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Internet Addiction in Adolescents

إدمان الإنترنت لدى المراهقين

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Abstract:

The Internet has become an integral part of daily life, offering numerous benefits and opportunities for global communication and access to information. However, its pervasive use, particularly among teenagers, has raised concerns about the potential risks and challenges associated with Internet addiction. Internet addiction has emerged as a prevalent modern issue, characterized by the loss of control over internet usage. This study delves into internet addiction among adolescents, aiming to provide insight into its concept, various types, underlying theories explaining its occurrence, diagnostic criteria, risk factors, effects, and possible therapeutic interventions. By synthesizing existing research from multiple perspectives, we emphasize the importance of addressing this contemporary psychological challenge, which significantly impacts the sensitive segment of society, namely adolescents. The study's primary focus is to shed light on the extent and severity of internet addiction's prevalence among this sample.

Keywords: Addiction; Adolescents; Internet; Internet Addiction; Technology.

الملخص باللغة العربية:

تعتبر الإنترنت من بين أكثر الوسائط الرقمية استقطاباً لعدد المستخدمين عبر أنحاء العالم، فهي وسيلة تساهم في توفير الوقت والجهد غير أن إدمان الإنترنت يعد أحد أكثر المشاكل المعاصرة التي يفقد خلالها الفرد قدرته على ضبط سلوكه المتعلق باستخدام الإنترنت بشكل ينعكس سلباً على أدائه اليومي. تهدف الدراسة لتسليط الضوء على إدمان الإنترنت، أنواعه، أهم النظريات المفسرة لحدوثه، المعايير التشخيصية، عوامل الخطر المساهمة في حدوثه، أهم الآثار الناتجة عنه، والتدخلات العلاجية الممكنة عند حدوثه، إضافة إلى ذكر أهم خصائص مرحلة المراهقة المساهمة بمفاقمة عوامل خطر هذا الاضطراب. سنحاول الاستعانة بالعديد من الدراسات السابقة التي تناولت الموضوع من عدة زوايا ونعقب عليها، تكمن أهمية الموضوع في طرحه لقضية سيكولوجية معاصرة تخص شريحة حساسة من المجتمع وهم المراهقون وتتلخص أهم النتائج المتوقعة رصدها في توضيح مدى عمق وخطورة انتشار هذا النوع من الإدمانات خاصة في أوساط المراهقين، وفي الأخير سننهي دراستنا بإعطاء مجموعة من التوصيات من أجل العمل بها.

الكلمات المفتاحية: الإدمان؛ المراهقين؛ الإنترنت؛ إدمان الإنترنت؛ التكنولوجيا.

1. INTRODUCTION

The rapid and extensive development in the field of technology has revolutionized all aspects of human life. Particularly, the emergence of Internet technology has revolutionized communication, connecting thousands of users from across the globe. This remarkable advancement was spearheaded by the Americans with the creation of the Agency for Advanced Research Projects Network (Arpanet), initially limited to academic and research institutions in collaboration with the Ministry of Defense. In 1983, the Internet was officially announced with the establishment of the Transmission Control Protocol/Internet Protocol (TCP/IP), enabling seamless communication between different computers (Glowniak, 1998).

Over the years, the Internet has undergone numerous updates and transformations, becoming an indispensable tool for entertainment, education, communication, work, and even deep contemplation for people from all segments of society, particularly adolescents (Cerniglia et al, 2017).

Adolescents undergo various behavioral changes during their developmental journey, which can make them more prone to developing different forms of addictive behaviors, whether substance-related or tied to specific behavioral patterns (Dayan et al, 2010). This stage, known as adolescence, serves as a transitional period between childhood and adulthood, typically spanning from ages 12 to 22 and varying across races and cultures. During this phase, adolescents

experience a diminishing circle of influence from their parents and become increasingly influenced by their peers and external environment (Blakemore & Mills, 2014). Physiological, neurological, psychological, and social changes mark this developmental stage, including the completion of the adolescent's reproductive system, the emergence of distinct gender characteristics, heightened independence, impulsivity, a desire for exploration, and the establishment of new relationships, fueled by the novelty of emotions they encounter for the first time (Arnett, 2015).

