

Internet Addiction's Impact on Adolescent Health Intervention Strategies

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Abstract: The emergence and development of the internet have had an increasingly significant impact on human society. In today's information age, adolescents are known as the "online generation," and the internet has had a substantial effect on them. Faced with a concerning situation regarding adolescents' internet usage, this paper employs methods such as physical health measurements and surveys to study adolescents in Xinjiang, to explore the causes of their internet addiction and analyze the harm that internet addiction poses to the physical health of adolescents. By leveraging the situation, a holistic education system involving families, schools, and society is proposed to prevent and treat adolescent internet addiction.

Keywords: Internet Addiction; Adolescents; Adolescent Physical Health; Impact

1. Introduction

The 21st century is the century of the internet. With the development of the internet, humanity has entered the information age. The increasing number of websites, the expanding population of netizens, and the rapid advancement of network technology have made the internet an indispensable tool in human life. Adolescents, known as the "online generation," have become the main force of internet users. However, the situation of adolescents' internet usage in Xinjiang is not optimistic, and problems caused by improper internet use are becoming more prominent and thought-provoking. Every year, the number of adolescents who are addicted to the internet and cannot extricate themselves is doubling, with the age becoming younger. Cases of dropping out of school, sudden death, suicide, and homicide due to internet addiction are frequently reported in the media. Adolescent internet addiction has become a social disease, and the internet has become the "electronic heroin" for some adolescents. This paper mainly investigates the addiction to online games among adolescents in the Xinjiang region and analyzes the harm of internet gaming addiction to the physical health of adolescents in Xinjiang.

2. Survey and Analysis of Internet Addiction Among Adolescents in Xinjiang

2.1. Concept, connotation and network sequelae of Internet addiction

The concept of "Internet Addiction" was first introduced by American psychologist Ivan Goldberg. Goldberg, drawing on the American criteria for substance dependence, described it as a behavioral addiction to coping mechanisms, characterized by excessive internet use that leads to a weakening of academic, occupational, social, and family functions, as well as overall physical and mental health. Dr. Kimberly Young from the University of Pittsburgh later expanded and refined this concept, defining it as an impulse-control disorder without substance involvement. Clinically, Internet Addiction Disorder is also referred to as pathological internet use or internet dependency, indicating a phenomenon of social and psychological functional impairment due to excessive internet use. In China, internet addiction has garnered widespread attention, yet there remains debate in academic circles over its definition. The disputes mainly focus on two aspects: whether internet addiction constitutes a disease and whether it

represents an addiction to the internet. The central issue of the debate over the concept of internet addiction is its nature—what exactly is the essence of internet addiction.

The aftermath of internet addiction is mainly evident in its impact on the intellectual development of adolescents and can easily lead to a variety of illnesses, even threatening their lives. An obsession with the internet can cause adolescents to lose interest in their studies, resulting in a decline in grades, and they may skip classes or run away from school to go online, with severe cases leading to dropping out. Adolescents who are addicted to the internet are prone to becoming indifferent to real-life people and events, which affects their interpersonal relationships. The online games that teenagers enjoy most often contain bloody violence and illusory themes. Long-term exposure to these games can subtly influence their values and moral perspectives, reducing their self-discipline and increasing their propensity for aggression and violence. Additionally, playing these online games incurs considerable costs. For teenagers without an independent income, once their pocket money is exhausted, they may ask their parents for more, borrow from classmates, and gradually learn to lie, or even turn to theft, robbery, and extortion. This has a profoundly negative impact on the development of adolescents.

2.2. Xinjiang Adolescents' Internet Addiction Survey

This article reports on a random sampling survey of 200 adolescents in Xinjiang, aged between 12 and 25 years old. The survey results indicate that the prevalence of internet addiction among adolescents is mainly concentrated between the ages of 12 and 20, with 140 males and 70 females showing signs of internet addiction. In terms of age distribution, 150 adolescents are between the ages of 12 and 20, while 50 are between the ages of 20 and 25. The analysis of the survey data suggests that in the Xinjiang region, the age group most susceptible to internet addiction is between 12 and 20 years old, with a higher number of affected male adolescents.

Table 1: Survey on the Current Status of Internet Addiction Among Adolescents in Xinjiang

| Item | Teenagers Addicted to the Internet | Gender Distribution | Age Distribution | Survey Results |
|-----------|------------------------------------|---------------------|------------------|------------------------------------|
| Age Range | 12-20 years old | Male: 140 | 12-20 years old | 150 people (140 males, 70 females) |
| | 20-25 years old | Female: 70 | 20-25 years old | |

3. Survey and Research on the Current Status of Physical Fitness of Adolescents in Xinjiang

3.1. The Development Status of Physical Morphology among Adolescents in Xinjiang

In a survey of 200 adolescents in Xinjiang, it was found that those who are addicted to the internet for a long time suffer not only severe psychological harm but also serious impacts on their physical morphology. The survey revealed that adolescents who rarely use the internet are significantly taller than their peers and same-gender counterparts who frequently go online. If adolescents are addicted to the internet over the long term, it can also have a significant impact on their physical health.

