

# Analysis of the Causes of Internet Addiction among Rural Middle School Students and Countermeasure Research

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**Abstract:** With the popularization and development of the Internet, the problem of Internet addiction among rural middle school students has become increasingly prominent, exerting adverse effects on students' physical and mental health, academic performance, and family relationships. This study aims to deeply analyze the causes of Internet addiction among rural middle school students and explore effective countermeasures. The investigation reveals that Internet addiction is closely related to multiple factors, including the family environment, school education, social atmosphere, and personal traits. It should start from multiple levels to jointly construct a system for preventing and treating Internet addiction among rural middle school students.

**Keywords:** Rural middle school students; Internet addiction; Causes; Countermeasures

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## 1. Introduction

In recent years, studies on Internet addiction among middle school students have been extensive, and considerable research results have been achieved. With the development of the Internet, more and more people are using the Internet. While the Internet brings convenience to people's production and life, it also has a certain impact on people's thoughts and behavior patterns. Among them, the problem of Internet addiction has received increasing social attention<sup>[1]</sup>. For example, a middle-school student in Tianjin died suddenly after being online for 36 consecutive hours due to indulging in online games; a male student in the second grade of a senior high school in Changsha. His parents bought a computer at home for his study convenience while they were away working, but he unexpectedly became addicted to the Internet and skipped school because of it. Such examples are not uncommon, especially in rural areas.

An investigation into the current situation of Internet addiction among middle school students in Henan Province was conducted, with junior and senior high school students in cities and counties as the research subjects. The results showed that the Internet addiction rate among middle school students was approximately

7.6%. The Internet addiction behavior of middle school students in Henan Province was at the average level in China, and the main influencing factors included academic performance, loneliness, study pressure perception, anxiety, depression, etc.<sup>[2]</sup> Similar conclusions were also drawn from investigation studies in Beijing and Guizhou regions, and it was believed that there were gender differences in Internet addiction. However, there have been few investigation studies targeting middle school students with rural household registration. With the increasingly developed network, there are many “phubbers” in rural areas. Compared with cities, the educational level in rural areas is still relatively backward. How the current situation of Internet addiction among rural middle school students is and whether rural middle school students have certain self-control ability in the face of the Internet remains to be investigated and studied.

## **2. Current situation and cause analysis of internet addiction among rural middle school students**

### **2.1. Analysis of the overall characteristics and overall status of internet addiction among rural middle school students**

The survey shows that the proportion of rural middle school students with Internet addiction among the surveyed population is 55%, among which boys account for 61.67% and girls account for 48.33%, indicating that the phenomenon of Internet addiction among rural middle school students has occurred commonly. It can be found from the histogram that the overall situation of Internet addiction among rural middle school students is approximately normally distributed<sup>[3]</sup>. This may be because middle school students in adolescence have various pressures in many aspects, such as ideology, study, life, and emotions. Coupled with the influence of various external factors, the Internet has become increasingly favored by middle school students and has turned into a “paradise” for them to relieve pressure. Although middle schools usually prohibit students from bringing mobile phones onto the campus, which to a certain extent greatly reduces the time students spend contacting with mobile phones, some students choose to skip classes to go online or stay up late to surf the Internet after returning home.

### **2.2. Analysis of gender differences in internet addiction among rural middle school students**

The survey shows that there are no significant differences in Internet addiction among rural middle school students in the four dimensions of “withdrawal reaction,” “tolerance,” “interpersonal communication and health,” and “time management,” as well as in the overall scale. Moreover, boys are more likely to be addicted to the Internet than girls. This may be attributed to several factors. On the one hand, male students generally have a stronger curiosity than female students, are adventurous, and are difficult to restrain<sup>[4]</sup>. For middle school students, the Internet is a magical thing. In addition, middle school students are in adolescence. The rebellion in adolescence, coupled with the fact that male students are reluctant to confide in their parents and teachers when encountering difficulties, makes them choose to seek support online. On the other hand, girls generally mature earlier than boys. The early psychological maturity makes female students willing to chat and make friends in the virtual world. For things that are inconvenient to disclose to parents, teachers, classmates, etc., virtual chatting can not only avoid the embarrassment of face-to-face communication, but also relieve psychological pressure. Therefore, there is no significant difference in Internet addiction in terms of gender<sup>[5]</sup>.