According to Goodman (1990), addiction is defined as repetitive behavior wherein the individual loses control and regulation despite being fully aware of the consequences and effects. The Internet technology, with its myriad options for communication and forming connections, has become a central and alluring focus for various segments of society, especially male and female adolescents (Valkenburg & Piotrowski, 2017). Consequently, we are now confronted not just with misuse but a complete disorder classified as behavioral addiction, with the American researcher Kimberly Young coining it "Internet Addiction" (Grant et al., 2010). Young (1996) defines Internet addiction as the excessive and uncontrolled use of the Internet to an extent that negatively impacts daily life activities, often exceeding 38 hours per week.

Despite the growing body of research on this dynamic disorder, it remains unacknowledged in the American Diagnostic Manual, Fifth Edition (DSM-5), and the

Eleventh International Classification of Mental and Mental Disorders (2018 revised version) (ICD-11). The current classification only refers to "Internet Gaming Disorder" as a sub-heading under the broader category of Internet addiction, which has sparked controversy and discussions in the scientific literature (Hadi and Ali, 2022; Peris et al., 2020; Gilan and Ahmed, 2019; Chi et al., 2020).

Numerous studies, both Arab and foreign, have highlighted the prevalence of high levels of Internet addiction, and its association with several psychological risk factors, including usage patterns, personality traits (self-esteem, self-control, shyness), and psychological problems (anxiety, depression, neuroticism) (Hadi and Ali, 2022; Peris et al., 2020). Additionally, social factors such as social support and family dynamics have been linked to internet addiction among adolescents (Gilan and Ahmed, 2019; Chi et al., 2020).

The consequences of Internet addiction among adolescents manifest on physical, psychological, and social levels. Physically, it may lead to insomnia, reduced physical activity, visual impairment, spine pain, distraction, and poor concentration, along with nutritional issues. Psychologically, it can lead to reduced life satisfaction, low self-esteem, withdrawal, and engagement in pornographic content. Socially, it may cause feelings of loneliness, deterioration of real-life social relationships, family disintegration, decreased academic achievement, and strained academic relationships (Baturay & Toker, 2019).

Due to the alarming prevalence of Internet addiction among adolescents and the scarcity of in-depth theoretical studies on this subject,

along with its exclusion from recognition by accredited diagnostic bodies, this study aims to delve into the damaging effects of Internet addiction. By exploring this issue comprehensively, we seek to enhance understanding and raise awareness about the potential harms it poses to the well-being of adolescents.

2. Previous Studies

Numerous studies have investigated Internet addiction among adolescents, and while there are several relevant studies, we will highlight some of the most significant ones to provide a comprehensive understanding of the subject:

Karacic and Oreskovic (2017): This study assessed Internet addiction among adolescents in Finland, Croatia, and Poland. The sample comprised 1078 adolescents aged between 11-18 years, with a focus on 15-16-year-olds. Males exhibited higher rates of Internet addiction, and the highest level was observed among Polish adolescents, followed by Croats and Finns (Karacic & Oreskovic, 2017).

Nam et al. (2018): This study aimed to evaluate psychological resilience as a protective factor against Internet addiction in Korea. It involved 519 students aged 14 years in the preparatory stage. Psychological resilience was found to serve as a protective factor among female adolescents, particularly regarding inhibitory and activating behaviors associated with Internet addiction. The study also explored the role of depression and anxiety as mediating factors (Nam et al., 2018).

Li et al. (2019): This study in China assessed the relationship between Internet addiction and anxiety, depression, obesity, and gender

among Chinese adolescents. The sample included 1545 adolescents in a 6-month longitudinal study. It found a low level of Internet addiction during the study period. Anxiety and depression were identified as predictive factors of Internet addiction, while no significant association with obesity was observed. Additionally, gender differences were noted, with males showing higher levels of Internet addiction (Li et al., 2019).

Chi et al. (2020): Conducted in China, this study aimed to determine the level of Internet addiction and its associated demographic and social factors among adolescents. The sample included 2059 middle school students. The study revealed that 15.3% of the total sample were Internet addicts. Differences in Internet addiction were observed based on gender (higher in males), academic level (higher in the weak level), and family status (higher in adolescents from disintegrated families) (Chi et al., 2020).

Peris et al. (2020): This study, conducted in Spain, aimed to identify psychological risk factors predictive of addiction to social networking sites and the Internet in adolescents. The sample consisted of 447 adolescents aged 13-16 years. The study explored various psychological factors, including gender, age, body image, personality traits, social networks, and Internet addiction. The results identified specific factors predicting Internet addiction, social media usage, obsessive behavior, and the fear of losing a mobile phone (Peris et al., 2020).

