

Psychological Capital, Empathy, And Interpersonal Skills Among College Students with Social Media Addiction Towards Psychoeducation Program Development

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Abstract: Interpersonal skills, empathy and psychological capital are important factors affecting the social development of college students with social media addiction. A standardized questionnaire was used to survey 1000 college students from 6 different universities in Anhui Province, China. This paper proposes an intervention scheme to improve the interpersonal skills, empathy skills and psychological capital of college students with social media addiction. From the perspectives of school system construction, family and teachers, some guiding suggestions are put forward to improve the behavior of college students with social media addiction, and provide support for college students with social media addiction to better adapt to society and have healthier social relations. The results show that the interpersonal skills, empathy and psychological capital of college students with social media addiction are generally poor. Gender and level of social media addiction have significant effects on empathy, while grade, major and school type have no significant effects on empathy ability. Age has significant influence on interpersonal skills, while gender, grade, major, school type and level of social media addiction have no significant influence on interpersonal skills. Gender and major have significant influence on psychological capital, but age, grade and school type have no significant influence on psychological capital. In addition, the results show that the interpersonal skills, empathy and psychological capital of college students with social media addiction are related. On this basis, a set of intervention schemes to improve the interpersonal skills, empathy and psychological capital of college students with social media addiction are proposed.

Keywords: Psychological capital; Empathy; Interpersonal skills; Social media addiction.

1. Introduction

With the improvement of people's living standards and the rapid development of modern science and technology, the internet has become an integral part of daily life. In order to provide convenience for students and teachers, college and university campus networks are becoming increasingly sophisticated. It has become a major means for contemporary college students to acquire knowledge and information, with a wide-ranging impact on their studies, lives, and values. In the prospect of the rapid development of the Internet era, smart phones, social media applications and other Internet-based platforms gradually occupy the majority of human work, life and study time, and therefore have a lot of impact on human production activities. However, social network is a double-edged sword^[1]. Although social network brings a lot of convenience to our work and life, excessive use of social network will cause negative effects on individuals, leading to social network addiction and other problems. Social network addiction has been dubbed the new "opiate" by the media. Nowadays, the number of college students who surf the Internet is increasing year by year, and more and more are suffering from various psychological problems caused by internet addiction, such as mental illness. Therefore, the issue of internet addiction among college students has attracted extensive attention from scholars both at home and abroad. For college students, social network addiction will not only make college students addicted to the online interpersonal relationship and ignore the real interpersonal

relationship, affect the level and ability of interpersonal communication in real life, but also cause attention bias, anxiety, depression and other negative emotions of college students, affect the normal study and life, and cause serious adverse effects on the physical and mental health development of college students^[2].

In this study, the psychological capital, empathy and interpersonal skills of college students with social media addiction were investigated as to their differences and relationships to provide effective theoretical basis for the prevention and intervention of social media addiction in college students^[3]. Specifically, it sought to describe the profile of the respondents in terms of sex, age, grade level, major, and type of university enrolled; determined their psychological capital, empathy and interpersonal skills; compared the variables based on their profile; established possible correlation among the variables and proposed a psychoeducational program to reduce college students social network addiction and develop a healthy coping mechanisms^[4].

2. Participants and Measures

2.1. Participants

The method of convenient sampling was adopted to select college students from 6 universities of different levels and categories in Anhui province, including freshmen, sophomores, juniors and seniors. Among them, 161 students are enrolled in A University of Chinese Medicine, which was founded in 1959 and is a public university located in Anhui

Province, China. It is one of the earliest higher education institutions of Chinese medicine in Anhui Province, and has two campuses. B University of Technology has 153 students. Founded in 1945, it is a national key university directly under the direct administration of the Ministry of Education of the People's Republic of China. It is jointly built by the Ministry of Education, the Ministry of Industry and Information Technology and the Anhui Provincial government^[5]. The university has established exchange and cooperation relations with more than 100 world-renowned universities in the United Kingdom, the United States, Australia, Canada, Germany, Japan, Russia, Belarus and Hong Kong, Macao and Taiwan^[6]. The university has a strong faculty and a large number of students. Of these, 109 are from the University of C, founded in 1928 as a public university. D University selects 253 students. Founded in 2000, D University is a private university with a large number of students and 62 undergraduate majors. It has formed a multidisciplinary professional system with engineering and management as the main subjects and comprehensive development of economics, literature, medicine (medicine), art and teaching. E University, with 153 students, was founded in 1997 and is the first private university in Anhui Province. F University, with 150 students, was founded in 2002 and is the only undergraduate foreign language college in Anhui Province. This study included all random samples that met the criteria. The selected samples were tested with four scales, and qualified participants were given informed consent and guidance to explain the content of the study, design and intervention^[7].

