Effects of Video Game Addiction on Mental Health

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Abstract: In September 2019, the World Health Organization formally designated gaming addiction, characterized by excessive online or video game consumption that disrupts daily functioning, as a novel mental disorder, enlisting it in the latest International Classification of Diseases under dependency disorders. This recognition underscores the significant impact of video game addiction on both physical and mental well-being. This study primarily investigates the diagnostic criteria and behavioral traits associated with electronic game addiction, delves into the roots of mental health complications stemming from this affliction, and proposes multifaceted solutions spanning familial, educational, and societal dimensions. Within families, cultivating balanced gaming habits and implementing time restrictions emerge as crucial strategies. Schools can contribute by diversifying extracurricular activities to reduce excessive screen time. At the societal level, fostering psychological support systems and implementing comprehensive rehabilitation programs are imperative. This research underscores the pressing need to address electronic game addiction as a genuine mental health concern, demanding a concerted effort from individuals, families, schools, and society at large to mitigate its far-reaching consequences.

Keywords: electronic games, Addiction, Mental health, influence

1. Introduction

On September 25, 2019, the World Health Organization officially classified game addiction, particularly addiction to online and video games that disrupt daily life, as a newly recognized mental disorder. This designation marked a significant milestone, as it was included in the latest edition of the International Classification of Diseases as a dependency disorder. This acknowledgement underscored the profound impact of video game addiction on individuals' physical and mental well-being.

As of June 2022, China boasted a staggering 552 million online game users, constituting 52.6% of the nation's total Internet users. Electronic games have firmly established themselves as a vital source of entertainment in the daily lives of the populace. Airy Consulting Company's report projected that by 2022, male electronic game users in China would surpass 70%, with young people emerging as the primary demographic of electronic game enthusiasts. A staggering 47.0% of users under 25 engage in video games [1], particularly online games, which have become a pivotal component of students' after-school leisure activities. Consequently, video game addiction has surged to the forefront of contemporary discussions.

Domestic research indicates a rising trend in the prevalence of electronic game usage, a corresponding increase in the duration of online gaming sessions, and a growing body of research investigating the impact of electronic game addiction on health. As of 2023, a search on CNKI for "influence of electronic games on adolescents" yielded 330 periodicals and 377 academic papers focusing on the effects of video game addiction. These studies predominantly examined its ramifications on physical and mental health, academic performance, interpersonal communication, and societal implications. While researchers have primarily focused on the manifestations, causes, effects, and intervention methods related to online game addiction, there is room for improvement regarding comprehensiveness and theoretical depth. A notable gap lies in the absence of integrated analyses based on established theories.

This paper will explore the effects of video game addiction on mental health, specifically addressing three key aspects. The first section will delve into the definition and characteristics of video game addiction. The second section will analyze the mental health consequences of video game addiction, including its impact on sleep patterns, social isolation, and the development of anxiety and depression. Furthermore, it will scrutinize the underlying reasons behind these mental health challenges. The third section will propose strategies to counteract the factors discussed in the second section. In summary, while video game addiction can indeed affect mental health, its negative consequences can be mitigated through measures like balancing playtime, practicing self-management, and seeking professional assistance.

The study of video game addiction's influence on mental health holds significant importance for several reasons. Firstly, it aids in deepening our understanding of the nature and origins of video game addiction, thereby providing a scientific foundation for the development of effective interventions and treatments. Secondly, it serves as a warning to the general public about the hazards of addiction, enhancing overall public health awareness [2]. Moreover, investigations into the neural mechanisms of addiction can inspire the development of innovative drugs and treatment approaches, thereby enhancing the efficacy of addiction treatment. Lastly, exploring the effects of video game addiction on mental health contributes to a broader comprehension of mental well-being, illuminating the nuanced facets of this vital component of human health.

2. Definition and Characteristics of Video Game Addiction

2.1. Criteria and Characteristics of Video Game Addiction

The criteria for assessing video game addiction, known as Online Gaming Disorder, have been established by the World Health Organization (WHO) in its International Classification of Diseases (ICD-11) [3]. These criteria are essential for identifying and diagnosing video game addiction. One key indicator is its adverse consequences on physical and mental health, including problems like sleep deprivation, an unhealthy diet, depression, and anxiety. These health-related issues underline the seriousness of video game addiction as a significant public health concern.

Another critical criterion is the loss of control over gaming habits, encompassing the frequency, intensity, and financial investment in gaming activities. This loss of control forms the basis for diagnosing addiction. Furthermore, prioritizing gaming over essential life aspects such as work, education, family obligations, and social interactions is a prominent indicator. This prioritization underscores the negative impact of addiction on daily life.

