

# Relationship Between Psychological Capital and Employment Pressure of College Students on SPSS

Hongxiu Tan<sup>1</sup>, Dai Liu<sup>2\*</sup>  
{lshow@163.com<sup>1</sup>, 240231378@qq.com<sup>2\*</sup>}

Shaoguan University, Teacher Education College, Shaoguan, China

Shaoguan University, College of Innovation and Entrepreneurship, Shaoguan, China

**Abstract.** With the increasing popularization of higher education, the number of college graduates increases year by year. The employment of college graduates has become a hot issue that families, colleges and society generally pay attention to. Objective/Significance: To explore the relationship between psychological capital and employment pressure is helpful for college students to adjust their mentality and find the right direction, which has important practical significance for colleges to better carry out student employment and entrepreneurship service work. Process/Methods: Using the Positive Psychological Capital Questionnaire (PPQ) compiled by Zhang Kuo et al., and the Employment Stress Scale for College Graduating Students compiled by Zhang Lijin et al., 333 graduating students in Shaoguan University were surveyed on psychological capital and employment stress. SPSS 24.0 was used to conduct descriptive statistical analysis, independent sample t test, one-way analysis of variance, correlation analysis and regression analysis of the survey data. Results/Conclusions: (1) The employment pressure of college students is in the lower level, and the psychological capital is in the upper level; (2) Gender, family type, single child or not, major and household registration have no obvious influence on employment pressure and psychological capital of college students; (3) With the increase of the level of psychological capital of college students, their employment pressure will be reduced to a certain extent; (4) College students' psychological capital can negatively predict their employment pressure on the whole, among which resilience can positively predict employment pressure, and self-efficacy, hope and optimism can negatively predict employment pressure.

**Keywords:** Psychological capital; Employment pressure; College students

## 1 Introduction

Positive psychology is a new trend of thought on the study of human positive psychological quality initiated by Seligman in the late 20th century. Since its introduction, it has attracted the attention of many fields. In 2004, it was extended to the field of human resource management and organizational behavior by Luthans and Youssef, and further proposed the concept of psychological capital, referred to as psychological capital. It is defined as "a positive state of mind exhibited by an individual during growth and development" [1] and contains four core components: self-efficacy, hope, optimism, and resilience [1]. Self-efficacy refers to the individual has the confidence to complete the task, can actively cope with challenges and strive for success; Optimism refers to an individual's positive attribution of what has happened, and a positive attitude towards the present and future; Resilience refers to the ability of

individuals to recover quickly from adversity, setbacks and failures, and even to actively change strategies and accelerate capacity growth; Hope is a state of positive motivation to achieve predetermined goals through various channels [1]. Empirical research shows that psychological capital plays an important role in promoting mental health, improving interpersonal relationship, improving job performance, alleviating learning burnout and enhancing subjective well-being. According to the investigation of Fu Lifei and Zhang Kuo, the psychological capital of college students is negatively correlated with learning burnout, and the former has an obvious predictive effect on the latter [2].

After four years of study, the first thing to be solved after graduation is employment. College students are also one of the two major employment groups. The employment problem of college graduates every year is not only a social hot spot, but also the main source of pressure for graduates, namely, employment pressure, which refers to the oppression, tension and anxiety that college students feel and cannot eliminate for a while when facing the difficult situation of employment [2], which has been an important part of the mental health of college graduates. According to Wang Hui, director of the Department of College Students of the Ministry of Education, the number of this year's college graduates was 8.74 million in February, with a year-on-year increase of 400,000 [4], which can be seen from the huge number of college graduates. However, the employment situation is so severe that the comprehensive quality of the graduates themselves has not reached the employment expectations. In addition to facing the fierce market competition for jobs, they also need to deal with the economic transformation and industrial structure reform to put forward higher requirements for the comprehensive ability of employment personnel, so the employment pressure of college graduates is aggravating.

Studies have found that psychological capital can effectively predict individual job performance and job burnout, etc. In terms of research on employment pressure, Tian Juan and Zhang Jia et al found that the higher the psychological capital, the lower the level of career anxiety, and the more active the way to deal with career anxiety [5]. Therefore, this study attempts to further explore the relationship between college students' psychological capital and employment pressure, explore ways to ease the employment pressure of college graduates, hoping to improve the number and quality of employment of graduates.

## **2 Object and method**

### **2.1 Object**

The questionnaire was sent to the graduating class of Shaoguan College using the questionnaire Star platform. A total of 340 questionnaires were collected and 333 were valid, with an effective recovery rate of about 97.94%. Among them, 155 (46.6%) were boys and 178 (53.4%) were girls; Arts 105 (31.48%), science 127 (38.27%), engineering 101 (30.25%); There were 105 single parents (22.22%), 181 parents (54.32%) and 78 other parents (23.46%). 84 people (25.31%) were registered in cities, 84 people (31.48%) in towns and 144 people (43.21%) in rural areas. There were 101 (30.25%) only children and 232 (69.75%) not only children.

## **2.2 Research Tools**

### **2.2.1 Employment Pressure Scale for graduating students**

The Employment Stress Scale for College Graduating Students, which was compiled by Zhang Lijin and Qiu Guiping on the basis of the relevant scales for the research on stress problems of domestic college students, included 4 factors: subjective psychological experience (12 items), emotional disturbance in employment (8 items), physiological reaction (3 items) and behavioral performance (3 items), with a total of 26 items. The scale was scored with 5 Likert points, and the Cronbach $\alpha$  coefficient of internal consistency reliability was 0.822. The coefficients of the 4 factors were: 0.90, 0.81, 0.68 and 0.65, with a half-point reliability of 0.784, all meet the requirements of measurement, and all indexes in the validity test are basically satisfied, indicating that this scale is relatively reliable as an evaluation scale for employment pressure of college graduates.

