regard, Kaur & Mehndroo [15] argue that the concept of digital addiction refers to a pattern of compulsive behavior that is triggered and reinforced by digital media and technologies, which may exert either positive or negative effects on individuals' social, physical, and psychological well-being. Similarly, Li *et al.* [13] state that internet addiction is characterized by excessive and uncontrolled use of the internet, leading to diminished functioning in daily life, as well as adverse effects on academic performance and individuals' mental health. In the same context, Tomishima [16] further adds that digital addiction is a behavioral condition characterized by the excessive and compulsive use of digital devices, which negatively affects daily functioning, health, and overall well-being. Similarly, Evgin *et al.* [3] indicate that the term digital addiction refers to an excessive attachment to internet-connected devices such as computers, smartphones, and tablets. It involves the uncontrolled and often unconscious use of digital tools and is considered a form of behavioral addiction that emerges from the overuse of social media, the internet, and smart devices. Although the term "digital addiction" has not been officially recognized within diagnostic systems

activities may evolve into addictive behaviors [9]. However, the concept of digital addiction remains broad in scope, encompassing excessive engagement with all forms of digital devices. This has resulted in the absence of a universally accepted and standardized classification of digital addiction, leading to significant variations in its definition and measurement. Consequently, this inconsistency complicates the accurate estimation of its prevalence and hinders the development of standardized and evidence-based intervention strategies [10]. Addiction has been defined as a compulsive behavior that involves the persistent engagement in a specific activity or the repeated use of a substance, regardless of its physical, psychological, or emotional harm [11]. In the same context, Andrade & Viñán Ludeña [12] conceptualize addiction as a chronic condition characterized by a pathological drive toward certain behaviors or substance use, accompanied by a loss of voluntary control. It is understood to develop and persist as a result of the interaction between biological, psychological, and social factors.

The concept of digital addiction encompasses multiple forms, including internet addiction, gaming addiction, social media addiction, and smartphone addiction [13]. It also refers to the dysfunctional, uncontrolled, and excessive use of the internet by individuals, which negatively affects social, functional, and psychological processes in daily life. Excessive internet use has therefore become an umbrella term for various forms of internet-based behavioral addictions [14]. In this regard,

role in shaping vulnerability to digital addiction. Moreover, positive personality traits constitute a protective factor against digital addiction. Self-esteem—reflecting an individual's sense of self-worth—alongside self-efficacy, self-control, self-awareness, agreeableness, and openness to experience, is associated with a lower risk of developing digital addiction [20]. Conversely, certain negative personality traits, such as narcissism and self-centeredness coupled with weak social connectedness, may drive individuals to seek validation and acceptance through online platforms, thereby increasing their susceptibility to digital addiction [21].

Social Factors

Numerous studies have emphasized the critical role of family-related factors, including parenting practices, parental supervision, the quality of parent-child relationships, and warm, participatory parenting styles, in protecting against psychological disorders [8]. In the same context, Karaer & Akdemir [22] report that deficiencies in parenting skills—such as neglect, rejection, overprotection, and authoritarian parenting styles—are all associated with increased risk of digital addiction. Similarly, Estévez *et al.* [23] found that parental failure to regulate, monitor, and engage with children's internet use, along with poor parent-child relationships, low perceived social support, and alexithymia, are significantly linked to internet addiction. Likewise, Lee & Kim [24] indicate that digital addiction in children is associated with parental characteristics such as low emotional warmth, inadequate educational regulation, and weak parental

such as the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, it nonetheless reflects addictive-like behaviors, including excessive internet use, withdrawal symptoms, and negative consequences at the personal, social, and daily activity levels [2]. It is also characterized by impairments in reward processing and inhibitory control mechanisms, and may be accompanied by dysfunctions in psychological and social functioning. Such impairments can ultimately lead to a range of psychological, social, educational, and occupational problems. Accordingly, it can be conceptualized as a generalized impulse-control disorder [17].