Escalation of gameplay is a crucial sign, involving the need for prolonged playtime to experience pleasure and satisfaction, reducing time spent on other activities. This escalation highlights the detrimental impact of addiction on one's daily routine. Additionally, video game addiction is associated with social isolation and dysfunction, as individuals withdraw from real-life social interactions and lose interest in various social activities, further illustrating its debilitating nature [4].

Collectively, these criteria define the parameters for diagnosing video game addiction according to the WHO's ICD-11. Recognizing and understanding these indicators is vital for identifying and addressing this growing concern within digital entertainment and emphasizing the need for effective interventions and support for affected individuals.

Video game addiction is characterized by distinct features that differentiate it from casual gaming. Firstly, individuals with gaming addiction become obsessively fixated on gaming, making it the central focus of their lives. This intense preoccupation often leads to neglecting other important aspects, such as work, social interactions, and daily responsibilities, jeopardizing their overall well-being.

A concerning aspect is the loss of self-control, as addicted individuals struggle to regulate their gaming behavior and frequently engage in marathon gaming sessions, neglecting essential activities like eating and sleeping. This loss of control interferes with maintaining a healthy and balanced lifestyle.

Furthermore, video game addiction often serves as a coping mechanism to alleviate feelings of anxiety, depression, and emotional distress. This reliance on gaming for emotional stability indicates a strong dependence on video games.

Crucially, individuals with video game addiction exhibit a profound dependency on games, making it challenging to disengage from their gaming habits despite recognizing the harmful consequences. This dependency often stems from dissatisfaction with their real-life circumstances, using the virtual world as an escape [5].

In summary, video game addiction is characterized by an all-encompassing obsession with gaming, a loss of control over gaming habits and time, the use of games as a means of emotional regulation, and a profound dependency on games despite awareness of their detrimental impact on life. Understanding these defining features is crucial for addressing and mitigating the negative consequences it has on individuals' well-being and overall quality of life.

2.2. Typical Manifestations and Behavior Patterns of Video Game Addiction

Video game addiction is characterized by a set of typical manifestations and behavioral patterns that underline its seriousness and impact on individuals. These manifestations and behavioral patterns provide insight into the nature of this addiction.

Typical manifestations of video game addiction encompass persistent and uncontrollable gaming behaviors. Individuals cannot regulate the occurrence, frequency, duration, or termination time of their gaming activities. Despite experiencing adverse consequences in various aspects of life, such as the deterioration of interpersonal relationships, negative impacts on their career or academic performance, and damage to their health, they remain unable to curtail their gaming habits. In fact, gaming often becomes their top priority, overshadowing other essential life commitments. This persistent behavior leads to significant functional impairment in personal, familial, interpersonal, academic, or professional domains.

Furthermore, withdrawal from video game addiction is marked by a strong desire and compulsion to resume gaming activities. This is accompanied by the emergence of withdrawal symptoms, including anxiety, depression, irritability, and restlessness [6]. Sleep patterns are disrupted, causing overexcitement and an inability to maintain a regular sleep cycle. Academic performance may suffer due to absenteeism, loss of appetite, weight loss, and a decline in self-esteem, often accompanied by self-blame.

Behavioral patterns of video game addiction closely mirror these typical manifestations. The core feature remains the persistent and uncontrollable nature of gaming behavior. Individuals struggling with video game addiction continue to engage in excessive gaming, even when faced with negative consequences in their relationships, career, academics, or health. These behavioral patterns can persist

over extended periods, typically lasting over 12 months [7]. However, in severe cases or when other diagnostic criteria are met, the duration of these patterns may be shorter than a year.

In summary, video game addiction is characterized by repetitive and out-of-control gaming behaviors, with individuals unable to regulate the frequency and duration of their gaming activities. These behaviors persist despite adverse consequences and often lead to significant functional impairment in various aspects of life. Withdrawal from gaming is marked by a strong desire to play, accompanied by symptoms like anxiety and disrupted sleep patterns, further exacerbating the negative impact on individuals' well-being. Recognizing and addressing these manifestations and behavioral patterns is crucial in understanding and tackling the issue of video game addiction.

3. The causes of Mental Health Problems Caused by Video Game Addiction

3.1. Mental Health Consequences of Video Game Addiction

Video game addiction can exert a profound impact on mental health, giving rise to a spectrum of adverse outcomes. Excessive indulgence in video games has been linked to issues such as anxiety, depression, and difficulties in social interactions. In comparison to their non-addicted counterparts, teenagers ensnared by online gaming exhibit a higher prevalence of psychological ailments, notably depression and anxiety.