These studies collectively provide valuable insights into the prevalence, risk factors, and psychological aspects of Internet addiction among adolescents, contributing to a deeper understanding of the complex issue.

3. Definitions

3.1. Definition of Addiction

Addiction is a complex and multifaceted concept that has been defined by various researchers with some common themes:

Goodman (1990) describes addiction as an escape process in which an individual engages in behaviors that provide temporary pleasure and relief from internal suffering.

Volkow (2002) and others define addiction as a disorder characterized by repetitive engagement in actions that lead to recurrent intoxication, followed by progressive dependence, leading to symptoms of withdrawal, compulsive thoughts, and cravings.

Reynaud (2005) defines addiction as the repeated failure to quit engaging in a behavior that brings pleasure, despite being aware of its negative consequences.

Sussman (2011) defines addiction as a preoccupation with behaviors that fulfill an individual's desires, providing temporary gratification and satisfaction. Addiction can be categorized into two types: substance addiction (e.g., narcotics) and behavioral addiction (e.g., gambling, eating) (Zou et al., 2017).

In summary, addiction is characterized by habitual and dependent behavior, where individuals find it difficult to control or inhibit their engagement in certain activities. It involves seeking pleasure, relief, or fulfillment, even when it leads to negative consequences. These various definitions highlight the compulsive nature of addictive behaviors, which can manifest in both substance-related and behavioral addictions.

3.2. Definition of Internet

The Internet is a ubiquitous and indispensable tool in modern daily life, utilized by people worldwide across various digital devices. It emerged in the 1960s in the United States and subsequently expanded globally in the early 1990s. Scholars have offered several definitions to encompass its vast capabilities:

Pallen (1995) describes the Internet as a global communication system that interconnects numerous individual networks. This interconnected network facilitates the exchange of information between computers linked to the network.

Abbate (2017) defines the Internet as a human-used communication medium, connecting millions of computers, web pages, websites, and servers through special protocols, such as TCP/IP. It enables the transmission of messages via email, images, videos, and offers a myriad of services to facilitate the transfer and sharing of information.

Dennis and others (2022) consider the Internet as an electronic engineering structure that links numerous computers and receivers worldwide, often referred to as the "Network of Networks". It is a vast, interconnected system that spans the globe.

The Internet serves as a versatile technology, enabling communication not only through computers but also via various digital devices like mobile phones and other electronic gadgets. The estimated number of Internet users reached around 4.5 billion, representing over half of the world's population (Dennis et al., 2022). The Internet's extensive reach and multifaceted services have transformed the way people communicate, access

information, and interact in the digital era.

3.3. Definition of Internet Addiction

Internet addiction is a behavioral disorder that falls under the category of behavioral addictions, distinct from substance-related addictions. It is characterized by an individual's excessive and uncontrollable preoccupation with using the Internet, leading to negative consequences in various aspects of their life.

Researchers have provided several definitions for Internet addiction, highlighting its compulsive and habitual nature:

Young Kimberly (1996) was one of the first to investigate Internet addiction and defined it as the excessive use of the Internet, equal to or exceeding 38 hours per week. This behavior is accompanied by a loss of control and has adverse effects on the individual's academic, social, financial, professional, and physical life.

Shaw and Black (2008) describe Internet addiction as a disorder characterized by constant preoccupation with using a computer to surf the Internet, accompanied by a sense of deterioration in the individual's situation and a lack of control.

Weinstein and Lejoyeux (2010) define Internet addiction as the excessive and uncontrolled use of the Internet, leading to a loss of sense of time and disruption of the individual's life and surroundings.

In essence, Internet addiction is marked by pathological attachment and an increasing compulsive urge to use the Internet, making it difficult for individuals to stop or reduce their usage, even if they desire to do so. The negative consequences of this addiction can

manifest in various aspects of an individual's life, affecting their well-being, relationships, and overall daily functioning.

4. Characteristics of Adolescence

Adolescence is considered the transitional period that mediates both childhood and adulthood, extending from (12-22 years), taking into account the age difference according to the geographical region and its cultural specificities. The results of many studies show that the cognitive and social-emotional development in adolescence is accompanied by widespread changes in the structure and function of the adolescent brain (Blakemore & Mills, 2014).

