

The Relationship between Psychological Capital and Self-Control in College Students: the Mediating Effect of Positive Emotion

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Abstract: In the form of questionnaire, 807 college students were selected to explore the relationship among psychological capital, positive emotion and self-control. The results show that: (1) college students' psychological capital and its sub-dimensions are significantly correlated with their positive emotion, as well as their self-control and its sub-dimensions. Their positive emotion is also significantly correlated with their self-control and its sub-dimensions. (2) Positive emotion plays a partial mediating role in the influence of psychological capital on self-control of college students.

1. Introduction

Psychological capital, a kind of core psychological resource of individuals, is a kind of positive mental state that can affect the positive behavior of people. This state is formed in the process of people's growth and development in long-term. The level of psychological capital can be improved through targeted investment and development, which makes humans have more positive psychological quality and gain a competitive advantage in their study and work in the future^[1]. Psychological capital includes four core components: self-efficacy, optimism, hope and resilience. Self-control, the ability to control oneself, refers to the ability to consciously control one's cognition, emotion and behavior to conform to the standards of personal values and social expectations through efforts to suppress impulses, resist temptation, and control automatic responses. According to the mainstream theory of self-control -- the limited resource model of self-control, implementing self-control for people needs to consume their certain psychological resources, which are limited and stored in a limited resource pool. If the resources consumed are not recovered enough, self-consumption will occur. The level of an individual's self-control is related to the amount of resources. If the individual has more psychological resources, their self-control will be high. On the contrary, if the individual has less psychological resources, their self-control will be low. From this point of view, psychological capital and self-control might be related to some extent. At present, it has been proved that there is a correlation between psychological capital and self-control, and psychological capital can positively predict self-control. When Chen Xiuzhu, Li Huaiyu et al. studied the relationship between psychological capital and academic achievement of junior high school students, they found that psychological capital and self-control were positively correlated, and self-control played a partial mediating role between psychological capital and academic achievement^[2]. When Huang Dandan studied the relationship between psychological capital, learning burnout and self-control of high school students, he found that psychological capital of high school students was positively correlated with their self-control ability. The higher the level of psychological capital was, the stronger the students' self-control ability was^[3]. Although the relationship between psychological capital and self-control has been demonstrated, it remains unclear that the mechanism of action how does the former affect the latter. Studies have found that positive emotion is an important factor affecting self-control, and positive emotion can positively

predict self-control^[4]. Both positive emotion and psychological capital are important concepts in Positive Psychology. Researches show that there is a certain correlation between psychological capital and positive emotion, and psychological capital can positively predict positive emotion. Therefore, positive emotion may be a mechanism of psychological capital's influence on self-control, but it has not been empirically studied. Based on this, this paper hypothesizes that psychological capital influences self-control through positive emotion, and positive emotion plays a mediating role in the relationship between psychological capital and self-control, then tests this.

2. Research Methods

2.1 Study Subjects

A total of 850 undergraduates from a university in Heilongjiang province were randomly selected as a whole class and 850 paper-based questionnaires were distributed. After the recovery, 43 invalid questionnaires were eliminated, and 807 valid questionnaires were obtained, with a recovery rate of 94.94%. There were 351 boys and 456 girls.

2.2 Research Tools

2.2.1 Psychological Capital Questionnaire

The Psychological Capital Questionnaire was prepared by Zhang Kuo et al. and consisted of 26 items. It is divided into four dimensions: self-efficacy, resilience, hope and optimism, and utilizes Likert formula 7 points scoring. The total coefficient of the questionnaire was 0.90, and the coefficients of the four sub-dimensions were 0.86, 0.83, 0.80 and 0.76^[5].

2.2.2 Positive Emotion Scale

The Positive-Negative Emotion Scale revised by Huang Li, Yang Tingzhong and Ji Zhongmin consisted of two dimensions, positive and negative, and uses Likert five-point scoring. This paper utilizes the positive dimension as the measurement of positive emotion. There are 10 items in total, which are “interested, energetic, energetic, enthusiastic, proud, alert, inspired, determined, focused and energetic^[6].

