Psychological Mechanisms and Intervention Strategies for Short Video Addiction among College Students

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Abstract: With the popularization of the internet, short videos have become an indispensable part of college students' lives. The phenomenon of short video addiction is increasingly prevalent among this group, significantly impacting their mental health, academic performance, and social adaptation. This study systematically analyzes the psychological mechanisms of short video addiction among college students and explores intervention strategies. The research reveals that the psychological mechanisms of short video addiction primarily involve the satisfaction of psychological needs, the cycle of behavioral reinforcement, and the psychological motivation to escape reality. This paper proposes multi-level intervention strategies, including enhancing the psychological quality of college students, optimizing the content and dissemination methods of short video platforms, and collaborative intervention by families, schools, and society.

1. Introduction

In recent years, with the continuous innovation of internet technology and the gradual growth of self-media, the information transmission methods of social media have undergone transformations from text and images to videos. Particularly in the current era of short videos in online social networking, an increasing number of people are choosing short videos as a means of online social interaction. The behavior of college students watching short videos has gradually evolved into a form of overuse, and this phenomenon has attracted widespread social attention. Many studies indicate that prolonged immersion in short videos may have negative impacts on college students' academic performance, social life, and mental health. For example, over-reliance on short videos may lead to distraction and affect learning efficiency; it may also reduce face-to-face social interaction, leading to feelings of loneliness and social anxiety [1,2]. More importantly, long-term overuse of short videos may also lead to emotional problems such as anxiety and depression. Currently, how to reduce over-reliance on short videos has become an important social issue. Regarding the phenomenon of short video over-reliance, many scholars have begun to explore psychological intervention methods to alleviate the spread of this behavior. Among them, trait mindfulness, as a psychological trait, can help individuals focus more on current experiences, reduce attention to intrusive thoughts, and improve emotional regulation abilities. By exploring the influencing factors of short video addiction, understanding the psychological mechanisms of short video addiction among college students, and developing corresponding intervention measures, this

article can not only help college students establish healthier internet usage habits and prevent potential mental health problems, but also provide mental health professionals with scientific intervention bases and strategies to cope with the challenges brought by emerging media [3].

2. Influencing Factors of Short-Video Addiction

Short-video addiction refers to the uncontrollable use of short-video applications, without considering their negative impacts and adverse consequences. It is a behavioral outcome resulting from the interaction between short-video platforms and users. Short videos inherently possess positive reinforcement attributes, inseparable from their rapidly refreshing, continuous sense of novelty and appealing content, which allows individuals to constantly browse video content, maximizing the fulfillment of individual entertainment needs, making individuals unable to extricate themselves. Meanwhile, cross-cultural comparative studies have found that a high demand for entertainment will manifest as compensatory use of short videos. Low compensatory use generates less distress and has a smaller impact on users' daily lives. However, long-term high compensatory users exhibit more fulfillment behaviors, and their short-video over-reliance problem is more severe [4]. According to the compensatory internet use model, individuals often use internet entertainment as a way of self-regulation and compensation to relieve or eliminate stress generated in real life. Individuals compensate for their unmet needs in real life with the help of the internet, but they may also become addicted due to relying on the internet for compensation and overuse, leading to the emergence of addiction symptoms.

Watching short videos with concise information in fragmented free time relaxes and relieves stress. This satisfies individuals' entertainment expectations for online media use, but the continuous novelty of short videos deepens the use of those with weaker self-control, intensifying their dependence on short videos, and even forming an addictive behavior [5]. Many individuals find themselves trapped in the predicament of being unable to quit short videos due to low self-control. Anxiety resulting from loneliness is one of the risk factors for excessive reliance on short videos. Individuals who interact less with family and friends and receive less social support are prone to loneliness, and thus become more dependent on mobile social platforms to shift the anxiety of feeling lonely. In addition, the humanistic model indicates that a lack of social interaction and care makes individuals tend to satisfy this social need through the internet, which may increase the risk of internet addiction. This is consistent with the highly predictive conclusion of loneliness. Furthermore, individuals may experience boredom due to a lack of social interaction. Boredom is one of the high-risk factors for excessive reliance on short videos. Individuals lack high-density stimulation experiences in their daily lives, and the high-frequency reinforcement experience brought by short videos far exceeds real life, which may lead to individuals developing over-reliance problems.