Adolescence often begins with the onset of puberty, as puberty is considered a natural stage that a person goes through, coinciding with the emergence of a number of physiological and morphological changes due to the completion of the maturity of the sex glands responsible for the secretion of sex hormones, as the voice increases in males and becomes thinner in females, hair grows in certain areas of the body, menstruation in females and wet dreams in males begin (Goddings et al, 2019).

Many studies also show a decrease in the volume of gray matter in certain areas of the brain (dorsal prefrontal cortex), an increase in the activity of the nucleus accumbens, which plays a major role in the formation of the reward system in humans, an increase in the activity of the amygdala, which plays a role in feeling fear and anxiety, in addition to many changes Psychological, social, and school, where the influence of friends increases and the influence of parents decreases, feelings of independence increase (Jaworska & MacQueen, 2015).

During this period, the adolescent performs an evaluation process, during which he balances between past experiences and personal expectations to establish firm values and principles that shape and manufacture his identity, which corresponds to the stage of identity affirmation versus suspicion at Erikson (Orenstein & Lewis, 2021).

These behavioral changes occur in the context of developmental changes that are affected by a combination of external and internal environmental factors, that is, individual differences (Jaworska & MacQueen, 2015).

We can say adolescence is a critical period of growth and development characterized by physiological changes, brain maturation, social shifts, and the quest for identity. It is a time of exploration and self-discovery as individuals transition from childhood to adulthood.

5. Types of Internet Addiction

Davis (2001) categorizes Internet addiction into two main types: general and specific Internet addiction. General Internet addiction involves a wide range of virtual activities, such as chat rooms, web surfing, and email, which the individual becomes addicted to. On the other hand, specific Internet addiction is limited to a particular type of online activity, such as gaming, shopping, or pornography. In some cases, individuals may compensate for these specific behaviors with real-life activities when the Internet is unavailable.

Internet addiction encompasses various specific types based on the nature and content of the addictive behavior. While researchers generally agree on the types identified by Kimberly Young, the names may vary in translation into different languages. The most

significant types of Internet addiction can be described as follows:

Pornography Addiction: This type of addiction involves the excessive consumption and sharing of sexually explicit content found on pornographic websites.

Net Compulsions: This category includes addictions related to online shopping and gambling.

Online Relationship Addiction: Individuals with this addiction form and maintain relationships predominantly through chat rooms and social media platforms (Griffiths & Widyanto, 2006).

Compulsive Information Seeking: People with this addiction exhibit obsessive behavior in constantly seeking information online and conducting web searches.

Electronic Games Addiction: This type includes addictions to online games that can be downloaded from the Internet and played with or without an internet connection (Young, 1999).

These types of Internet addiction can have significant impacts on individuals' lives, affecting their relationships, daily activities, and overall well-being. Understanding and addressing these specific types of addiction are essential in providing effective interventions and support to those struggling with Internet-related issues.

6. Explanatory Models

Various models have been proposed to explain the mechanisms behind adolescent Internet addiction. Let's review some of the most important models, each with its distinct orientation:

6.1. Neurobiological Model

The neurobiological model relies on understanding the neurophysiological pathways impacted by behavioral addictions, including Internet addiction. It suggests an imbalance in the systems responsible for control, reward, exploration, and desire in the brain. Specifically, it points to increased excitability of neurotransmitters such as dopamine, opioid peptides, glutamate, and GABA in the brain's reward system, which leads to feelings of pleasure. At the same time, there is a decrease in these neurotransmitters in areas responsible for control and inhibition, resulting in increased impulsiveness and loss of control in individuals' behaviors (Schmitz, 2005).

Continuous stimulation of the presynaptic elements in the reward system can lead to a reduction in the number of postsynaptic neuroreceptors, making individuals feel an urgent desire to increase their engagement in addictive behaviors to achieve the same level of pleasure as before. Dopamine, in particular, plays a crucial role in learning processes, motivation, exploration of behaviors, and feelings of pleasure, while serotonin is involved in control and regulation.

The areas of the brain associated with behavioral addiction include: (Amygdala, Nucleus Caudate, Dorsal Anterior Cingulate Cortex, Dorsolateral Prefrontal Cortex, Striatum, Insular Cortex, Dorsomedial Prefrontal Cortex, Inferior Parietal Lobe, Orbitofrontal Cortex, Putamen, Rostral Anterior Cingulate Cortex, Ventrolateral Prefrontal Cortex (Antons et al., 2020; Brand et al., 2022)).