Literature Review

Psychological and Social Factors Contributing to Digital Addiction

Psychological Factors

Research indicates that psychological factors, including mental health variables such as depression, anxiety, loneliness, low self-esteem, and impulsivity, are significantly associated with digital addiction ([8]. In the same vein, Fan *et al.* [14] report that adolescents who have experienced childhood trauma are markedly more vulnerable to internet addiction. This increased susceptibility is attributed to emotional dysregulation, weakened self-control, and heightened emotional fragility. Furthermore, Lu *et al.* [18] highlight that childhood trauma has significant implications for suicidal ideation, underscoring its long-term psychological consequences. Similarly, Zhuang *et al.* [19] emphasize that individual factors, such as time spent on gaming, self-regulation capacity, and negative emotional states, play a crucial

patterns of social media use during adolescence [29]. In the same context, Cross et al. [30] highlight that childhood trauma constitutes a key risk factor for digital addiction, given its long-term impact on developmental trajectories and overall life functioning outcomes. On the other hand, Fan et al. [14] report that childhood trauma is associated with digital addiction among adolescents through pathways involving anxiety, depression, and suicidal attempts, and that there is also an indirect relationship between early emotional trauma and digital addiction.

Supporting this, Ding et al. [31] found that the neurodevelopmental structure of children and adolescents makes them more vulnerable to problematic use of digital devices, which may lead to a range of adverse outcomes, including attentional difficulties, impaired cognitive abilities, reduced academic performance, and deterioration in both mental and physical health. Moreover, studies have demonstrated that digital addiction negatively affects children's healthy development, contributing to reduced visual acuity, delayed physical growth, impaired linguistic and cognitive development, and weakened family cohesion [32]. Recent studies indicate that digital media addiction exerts negative effects on children, particularly during developmental stages, affecting social, emotional, cognitive, and physical domains [33]. Consistent with this, Liu et al. [8] emphasize that children are more vulnerable to internet addiction, which may result in serious developmental and psychological problems due to their still-developing self-regulation and cognitive control abilities. Similarly, Ding et al. [31]

monitoring. In addition, Karaer & Akdemir [22] note that parents of adolescents with internet addiction often exhibit lower levels of acceptance, monitoring, and emotional responsiveness. Furthermore, Fan et al. [14] highlight that both emotional and physical neglect during childhood are strongly associated with later digital addiction. Zhuang et al. [19] found that a strong parent-child relationship significantly reduces the risk of digital addiction. Similarly, Salunkhe et al. [25] indicated that living in urban areas constitutes a risk factor for digital addiction. In the same context, Cao et al. [26] argue that family and social factors, exposure to environmental and social stressors, and a lack of social support contribute to maladaptive responses, as they may facilitate the development of emotional, cognitive, and behavioral patterns associated with digital addiction.

Psychological and Social Impact of Digital Addiction during Childhood and Adolescence

Early childhood is considered one of the most critical stages in a child's life due to the continuous developmental changes that occur during this period. It represents a pivotal phase in which children acquire essential knowledge and skills that they will utilize throughout their future lives [27]. This stage is also crucial for the development of self-regulation, learning processes, and social adaptation during both childhood and adolescence [28]. Environmental, emotional, and social factors in early childhood play a fundamental role in shaping individuals' behavioral patterns. Early life experiences exert a profound influence on later stages of life and may significantly affect

attentional control mechanisms, and such anxiety may exacerbate compulsive behaviors related to internet addiction, as individuals increasingly rely on the internet as a coping strategy for emotional distress [13].

According to the transactional model of stress developed by Lazarus and Folkman, individuals employ problem-focused coping strategies to directly address the source of stress, whereas emotion-focused strategies aim to regulate the negative emotional responses resulting from exposure to stressors [3]. Supporting this perspective, Li et al. [13] note that excessive internet use contributes to disorganized thinking and intensifies emotional distress and impulsive behavior, thereby undermining emotional stability and impairing emotion regulation. Furthermore, excessive screen use has been shown to reduce psychological resilience and increase the risk of various health problems, including cardiovascular conditions [37]. In this context, Li et al. [13] indicate that a tendency toward digital gaming addiction may increase depressive symptoms among children and negatively affect their socio-emotional development as well as their relationships with parents. Similarly, Alansari et al. [38] note that digital addiction contributes to heightened psychological distress among children and adolescents through exposure to unrealistic standards and experiences of online harassment.

On the other hand, Kumari & Pallavi [39] report that adolescents increasingly exhibit compulsive behaviors in the digital environment that impair cognitive functioning, making it difficult for them to disengage from use, leading to

note that children and adolescents are at greater risk of digital addiction due to limited critical thinking skills when navigating the digital environment, as well as a strong tendency to seek social acceptance through online interactions in order to alleviate feelings of exclusion. Furthermore, Liu et al. [8] explain that compulsive internet use among children can lead to withdrawal symptoms and tolerance development, which are associated with sleep disturbances, attention disorders, depression, anxiety, and suicidal behaviors.