3. Psychological Mechanisms of Short-Video Addiction among College Students

3.1 Cognitive Mechanisms: Instant Gratification and Attention Fragmentation

The core appeal of short videos lies in the instant feedback mechanism they provide. From a cognitive psychology perspective, the human brain has a natural preference for rapid, high-intensity stimulation, and the "short, simple, and fast" characteristics of short videos precisely meet this need. Platforms continuously provide fresh content through 15-second to 1-minute clips, leading users to form a "watch-enjoy-continue watching" cycle within the dopamine-driven reward system. This instant gratification model stands in stark contrast to the ability to delay gratification, and because the prefrontal cortex (responsible for self-control and long-term decision-making) is not yet fully

mature in college students, they are more susceptible to the lure of short-term rewards, leading to self-regulation failure [6].

Furthermore, the fragmented content of short videos further exacerbates attention deficit problems. Traditional learning or in-depth reading requires a long period of focus, whereas the rapid switching mode of short videos causes users' attention to jump constantly, gradually reducing their tolerance for long-term tasks. Research indicates that frequent short video use reshapes the brain's attention network, making users more easily distracted when faced with tasks that require sustained focus (such as classroom learning or reading books). This change in cognitive habits not only affects academic performance but may also weaken the ability to think deeply, making individuals more inclined to process information superficially.

3.2 Emotional Mechanisms: Stress Avoidance and Emotion Regulation Dependence

Emotional factors play a crucial role in short-video addiction. College students face multiple challenges, including academic pressure, social anxiety, and future uncertainty, and short videos offer a low-cost, highly convenient way to regulate emotions. When individuals are in a negative mood (such as loneliness, anxiety, or boredom), browsing short videos becomes a quick emotion-avoidance strategy. This avoidance behavior can alleviate discomfort in the short term, but in the long run, it may lead to dependence on emotion regulation, meaning individuals are increasingly inclined to manage emotions through external stimuli (such as short videos) rather than internal strategies (such as problem-solving or social support).

It is worth noting that the emotion-regulating effect of short videos has a "double-edged sword" effect. On the one hand, humorous and inspirational content can indeed briefly boost positive emotions; however, on the other hand, algorithm recommendations are often based on the user's emotional state to match content. For example, when a user is in a low mood, the platform may push more emotionally resonant videos, further reinforcing the user's negative thinking patterns. This "emotional homogenization" phenomenon can lead users to become trapped in emotional fixation, that is, spending a long time immersed in content that matches their current mood, making it difficult to break out of the negative emotional cycle [7].

3.3 Socio-Psychological Mechanisms: Virtual Social Compensation and FOMO (Fear of Missing Out)

Social needs are another important driver of short-video addiction. College students are at a critical stage in the formation of social identity, and short video platforms provide low-threshold social interaction opportunities through functions such as likes, comments, and sharing. For individuals with higher social anxiety, short videos become a substitute for real-world social interaction. They may gain attention by posting content or meet their need for belonging by interacting in the comments section. However, this virtual social compensation often cannot replace genuine interpersonal connections and may instead exacerbate the degradation of real-world social skills, forming a contradictory state of "online activity, offline loneliness."

In addition, the FOMO (Fear of Missing Out) phenomenon is particularly prominent in short-video addiction. Because platform algorithms constantly push popular content, users worry about missing the latest trends or interesting information, thereby generating a continuous impulse to browse videos. This psychology is especially prevalent among college students because they are highly sensitive to peer culture (such as popular memes and internet slang), and short videos happen to be the core channel for obtaining such information. FOMO not only prolongs usage time but may also trigger anxiety, meaning that even if individuals are aware of the problem of overuse, they still find it difficult to stop browsing videos.

