

Empirical Analysis of the Impact of Social Activity Participation on College Students' Online Game Addiction: Investigating the Behavioral Patterns and Psychological Motivations of Chinese College Students

Yuanming Dong

Wenzhou-Kean University, Wenzhou, China

ABSTRACT

This study explored the impact of social activity participation on online game addiction among Chinese college students, aiming to fill the gap in existing research on the lack of attention paid to social activities. Through a questionnaire survey, relevant data from 500 college students were collected, and the impact of social activity type, frequency and duration on online game addiction was analyzed. The study found that students who frequently participated in social activities were less likely to become addicted to online games, especially those who participated in sports activities and community service, whose addiction level was significantly lower than that of students who participated in online social activities. Psychological motivations such as escapism, gaining a sense of accomplishment and satisfying social needs play an important mediating role between social activities and online game addiction. The results show that increasing participation in offline social activities can help reduce online game addiction. The empirical analysis of this article provides empirical evidence for colleges and education departments to formulate intervention measures. It is recommended to encourage college students to participate in various social activities, especially sports and community service activities, to promote their mental health and social skills, form healthy gaming habits and effective time management strategies. Future research should further explore the specific impact of different types of social activities and verify the actual effect of intervention measures.

KEYWORDS

Social Activities; Online Game Addiction; College Students; Psychological Motivation; Behavioral Patterns.

1. WRITING SIGNIFICANCE

The writing of this paper has important practical significance. First, by comprehensively analyzing the relationship between social activities and online game addiction, it fills the gap in current research and provides new perspectives and insights. This analysis not only deepens our understanding of the phenomenon of online game addiction, but also reveals the important role played by social activities in it, thus pointing out the direction for future research. Secondly, this study provides solid data support for the formulation of relevant intervention strategies through empirical analysis of college students' behavioral patterns and psychological motivations. This empirical analysis helps to identify and understand the complex causes of online game addiction, and proposes more accurate and effective prevention and intervention measures, so as to help college students develop healthy gaming habits and avoid addiction problems.

In addition, the research results can also provide scientific decision-making basis for education departments and colleges and universities, helping them to formulate targeted psychological counseling and student management policies. These policies can not only improve the mental health of college students, reduce the occurrence of psychological problems such as depression and anxiety, but also improve the overall quality of life and learning efficiency of college students. This study adopted a variety of scientific methods such as questionnaire surveys, descriptive statistics, correlation analysis, regression analysis and path analysis to ensure the scientificity and reliability of data analysis. The multi-dimensional research method makes the research results more comprehensive and in-depth, and provides methodological reference and reference for subsequent research.

By writing and publishing academic papers, more scholars are stimulated to study and explore the relationship between online game addiction and social activities. This not only promotes academic exchanges and cooperation, but also provides more valuable research results for the society. In summary, this paper can promote the development of theory and innovation of methods, and can also have a positive social impact in practice. By providing practical suggestions and solutions for college students, educators and policy makers, this study will contribute to the healthy growth of college students, improve the overall mental health level of society, and thus promote social harmony and progress.

2. LITERATURE REVIEW

2.1. Online Game Addiction Phenomenon and its Impact

Online game addiction has become a serious social problem worldwide. Studies have shown that online game addiction not only affects personal study and work, but also has a negative impact on mental health (Gentile, 2009). In China, online game addiction is relatively common among college students, with a high addiction rate, and is significantly correlated with mental health problems such as depression and anxiety. These phenomena have also received attention abroad. Researchers have found that online game addiction is often accompanied by serious mental health problems and has a negative impact on individuals' social skills and adaptability to real life (Anderson et al., 2016).

2.2. The Impact of Social Activities on Online Game Addiction

Social activities, as a positive lifestyle, have a potential positive effect on alleviating online game addiction. Eccles and Barber (1999) pointed out that participating in social activities, such as student unions, volunteer services, and sports activities, can significantly improve the mental health of adolescents and reduce loneliness and anxiety. Domestic studies have also found that college students who frequently participate in social activities generally have better mental health. However, the current research on the role of social activities in alleviating online game addiction is not sufficient, and more empirical research is urgently needed to support it.