3.2. The Development Status of Physical Function in Adolescents in Xinjiang

Adolescence is a key period for the all-around development of physical capabilities, where exercise should aim at enhancing the functionality of all organ systems and various aspects of physical fitness. However, during the survey, it was found that 140 adolescents were addicted to the internet, showing they do not realize the significance of physical capabilities. In the early stages of puberty, muscles grow predominantly in length, and heavy-load strength training should be avoided; stretching exercises can be utilized to develop strength. In the later stages of puberty, muscles primarily increase in girth, and this is the time to take advantage of the opportunity to develop strength by enhancing the strength of both the upper and lower limbs, which can lead to noticeable effects. Practices such as jogging, sprinting,

endurance running, and obstacle running are all beneficial training methods. Only a small portion of adolescents in Xinjiang recognize the importance of physical exercise for their capabilities, making up 35% of the total survey participants. Thus, internet addiction significantly affects the physical capabilities of adolescents.

3.3. Development Status of Athletic Quality among Adolescents in Xinjiang

In the survey of 200 adolescents in Xinjiang, 52.1% of the adolescents believe that physical exercise is very important for health, indicating that a considerable portion of Xinjiang's youth have begun to develop an awareness of the importance of sports. However, only 34.5% of the adolescents in Xinjiang have reasonable exercise habits, and a mere 26.5% have a proper schedule for exercise. This suggests that adolescents in Xinjiang have not yet fully recognized the importance of regular and reasonable exercise for enhancing their health.

3.4. Current Status of Health Indicators among Adolescents in Xinjiang

From the survey results, it can be seen, the physical metrics of adolescents in Xinjiang are as follows: Regarding body weight, the weight of adolescents aged 12 to 18 in Xinjiang generally trends upward with age, ranging from 22.5 to 59.5 kg for males and 20.9 to 52.1 kg for females. The greatest disparity between males and females is observed at age 18, amounting to 7.4 kg. Significant differences in weight between males and females are noted at the ages of 7, 8, 10, and 12 to 14, and from 16 to 18 ($P < 0.01$), with a difference also present at age 15 ($P < 0.05$).

In terms of chest circumference, the chest circumference of adolescents aged 12 to 18 also shows an overall increasing trend with age, ranging from 52 to 84.1 cm for males and 55.0 to 83.8 cm for females. The greatest difference between males and females in chest circumference is at age 18, reaching 7.3 cm. Differences in chest circumference between males and females are observed at the ages of 7 to 10, 13, and 16 to 18.

As for skinfold thickness, the skinfold thickness of adolescents aged 12 to 18 ranges from 11.9 to 16.3 mm for males and from 14.1 to 30.5 mm for females. The greatest difference in skinfold thickness between males and females is at age 17, with a gap of 17.1 mm. Differences in skinfold thickness between males and females are noted at the ages of 7, 8, and from 12 to 18.

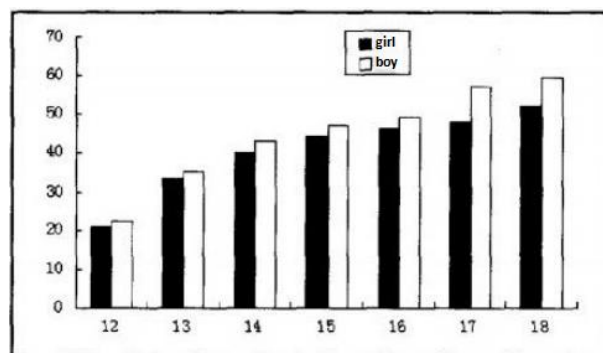


Figure 1: Survey Results of Body Weight among Adolescents (Aged 12-18) in Xinjiang

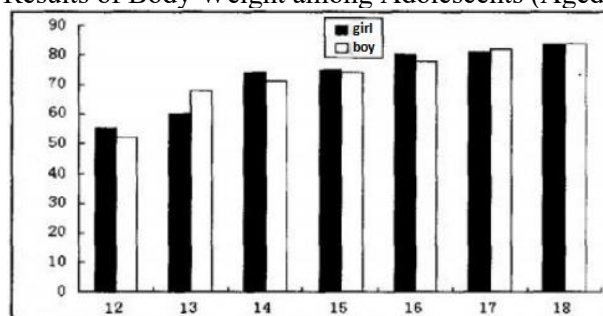


Figure 2: Survey Results of Chest Circumference among Adolescents (Aged 12-18) in Xinjiang