3.1.1. Sleep Deprivation Resulting from Prolonged Gaming

Video game addiction, as a mental health predicament, exerts a detrimental influence on one's life. Sleep, a fundamental component for physical well-being and mental equilibrium, often becomes a casualty of extended gaming sessions. This protracted gaming habit often leads to neglect of essential sleep, transforming late-night gaming into the norm. The consequences of insufficient sleep encompass an array of problems, including impaired concentration, memory deficits, mood fluctuations, and heightened irritability. Moreover, chronic sleep deprivation escalates the vulnerability to mental health issues such as anxiety and depression [8]. The excessive addiction to video games further perpetuates this lack of sleep, thereby compounding the adverse impact on adolescents' physical and mental health. The dearth of sleep exacerbates issues related to concentration, memory impairment, mood instability, and heightened stress, all of which further undermine academic and daily life functioning among teenagers.

3.1.2. Social Detachment among Game Addicts

Video game addiction encompasses a mental health challenge marked by an overreliance on video games and uncontrollable behavior, which results in reduced engagement with real-life activities. Concurrently, video game addiction bears a close connection with real-world social alienation [9].

Firstly, video game addiction often precipitates a loss of interest in real-world social engagements. Individuals ensnared by video games tend to immerse themselves in the virtual realm, forsaking connections with the tangible world. As a result of extended gaming, they may experience reduced interaction with family, friends, and society, and, in some cases, even social isolation. This social detachment can trigger psychological issues like loneliness, depression, and anxiety. Furthermore, the prolonged addiction to video games may result in the neglect of real-life obligations, adversely affecting young individuals' educational and career development. Addicts frequently allocate substantial amounts of time and energy to gaming, often at the expense of social interactions with family, friends, and peers. They may bypass social events to indulge in gaming, thus amplifying the disconnect from their immediate surroundings.

Secondly, video game addiction can detrimentally affect an individual's social and interpersonal skills. Due to their extensive immersion in the virtual gaming universe, they may lack face-to-face communication and interpersonal interaction. Consequently, they may struggle with social ineptitude, ineffective communication skills, and difficulties in forging meaningful relationships with others. Moreover, video game addicts often encounter social pressure and stigmatization. Their prolonged engagement in the gaming realm, coupled with a lack of shared interests and conversational topics with non-gaming peers, can lead to their perception as detached from societal norms. This sense of alienation can further perpetuate their gaming dependency and contribute to negative psychological states.

3.1.3. Aggravation of Anxiety, Depression, and Attention Deficits

The exacerbation of anxiety, depression, and attention deficits constitutes another critical facet of the mental health issues associated with video game addiction. Prolonged immersion in video games often results in neglect of crucial life responsibilities, including academic pursuits, occupational commitments, and interpersonal relationships, heightening the risk of anxiety and depression.

Anxiety manifests as an emotional state characterized by excessive apprehension and restlessness concerning future events. Individuals ensnared by video game addiction may experience anxiety stemming from the neglect of real-life responsibilities and pressures. On the other hand, depression represents a protracted state of low mood and diminished interest in life. Video game addiction tends to drive individuals into isolation and self-imposed seclusion, thereby amplifying the susceptibility to depression. Additionally, video game addiction can precipitate attention problems. The extended periods spent gaming deplete an individual's energy and focus, rendering it arduous to concentrate on other vital tasks. These attention deficits can disrupt various facets of life, encompassing educational, occupational, and personal domains.

3.2. Causes of Mental Health Problems Caused by Video Game Addiction

Video game addiction is associated with several causes that contribute to mental health problems. One primary factor is the overstimulation of gaming rewards. In video games, players are frequently exposed to various rewards, including points, items, and achievements, which serve as positive reinforcement, eliciting feelings of happiness and satisfaction. However, when the intensity of these rewards becomes excessive, it can lead to a lack of control over gaming behavior, sometimes at the expense of real-life responsibilities and opportunities. This relentless pursuit of rewards can result in mental health issues, such as neglecting real-life relationships, academic obligations, and personal well-being, ultimately triggering negative emotions like anxiety, depression, and loneliness.

Furthermore, excessive gaming addiction can render individuals ill-equipped to handle real-life challenges and pressures, pushing them toward escapist behaviors [10]. Recognizing that individual differences play a significant role in developing video game addiction is essential. Some individuals exhibit lower self-control and willpower, making them more susceptible to addiction and mental health problems associated with gaming. Factors like social skills, life stress, and family environment can also contribute to the initiation and exacerbation of video game addiction.

Another contributing factor is the exaggerated sense of achievement within games compared to the real world. Video games frequently offer players a plethora of achievements and rewards, leading to excitement and satisfaction. However, when these in-game accomplishments are disproportionately glorified, players may contrast them with the monotony and challenges of real life, resulting in frustration and dissatisfaction. This stark contrast between gaming achievement and the real world can cause individuals to feel overwhelmed by real-life demands, potentially leading to escapist tendencies [11]. Moreover, achieving high levels of success and recognition in games without

receiving similar acknowledgment in real life can trigger mental health issues, such as diminished self-esteem, mood fluctuations, and heightened anxiety.