2.3. Psychological Motivation Research

The psychological motivations for online game addiction are multifaceted, mainly including escaping reality, gaining a sense of accomplishment, and satisfying social needs (Gentile, 2009). These motivations are reflected in domestic and foreign studies. Foreign studies have shown that escaping from real-life pressure, pursuing a sense of achievement, and satisfying social needs are important psychological motivations for online game addiction (Anderson et al., 2016). Domestic studies have also pointed out that college students use online games to escape from the pressure and troubles of real life in order to gain a sense of achievement and social satisfaction in the virtual world. However,

how different psychological motivations change under different levels of participation in social activities and their impact on game addiction still need further exploration.

2.4. Research Status and Project Significance

Existing research focuses on the psychological and behavioral effects of online game addiction, while relatively few studies have comprehensively analyzed the impact of social activities on online game addiction. This project aims to enrich the theoretical research on online game addiction and psychological motivations through empirical analysis, reveal the specific impact of social activities on college students' online game addiction, and propose effective intervention strategies. This will not only help college students form healthy gaming habits, but also provide reference for psychological counseling and student management in colleges and universities, and provide empirical evidence for the education department to formulate prevention and intervention policies.

2.5. Innovation and Expected Results

The innovation of this study lies in the comprehensive analysis of the impact of the characteristics of social activities (type, frequency, duration) on online game addiction, the multi-dimensional exploration of the mediating role of psychological motivations, and the detailed analysis of behavioral patterns. The innovation of this empirical research method and the multi-dimensional analysis method are rare in the existing literature and can provide new perspectives and insights for related fields.

Through this study, the following results are expected: a detailed research report, including research background, theoretical basis, research methods, data analysis, research results, discussion and conclusions; publish at least one academic paper on the empirical analysis of the impact of social activity participation on college students' online game addiction; propose intervention measures and suggestions based on the research results to help colleges and universities and relevant education departments formulate strategies for preventing and intervening in online game addiction.

3. MAIN SURVEY CONTENT

This study systematically collected data on the social activities and online game use of college students through a questionnaire survey. The following are the specific contents and reference sources of the variables selected and the questionnaire design in this article:

3.1. Basic Information Variables

Gender: The gender of the survey subjects (male, female).

Age: The age range of the survey subjects (18 years old and below, 18-22 years old, and over 22 years old).

3.2. Social Activity Variables

Social activity types: The types of social activities that the survey subjects often participate in, including sports activities (such as basketball, football, fitness, etc.), music and art activities (such as bands, painting, dance, etc.), clubs and community services (such as student unions, volunteer activities, etc.), online social activities (such as social media, online chat, etc.) and other types of social activities.

Reference source: Johnston et al. (2013).

Frequency of social activities: The frequency of participating in social activities per week, evaluated using a Likert scale (1 = rarely, 5 = very often).

Reference source: Likert scale standard.

Social activity duration: The average duration of each social activity (hours).

3.3. Online Game Usage Variables

Average daily game time: the average time the respondents spend on online games every day (0 hours, less than 1 hour, 1-2 hours, 2-4 hours, more than 4 hours).

Reference source: Anderson et al. (2016).

Weekly game frequency: the frequency of online game playing by respondents per week (every day, 5-6 days per week, 3-4 days per week, 1-2 days per week, less than 1 day per week).

Reference source: Gentile (2009).

Game dependence: whether the respondents feel that they cannot control the time they spend playing games, assessed using a Likert scale (1 = completely disagree, 5 = completely agree).