3.4 Platform Design Mechanisms: Algorithmic Conditioning and Variable Reward Schedules

The psychological mechanisms of short-video addiction stem not only from individual factors but also from the systematic influence of platform design. Infinite scroll technology eliminates the "termination points" of traditional media (such as page turns or ad breaks), causing users to continuously scroll unconsciously, severely distorting their perception of time. Simultaneously, personalized recommendation algorithms continuously optimize content matching by analyzing user dwell time, interaction behavior, and other data, forming a feedback loop of "the more you watch, the more accurate it becomes." This algorithmic conditioning gradually makes users dependent on the information provided by the platform, weakening their autonomous selection ability.

The variable reward schedule is a core design strategy of short-video addiction. Unlike fixed rewards (such as news pushed at a fixed time every day), the content presentation of short videos has a high degree of uncertainty; users cannot predict whether the next video will be interesting. This mechanism is similar to "intermittent reinforcement" in gambling, which can maximize user engagement. Neuroscience research shows that the dopamine release brought about by uncertainty is stronger than that of deterministic rewards, which explains why users get caught in the loop of "just one more," even if most of the content has no substantial value.

3.5 Combined Effect of Psychological Mechanisms: Formation of Addiction Loop

The above mechanisms do not operate independently but are intertwined to form a closed-loop system of short-video addiction. Immediate gratification at the cognitive level reduces self-control, emotional regulation needs drive avoidance behavior, social compensation and FOMO reinforce the motivation to use, and platform design continuously reinforces this cycle through algorithms and reward schedules. Ultimately, individuals may develop tolerance (needing to watch videos for a longer time to obtain the same satisfaction) and withdrawal symptoms (experiencing anxiety, boredom, and other uncomfortable emotions when stopping use), which are consistent with the core characteristics of behavioral addiction.

4. Intervention Strategies for Short Video Addiction among University Students

Short video addiction is prevalent among university students, with differences in gender and grade level. Short video addiction affects the mental health of university students, mainly manifested as students addicted to short videos being more prone to physical discomfort, decreased social skills, and strained interpersonal relationships. Students addicted to short videos are also more likely to experience negative emotions such as tension, anxiety, and unease. In terms of thinking patterns, those addicted to short videos are more likely to adhere to their own views and are prone to rigid thinking. Relevant analysis results further prove that short video addiction has an impact on the mental health of university students. Based on the research findings, the following suggestions are proposed.

4.1 Building a Responsibility System for Short Video Platforms to Purify the Online Environment

In response to the prevalence of short video addiction among university students and its significant impact on mental health, the primary task is to improve the self-discipline and supervision mechanisms of short video platforms. Platforms should establish and improve content review and filtering systems, using advanced artificial intelligence technology to automatically

identify and remove non-compliant, vulgar, violent, and other undesirable information to ensure that users are exposed to content that is healthy, positive, and educational. At the same time, platforms should reasonably set viewing time limits and reminder functions, encouraging users to arrange their usage time reasonably and avoid excessive indulgence.

In March 2019, under the guidance of the State Internet Information Office, short video platforms such as Douyin, Kuaishou, and Huoshan launched pilot "Youth Anti-Addiction Systems." The anti-addiction system is embedded in the short video APP, and users are guided to turn on the youth anti-addiction mode, and even use scientific and technological means such as geographic location and user behavior analysis to suggest that young users enter the anti-addiction system, in order to restrict young users' access periods, usage time, and viewing content. However, the use of this anti-addiction system is entirely based on users' independent choices, and even if parents set up the anti-addiction function, users can solve the restrictions by uninstalling and reinstalling the software. In addition, the system does not include university students in the scope of anti-addiction system restrictions. It is undeniable that the road to short video platform anti-addiction systems is long and arduous. In response to the problem of short video addiction among university students, short video companies should actively and proactively assume social responsibility, include university students in the monitoring scope of the anti-addiction system, and continue to concentrate efforts on solving technical loopholes and improving the anti-addiction system. Short video companies can identify university student groups based on users' geographic location, usage habits, and interactive groups, or they can cooperate with telecommunications companies and education departments to collect information on university student groups to determine the identity of university student users, and compulsorily limit university student users' access periods, usage time, and search content scope, to build a scientific and complete university student short video anti-addiction system. In short, short video companies must earnestly fulfill their main responsibilities, maximize the mobilization of platform power, and comprehensively integrate platform resources to create a positive, healthy, green, and safe online video space for the majority of university students.