In contrast, Fan et al. [14] highlight that insomnia, emotional disturbances, social anxiety, and severe depression are also closely linked to digital addiction. On the other hand, several studies suggest that the risk of digital addiction is associated with complex interactions among social, demographic, psychological, and family-related factors. In this regard, research has shown that socio-demographic variables such as age, gender, and socio-economic status play a significant role in digital addiction. Males, in particular, are more likely to develop digital addiction, while younger adolescents with limited impulse control are more prone to engaging in high-risk digital behaviors. Moreover, children from lower socio-economic backgrounds often experience fewer parental restrictions alongside greater emotional vulnerability [34-36]. The scientific literature indicates that digital addiction is associated with elevated levels of psychological stress, as excessive and uncontrolled use of the internet and digital platforms disrupts individuals' emotional regulation processes [3]. Moreover, excessive engagement in digital activities impairs

developing social and cognitive skills. Similarly, Shiferaw et al. [1] argue that social media platforms can fulfill adolescents' needs for social acceptance and identity formation, making them an attractive—and at times addictive—environment. In the same vein, Tomishima [16] concludes that digital addiction among adolescents has shifted from an individual behavioral issue to a structural challenge for educational and health policies, requiring urgent intervention.

Furthermore, recent studies indicate that digital device addiction also weakens cognitive control capacities among young people and reduces their ability to regulate emotions—both of which are essential for maintaining healthy and well-functioning social relationships [42]. Excessive use of these technologies has also been associated with the emergence of aggressive behaviors and attitudes among children and adolescents, including both traditional bullying and cyberbullying [4]. In the same context, Wu et al. [17] report that digital addiction among adolescents is linked to a range of social dysfunctions, including emotional exhaustion, reduced motivation to learn, weakened teacher-student relationships, lower self-efficacy, and physical fatigue. Behavioral and emotional disorders are among the most common psychological conditions [7]. In this regard, Zhou et al. [43] found that social media use has negative effects on depression and overall mental health among adolescents. Similarly, Caner & Evgin [44] demonstrated that prolonged computer use is associated with emotional overeating and obesity due to reduced physical activity, as well as visual

withdrawal from social interactions and heightened psychological distress. Likewise, Wu et al. [17] emphasize that digital addiction has adverse physical health consequences, including headaches, eye strain, and hearing problems. It may also undermine academic motivation, such as self-determined goal setting and self-efficacy, while simultaneously impairing students' ability to manage real-life social relationships. This often results in weakened communication with teachers and reduced access to academic support. In the same context, Fertu et al. [40] (2025) emphasize that adolescence represents a critical stage in human development, characterized by profound emotional, cognitive, and social transformations that contribute to identity formation and the consolidation of future behavioral patterns. In contrast, Coşkun [6] notes that excessive use of digital media may lead to addictive tendencies, sleep disturbances, and social isolation. Moreover, Moral-García et al. [4] conclude that digital addiction disrupts cognitive control during the processing of emotional stimuli, resulting in reduced functional connectivity in brain regions associated with cognitive regulation of emotional inputs. Similarly, Fan et al. [14] highlight that adolescents are the most vulnerable group to digital addiction due to their limited cognitive awareness and self-regulatory capacities, which may lead to maladaptive social withdrawal, involvement in cyberbullying behaviors, and increased risk of substance use disorders. In contrast, Moller et al. [41] suggest that video games with interactive design may contribute positively by enhancing physical activity as well as

internet use, are among the key factors that shape children's development and guide their growth trajectories. A lack of parental awareness regarding the negative effects of digital devices and their improper use can lead to adverse consequences for children's cognitive and language development, thereby hindering the advancement of their intellectual and communicative abilities during early developmental stages [46]. In the same context, García del Castillo López [47] indicates that excessive parental use of smart devices has contributed to reduced parental engagement, weakened emotional bonds, and diminished family cohesion, thereby increasing children's vulnerability to internet addiction. Supporting this view, Han et al. [20] report a positive relationship between parents' excessive screen use and problematic behavioral patterns, as high parental digital consumption reduces interaction with children and encourages the imitation of parental habits. This, in turn, reinforces unhealthy digital use patterns among adolescents, which may gradually evolve into full digital addiction. On the other hand, one study found a positive correlation between the family's socioeconomic status and digital addiction, indicating that higher socioeconomic levels may increase susceptibility to digital addiction [32].