Lastly, games often serve as an escape from problems and stressors in real life. Individuals frequently encounter various challenges and pressures, ranging from academic demands to interpersonal conflicts and physical health issues. These real-life stressors can leave individuals feeling helpless and ill-equipped to cope. Video games offer an enticing escape into a virtual realm, allowing individuals to evade their real-life problems and pressures temporarily [12]. Some individuals may become dependent on games as their primary method of escapism. However, when gaming becomes the predominant means of avoiding reality and managing stress, it can result in a range of mental health problems. Engaging in role-playing and completing game quests instills a sense of accomplishment and empowerment, offering temporary relief from the negative emotions stemming from real-life setbacks and difficulties.

Additionally, the social elements within games provide communication and interaction, fostering feelings of acceptance and recognition. Nevertheless, the peril of video game addiction lies in the tendency for individuals to excessively rely on games as an escape from real-life issues, leading to a gradual accumulation and exacerbation of these problems. Gaming addiction can cause individuals to neglect their academic or professional responsibilities, impair their relationships, and even compromise their physical health and social skills.

4.   Measures to Prevent and Deal with Addiction to Electronic Games

4.1.   Establishing Healthy Play Habits and Time Limits within Families

Parents play a crucial role in fostering healthy gaming habits in their children. Collaboratively, parents and children can establish a structured schedule that includes designated playtime and breaks. Setting clear time limits for daily gaming sessions is essential and should be consistently enforced.

Additionally, it is important for parents to engage in open discussions with their children to establish consequences for violating these rules, fostering a sense of responsibility and accountability.

Furthermore, it is imperative to establish a family consensus regarding the significance of video games and their place in family life. Mutual respect for each family member's viewpoints and decisions is paramount [13]. Parents should take an active interest in understanding the type, content, and duration of their children's gaming activities while providing appropriate supervision. If any signs of gaming addiction emerge, swift action should be taken, which may involve limiting playtime and removing problematic games from access.

4.2.   Promoting Diversity in School Activities

Schools can contribute significantly to reducing electronic device dependence by offering a diverse range of extracurricular activities. These activities can encompass concerts, sports competitions, art exhibitions, cultural salons, and more, providing students with opportunities to explore their interests beyond electronic devices. Moreover, schools should invest in facilities such as libraries, music rooms, and sports fields to facilitate participation in these activities.

Additionally, schools can organize social engagement initiatives, such as volunteer work, community service projects, and vocational experiences, to enable students to interact with society. These experiences foster essential life skills such as teamwork, effective communication, and a sense of responsibility. Inside the classroom, educators can employ various teaching methods, including interactive tools, group discussions, and classroom engagement, to make learning more appealing and reduce students' reliance on electronic devices [14].

4.3. Providing Psychological Support and Rehabilitation Programs in Society

Addressing electronic addiction necessitates the establishment of a comprehensive support system for affected individuals. Addicts should seek assistance from supportive communities or organizations, including family, friends, recovery centers, or treatment groups. These support networks can offer emotional backing and encouragement, which are vital in maintaining adherence to a recovery plan.

Professional help should also be sought, involving psychotherapists and rehabilitation therapists who can tailor psychological support and recovery programs to individual needs. Furthermore, participation in psychological support groups and rehabilitation courses provides a platform for sharing experiences and mutual encouragement among addicts [15]. Regular evaluation of recovery plans is essential, and addicts can collaborate with therapists or supporters to assess progress and identify areas for improvement, enabling continuous refinement of the recovery program [16].

To sum up, these psychological support and rehabilitation programs play a pivotal role in helping addicts manage electronic addiction, rebuild a healthy lifestyle, and attain improved mental and emotional well-being. The presence of a supportive community or organization, whether it be family, friends, recovery centers, or treatment groups, is invaluable in providing emotional support and encouragement to addicts on their journey towards recovery.

5. Conclusion

In conclusion, video game addiction poses a significant threat to individuals' mental and physical well-being due to its detachment from real-life experiences. This addiction can easily lead to frustration in the real world, a loss of self-confidence, heightened inner anxiety, increased inner conflicts, tension, and irritability. Ultimately, it can result in severe physical and mental exhaustion, along with the development of various mental illnesses. These individual psychological deviations stemming from a disconnect in communication modes are detrimental to one's overall psychological health.

Addressing video game addiction necessitates collaborative efforts from families, schools, and society as a whole. Society should take proactive steps to provide psychological support and rehabilitation programs tailored to video game addicts. Increasing awareness and empathy towards those struggling with video game addiction is crucial. Schools play a pivotal role in offering correct guidance and education on healthy technology usage. Families, on their part, must take responsibility for regulating video game time, enhancing self-control, resisting negative temptations, and actively engaging in a more enriching and balanced life.

This collective endeavor can strive to mitigate the adverse consequences of video game addiction and foster a healthier and more fulfilling life for members of our society.

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