4.2 Deepening Mental Health Education to Enhance Self-Awareness and Regulation

Universities, as the primary places for college students to study and live, should undertake the important task of deepening mental health education and enhancing students' self-awareness and regulation abilities. First, universities should incorporate mental health education into the required curriculum system. This can be achieved by systematically teaching basic psychological knowledge, analyzing the psychological mechanisms of short video addiction, and teaching emotion and time management skills. These methods help students comprehensively understand themselves, recognize the harms of short video addiction, and learn self-regulation and help-seeking methods. Second, universities should establish and improve a comprehensive mental health service system, set up specialized psychological counseling centers, and equip them with professional psychological counselors. This will provide students with one-on-one psychological counseling services and group counseling activities, helping them solve psychological problems caused by short video addiction. All higher education institutions should strengthen mental health education, combining the prevention of short video addiction with mental health education. Research has found that certain dimensions of the Big Five personality traits are closely related to college students' short video addiction behavior. In other words, college students' short video addiction is significantly related to their psychology. Previous studies have shown that mental health education is indeed effective in preventing addictive behaviors in student populations. College students addicted to short videos score higher in neuroticism and extraversion. Considering that neurotic individuals are

more emotionally sensitive and have more fragile self-esteem, and extroverted individuals are more prone to fantasy, it is necessary to comprehensively improve the psychological quality of this type of college student and enhance their psychological adaptability and resilience. At the same time, by leveraging the significant negative effect of agreeableness on college students' short video addiction, improving the psychological quality of contemporary college students should continuously enhance students' self-motivation awareness, improve their self-adaptation ability, and stimulate the courage to change themselves [8].

Therefore, all higher education institutions should pay more attention to students' mental health education than ever before, and should adopt diversified educational methods to prevent and intervene in college students' short video addiction. This includes utilizing mental health education-themed class meetings, special psychological education courses, mental health group activities, and mental health special lectures to carry out short video addiction prevention education. Mental health education should become an important educational component of modern higher education institutions. Class advisors and counselors should, under the unified arrangement of student affairs departments and mental health education centers, and in combination with the actual work of each administrative class, regularly carry out mental health education-themed class meetings. These meetings should target and solve potential psychological problems such as short video addiction behavior in the student population. All higher education institutions should offer mental health education courses, hire specialized psychology teachers, and explain the causes, symptoms, and treatment plans of psychological disorders to students. This ensures that psychological education courses become practical courses that truly cultivate students into sunny, healthy, and socially useful talents. All higher education institutions should also carry out diverse and positive group activities, allowing students to participate more in learning and interpersonal communication, reduce the time spent watching short videos on their mobile phones, and make group activities an auxiliary means of preventing short video addiction. Finally, all higher education institutions can also invite experts and scholars in the field of mental health, as well as practitioners with rich experience in mental health education, to hold special lectures on short video addiction prevention. These lectures can explain the harms of short video addiction and related treatment plans using relevant theories and practical cases. In summary, mental health education needs to focus on cultivating college students' worldview, outlook on life, and values, and establish a concept of healthy entertainment from an ideological perspective, in order to reduce their short video viewing time.