### **2.3. Analysis of grade differences in internet addiction among rural middle school students**

The survey shows that there are no significant differences in the four dimensions of “tolerance,” “withdrawal reaction,” “interpersonal communication and health,” and “time management” for Internet addiction among rural middle school students, but there are significant differences in the overall scale. And on the overall scale and the dimension of “interpersonal communication and health,” there are significant differences among middle school students of different grades, while there are no significant differences in the other three dimensions. This may be because students of different grades have intra-individual differences, such as different levels of education, and thus have different attitudes towards the Internet. With the deepening of education, rational thinking gradually plays a dominant role in students’ thinking. Senior grade students have greater advantages in rationally facing the Internet and avoiding excessive indulgence <sup>[6]</sup>. In addition, different amounts of homework tasks also affect the attitudes of middle school students towards the Internet. Students of different grades have intra-individual differences. Students of different grades face different psychological pressures, and they also have different opportunities for further studies and choices. Junior high school students are younger, psychologically not yet mature, and just entering the rebellious period of adolescence, unwilling to obey the constraints of schools and parents; senior high school students have gradually increasing study pressure, relatively less time in contact with the Internet, and stronger self-discipline ability than junior high school students. Therefore, different grades show differences in facing Internet addiction <sup>[7]</sup>.

### **2.4. Analysis of the differences in academic performance of rural middle school students with internet addiction**

The investigation shows that rural middle school students with Internet addiction show significant differences in the four dimensions of “tolerance,” “withdrawal reaction,” “interpersonal communication and health,” “time management,” and the overall scale. Students with average academic performance are more likely to become the high-incidence group of Internet addiction. The academic performance of middle school students is affected by various factors, such as learning interest, the teaching methods of teachers, and the difficulty of learning content. The research of Liu *et al.* indicates that the possible relationship between academic performance and Internet addiction is as follows: Internet addiction causes students to spend more time and energy on the Internet, reducing the time spent on learning and thus causing a decline in academic performance. Conversely, when academic performance deteriorates, students tend to paralyze themselves through the Internet. Although quality education is now being popularized, emphasizing the all-round development of students in terms of morality, intelligence, physical fitness, aesthetics, and labor, the phenomenon of labeling students based on their grades is still widespread in rural areas. Students with average academic performance are defined as “poor students,” and they long for understanding and respect. Not receiving care from teachers and classmates in real life, they “aim” at the Internet and get addicted to online games. Coupled with the lack of guidance from parents and teachers, students’ insufficient understanding of society and lack of self-protection awareness make it very easy for them to indulge in the online world and be unable to extricate themselves <sup>[8]</sup>. Comparatively, students with good academic performance have certain room for progress. They are more motivated and study hard by themselves. They have no extra time to “linger” on the Internet and can easily achieve good grades and relieve stress with the help of parents, teachers, and classmates. While students with excellent academic performance generally have better learning methods and a certain degree of self-control ability. They are willing to spend more time on learning, which they consider a meaningful activity.

## **2.5. Analysis of the parental education degree differences in internet addiction among rural middle school students**

There are significant differences in the overall scale and the “tolerance” dimension of Internet addiction among rural middle school students, while there are no significant differences in the other three dimensions. This might be because parents are the “first teachers” of their children, and children’s understanding of the world largely comes from their parents’ education. The higher the educational degree of the parents, the lower the degree of children’s dependence on the Internet. Parents with higher educational degrees are stricter in their children’s education, pay more attention to teaching by personal example as well as verbal instruction, and pay attention to creating a good and democratic family atmosphere for their children. Growing up in such an environment, children become more mature and sensible. However, parents with lower educational degrees think that educating children is the task of teachers and has little to do with parents. They communicate less with their children daily and do not understand them, making children more willing to make friends and chat on the Internet <sup>[9]</sup>. Moreover, once middle school students are addicted to the Internet, it is very easy for them to lose control of their online behaviors, and excessive use of the Internet causes many adverse emotional problems for middle school students.

## **3. Analysis of correction countermeasures for the causes of internet addiction among rural middle school students**

### **3.1. Parents set an example and create a harmonious family atmosphere**

Family factors are crucial in influencing the problem behaviors of middle school students. A good family relationship can help middle school students go through an important stage of personality and psychological development. Adolescents are in the rebellious period. The educational attainment of rural parents is generally low, and they lack sufficient understanding of children’s education. Therefore, the family plays a crucial role in the prevention of Internet addiction among middle school students. First of all, parents should set a good example. In front of their children, they should reduce the frequency of using mobile phones, set necessary online restrictions for their children, implement open and time-limited Internet access, and cultivate their self-monitoring ability. They should often have face-to-face communication and exchanges with their children, discover their problems in time, and give appropriate guidance and education to set a good learning example for their children. Secondly, parents establish a long-term communication channel with the school, understand the children’s performance at school in a timely manner, and actively cooperate with the school’s education work. Only when “home and school are connected” can a better learning environment be provided for children <sup>[10]</sup>. Finally, parents should strive to improve their own knowledge level and have an understanding of the Internet. For example, when children are doing homework, parents can pick up books and study with them, allowing children to experience a sense of success and being valued. This can effectively bridge the gap between parents and children and open the children’s closed hearts. In addition, during holidays or after children finish their homework, parents should also take their children to participate in group activities more often, play with them, release their nature, and cultivate their interest in sports. Through outdoor sports, their “immunity” to resist the temptation of the Internet can be enhanced.