The neurobiological model provides valuable insights into the underlying mechanisms of Internet addiction and its impact on brain

functions. Understanding these neurobiological aspects can potentially lead to more effective strategies for prevention and treatment.

6.2. Psychological Model

The psychological model focuses on explaining Internet addiction by analyzing the fundamental motives behind Internet usage. It suggests that Internet addiction occurs due to deficiencies in the needs that are supposed to be met through natural and real-life experiences. According to the self-determination theory, individuals have three basic psychological needs:

Autonomy: The need for the individual to have a sense of control and satisfaction with their behavior.

Relatedness: The need for building intimacy and establishing meaningful relationships based on love and care.

Competence: The need for the individual to believe in their abilities and evaluate their willingness to perform a behavior, as well as anticipate its consequences (Karahanna et al., 2018).

The psychological model also takes into consideration self-affirmation and the need for social acceptance as additional factors driving human actions. For example, participating in online social networking sites can fulfill the need for social interaction, independence, and a sense of belonging, while engaging in online gaming can fulfill self-motivation needs through achievement, competence, and autonomy (Wong et al., 2015).

Self-control is another important aspect considered by the psychological model. It plays a significant role in managing

impulsive behaviors and emotions, and its level may vary among individuals based on their psychological characteristics and personality traits. Deficits in self-control have been associated with various psychological disorders, including obsessive-compulsive disorder and addictive behaviors (Nigg, 2017).

The Internet offers users immediate and easily accessible ways to obtain satisfaction, allowing them to present themselves in ways that may differ from their real identity or real-life characteristics. This virtual environment aligns with the motives and needs described by the psychological model (Wong et al., 2015).

The psychological model provides valuable insights into the psychological aspects of Internet addiction, highlighting how underlying needs and motivations drive individuals to excessive and compulsive Internet use. Understanding these psychological factors can aid in the development of targeted interventions and prevention strategies for addressing Internet addiction.

6.3. Social Model

The social model of Internet addiction stems from the cognitive-behavioral theory and seeks to explain why adolescents tend to develop Internet addiction based on their social communication skills. According to this model, individuals with low social communication skills are more likely to prefer virtual communication through the Internet as it provides an escape from the challenges and difficulties of face-to-face interactions. Such individuals often experience difficulties in building successful real-life social relationships and may exhibit traits such as social phobia, lack of self-

confidence, low self-esteem, low emotional intelligence, and increased feelings of loneliness and shyness (Caplan, 2002; 2005).

The I-PACE (Interaction of Person-Affect-Cognition-Execution) model is one of the most comprehensive models used to explain Internet addiction. It integrates various biological, psychological, and social processes and categorizes factors into three main groups:

Predisposition factors: These include neurobiological factors and personality traits that may make certain individuals more susceptible to Internet addiction.

Modifying factors: These factors encompass ineffective coping strategies and cognitive biases, including the idea of the Internet itself as a source of escape or relief.

Mediating factors: This group involves the emotional and cognitive responses of individuals to different situations, which may influence their engagement with the Internet and the development of addiction (Brand et al., 2016).

By considering the various factors involved in Internet addiction, the I-PACE model highlights the interplay between biological, psychological, and social aspects of an individual's life. It recognizes that individuals are complex beings and that a comprehensive understanding of Internet addiction requires the examination of multiple factors that contribute to its development.

Overall, the social model and the I-PACE model emphasize the significance of social and psychological factors in shaping an individual's relationship with the Internet and its potential to lead to addiction. By recognizing the role of these factors, interventions can be tailored to address

specific aspects of an individual's life and support healthier Internet usage habits.

7. Diagnostic Criteria

Diagnostic criteria for Internet addiction are currently not standardized and are not officially recognized in major diagnostic manuals like the DSM-5 or ICD-11. While some behavioral addictions, such as gambling disorder, have been included in the DSM-5, Internet addiction and other specific types of behavioral addictions are not officially classified.

However, some researchers, including Young (1999) and Griffiths (2005), have proposed criteria that can be considered as reference points for identifying Internet addiction. These criteria are often adapted from indicators used to diagnose other behavioral addictions, such as eating disorders. The following are some of the criteria commonly mentioned in previous studies:

Preoccupation: Excessive focus on using the Internet, to the point that it becomes the most important aspect of an individual's life, affecting their behavior and interests.