**Frequency table of the Participants Demographic Profile
n = 511**

Item	f	%
Sex		
Male	254	49.7
Female	257	50.3
Age		
16 – 17 years old	125	24.5
18 – 20 years old	353	69.1
Over 21 years old	33	6.5
Grade Level		
1st	179	35.0
2nd	182	35.6
3rd	126	24.7
4th	24	4.7
Major		
Student of Science	289	56.6
Humanities and Social Sciences	222	43.4
Type of University		
Private	449	87.9
Public (government owned)	62	12.1
Level of Social Media Addiction (SMA)		
Moderate Likelihood of SMA	489	95.7
High likelihood of SMA	22	4.3

Table 1 shows the basic situation of the participants. It can be seen from the table that among the 511 respondents, 254 were male, accounting for 49.7%, while 257 were female, accounting for 50.3%. Among the 511 participants, 125 were aged 16-17, accounting for 24.5% of the total, 353 were aged 18-20, accounting for 69.1% of the total, and 33 were over 21, accounting for 6.5% of the total. By grade, there were 179 freshmen (35 percent), 182 sophomores (35.6 percent), 126 juniors (24.7 percent), and 24 seniors (4.7 percent). The data covers students of all grades in the school. Among the 511

respondents, 289 (56.6 percent) majored in liberal arts and 222 (43.4 percent) majored in science. According to the type of school, 449 of the 511 respondents (87.9 percent) went to private schools and 62 (12.1 percent) went to public schools.

2.2. Measures

2.2.1. Questionnaire on Social Media Addiction Tendency of College Students

This was the tool used in screening the respondents. It was compiled by Taiwan scholar Chen Shuhui was adopted. The scale consisted of 26 questions and was scored with 4 points. The higher the total score was, the more serious the Internet addiction was, including 5 factors: compulsive Internet behavior, withdrawal behavior and withdrawal reaction, Internet addiction tolerance, time management problems, interpersonal and health problems. The first three factors constituted the core symptoms of Internet addiction, and the last two factors constituted the related problems of Internet addiction.

2.2.2. Positive Psychological Capital Questionnaire

This questionnaire was compiled by Zhang Kuo et al. in 2010 on the basis of reference to foreign relevant scales. There were 26 items in the questionnaire, including four dimensions of self-efficacy, optimism, hope and resilience. Likert-style seven-point scoring method was adopted. Subjects rated each item according to their own situation, the higher the score, the more consistent with themselves, and the smaller the score, the more inconsistent with themselves. Sections 8, 10, 12, 14 and 25 are entitled reverse scoring. The higher the total score, the higher the level of psychological capital.

2.2.3. Empathic Capacity Scale

In this study, we will use a scale revised from the original Interpersonal Response Indicator Scale by Taiwan researcher Wu Jingji et al. (1987). The number of questions in the scale was reduced to 22. The form of each question is a sentence, let the subjects judge their degree of conformity with it, the degree is divided into 0-4 points. The higher the score, the better the empathic ability.

2.2.4. Interpersonal Skills Scale

This study adopted the revised scale by Wang Yingchun et al. (2006), and the original scale was compiled by Buhrmester(1988). Five items were deleted from the revised scale, and 35 items remained. The 5-level scoring method was adopted. The scale has five dimensions, namely initiating communication, providing emotional support, exerting influence, self-disclosure and conflict resolution.

