

## Research on the Influence of Mobile Phone Dependence on the Mental Health of Secondary Vocational Students

Yixia Cong\*

Foreign Language School, Xiamen Nanyang Vocational College, Xiamen, Fujian 361101, China

\*Corresponding Author

**Abstract:** In order to explore the relationship between mobile phone dependence and the mental health of secondary vocational students, 269 secondary vocational students were studied with mobile phone dependence questionnaires and mental health questionnaires. The study found that there were differences in whether secondary vocational students were only children ( $P<0.05$ ), and there were differences in withdrawal symptoms, prominent behavior, social comfort, and mood change ( $P<0.05$ ). There is no difference in gender and grade of mobile phone dependence among secondary vocational students. The problem of mobile phone dependence is increasingly serious, affecting the physical and mental health of secondary vocational students, which can't be ignored, and has become a problem that schools and families urgently want to solve.

**Keywords:** Secondary Vocational Students; Mental Health; Mobile Phone Dependence

### 1. Introduction

With the development of science and technology, the mobile phone, as a tool of information exchange, has been widely used by more and more people. The popularity of mobile phones has become a worldwide phenomenon and the fifth media after newspapers, radio, television, and the Internet. China's popularity has accelerated in recent years. On August 31st, 2022, China Internet Network Information Center (CNNIC) released the 50th Statistical Report on the Development of Internet in China in Beijing: By June 2022, the number of Chinese netizens reached 1.051 billion, and the number of mobile netizens reached 1.047 billion. In the era when the Internet is becoming more and more popular and mobile phones have become

daily necessities, dependence on mobile phones can cause various influences on people's life. People regard mobile phones as a new media after the four traditional media such as newspapers, magazines, radio, and TV. The penetration rate of mobile phones is more serious for secondary vocational students, and each secondary vocational student has at least one mobile phone, whether they attend class, eat, walk or even go to the bathroom, mobile phones are in their hands all the time.

For different people the use of the mobile phone is different, and also will produce a different effect, in the society of workers, more for office, and for secondary vocational students is more used for game entertainment, that gap is very big, compared with the mature adults, the secondary vocational students can't control themselves, easy to be the phone "controlled", once addicted to the game, forget the time, can not easily come out of the atmosphere of the game, will be more energy into the illusory network world, can not normally survive in real life. For office has the advantage of being convenient and quick, and used to play games in secondary vocational students, not only waste time, and all aspects of the body function will be affected by mobile phones, in terms of the body, long-term damage to eyesight to opportunity, long-term bowed their heads and can make the spine received damage, caused irreparable harm body. Different people rely on mobile phones to different degrees, excessive dependence on mobile phones will have different effects on the behavior and emotion of secondary vocational students, for example, put more energy into the network, get in life, will go to the network to gain more identity, more vulnerable to network fraud; Estranged from social life, it is difficult to maintain interpersonal contacts in real life; Studies have shown that exposure to mobile phone radiation for more than 10 hours a day can cause

neuroendocrine dysfunction and even gynecological problems in young women[1]. Using a mobile phone for a long time will cause individual loneliness, and may lead to personality disorders such as indifference and lack of love. The convenience of mobile phones is obvious to people, but it also brings harm. Therefore, the study on the relationship between mobile phone dependence and the mental health of secondary vocational students has certain practical significance and empirical reference, which provides reference and guidance for schools and students on how to solve the problem of mobile phone dependence in the era of Internet+.

## 2. Research Methods

### 2.1 Subjects

A total of 269 students were randomly selected from colleges and universities in Fujian Province by questionnaire. A total of 269 questionnaires were collected and 251 were valid, with an effective rate of 93.33%. In the valid questionnaire, the proportion of boys and girls was 34.2% and 65.8% respectively. The distribution of subjects is shown in Figure 1. (In the proportion of personality of the subjects, although the male is less, it has more reference value. Under the background of the contemporary Internet + era, online games were once sought after by secondary vocational students, which had a great impact on physical and mental health.)

### 2.2 Mobile Phone Use of Secondary Vocational Students

As for the use of mobile phone functions, see Figure 2. Internet surfing on mobile phones is

85.87%, music on mobile phones is 79.93%, shopping on mobile phones is 78.44%, social networking on mobile phones is 76.95%, video on mobile phones is 75.46%, games on mobile phones are 54.65%, the clock is 59.85%, reading on mobile phones is 49.07%, short messages are 37.17% and other uses are 30.11%. Mobile radio was 8.92%. In the use of functions, we can obviously see that among the many functions, mobile shopping, mobile Internet, mobile music, and mobile games account for a large proportion, which is enough to show that secondary vocational students are gradually relying on mobile phones in all aspects of life. The shopping life, and daily physical and mental relaxation, are all based on the mobile phone Internet, relying on a mobile phone gradually separated from actual interpersonal and social ability. There is a gap between social communication on the network and reality. We should face it more. The communication of interpersonal relations is based on real life[2].