4. Analysis of the Differences in Physical Condition between Internet Addiction and Adolescents in Xinjiang

4.1. The Differential Situation of Internet Addiction and Physical Status among Male and Female Adolescents in Xinjiang

The analysis from the survey reveals that there are differences in the circumstances of internet addiction and physical development between male and female adolescents in Xinjiang. The findings suggest that male adolescents exhibit a higher degree of obsession with internet addiction compared to their female counterparts, and this has a more significant impact on their physical condition. Notably, the high level of obsession with online games among male adolescents is seriously affecting the healthy development of young people.

4.2. The Differential Situation of Internet Addiction and Physical Status among Adolescents of Various Ages in Xinjiang

Analyzing the survey data, it is found that Xinjiang adolescents of different ages exhibit different levels of internet addiction, specifically within the age range of 12 to 18 years old. At this stage, adolescents are curious about the internet and lack the required self-discipline, resulting in a high degree of internet addiction, which also has a considerable impact on the adolescents' physical condition.

4.3. The Differential Situation of Internet Addiction and Physical Status among Adolescents of Various Grades in Xinjiang

During the survey of the developmental stages of adolescents in Xinjiang, it was discovered that the deepest infatuation with the internet occurs among those aged 12 to 15. At this stage, adolescents' psychological development is in its early stages, yet they lack self-discipline and are most vulnerable to the influence of violence, gaming, and other detrimental content online.

4.4. Correlation Analysis between Adolescent Internet Addiction and Physical Condition

From the analysis of the survey, it is clear that there is a significant influence of internet addiction on the physical condition of adolescents in Xinjiang. Internet addiction not only impacts the psychological health of young people in Xinjiang, but it also decreases the time available for physical exercise, resulting in various issues in their physical development. Consequently, it is essential to analyze the issues related to internet addiction among adolescents in Xinjiang, find corresponding countermeasures, and resolve the problem of youth internet addiction.

5. Analysis of Factors Affecting the Physical Health of Adolescents in Xinjiang

5.1. Policy, Regulatory, and Institutional Levels

The government's policies and regulations on internet supervision and management have a direct impact on the internet addiction of adolescents in Xinjiang. Situated in an ethnically diverse region of China, Xinjiang still confronts numerous challenges in its legal framework, particularly in the areas of cyber law and regulatory oversight. Additionally, the internet's inherent characteristics of anonymity and freedom make it easy for adolescents to be deceived by false information online. Many illegal websites also readily catch the attention of young people, adversely affecting students. Moreover, the addiction of many students to online games, which hampers their studies, is closely linked to the ineffective legal regulation and supervision of the internet.

5.2. The Aspect of School Physical Education Teaching and Infrastructure Equipment

Schools serve as the main platform for adolescents to receive physical education. However, as society progresses, the content and methods of physical education in schools have become highly incompatible with the rhythm of society. Although physical education for adolescents in Xinjiang has seen positive

outcomes, there are new challenges and changes in the tasks of physical education under new historical conditions. Yet, due to the educational lag and slow economic and cultural development in the Xinjiang region, there is a lack of investment in sports infrastructure, resulting in a delay in the physical training of adolescents. Additionally, physical education has never been regarded as a priority subject in schools, and the level of attention from schools is inadequate. In this era of rapid development, schools have not fully grasped, recognized, or respected the significance of physical education, which has severely impacted the healthy growth of adolescents.

5.3. Individual Lifestyles of Students, Family Values, and Other Related Dimensions

The incomplete physical and mental maturity of adolescents is the subjective cause leading to internet addiction. At this stage, they lack self-discipline when confronted with the novelty and excitement of information online and are highly susceptible to temptation. Moreover, as adolescents enter puberty and experience physiological changes and sexual maturation, they often lack proper scientific guidance. They may feel ashamed to ask others for help and fail to acquire relevant knowledge through effective means, which leads them to seek answers on the internet to fulfill their psychological and physiological needs. Some adolescents also lack the courage and methods to cope with setbacks, so they use the internet as an escape from their troubles. The virtuality, anonymity, equality, and freedom of the internet perfectly meet their various needs, causing them to become addicted and unable to free themselves

5.4. The Aspect of Social Environment, Including the Internet and Information Media

The dissemination speed of online media is unmatched by any other media. Because there are certain issues in supervision and management, harmful information on the internet has spread in society, significantly impacting the worldview and values of adolescents. The current campus atmosphere is also affected by harmful online information, with some students participating in online gaming activities and others looking for part-time job opportunities online. These behaviors can adversely affect students' future development and may even lead to the neglect of their studies.