2.2.3 Self-Control Questionnaire

Self-control Questionnaire, revised by Tan Shuhua and Guo Yongyu, with 19 questions in total, uses Likert five-point scoring. With total coefficient of 0.862, it has good reliability and validity^[7]. So it is widely used among college students. Therefore it is decided to use in this paper to measure the self-control of the subjects.

2.3 Data Processing

Spss19.0 was used for descriptive statistics and correlation analysis of data, and Mpuls7.0 was used for mediating effect analysis of data.

3. The Results

3.1 Descriptive Statistics

Spss19.0 was used to describe and analyze the level of psychological capital, positive emotion and self-control of 807 college students. The results are shown in Table 1.

Table 1 Descriptive Statistics Of Psychological Capital, Positive Emotion and Self-Control of College Students

	XZ	XR	XX	XL	X	Q	ZC	ZG	ZJ	ZY	ZD	Z
M	31.58	30.08	29.83	29.53	121.02	30.04	19.55	9.03	8.82	10.08	11.95	59.43
SD	5.84	6.82	5.15	5.26	17.97	5.30	4.02	1.80	2.16	2.35	2.09	9.11

Note: XZ stands for self-efficacy, XR for resilience, XX for hope, XL for optimism, X for psychological capital, Q for positive emotion, ZC for impulse control, ZG for work or study performance, ZJ for healthy habits, ZY for moderating entertainment, ZD for resistance to temptation, and Z for self-control, the same as below.

3.2 Correlation Analysis

Make a relevant analysis of the subjects' psychological capital, positive emotion and self-control scores. The results are shown in Table 2. The psychological capital and its sub-dimensions are significantly correlated with positive emotion, as well as self-control and its sub-dimensions. Similarly, positive emotion is also significantly correlated with self-control and its sub-dimensions, so there is the condition for mediating effect analysis.

Table 2 Correlation Analysis Of Psychological Capital, Positive Emotion and Self-Control of College Students

	XZ	XR	XX	XL	ZC	ZG	ZJ	ZY	ZD	X	Q	Z
XZ	1											
XR	0.41** *	1										
XX	0.57** *	0.33***	1									
XL	0.53** *	0.41***	0.67** *	1								
ZC	0.19** *	0.45***	0.27** *	0.15** *	1							
ZG	0.38** *	0.34***	0.46** *	0.25** *	0.37** *	1						
ZJ	0.23** *	0.26***	0.36** *	0.21** *	0.38** *	0.44** *	1					
ZY	0.18** *	0.28***	0.34** *	0.21** *	0.56** *	0.43** *	0.45** *	1				
ZD	0.44** *	0.340**	0.41** *	0.33** *	0.26** *	0.47** *	0.37** *	0.37** *	1			
X	0.80** *	0.73***	0.79** *	0.81** *	0.36** *	0.46** *	0.34** *	0.32** *	0.49** *	1		
Q	0.42** *	0.42***	0.47** *	0.41** *	0.47** *	0.49** *	0.48** *	0.47** *	0.48** *	0.55** *	1	
Z	0.36** *	0.48***	0.47** *	0.29** *	0.81** *	0.69** *	0.69** *	0.78** *	0.62** *	0.52** *	0.65** *	1

Note: *p<0.05, **p<0.01, ***p<0.001, the following are the same.

3.3 Analysis of Mediating Effects

Taking psychological capital as independent variable, self-control as dependent variable and

positive emotion as mediating variable, the mediating effect was analyzed and the structural equation model was established. As shown in Table 3, the model is well fitted. The path coefficient of concrete is shown in figure 1, The direct path coefficient of psychological capital to self-control and the path coefficient of psychological capital to self-control through positive emotion are all significant, which shows that psychological capital can not only directly affect self-control ,but also affect self-control through positive emotion. The mediating role of positive emotion in the relationship between psychological capital and self-control is established. Then, the mediating effect test results show (see Table 4) that after the Bootstrap1000 iterations, the confidence interval of mediating effect and direct effect does not contain 0. It shows that both mediating effect and direct effect are significant again. Therefore, positive emotion plays a partial mediating role in the relationship between psychological capital and self-control. As can be seen from Table 4, the mediating effect is 0.31, the direct effect is 0.41, and the total effect is 0.72, so the mediating effect accounts for 43% of the total effect.