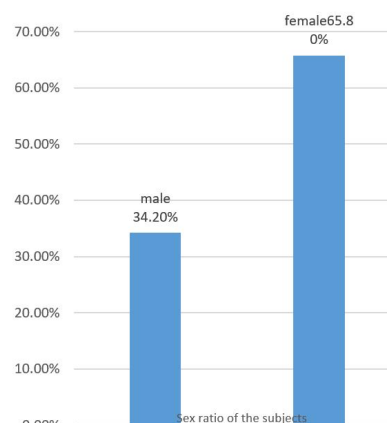


Figure 1. Distribution of Subjects

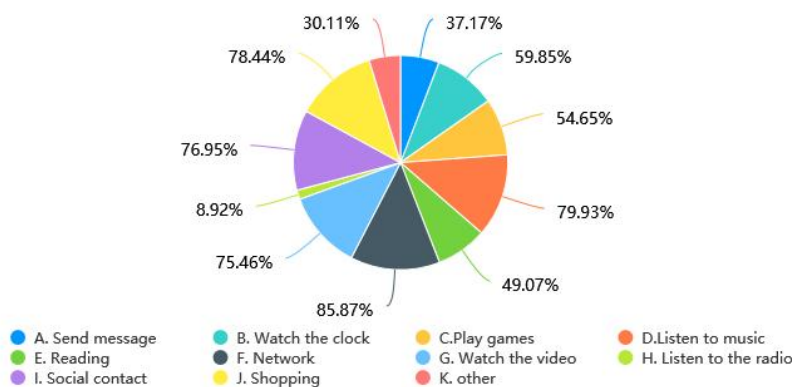


Figure 2. Mobile Phone Function Usage Distribution

The functions of Internet mobile phones are rich and colorful, and it is particularly important to make reasonable use of them. In this questionnaire survey, they said: "Now they can not leave the mobile phone, or can not stay in the environment without the network, they will be very upset mood, this situation is certainly the vast majority, whether it is the needs of work or the convenience of life, or physical and mental relaxation, it is inseparable from the mobile phone and the Internet. And the poison of online games goes deep into their bones." With such a big background, our survey hopes that more people can clearly understand this double-edged sword and the need to use mobile phones reasonably and timely.

### 2.3 Research Tools

In the questionnaire on mobile phone dependence, the higher the score of mobile phone dependence, the stronger the dependence tendency. In this study, the Cronbach $\alpha$  coefficient of this scale was 0.931. Mental Health Scale, which consists of 12 items. In this study, the Cronbach $\alpha$  coefficient of the scale was 0.717.

## 3 Results and Analysis

### 3.1 Descriptive Statistical Analysis

The mobile phone dependence and mental health of secondary vocational students were described and statistically analyzed. See Table 1.

**Table 1. Descriptive Statistical Analysis**

	M	SD	N
gender	1.67	$\pm 0.47$	251
grade	1.78	$\pm 0.76$	251
Only child or not	1.73	$\pm 0.44$	251
mobile phone dependence	2.71	$\pm 0.84$	251
mental health	2.07	$\pm 0.48$	251

### 3.2 Correlation Analysis

To describe the correlation analysis of mobile phone dependence and mental health of secondary vocational students. Are shown in Table 2.

**Table 2. Correlation Analysis**

variable	r (1)	r (2)
1. mobile phone	1	0.28**

dependence		
2. mental health	0.28**	1

note: \*\*P<0.01

It can be seen from Table 2 that mobile phone dependence has a positive correlation with mental health, and the influence on mental health is particularly serious in the deepening of the dependence degree. Paying attention to the dependence degree is an important magic weapon to pay attention to the physical and mental health development of students [3].

The research shows that mobile phones can meet the needs of girls for timely communication and social interaction, and boys are easy to rely on the virtual game world to kill time and forget the unhappiness of life when they are looking for stimulation. This study found that there was no significant difference in the gender of mobile phone dependence among secondary vocational students. There is no significant difference in grade, which may be because secondary vocational schools have little difference in age. They all have their own needs for mobile phones, and some of them are used for entertainment, social interaction, or information consulting.