4.3 Building a Collaborative Home-School Education Mechanism to Form a Joint Educational Force

As a significant environment influencing the growth of college students, the family plays an indispensable role in preventing and treating short-video addiction. Helping college students break free from addiction and open the doors to their hearts relies heavily on parents. A positive family cultural atmosphere is the foundation of family education and the most important environmental support for its implementation. Parenting styles and communication frequency are important influencing factors in college students' addictive behaviors. In contemporary China, parents generally neglect their children's physical and mental health and character education, focusing excessively on academic performance. This leads to students experiencing high levels of stress and prolonged tension during their primary and secondary school years. Consequently, once they enter university, free from the pressure of academic advancement and parental supervision, college students tend to "cut loose" completely, which can easily lead to short-video addiction. Furthermore, Chinese parents are among the most self-sacrificing globally, willing to give their all for their

children and forgo their own needs, hoping their children will become outstanding individuals. Therefore, they may employ unreasonable parenting methods due to unrealistic goals in family education, which often lays the groundwork for short-video addiction in college students. As such, Chinese families should acknowledge these issues and strive to create a positive family environment.

To prevent short-video addiction, the most important thing for Chinese parents today is to adopt scientific parenting methods. During the education process, they should fully consider their children's thoughts and tailor their approach to the child's individual circumstances. They should avoid overindulgence or excessive authoritarianism and establish smooth and harmonious communication channels, influencing their children through both words and actions to build strong and stable parent-child relationships. They should arrange more shared activities to increase the frequency and quality of communication with their children, focusing on psychological changes during their development. This ensures that children genuinely feel their parents' attention, love, affirmation, and support, preventing them from seeking a sense of identity and belonging in short-video apps.

Therefore, in preventing short-video addiction among college students, parents should adopt enlightened and correct methods. Parents should improve their media literacy to understand and use short videos as a topic of communication with their children. They should correctly recognize short videos, master relevant information, fully explore the positive impacts of short-video use on their children, and focus on providing guidance and supervision regarding the correct use of short videos. This can prevent or intervene in college students' short-video addiction while also helping them improve their self-control and time management skills through the use of short videos.

4.4 Developing Diverse Interests, Promoting All-Round Development

Universities should actively promote the diversified development of campus culture by organizing a variety of colorful campus cultural activities, such as academic lectures, artistic performances, sports competitions, student club activities, and volunteer services, to provide students with diverse platforms for self-expression and interactive exchange. These activities can not only enrich college students' spare time and relieve academic pressure, but also cultivate their interests, teamwork spirit, and social responsibility. Through participating in activities, college students can make more like-minded friends, broaden their horizons, enhance their self-confidence and sense of belonging, and reduce their dependence on short videos. At the same time, universities should strengthen the guidance and management of student club activities, encourage clubs to innovate activity content and forms, and attract more students to actively participate. In addition, universities can also use campus media resources to promote excellent club activities and campus cultural achievements, creating a good campus cultural atmosphere.

In addition, college students are basically 18 years old or older, have independent behavioral abilities, independent will, and corresponding self-control abilities. However, in fact, college students who are addicted to short videos often cannot stop their needs for gratification in a timely manner; instead, they indulge their excessive demand for short videos. College students addicted to short videos do not prioritize learning; they attempt to escape the various systems and attendance constraints in school in order to immerse themselves in the world of short videos. Therefore, college students who are addicted should correctly recognize the disadvantages of short videos and regulate their use through standardized management and implementation of self-supervision responsibilities. College students addicted to short videos can set limits on usage time and frequency to reduce short video use and avoid short video addiction. Because short videos are short in length, novel in content, fast-paced, and lighthearted and humorous, they firmly grasp college students' excitement, making

it difficult for people to feel the passage of time when watching short videos. Therefore, college students should strengthen self-supervision and management, and should limit their usage time. College students can set an alarm to limit usage time before each use, and set corresponding rewards and punishments. College students should strengthen self-supervision and management of short video use to effectively achieve the goal of preventing short video addiction.

5. Conclusion

As a new medium, short videos offer college students opportunities for both entertainment and learning, while also posing the risk of addictive use. This study systematically analyzes the psychological mechanisms involved, revealing the combined effects of cognitive habits, emotional needs, social motivations, and technological design, and proposes targeted intervention strategies. In the future, continuous efforts are needed in both theoretical refinement and practical promotion to help college students establish healthy digital lifestyles, ensuring they enjoy the conveniences of technology without being enslaved by it. Only in this way can short videos truly become tools that empower youth development, rather than shackles that hinder their growth.

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