2.3. Data Analysis

SPSS22.0 and Pearson correlation analysis were used to analyze the correlation among psychological capital, empathy and interpersonal skills of college students with social media addiction. In describing the profile of the respondents in terms of sex, age, grade level, major, and type of university enrolled, frequency and percentage were utilized. In determining the psychological capital, empathy and interpersonal skills, mean and standard deviation were used whereas in testing the differences of the three variables based on their profile, Analysis of Variance (ANOVA) was employed and lastly, Pearson r was employed in establishing possible correlation among the three variables being studied.

3. Results

3.1. Analysis of Social Media Addiction Tendency of College Students

As can be seen from Table 2, a subject's hope score is 16.04, Efficacy score is 17.16, and Resilience score is 17.42, all of which are at a low level. Low hope dimension indicates that a person believes that he or she can achieve a goal even in the

face of challenges. A low efficacy dimension indicates a belief in one's ability to succeed in challenging situations. A low resilience dimension indicates resilience to setbacks and adversity. Optimism scores at 22.01, which is average, with medium optimism indicating an ability to look on the bright side and believe that good things will happen in the future. The total average score of psychological capital is also 72.63, which is at a low level, indicating that there are still some problems in psychological capital of the subjects.

Table 2. Respondents Type of Psychological Capital n = 511

Subscale	mean	Interpretation	Rank
Efficacy	16.04	Low	4
Hope	17.16	Low	3
Resilience	17.42	Low	2
Optimism	22.01	Average	1
Mean Σ of scores	72.63	Low PsyCap	

Legend: Hope, Efficacy, Resilience -> 12 – 24 (low), 25 – 36 (Average), 37 – 48 (high) for Optimism : 10 – 20 (low), 21 – 30 (Average), 31 – 40 (high). For Total Score 54 -108 (low PsyCap), 109 – 162 (Average PsyCap), 163 – 213 (High PsyCap)

3.2. Analysis of Empathic Capacity

As can be seen from Table 3, the total average score of empathy of the subjects is also 49.03, which is in the range of low empathy ability, indicating that there are still some problems with empathy of the subjects. In terms of Empathy, college students with social media addiction also have some

problems in their empathy ability, especially the score of Affective Empathy is low, indicating that college students with social media addiction generally have poor empathy ability. Indicates that this person has difficulty understanding and sharing the thoughts and feelings of others. They may also have difficulty sensing the emotions of others or feeling care and compassion for others.

Table 3. Empathic Capacity among the Respondents n = 511

Subscale	Mean Σ of scores	Interpretation
Perspective Taking	16.91	Low
Affective Empathy	13.12	Low
Empathic Concern	16.71	Low
Overall Empathy	2.29	Low
Mean Σ of scores	49.03	Low Empathic Capacity

Legend: Perspective Taking 15 – 24 (Low), 25 – 34 (Average), 35 – 44 (high), for Affective Empathy 12 – 21 (low), 22 – 31 (Average) 32 – 42 (high), for empathic Concern 14 – 23 (low), 24 – 33 (Average), 34 – 43 (high)
Total Score: 22 – 55 (low empathic capacity), 56 – 89 (moderate empathic capacity), 90 – 133 (high empathic capacity), 89 – 110 (Very high empathic capacity)

3.3. Analysis of the scores of Interpersonal Skills

As can be seen from Table 4, the score of expressing emotions is 21.29, which is at a low level. The listening dimension scored 17.00, which was on the low end. In the

negotiating dimension, the score is 17.12, which is at a low level. The assertiveness dimension scored 19.61, which was average. The total average score was 75.02, which was in the range of low interpersonal skills, indicating that the subjects still had some problems in interpersonal skills.

