

# The Influence of Interpersonal Distress on Internet Addiction: Taking Psychological Resilience as the Mediator

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## ABSTRACT

To investigate the relationship and underlying mechanisms between adolescents' interpersonal distress, psychological resilience and mobile phone addiction tendency. The Mobile Phone Addiction Tendency Scale, the Comprehensive Interpersonal Relationship Diagnostic Test Scale and the Psychological Resilience Questionnaire were administered to 221 adolescents between the ages of 13 and 18. It was found that interpersonal distress was significantly and positively related to Internet addiction, interpersonal distress was significantly and negatively related to psychological resilience, and Internet addiction was significantly and negatively related to psychological resilience. Interpersonal distress can have a direct effect on Internet addiction and can also have an effect on Internet addiction through the mediating role of psychological resilience. Therefore, in this paper, psychological elasticity plays a partial mediating role in the effect of interpersonal distress on mobile phone addiction.

## KEYWORDS

Interpersonal distress; Internet addiction; Mobile phone addiction; Psychological resilience; Mental health; Mediating effects

## 1 Introduction

Smartphones are an essential tool for today's teenagers, not only for entertainment, but also to infiltrate our daily study or commute. Inevitably, many teenagers invest a lot of time and energy into their mobile phones. This behaviour, which creates a strong dependency and excessive use of the Internet, leads to the phenomenon of Internet addiction in adolescents." Studies have shown that internet addiction negatively affects an individual's mental health and even physiology (Zhong et al, 2020), such as triggering emotions such as anxiety and depression (Karim et al., 2020), No. of visual fatigue, lowered immunity, and sleep disorders (Xie et al, 2018, Hong et al.,2020) ". [1] And mental health is a very important major topic in modern society, which is a guarantee for people to carry out a series of social activities. Adolescents are the key protection object of the society, so it is of great significance to prevent mental illness and protect their mental health.

Interpersonal distress is the process of communicating with others in a way that produces negative subjective feelings such as anxiety, low self-esteem, and depression due to a variety of factors, such as personality traits or interaction skills, which can lead to poor relationships and unhappy interactions. Many adolescents, after failing to socialize, also review and regret what they have said, leading to deeper self-blame and irritability. According to the stress-adaptation theory and the compensation hypothesis, realistic interpersonal relationships induce the formation of

Internet addiction and are the extrinsic motivators that lead to Internet addiction. [2] A large number of studies have proved that real-life relationship distress is positively correlated with adolescent Internet addiction, but its mechanism of action needs to be further clarified and will be explained in detail in this article.

Psychological resilience is a person's ability to cope with negative events such as stress, frustration, and trauma with an optimistic attitude, as well as the dynamic process of a person's ability to get out of trauma. [3] Generally speaking, people with higher psychological resilience are better at regulating and controlling their emotions, and converting negative emotions brought about by the environment into a positive state of mind [4]. On the contrary, adolescents with lower psychological elasticity have poorer emotional regulation ability, and are prone to fall into some negative emotions such as anxiety, and even do some extreme behaviours. [5] It can be seen that psychological resilience plays a key role in adolescent mental health. When adolescents in interpersonal interactions due to the difference between the reality of interpersonal relationships and their desired results will produce an imbalance, and subsequently will produce tension and other emotions. In order not to face this high-pressure environment, some adolescents will choose to escape, immersed in the network to paralyse themselves, or through social networks to make up for their lack of sense of belonging in real interactions. Psychological resilience plays an important role in this chain reaction. Research shows that the more psychologically resilient a teenager is, the easier it is for him/her to accept his/her lack of social skills when encountering problems in interpersonal interactions, and the better he/she is able to regulate his/her own state of mind, and thus is less likely to use the Internet excessively.

In summary, both interpersonal distress as an external factor and psychological resilience as an internal psychological factor are able to influence adolescent Internet addiction. In addition, psychological resilience can be managed and developed both by differences in innate personality factors and by the influence of acquired environmental education and training, so this paper will further explore the relationship between the three to provide a theoretical basis and experimental foundation for adolescent mental health.