### **3.2. Schools should utilize facilities to educate students to treat the internet rationally**

Schools can provide students with basic computer knowledge education, responsibility awareness education and self-protection awareness education. For instance, schools can offer computer courses to teach students basic

computer operations and explain to them in class how to use the Internet correctly, making it a learning assistant and helping students develop good Internet usage habits. Additionally, during class meetings, they can show students through multimedia the cases of their peers who have become addicted to the Internet due to excessive use, allowing students to have a more intuitive understanding of the pros and cons of the Internet. After watching, students can be divided into groups to discuss how to treat the Internet rationally and how to avoid Internet addiction. After class, teachers should pay attention to students' online lives, provide correct guidance, teach children to make choices and improve their self-control ability, so that students can gradually form correct values and avoid excessive addiction to the Internet<sup>[11]</sup>.

### **3.3. The society should enhance supervision and create a healthy online environment**

Middle school students are prohibited from entering Internet cafes. However, some Internet cafes still allow middle school students to come and go at will. Some middle school students skip classes to go online, which is bound to affect their studies. Therefore, the society should strengthen supervision and impose penalties such as fines and investigations on Internet cafes that do not comply with the regulations. Enterprises that develop computer software should draw on experience and use technical means to automatically help middle school students block bad online information. Enterprises can also develop positive online software, such as apps for ancient poetry conferences and idiom stories. While educating children to learn about our country's culture, such software also enables students to develop good habits of using the Internet<sup>[12]</sup>. Relevant legal departments of society should use relevant laws, regulations, and high-tech means to strengthen the management of the Internet and make the online environment healthier.

### **3.4. Middle school students' self-awakening and bravery in facing setbacks**

Firstly, middle school students should pay attention to developing regular study and recreational lives. When encountering problems, they should actively seek help from parents, teachers and society. For those who are good at using the Internet, it can enhance learning, but they must not use the Internet as a tool to vent negative emotions or escape from real problems. They should cultivate a character that dares to face reality, withstand setbacks and failures, and be courageous in making progress<sup>[13]</sup>. Secondly, when surfing the Internet, they should have a clear purpose. They should use the computer as a learning tool and selectively browse the content they need. Facing the colorful and disorderly information, they should always keep a rational and calm mind. Students should not be overly engaged, control the time spent online, and enhance self-protection awareness<sup>[14]</sup>. Finally, make sincere friends online. Nowadays, everyone generally likes to make friends online. When chatting online, pay attention to using civilized language and keep a vigilant mind. Comply with relevant laws and regulations and use the Internet in a civilized manner.

### **3.5. Psychological counselors provide psychological intervention for internet addicts**

Psychological intervention refers to the process of exerting certain influences on psychological activities, personality traits, or psychological problems under the guidance of relevant psychological theories, to make them change towards the expected goals. The hierarchy of needs theory proposed by humanistic psychologist Maslow holds that the need to seek belonging and love is a kind of growth need of an individual. The self-concept of middle school students is not yet perfect. They long to be accepted, cared for, concerned, and supported by others or social groups. If this need is not met, they will have a strong and painful psychological experience. Therefore, it is a good choice to carry out psychological intervention for the psychological needs of middle school students

and meet their psychological demands. For example, given the current situation of Internet addiction among middle school students, students can be encouraged to express their thoughts, and other students listen carefully and patiently, and then conduct experience sharing and reflection to help them identify their wrong concepts about Internet addiction. Through reinforcement and aversion therapy, their online behaviors can be trained to gradually correct their Internet-addiction behaviors<sup>[15]</sup>. In addition, through group psychological counseling and interpersonal interaction within the group, students can become more open-minded, enhance self-confidence, gradually realize that they are being cared for, open their hearts, relieve suppressed emotions, become positive, and gradually weaken their dependence on the Internet, thereby treating the Internet more rationally. In addition, teachers should control students' online time, gradually reduce students' dependence on the Internet, and combine education with psychological counseling to prevent the occurrence of Internet addiction.

#### 4. Conclusion

In conclusion, the problem of Internet addiction among rural middle school students is a complex social phenomenon, involving multiple aspects such as family, school, society and individuals. This study not only reveals the current situation of Internet addiction among rural middle school students and the differences in different dimensions, but also proposes a series of targeted corrective countermeasures. However, to completely solve this problem, it requires the joint efforts of all sectors of society to form a synergy. Families should pay more attention to the emotional needs and mental health of their children, schools should strengthen the education of students' Internet literacy, and society should increase the supervision of the Internet environment. Only in this way can a healthy and positive Internet environment be created for rural middle school students to promote their all-round development and healthy growth.

#### Disclosure statement

The authors declare no conflict of interest.

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