Table 4. Interpersonal Skills among the Respondents n = 511

Subscale	mean	Interpretation	Rank
Expressing Emotions	21.29	Low	2
Listening	17.00	Low	4
Negotiating	17.12	Average	3
Assertiveness	19.61	Average	1
Mean Σ of scores	75.02	Low Interpersonal Skill	

Legend: Expressing Emotions: 18 -22 (low), 23 – 27 (Average), 28 -33 (high), Listening : 16 – 20 (low), 21 – 25 (Average), 26 – 30 (high), Negotiating 15 -19 (low), 20 – 24 (Average), 25 – 29 (high), Assertiveness 14 – 18 (low), 19 – 23 (Average), 24 – 28 high, For TOTAL Score, 35 – 87 (low Interpersonal Skill), 88 – 139 (Average interpersonal skills), 140 – 175 (high interpersonal skills)

3.4. Correlation analysis of Empathic Capacity, Interpersonal Skills and Psychological Capital

Table 5 shows the impact of the respondents' empathy

ability on interpersonal skills and psychological capital. The results show that: the interpersonal skills of college students with social media addiction may be related to good empathy skills, and there are significant differences in the Perspective Taking dimension of empathy skills. Psychological capital of

college students with social media addiction may be related to good empathy ability, and there are significant differences in the four dimensions of empathy ability. Therefore, the

empathy ability of college students with socialmedia addiction has a certain impact on the performance of interpersonal skills and psychological capital.

Table 5. Relationship of the Respondent's Empathic Capacity to Interpersonal Skills and Psychological Capital
n = 511

	Perspective Taking		Affective Empathy		Empathic Concern		Overall Empathy	
	r	p-value	R	p-value	R	p-value	r	p-value
Expressing Emotion	.093*	.036	.055	.213	.006	.897	.062	.165
Listening	.113*	.010	.091*	.039	.027	.544	.090*	.043
Negotiating	.096*	.030	.079	.074	.017	.698	.076	.088
Assertiveness	.094*	.034	.076	.088	.015	.731	.075	.091
Overall InterpersonalSkill	.080	.071	.011	.805	.035	.427	.057	.198
Efficacy	-.507**	.000	-.434	.000	-.415**	.000	-.513**	.000
Hope	-.457**	.000	-.407	.000	-.405**	.000	-.480**	.000
Resilience	-.471**	.000	-.414	.000	-.391**	.000	-.480**	.000
Optimism	-.507**	.000	-.461	.000	-.431**	.000	-.528**	.000
Overall PsyCAP	-.555**	.000	-.492	.000	-.470**	.000	-.573**	.000

Legend Relationship is significant at 0.05 alpha level. Those highlighted in green is considered significant

4. Discussion

This study shows that the higher the level of psychological capital of college students with social media addiction, the less interpersonal relationship troubles, and the higher the level of psychological capital, the better their interpersonal problem handling ability. Facing the same new environment, college students with high levels of self-efficacy and optimism are more likely to enter the surrounding interpersonal circle and actively integrate into it. College students with a high degree of hope and resilience can deal with the problems in interpersonal relationships more actively when facing the setbacks and adverse effects of interpersonal communication, less social avoidance, and can establish a harmonious interpersonal relationship^[8]. At the same time, psychological capital can ease the relationship between interpersonal adaptation stress and negative emotions. Individuals with high self-confidence are more active and positive in the process of interpersonal communication, and it is easier to win the trust of others and establish a good peer relationship. In addition, self-efficacy is conducive to positive and good interpersonal communication behaviors^[9]. When individuals fail in interpersonal communication, college students with high self-efficacy and optimism will not be afraid to communicate with others again, and can still maintain an active attitude to participate in interpersonal communication. It can be seen that college students with high psychological capital level can cope with all kinds of negative emotions and negative situations caused by interpersonal communication, and reduce the incidence of interpersonal distress^[10].

5. Conclusion

This study showed most of the interviewees are 18-20 years old, male and female students are balanced, and there are few seniors, most of whom are students from private schools. The proportion of college students with moderate social media addiction is relatively high and the proportion of college students with high degree of social network addiction is lower. There were significant differences in respondents' empathy ability in terms of gender and level of social media addiction, while grade, major and school type had no significant differences in empathy ability. There were significant differences in interpersonal skills by age, but not by gender, grade, major, type of school and level of social media

addiction. There are significant differences in psychological capital in gender and major, but no significant differences in age, grade and school type. The results show that the interpersonal ability of college students with social network addiction is related to good empathy ability, and the higher the psychological capital level of college students with social network addiction, the better interpersonal ability. Students with social media addiction can benefit from a psychological intervention program in improving their psychological capital, empathy, interpersonal skills.

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