## **2 Research Methodology**

### **2.1 Research population**

This study was started in June 2023, and the online questionnaire survey was carried out with the help of Questionnaire Star platform. 221 valid questionnaires were obtained. The proportion of males in the questionnaire was 53.85%, and the proportion of females was 46.15%. The minimum age of the sample was 13, the maximum value was 18, the mean value was 15.57, and the standard deviation was 1.453.

### **2.2 Research tools**

#### **2.2.1 Connor-Davidson Resilience Scale, CD-RISC**

Connor-Davidson Resilience Scale, CD-RISC consist of total of 10 items used to assess the individual's feelings in the past month. A Likert 5-point scale (0 "not at all" to 4 "always") was used, with scores ranging from 0 to 40, with higher scores indicating a greater ability to recover from stress [6]. The Cronbach's alpha coefficient for the CD-RISC in this study was 0.949.

### 2.2.2 MPATS

The Mobile Phone Addiction Tendency Scale for College Students compiled by Xiong J. et al. was used, which consists of 16 items describing four aspects of mobile phone addiction tendency: withdrawal symptoms, salient behaviors, social soothing, and altered state of mind. The Cronbach's coefficient for the total most scale was 0.962. the most scale is rated on a scale of 1-5, with higher scores indicating a more severe tendency to mobile phone addiction. [7]

### 2.2.3 Comprehensive Interpersonal Relationship Diagnostic Test Scale

Developed by Jung R.C., the scale measures four dimensions: social interaction, interpersonal relations, heterosexual relations, and conversational skills. Typical response items include "I feel unnatural when meeting new people", "I often hurt people", and "I feel unnatural when interacting with the opposite sex". The scale is scored on a no-question scale, with higher scores indicating poorer interpersonal interactions. The reliability of the 28-item scale was high, with a Cronbach's coefficient of 0.942.[8]

## 3 Related Analyses

### 3.1 Correlation analysis between interpersonal distress, psychological resilience and tendency to Internet addiction

Pearson's correlation was used to analyse interpersonal distress, psychological resilience, and internet addiction. The results showed (see Table 1) that interpersonal distress was significantly negatively correlated with psychological resilience ( $p < 0.05$ ) and positively correlated with Internet addiction ( $p < 0.001$ ). Psychological resilience was significantly negatively correlated with Internet addiction ( $p < 0.001$ ).

Table 1 . Correlation analysis of variables ( $N=367$ )

|                            | Interpersonal distress | Psychological resilience | Internet addiction |
|----------------------------|------------------------|--------------------------|--------------------|
| 1 Interpersonal distress   | 1                      |                          |                    |
| 2.Psychological resilience | -0.16*                 | 1                        |                    |
| 3 Internet addiction       | 0.22***                | -0.52***                 | 1                  |
| <i>M</i>                   | 15.38                  | 30.00                    | 46.59              |
| <i>SD</i>                  | 8.57                   | 8.30                     | 15.54              |

Notice: \*\*\* $p < 0.05$ , \*\* $p < 0.001$ .

### 3.2 Intermediary analysis

According to the theoretical hypotheses of this study, the mediation model with moderation was tested using the bias-corrected percentile Bootstrap method with reference to the test proposed by Zhonglin Wen and Baojuan Ye [9]. Model 4 in PROCESS was used to test the mediation model and explore the mediating role of psychological resilience in the relationship between interpersonal distress and Internet addiction, as shown in Table 2. interpersonal distress significantly negatively predicted psychological resilience ( $\beta = -0.16$ ,  $p < 0.05$ ) and significantly positively predicted Internet addiction ( $\beta = 0.15$ ,  $p < 0.05$ ), and psychological resilience significantly negatively predicted Internet addiction ( $\beta = -0.50$ ,  $p < 0.001$ ).

The total effect was 0.22 ( $SE = 0.07$ ,  $p < 0.001$ , 95%  $CI = [0.09, 0.35]$ ), the direct effect was 0.15 ( $SE = 0.06$ ,  $p < 0.05$ , 95%  $CI = [0.03, 0.26]$ ) and the mediation effect was 0.08 ( $SE = 0.04$ , 95%  $CI = [0.01, 0.16]$ ).