However, Urbanova et al. [48] reported a negative relationship between family socioeconomic status and digital addiction among children. This discrepancy may be explained by the fact that belonging to a higher socioeconomic family may reduce reliance on online social activities,

and musculoskeletal problems, in addition to impairments in social development.

Social media addiction, particularly when it emphasizes body image, may contribute to the emergence of eating disorders, as it fosters continuous comparisons between individuals' appearances and those of others. This, in turn, exacerbates body dissatisfaction and encourages the abandonment of healthy dietary habits [7]. Furthermore, Göbe et al. [45] indicate that excessive use of social media significantly affects emotional eating behavior, which serves as a coping mechanism among adolescents. This behavior manifests as increased food consumption in response to negative emotions such as depression, fear, anxiety, or stress. Similarly, Moral-García et al. [4] conclude that adolescents may turn to digital technologies as a means of escaping stressful experiences or bullying, perceiving the virtual world as a safe refuge that alleviates psychological and social pressures in real life. In another context, Kumar & Dhakar [39] argue that internet addiction raises significant ethical and spiritual concerns. The continuous pursuit of social acceptance and external validation can negatively affect an individual's sense of existential meaning and spiritual development. This, in turn, may foster superficiality and contribute to the devaluation of moral principles and spiritual values.

The Role of Family and Parental Supervision in Reducing the Risk of Digital Addiction among Children and Adolescents

Parental attitudes, perceptions, beliefs, as well as personality traits and patterns of

children's vulnerability to psychological and behavioral problems, including digital addiction [32].

In contrast, some studies suggest that mothers who serve as primary caregivers may help mitigate these negative effects by providing emotional support and consistent monitoring [47]. Additionally, research has shown that frequent parent-child conflicts may serve as an indicator of problematic digital behaviors, manifested in excessive screen use, sleep disturbances, declining academic performance, social withdrawal, and irritability when internet access is restricted. Moreover, the escalation of such familial conflicts may increase children's reliance on the internet as a means of emotional regulation and psychological escape, thereby contributing to the development of digital addiction as a coping mechanism for family-related stress and tension [49]. Furthermore, Theopilus et al. [52] emphasize that parents may lack sufficient awareness and adequate knowledge regarding appropriate parenting strategies in the digital age, highlighting the need to support them in implementing effective parental mediation practices.

The existing literature indicates a growing scientific interest in digital addiction as a complex, multidimensional phenomenon in which psychological, social, familial, and environmental factors are deeply intertwined. Some studies have approached this concept from a health and behavioral perspective. Shiferaw et al. [1], for instance, noted that digital addiction represents an emerging global health issue resulting from compulsive and excessive use of digital devices. It is

thereby lowering the likelihood of excessive or problematic internet use. On the other hand, Yankouskaya et al. [49] explain that adolescent internet addiction is influenced by the interaction of personal, familial, and societal factors, noting that parental monitoring and communication with children contribute to reducing the risk of digital addiction, whereas permissive or neglectful parenting styles are associated with excessive internet use. Similarly, Yim [50] indicates that parental attitudes toward digital media directly affect adolescents' engagement with school activities. Active parental involvement and the establishment of structured screen-time rules help adolescents balance internet use with their responsibilities, while parental neglect leads to excessive use that negatively impacts academic performance and social relationships. Moreover, cultural differences in parenting styles play a significant role in either increasing or reducing the risk of addiction.

On the other hand, Chen et al. [51] point out that there is no clear consensus regarding the predictive power of parental monitoring in relation to adolescent digital addiction. While active parental engagement—such as reviewing browsing policies and using parental control tools—may help reduce addictive behaviors, its effectiveness may vary depending on the cultural context. Several studies have indicated that parenting styles, as well as parental behaviors and emotional expressions, can directly influence the behavioral development of young children. Parents who adopt negative or maladaptive parenting approaches increase their

increased social isolation, and changes in values and behaviors. Based on the above, it is evident that previous studies provide an integrated explanatory framework linking digital addiction to a range of psychological, social, and familial factors. However, they also reveal variations in contexts and methodologies, which highlights the need for a more comprehensive theoretical synthesis that integrates these dimensions into a unified explanatory model of digital addiction among children and adolescents.