Table 3 Fitting Degree Of Positive Emotion Mediation Model

χ^2/df	RMSEA	CFI	TLI	SRMR
3.76	0.06	0.98	0.96	0.03

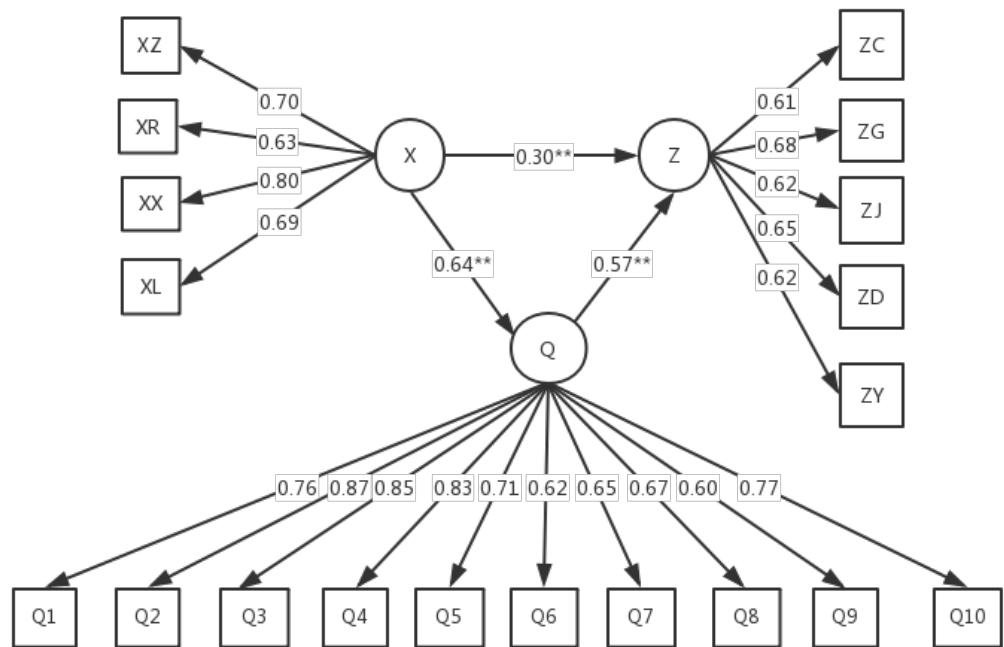


Fig.1 Model Path Coefficient

Table 4 Bootstrap Analysis Of Positive Emotion Mediating Effect Test

Point	Product of				BOOTSTRAP 1000 TIMES 95% CI
	Estimate	Coefficients			
		S.E	P-Value	Lower	Upper
Total	0.66	0.04	0.00	0.58	0.74
Direct effect	0.30	0.03	0.00	0.24	0.36
Indirect effect	0.36	0.04	0.00	0.28	0.44

4. Discuss

It can be seen from Table 1 that the average level of the overall psychological capital of college students is 121.02, which is higher than the theoretical median, and the average value of its sub-dimensions is also higher than the corresponding theoretical median. The positive emotion level of college students was 30.04, and the overall self-control level was 59.43, both of which were higher than the theoretical median. This shows that the psychological capital, positive emotion and self-control of college students are in good condition. The correlation analysis shows that there is a significant correlation between the psychological capital and self-control of college students, and there is also a significant correlation between the sub-dimensions of psychological capital and self-control. This is consistent with previous findings and again provides evidence for the correlation between psychological capital and self-control. In addition, positive emotion is significantly correlated with psychological capital and self-control, which validates previous research. Mediation analysis shows that positive emotion plays a part of mediating role in the influence of psychological capital on self-control. It indicates that psychological capital has an impact on self-control, which is partly realized through positive emotion. Positive emotion is a mechanism of action between psychological capital and self-control, which confirms the previous hypothesis of this paper.

5. Conclusion

(1)College students' psychological capital and its sub-dimensions are significantly correlated with positive emotion in pairs, as well as their self-control and its sub-dimensions. Their positive emotion is also significantly correlated with their self-control and its sub-dimensions.

(2) Positive emotion plays a partial mediating role in the influence of psychological capital on self-control of college students.

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