Mood-altering: Using the Internet as a means of escape and mood alteration, using it to alleviate negative emotions or feelings of distress.

Tolerance: Spending increasing amounts of time using the Internet, with a growing need to spend more time online to achieve the same level of satisfaction and pleasure.

Withdrawal: Experiencing physiological and psychological symptoms when attempting to reduce or stop Internet use, similar to withdrawal symptoms seen in substance addictions.

Conflict: Internet addiction causing interpersonal conflicts and negatively impacting personal and professional responsibilities and activities.

Relapse: Returning to addictive Internet behaviors after a period of attempted abstinence.

It is important to note that while these criteria provide valuable insights into identifying Internet addiction, the lack of standardized diagnostic criteria limits the ability to definitively diagnose the disorder. Additionally, as technology continues to evolve, it may be necessary to establish a unified category that includes various digital screen addictions, such as mobile phone addiction, computer addiction, social media addiction, gaming addiction, and more, to accurately address the diverse range of addictive behaviors related to digital technologies.

8. Risk Factors:

Risk factors contributing to Internet addiction involve a complex interplay of internal and external factors. Some of the key risk factors include:

Gender: Research has shown that males are more susceptible to Internet addiction compared to females (Karacic & Oreskovic, 2017; Chi et al, 2020).

Age: Adolescence is a critical period where individuals are at higher risk of developing and exacerbating Internet addiction (Hassan et al, 2020). Late adolescence has been found to be more conducive to the risk of developing Internet addiction disorder than early adolescence (Karacic & Oreskovic, 2017).

Genetic Factors: Genetic predisposition can

influence an individual's propensity to use the Internet excessively. Studies have identified specific genes associated with depression and dopamine transmission, which may play a role in the development of Internet addiction (Tereshchenko & Kasparov, 2019).

Psychological Factors: Various psychological traits and behaviors can contribute to Internet addiction. High levels of anxiety, depression, impulsiveness, aggressiveness, and low self-esteem have been linked to a higher likelihood of developing Internet addiction (Li et al, 2019; Obeid et al, 2019; Servidio et al, 2018).

Time Spent Online: The amount of time an adolescent spends browsing Internet content can also impact the risk of Internet addiction (Vigna-Taglianti et al, 2017).

Family and Environmental Factors: The family environment and social factors can significantly influence Internet addiction. Negative relationships with parents and teachers, low academic achievement, and exposure to specific content online (e.g., social networking sites and games) can increase the severity of the disorder (Xin et al, 2018).

It is essential to recognize the multifaceted nature of Internet addiction risk factors, which involve both biological and environmental influences. Understanding these factors can aid in developing targeted prevention and intervention strategies to address and mitigate the risk of Internet addiction, particularly among adolescents.

9. Effects:

The reflected effects of Internet addiction on teenagers can be significant and wide-ranging, affecting various aspects of their lives, including psychological, relational,

academic, and social aspects. Some of the key effects include:

Psychological Well-being: Internet addiction can lead to increased feelings of loneliness, low self-esteem, and high depression levels in adolescents (Cheung et al, 2018). The excessive use of the Internet may also contribute to deteriorating mental health (Lebni et al, 2020) and aggressiveness (Agbaria, 2021) in addicted teenagers.

Sleep Quality: Internet addiction can disrupt the sleep patterns of teenagers, leading to decreased sleep quality (Gupta et al, 2021). Lack of proper sleep can further exacerbate mental and emotional health issues.

Family Relationships: Internet addiction can strain family relationships and create tension within the family. It may result in decreased involvement in family activities and a negative impact on the emotional and psychological well-being of family members (Mustafa et al, 2020).

Academic Achievement: As adolescents spend excessive time on the Internet, they may neglect their academic responsibilities, leading to a decrease in their academic achievement (Javaeed, 2020).

Social Relationships: Excessive preoccupation with virtual relationships on the Internet may lead to a decline in real-world social interactions. Teenagers may become more withdrawn and isolated from others, affecting their social skills and relationships (Agbaria, 2021).

Vulnerability to Dangers: Blind trust in strangers on the Internet can put adolescents at risk of encountering dangerous situations, such as extortion and sexual abuse (Tamarit, 2021).