Relevance to the Present Study

It can be argued that the theoretical framework of digital addiction has contributed to establishing a comprehensive analytical perspective that can be relied upon to understand the complexity of this phenomenon, as well as its psychological, social, and behavioral consequences. Previous studies have demonstrated that digital addiction is not merely an isolated individual behavior; rather, it is the result of a complex interaction among psychological, social, familial, and environmental factors. This framework has also strengthened a holistic understanding of the phenomenon by examining individual factors in relation to surrounding social and environmental structures, thereby guiding the present study toward a deeper analysis of how digital addictive behavior is formed and its implications for mental and social health. Furthermore, this framework allows for a more precise understanding by highlighting that digital addiction among children and adolescents is not simply an adaptive behavior, but rather a complex phenomenon that requires a comprehensive intervention approach

associated with a range of psychological and physical disorders, including depression, anxiety, sleep disturbances, and risky behaviors, thereby confirming its multidimensional nature and the need for early preventive interventions. Similarly, other studies have focused on the explanatory factors underlying the emergence of digital addiction during adolescence. Fertu et al. [40] emphasized that individual, familial, and social factors play a fundamental role in the initiation and persistence of addictive behaviors, which are associated with long-term consequences such as deteriorating mental and physical health and academic decline. Likewise, Aydın and Göncü [29] found that negative childhood experiences, particularly within the school environment, contribute to increased reliance on social media, highlighting the role of early experiences in shaping later digital usage patterns.

At the familial and social levels, Yankouskaya et al. [49] reported that parental internet addiction, weak family interaction, and frequent intra-family conflicts are significant factors contributing to adolescent digital addiction. The study also pointed to the presence of similar sociopsychological mechanisms across different cultural contexts, reinforcing the importance of family-based interventions. The literature has also extended to the social and cultural dimensions of digital addiction. Abd El Hafeez [53] demonstrated that excessive internet use among adolescents is associated with higher levels of digital addiction, which negatively affects social and cultural structures, including weakened family bonds, poor academic performance,

previous studies, examining relationships among different variables, and conducting a critical synthesis to highlight similarities and differences in findings, as well as to identify existing research gaps. Accordingly, this methodology aims to provide a comprehensive and structured understanding of digital addiction, and to analyze its implications for the mental health of children and adolescents, thereby contributing to the development of an integrated conceptual framework that supports scientific interpretation and highlights areas for future research. This approach is considered appropriate for the topic of the study, which addresses digital addiction and mental health, for several reasons. First, due to the limited availability of consistent and accurate quantitative data, and the lack of sufficiently reliable and coherent information regarding patterns of digital use and digital addiction in the region, the qualitative approach enables the effective utilization of existing reports, previous studies, and available data, even in the absence of extensive field access.

Second, the aim of the study is not limited to measuring prevalence rates of digital addiction or identifying psychological and social symptoms; rather, it extends to understanding the relationship between digital addiction and mental health within its broader developmental and social context. This requires a deep interpretive and critical approach that aligns with the complex nature of the phenomenon. By focusing on the synthesis and analysis of existing literature, this study positions itself as a foundational preliminary step that may contribute to guiding future empirical research. It also

linking individual, family, social, and developmental levels. This, in turn, enhances the effectiveness of prevention and treatment strategies and policy responses.

Methodology

This study, being a literature review, adopts a systematic and analytically oriented literature review methodology with the aim of reviewing and synthesizing existing scholarly work on digital addiction and its implications for the mental health of children and adolescents. The study does not involve the collection of primary data; rather, it relies on the analysis of credible secondary sources.

The data sources include peer-reviewed academic articles published in scholarly journals, in addition to reports issued by international organizations such as the World Health Organization and the World Bank, as well as relevant national and regional studies. These sources were selected according to specific criteria, namely their direct relevance to the topic, recency of publication, and scientific credibility. Data analysis was conducted using Thematic Analysis, whereby the literature was categorized into key themes reflecting the different dimensions of the phenomenon under study. These themes include: psychological and social factors associated with digital addiction, the psychological and social impact of digital addiction during childhood and adolescence, and the role of family and parental supervision in reducing the risks of digital addiction among children and adolescents.