Therefore, the mediation model was valid and was a partial mediation model.

Table 2 . The mediating role of psychological resilience

| Variables                | function1:Psychological resilience |        | function2:internet addiction |          |
|--------------------------|------------------------------------|--------|------------------------------|----------|
|                          | $\beta$                            | $t$    | $\beta$                      | $t$      |
| Interpersonal distress   | -0.16                              | -2.34* | 0.15                         | 2.53*    |
| Psychological resilience |                                    |        | -0.50                        | -8.62*** |
| $R^2$                    | 0.02                               |        | 0.29                         |          |
| $F$                      | 5.46*                              |        | 44.83***                     |          |

Notice: \*\*\* $p < 0.05$ , \*\* $p < 0.001$ .

#### 4 Conclusion

Interpersonal distress is quite common among adolescents, the data. In this study, interpersonal distress was found to positively predict Internet addiction through data analysis, and the two were significantly positively correlated, which is consistent with the results of previous studies. According to the stress adaptation theory, people subconsciously take certain actions to alleviate their emotions in order to adapt to a high-pressure environment when they encounter stress. When adolescents do not have healthy interpersonal relationships or lack of social interaction, they will immerse themselves in the online world to escape from the human and mechanical pressures of life. [10] According to the compensation hypothesis, when faced with the pressure of interpersonal distress, people tend to lack a sense of identity and belonging, so sometimes they compensate for the lack of real-life achievements by overdoing online socialization. In fact, this is a kind of pathological compensation, which is caused by the lack of identity in adolescents who are hampered in the process of psychological development. [11] But ultimately this pathological behaviour may lead to worse psychological problems such as agitation and depression or even inability to perform normal social activities. Through the test of mediating effect, this study explains the path of psychological resilience in mediating the role of real interpersonal distress and Internet addiction, and the model is found to be a partial mediating effect. Interpersonal distress can affect both Internet addiction directly and Internet addiction through the variable of psychological resilience. Psychological resilience, as a person's ability to adapt in time and show a good psychological state under external objective stimuli, has a significant effect on both interpersonal distress and Internet addiction. The weaker the psychological resilience, the less likely it is to recover from distress, the more likely it is to be immersed in negative emotions and fall into internal conflict, and the more likely it is to develop pathological compensatory behaviors, i.e., Internet addiction. Therefore interpersonal distress can have an impact on Internet addiction through psychological resilience. In this study, psychological resilience was used as a mediating variable to regulate the relationship between interpersonal distress and Internet addiction. Compared with the mediating regulation of lyric disorder or social support in interpersonal distress and Internet addiction in previous studies, psychological resilience can be managed and developed, which is of practical guidance to enhance adolescents' life satisfaction and improve adolescents' mental health.

There are also some shortcomings in this study such as the convenience sampling method is adopted in the research object, which is non-random sampling, and there is room for improvement in the sample size and sample representativeness; only the correlation between several variables is tested, and no further empirical research is done to derive the causal relationship. Subsequent researchers can conduct further studies by expanding the number of research subjects and adopting better sampling methods; they can also try to design experimental interventions on adolescents' psychological resilience to explore the relationship between psychological resilience

and Internet addiction in depth. Interpersonal distress is based on communication with others, and since we cannot change this objective fact, we cannot regulate the problem completely by ourselves. Psychological resilience, on the other hand, as a psychological variable, is a stable psychological framework that individuals can acquire through learning and other means, and can be managed and developed. In a certain sense, the process of individual psychological occurrence and development is the process of increasing psychological elasticity, which is also the process of improving and perfecting the level of socialisation and social adaptation. Psychological elasticity should be regarded as a core variable in the structure of individual quality, and it is also a comprehensive reflection of individual personality and cognitive level. Therefore, teachers in colleges and universities can actively carry out psychological teaching activities to improve students' psychological adaptation level.

### Notes on contributors

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