Overall, Internet addiction can significantly impact the well-being and functioning of adolescents, affecting their mental health, academic performance, social interactions, and family relationships. It is crucial to recognize and address these effects to support teenagers in managing their Internet usage in a healthy and balanced manner. Education, awareness, and counseling can play vital roles in preventing and mitigating the negative effects of Internet addiction on teenagers.

10. Treatment:

Internet addiction treatment is a multifaceted approach that aims to help adolescents control and manage their Internet usage in a healthy manner. Therapeutic interventions vary based on the orientation of therapists and the specific needs of the individual. Some of the most important and effective treatment approaches include:

Medical Treatment: This approach focuses on the neurophysiological nature of Internet addiction. Certain medications, such as Escitalopram, Bupropion, Methylphenidate, Citalopram, Quetiapine, and Naltrexone, which are commonly used to treat conditions like depression, anxiety, hyperactivity, and obsessive-compulsive disorder, may be prescribed to address addictive behaviors. However, the use of medication for Internet addiction is still a subject of debate, as experts have not yet determined whether addiction is a cause or consequence of other psychological disorders. Medication should be carefully considered, as it can come with complications and negative side effects (Shen, 2019; Lukawski et al, 2019).

Psychotherapy: The most important psychological treatments used for Internet addiction among adolescents include:

Cognitive-Behavioral Therapy (CBT): CBT is a structured and time-bound psychological treatment that has proven effective in treating behavioral addictions, including Internet addiction. CBT focuses on identifying and modifying cognitive dysfunction to alter negative emotions and behaviors. The therapy includes coping skills training and problem-solving techniques. Therapists can apply various cognitive and behavioral strategies to help individuals with Internet addiction. Some of these strategies contain :

Opposite Action: Disrupting the patient's pattern of Internet use by suggesting new activities.

External Stimuli: Using real activities and reminders to alert the patient to disconnect from the Internet.

Setting Goals: Creating a schedule for Internet usage to manage time more effectively.

Refraining from Specific Applications or Sites: Avoiding particular websites or applications that trigger addiction.

Reminder Cards: Using visual cues to remind the patient of the negative aspects of Internet addiction and the benefits of controlling usage time.

Development and Self-Improvement: Encouraging the individual to engage in past activities and hobbies that were neglected due to Internet addiction (McHugh et al, 2010).

Group Therapy: Providing social support and encouragement through group therapy sessions.

Family Therapy: Addressing relational problems within the family (Sudhir, 2018).

It is essential for therapists to tailor their

approach to each individual's unique circumstances and personality. A combination of cognitive and behavioral techniques can help the patient control Internet use, challenge cognitive distortions related to addiction, improve problem-solving skills, enhance emotional regulation, boost social communication skills, and promote self-affirmation and self-control.

A comprehensive and individualized treatment plan, which may include a combination of medical treatment, psychotherapy, and cognitive-behavioral strategies, can be effective in helping adolescents overcome Internet addiction and develop healthier digital habits.

11. CONCLUSION

In conclusion, Internet addiction remains an important and evolving issue in Arab countries, requiring increased efforts and research within the context of the Arab cultural environment. To address this problem effectively, psychological disorders must be studied in conjunction with their social and cultural specificities. While this discussion has covered the main features of Internet addiction, further research is needed to explore specific types of addiction, such as addiction to social networking sites and pornography.

Adolescence, being a critical stage in shaping an individual's personality, demands a comprehensive approach that considers biological, psychological, and social factors. Internet addiction is a significant concern, and it should be treated with the same seriousness as other substance-related addictions. Researchers are encouraged to delve deeper into the subject and focus on prevention and treatment strategies.

In light of the presented information, it is evident that Internet addiction poses a serious threat to adolescents due to their specific needs and characteristics during this developmental stage. Therefore, the following suggestions are proposed:

-Adolescents should be educated about the potential dangers of excessive Internet use and its negative impact on their lives.

-Providing alternative recreational places, such as sports and artistic clubs, can help divert teenagers' attention from excessive Internet use and encourage positive social interactions.

-Developing targeted prevention programs to address and reduce risk factors associated with Internet addiction among adolescents.

-Implementing digital protection systems and applications to assist individuals in managing their time spent on digital screens and prevent excessive use.

-Parents should be educated about the unique challenges of adolescence and equipped with effective strategies to support and guide their children during this critical stage.

By implementing these measures, we can work towards mitigating the negative consequences of Internet addiction and promoting healthier digital habits among adolescents in our society.

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