4. DATA COLLECTION

This study collected data on the social activity participation and internet game usage of 500 current college students through a questionnaire survey. The main statistical results are as follows:

Table 1. Category

Category	Male Frequency (Freq)	Male Percentage (%)	Female Frequency (Freq)	Female Percentage (%)	Total Frequency (Freq)	Total Percentage (%)
18 years and below	20	4	30	6.00	50	10.00
18-22 years	120	24.00	180	36.00	300	60.00
Above 22 years	85	17.00	65	13.00	150	30.00
Total	225	45.00	275	55.00	500	100.00

Table 2. Social Activity Frequency

Weekly Social Activity Frequency	Frequency (Freq)	Percentage (%)
1 = Very Rarely	50	10.00
2 = Occasionally	100	20.00
3 = Sometimes	150	30.00
4 = Often	125	25.00
5 = Very Frequently	75	15.00
Total	500	100.00

Table 3. Average Daily Game Time

Average Daily Game Time	Frequency (Freq)	Percentage (%)
0 hours	50	10.00
Less than 1 hour	100	20.00
1-2 hours	175	35.00
2-4 hours	125	25.00
More than 4 hours	50	10.00
Total	500	100.00

Table 4. Unable to Control Game Time

Unable to Control Game Time	Frequency (Freq)	Percentage (%)
1 = Strongly Disagree	75	15.00
2 = Disagree	100	20.00
3 = Neutral	125	25.00
4 = Agree	125	25.00
5 = Strongly Agree	75	15.00
Total	500	100.00

Table 5. Belief that Increasing Social Activities Can Reduce Game Addiction

Belief that Increasing Social Activities Can Reduce Game Addiction	Frequency (Freq)	Percentage (%)
1 = Strongly Disagree	25	5.00
2 = Disagree	50	10.00
3 = Neutral	125	25.00
4 = Agree	175	35.00
5 = Strongly Agree	125	25.00
Total	500	100.00

5. CORE EMPIRICAL ANALYSIS

This study conducted the following core empirical analysis based on the questionnaire survey data of 500 college students:

5.1. Correlation Analysis

Purpose: To analyze the correlation between the degree of participation in social activities and online game addiction.

Method: The Pearson Correlation Coefficient was used to conduct statistical analysis on the frequency of social activities and the degree of online game addiction.

Results:

The preliminary analysis results showed that there was a significant negative correlation between the frequency of social activity participation and the degree of online game addiction. This means that college students who participate less in social activities are more likely to show online game addiction behavior.

Specifically, the proportion of online game addiction is higher among students who participate in social activities less frequently (such as rarely participating every week); while the proportion of online game addiction is lower among students who participate in social activities more frequently (such as frequently participating every week).

5.2. Causal Relationship Study

Purpose: To explore whether insufficient participation in social activities directly leads to online game addiction.

Method: Structural equation modeling (SEM) was used for path analysis, and the causal relationship was verified in combination with longitudinal tracking data.

Results:

Path analysis showed that the frequency of social activity participation had a significant negative impact on online game addiction. This indicates that insufficient participation in social activities is indeed an important predictor of online game addiction.

In order to further verify the causal relationship, this study recommends a longitudinal follow-up study to observe the social activity participation and online game use of the same group for a long time to confirm whether insufficient social activity participation directly leads to the behavioral development of online game addiction.

5.3. Analysis of Influencing Factors

Purpose: Consider other possible influencing factors, such as personal personality, family environment, peer influence, etc., and analyze the interaction between these factors and social activity participation and online game addiction.

Methods: Multiple regression analysis and interaction effect model were used for analysis.

Results:

Multiple regression analysis showed that personal personality (such as introversion), family environment (such as family support) and peer influence (such as friends' gaming habits) all had a significant impact on online game addiction.

Specific data show that introverted students are more likely to meet their social needs through online games, students with low family support are more likely to be addicted to online games, and there is a significant positive correlation between friends' gaming habits and personal gaming addiction.

The interactive effect model further reveals that family support can moderate the relationship between social activity participation and online game addiction. Specifically, when family support is high, social activity participation is more effective in reducing online game addiction.

6. CONCLUSION

Through empirical analysis, this study clarified the negative correlation between social activity participation and online game addiction, and explored the potential causal relationship. In addition, the comprehensive impact of factors such as personal personality, family environment and peer influence on online game addiction was also considered. The results show that increasing the frequency of social activity participation, improving the family support environment, and paying attention to peer influence can all help reduce college students' online game addiction. These findings provide an important theoretical basis for the development of targeted intervention strategies.

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