Studies have shown that mobile phone dependence is significantly related to anxiety, depression, and interpersonal sensitivity [4-6]. For students with serious mobile phone dependence, schools and parents should take relevant measures to control how long students play on mobile phones a day, persuade them to get out of the Internet world, find the beauty in life, and actively participate in activities. Anxiety and depression caused by mobile phone dependence will lead to sensitivity to interpersonal communication in life. Therefore, the degree of mobile phone dependence has an extremely important relationship with the physical and mental health development of individuals who should reduce the psychological burden from life, not from the dependence on a mobile phone.[7-9]

## 4 Conclusions and Suggestions

### 4.1 Conclusion

In this era of big data, the number of Chinese netizens reaches 1.051 billion, among which the number of mobile phone users is 1.047 billion. Secondary vocational students account for the majority of mobile phone users. As

time goes by, the problem of mobile phone dependence is increasingly serious, affecting the physical and mental health of secondary vocational students. It is a problem that schools, teachers, and parents desperately want to solve. According to the results of this study, mobile phone dependence has an impact on people's physical and mental health and can change people's moods.

The results of this study show that secondary vocational students' mobile phone dependence will cause a series of psychological problems, and mobile phone dependence will bring a negative impact on the mental health of secondary vocational students. Therefore, it is particularly important for college educators to make use of the advantages of smartphones and play a positive role in mobile media for secondary vocational students. Too addicted to the network world, and relying on mobile phones, can affect psychological health, and cause a series of problems, easy to let students produce a psychological mood, such as impatience, and temper not from the web, and mobile life, but also affect the health, the network game addiction, day and night chasing play and make more and more to stay up late, a vicious cycle of constantly, it has a great impact on the healthy growth and learning of students. Schools and parents should also discuss how to correctly advise students, correctly guide and restrain students, and how correctly use mobile phones so that mobile phones can better serve their studies and life. Let more secondary vocational students out of the dormitory out of the mobile phone-dependent environment is the purpose of this survey. We will put forward the following suggestions to help secondary vocational students get out of mobile phone dependence under the background of the Internet + era.

#### **4.2 Suggestions**

Use mobile phones to study more efficiently and become an effective tool for learning. Secondary vocational students can be guided to make reasonable use of mobile media, so that mobile phones become learning tools for secondary vocational students, and use mobile phones or the network to read positive and healthy materials. Teachers can also use students' dependence on mobile phones to design corresponding teaching materials such

as flipped classrooms, so as to guide students to use mobile phones in a healthy and reasonable way. For example, the teacher uses the rain class in the class, and the mobile phone is used to better interact with each other, making the class more interesting and vivid, with strong interaction. Guide students to surf the Internet in a healthy way, use mobile phones to memorize words, watch online classes, and so on to learn through multiple channels.

For students who are too dependent on mobile phones and have problems in interpersonal relationships, they can reasonably plan their mobile phone time with the help of teachers and classmates and move towards normal interpersonal communication. In class, teachers can use mobile phone bags to control the phenomenon of students playing on mobile phones in class and pay attention to the teacher.

Schools should encourage secondary vocational students to get off the Internet, out of the dormitory, and into the playground. Arrange more colorful activities so that more students can participate. Putting down the mobile phone, in the rich extracurricular life, know more new students, normal interpersonal communication to open the body and mind, no longer rely on mobile phones, rely on the network world. Improve yourself in various competitions, make yourself more confident, no longer need to get recognition from the network.

It can guide secondary vocational students to use mobile phones reasonably. Learning through mobile phone, also do not rely solely on a cell phone, the traditional learning style combined with modern technology, supplement each other, complement each other, through making mobile learning tools, in the aspect of classroom interaction can fully use app active teaching atmosphere, but the use of time in their spare time to their own constraints, guide the reasonable health way of using mobile phones.

Students who are dependent on mobile phones will be counseled. Through the investigation and analysis, the impact of mental health analysis and interpretation, comparison with the reality of their own, through the comparison of advantages and disadvantages, secondary vocational students correctly

understand time management and get rid of dependence.

Colleges and universities should actively create richer campus cultural life. The rich and colorful campus cultural activities, for example, attract students to participate in technical secondary school and help the secondary vocational students to put down their phones, into activities, through exercise, practice, and communication, to help their growth through a variety of activities for secondary vocational students interpersonal psychological needs, no longer rely on online social networking, afraid of communication in real life. The campus can also be carried out with other colleges and universities learning exchange activities, a variety of professional lectures, etc., to meet the secondary vocational students' desire for knowledge acquisition, and to create a good learning atmosphere and a positive campus cultural environment. Enriching the campus life to eliminate the loneliness of students, finally, help students get rid of their dependence on mobile phones, no longer the "controlled" of mobile phones, but the owner of mobile phones.

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