The analytical process involved identifying recurring patterns across

accounting for 72% of the population [54]. In Palestine, internet usage reached 86.6% of the population in 2025. Additionally, 97.8% of households with children aged 5–17 had internet access, while the proportion of children and adolescents using the internet was approximately 88.9% among those aged 10–17 years [55]. The research problem lies in the fact that the existing literature, despite its extensive focus on digital addiction, its widespread prevalence, and its psychological effects, still lacks an integrated understanding that connects the rapid expansion of digital technologies with the profound psychological consequences experienced by children and adolescents, particularly in contexts of very high internet usage such as Palestine.

Although statistical data indicate near-universal levels of internet use among younger age groups, most studies tend to address either usage rates or specific psychological disorders in isolation, without providing a deeper explanatory analysis of the relationship between intensive digital use and the development of mental health problems such as anxiety, depression, attention disorders, and feelings of social isolation. Moreover, there is a clear gap in the literature regarding the conceptualization of digital addiction as a complex phenomenon shaped by the interaction of psychological, social, and familial factors within a specific cultural and geopolitical context such as Palestine, where the pressures of social reality intersect with the digital environment in ways that may intensify psychological outcomes. In addition, existing studies

seeks to support development plans and preventive interventions that regard both mental health and digital addiction as essential components in protecting younger generations and enhancing their long-term well-being.

Study Problem

The internet has become an integral part of daily life in the digital age, serving as a means for education, access to information, entertainment, shopping, social relationships, and various social activities. With the availability of diverse communication tools and the continuous connectivity that characterizes modern life, the internet has become a routine element of individuals' lives, thereby shaping their identities, relationships, and perceptions of the world. Despite the numerous benefits associated with internet use, there is a growing sense of fear and concern regarding the harmful effects of its excessive use. In this regard, Kumar & Dhakar [39] found that digital addiction is associated with a range of psychological disorders, including depression, anxiety, attention-deficit/hyperactivity disorder, substance use disorders, as well as feelings of loneliness and social isolation.

Accordingly, the widespread proliferation of digital devices in contemporary society has significantly influenced adolescents' behavioral patterns, raising increasing concerns regarding digital addiction [10]. The International Telecommunication Union (ITU) reported that the number of internet users in 2025 reached approximately six billion people, representing around 75% of the global population. In the Arab world, the number of internet users in 2025 was estimated at about 348 million people,

relationships, and psychological and behavioral functioning.

Discussion

The findings of the study indicate that internet addiction has become an integral part of contemporary daily life practices. They also demonstrate that digital addiction is a multidimensional concept encompassing various forms of addictive behaviors, such as social media addiction, online gaming addiction, and smartphone addiction. This conclusion is consistent with the findings of Alansari et al. [38], who noted that the vast majority of individuals now rely on the internet to perform their daily tasks, whether for obtaining information, entertainment purposes, or other life-related activities.

Despite the widespread use of digital technologies, the concept of digital addiction remains broad and lacks a unified definition. It is a complex, multidimensional construct influenced by interrelated psychological, social, and cultural factors. In this regard, Imrani and Touri [10] highlighted the existence of considerable variations in defining digital addiction and in estimating its prevalence. In the same context, digital addiction refers to a pattern of dysfunctional and excessive internet use that results in negative effects on various psychological, social, and functional aspects of an individual's life, in addition to the emergence of withdrawal symptoms when internet access is interrupted. This was further supported by Kumar and Dhakar [39], who described digital addiction as a pattern of excessive and compulsive internet use that interferes with daily life activities and leads to multiple adverse outcomes.

lack comprehensive analytical approaches that explain how excessive internet use may evolve from a routine behavior into an addictive pattern that influences identity formation, social relationships, and the mental health of children and adolescents in highly digitized environments. Accordingly, the significance of this study lies in its attempt to address this gap by providing an integrated theoretical analysis that links the high prevalence of digital use with its associated psychological and social consequences, while also highlighting the importance of family and parental roles in reducing digital addiction among children and adolescents.