5.5. Religious Beliefs and Cultural Dimensions

The life events of the Uyghur people, including birth, aging, illness, and death, as well as marriage, funerals, dietary practices, and travel, are imbued with a rich Islamic character. Their ethnic language, customs, value systems, artistic accomplishments, and scholarly pursuits in dance all carry the shadow of Islam. After over a millennium of evolution, Islam has become deeply entrenched in Uyghur society and is intimately intertwined with the cultural identity of the nation. This integration has influenced the ethnic value system more significantly than other traditional social ideologies. Moreover, the religious language of Islam has also seeped into the everyday lives of the Uyghur people, profoundly affecting them. Consequently, religious culture significantly impacts the physical health and development of adolescents in Xinjiang.

6. Research on Effective Strategies for Overcoming Internet Addiction and Promoting the Physical Health of Adolescents in Xinjiang

6.1. National Level: Improve the Student Physical Fitness Monitoring System, Perfect the Functions of Physical Fitness Management Departments

The Xinjiang government must enact pertinent legal statutes to enhance oversight and governance of the internet, including the establishment of regulatory frameworks for online communication such as internet operation laws and registration laws. There is a need for ongoing reinforcement of internet industry management, with clear accountability and the solidification of formal protocols during information dissemination. Internet content must be filtered to actively harness the internet's positive influence in spreading information. Concurrently, an online information review system should be instituted, employing effective strategies and techniques to cleanse the online communication environment of undesirable content. These measures will foster a beneficial online atmosphere, conducive to the wholesome growth and development of young people in Xinjiang.

6.2. Social Level: Establish an Integrated Service Mechanism Among Government, Schools, Families, and Communities

To safeguard the physical and mental well-being of young people from the detrimental effects of unhealthy online gaming and websites, pertinent authorities should refine the administrative regulations governing the oversight of internet cafes and online gaming. It is essential to effectively enforce methods, monitoring techniques, and punitive measures. Society as a whole should appeal to the conscience of internet cafe proprietors, urging them not to focus solely on profit and to collectively care for the healthy development of youth.

Parents should engage in more dialogue with their children and foster their interests and hobbies. They should pay heed to the inner emotions of their children and interact with them on an equal basis. Moreover, attention should not be exclusively concentrated on academic performance but should also uncover and nurture the children's strengths and interests, such as in sports, painting, music, and other domains. Parents should spend additional time taking their children out to broaden their horizons and deepen their understanding. An enriched life and diverse interests can prevent children from fixating solely on the internet, which in turn benefits both learning and overall well-being. In conclusion, in the information age, we must adopt a proper stance on youth internet usage, establishing a holistic and healthy educational framework that encompasses the family, school, and society. By leveraging the situation, we can ensure that the internet serves them better, allowing them to reap the rich knowledge and boundless enjoyment the internet offers, thus promoting their healthy growth.

6.3. School Physical Education Level: Fully Ensure the Time for Physical Exercise, Enrich Classroom Content with Multiple Methods

There should be an intensified push to publicize and advocate for the participation of adolescents in Xinjiang in physical training, elevating their understanding of the significance of sports and assisting them in developing proper concepts of sports health. Regarding a balanced diet and nutritional structure, adolescents in Xinjiang should be provided with scientific education and rational guidance to instill in them healthy dietary habits. Physical education instructors should emphasize the nurturing of fitness awareness and physical training skills among students in their teaching, equipping students from Xinjiang with a variety of straightforward and potent fitness techniques, and encouraging the development of a proactive exercise routine and lifelong physical training abilities.

6.4. Individual Level: Cultivate a Healthy Lifestyle, Enhance Students' Health Literacy

Strengthen the promotion and ideological mobilization for ethnic minority adolescents to engage in physical exercise, improve their understanding of the importance of sports, and help them establish the correct concepts of physical health. In the area of a balanced diet and nutritional structure, provide scientific education and rational guidance to ethnic minority adolescents to develop good dietary habits. Cultivate healthy lifestyle habits in young people and foster a good healthy lifestyle.

7. Conclusion

Internet addiction exerts a substantial influence on the well-being of adolescents, impacting both their physical and psychological health as well as their developmental progress. Focusing on adolescents in Xinjiang as a case study, this paper examines the effects of internet addiction on this demographic, identifies underlying issues, and proposes strategies for resolution, with the aim of positively contributing to the mental and physical health development of adolescents in Xinjiang.

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