Aim of the Study

This study aims to analyze the phenomenon of digital addiction among children and adolescents from a comprehensive theoretical perspective, by highlighting its psychological, social, and familial dimensions. It also seeks to examine the nature of the relationship between excessive use of digital technologies and the deterioration of mental health, including anxiety, depression, attention disorders, and social isolation. Furthermore, the study aims to identify the psychological, social, and family-related factors that contribute to increasing the vulnerability of children and adolescents to digital addiction, with particular emphasis on parenting styles, parental monitoring, and family support in preventing or mitigating the effects of this phenomenon. In addition, it seeks to explore how digital use may shift from a recreational or educational activity into a compulsive and addictive pattern that affects identity formation, social

protect children and adolescents from their adverse consequences. Similarly, Saikia et al. [57] reported a relationship between internet addiction and several psychological factors and stressors, emphasizing the importance of emotional stability and mental health as essential components in preventing digital addiction. The study also confirmed that family structure, patterns of communication within the family, and parental psychological support play a crucial role in protecting children from digital addiction, whereas family conflict increases the likelihood of reduced parental supervision, leading to excessive internet use. In this context, Liu et al. [8] found that lower levels of family conflict are associated with a reduced likelihood of predicting internet addiction. This finding is supported by Lee and Kim [24], who emphasized the importance of family dynamics in the development of internet addiction, particularly in relation to parental satisfaction, parenting styles, and communication patterns within the family. Similarly, Yankouskaya et al. [49] highlighted that permissive or neglectful parenting styles contribute to increased screen time exposure, thereby facilitating the development of internet addiction. Furthermore, Zhuang et al. [19] confirmed a strong relationship between family-related factors—such as parental emotional disturbances, family functioning, and family climate—and digital addiction among children and adolescents. The findings also indicated the importance of the family's socioeconomic status and its impact on digital addiction among children. It was found that socioeconomic conditions are associated with reduced parental

The study found that children and adolescents represent the most vulnerable group to digital addiction. This heightened vulnerability is attributed to their limited critical thinking skills in navigating the digital environment, as well as their strong tendency to seek social acceptance and self-esteem through online interactions as a means of alleviating feelings of exclusion and social isolation. Excessive engagement in the digital environment consequently leads to a range of serious developmental, psychological, and social problems, due to their underdeveloped self-regulation and cognitive control skills, which renders them more susceptible to the negative impacts of digital addiction. The findings also indicated that compulsive internet use among children and adolescents is associated with the emergence of withdrawal symptoms and a range of psychological and physical disorders, including sleep disturbances, impaired concentration and attention, depression, anxiety, and suicidal behaviors. In this regard, Fan et al. [14] and Al Kuraydis et al. [56] reported that insomnia, emotional disturbances, social phobia, and severe depression are directly associated with digital addiction, reflecting its profound impact on the mental health of children and adolescents.

In addition, digital addiction contributes to delayed physical development, impaired language and cognitive growth, and weakened family cohesion. As noted by Li et al. [32], its effects extend beyond the psychological domain to include social and cognitive dimensions, which makes early intervention, digital awareness, and family support an urgent necessity to mitigate these risks and

thereby affecting their vulnerability to addictive behaviors.

Ethics approval

Not applicable

Consent for publication

Not Applicable

Availability of data and materials

This study is based on an analysis of existing literature and secondary sources. As such, no primary data was generated or analyzed, and there are no datasets available. No data was generated.

Competing Interests

The authors declare that they have no competing interests.

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involvement and increased exposure to digital devices. This is consistent with Li et al. [32], who reported that socioeconomic status is significantly and negatively associated with children's digital addiction.

Conclusion

This study highlights that digital addiction among children and adolescents has become a widespread and complex phenomenon shaped by the rapid expansion of digital technologies and their deep integration into daily life. The findings demonstrate that excessive and uncontrolled internet use is closely associated with a range of psychological, social, and developmental challenges, including anxiety, depression, attention difficulties, social isolation, and impaired emotional regulation. The review also confirms that children and adolescents represent a particularly vulnerable group due to their ongoing cognitive, emotional, and social development, as well as their limited self-regulation and critical thinking skills in navigating the digital environment. Moreover, digital addiction is not merely an individual behavioral issue, but rather a multifaceted phenomenon influenced by interconnected psychological, familial, and socioeconomic factors. Family dynamics, in particular, play a central role in either exacerbating or mitigating the risk of digital addiction. Parenting styles, parental supervision, emotional support, and the quality of family communication significantly shape children's patterns of digital use. Similarly, socioeconomic conditions influence the degree of parental involvement and children's exposure to digital devices,

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