### **2.2.2 Positive Psychological Capital Questionnaire (PPQ)**

The Positive Psychological Capital Questionnaire (PPQ) compiled by Zhang Kuo, Zhang Sai and Dong Yinghong was adopted. The questionnaire followed the 4-factor PCQ (Luthans) questionnaire structure, namely, self-efficacy (7 items), optimism (7 items), hope (6 items) and resilience (6 items). A total of 26 items were evaluated in the form of 7 points. The Cronbach  $\alpha$  coefficient of the questionnaire was 0.754, the coefficients of the four factors were 0.86, 0.83, 0.80 and 0.76, respectively, and the split half reliability was 0.719, indicating that the questionnaire had good internal consistency reliability.

## **2.3 Data processing method**

SPSS24.0 was used for statistical analysis of valid data collected in the survey, and correlation analysis, t test, F test and regression analysis equation were adopted.

## **3 Results**

### **3.1 Analysis of the overall situation of employment pressure and psychological capital of college students**

Table 1 shows that the total mean value of employment pressure is 72.27, higher than the theoretical median of 70[6], indicating that the employment pressure level of college students is above the medium level. The actual score of subjective experience and emotional distress was higher than the median, while the actual score of physiological response and behavioral performance was lower than the median.

In addition, the actual scores of the four factors of psychological capital are all higher than the theoretical median, and the overall average of psychological capital is 114.61, higher than the theoretical median of 104[1]. Therefore, the psychological capital of college graduates is at an above-average level.

**Table 1.** Employment pressure and psychological capital of college students

psychological capital	<i>M</i>	<i>SD</i>	<i>Me</i>	employment pressure	<i>M</i>	<i>SD</i>	<i>Me</i>
self-efficacy	29.38	6.56	28	subjective experience	35.05	11.43	36
toughness	29.77	4.49	28	emotional disturbance	24.12	7.73	24
hope	28.36	5.10	24	physiological reaction	7.62	2.96	9
optimism	27.11	4.78	24	behavior expression	5.49	2.58	9
total score	114.61	16.22	104	total score	72.27	22.04	70

### 3.2 Analysis of the difference between employment pressure and psychological capital of college students

Independent sample t test and univariate variance F test are conducted on the employment pressure and psychological capital of different college students. The results show that there is no significant difference in the employment pressure of college students in terms of gender, family type, family members, major and household registration. See the table below for details.

**Table 2.** Employment pressure and psychological capital of different college students (*M±SD*)

dimension		Employment pressure	<i>t/F</i>	<i>P</i>	psychological capital	<i>t/F</i>	<i>P</i>
gender	male	73.92±23.19	1.27	0.20	114.56±17.44	-0.05	0.96
	female	70.84±20.96			114.66±14.24		
family type	Single parent	74.50±22.94	0.86	0.42	114.68±13.90	0.38	0.68
	parents	72.42±22.82			115.17±16.83		
	other	69.81±19.17			113.26±16.9		
family member	one child	74.04±22.32	0.97	0.33	113.52±16.72	-0.81	0.42
	non-singleton	71.50±22.34			115.09±16.01		
	city	74.83±22.70			114.74±19.34		
registration	town	68.05±23.78	2.88	0.06	115.85±15.03	0.56	0.57
	rural	73.85±19.94			113.64±15.06		
	liberal arts	71.82±21.87			114.01±16.64		
major	science	72.99±21.04	0.11	0.89	115.84±15.07	0.59	0.55
	engineering	71.83±23.60			113.69±17.20		

### 3.3 Employment pressure and psychological capital of college students

The correlation analysis is used to further analyze the correlation coefficients of each factor of psychological capital and employment pressure. The results are shown in Table 3. As can be seen from the table, the correlation values between employment pressure and its four factors and psychological capital and its four factors are all significant.

Specifically, employment stress and its subjective experience, emotional distress, physiological response factors and psychological capital and self-efficacy, hope and optimism factors have significant negative correlation, and there is a significant positive correlation with toughness. The behavioral performance of employment stress has no significant correlation with other factors except toughness.

The overall correlation coefficient between psychological capital and employment pressure was -0.274 ( $p < 0.01$ ), indicating that psychological capital and employment pressure were significantly negatively correlated.

**Table 3.** Employment pressure and psychological capital of college students (r)

	Subjective experience	emotional distress	physiological response	behavior performance	employment stress
Self efficacy	-0.396**	-0.367**	-0.229*	0.058	-0.359**
toughness	0.283**	0.213*	0.267**	0.273**	0.290**
hope	-0.355**	-0.299**	-0.286**	-0.108	-0.340**
optimistic	-0.354**	-0.345**	-0.270**	-0.011	-0.342**
Psychological capital	-0.300**	-0.287**	-0.190*	0.061	-0.274**

Note: \* means  $P < 0.05$ , \*\* means  $P < 0.01$

### 3.4 Regression prediction of psychological capital on employment pressure

According to the above results, psychological capital and employment pressure are negatively correlated; Next, regression analysis is further conducted on psychological capital and employment pressure, and the results are shown in Table 4 below.

Psychological capital was set as the predictive variable and employment pressure as the dependent variable. It can be seen from Table 4 that model  $R^2$  is 0.075, indicating that psychological capital can explain 7.5% of the variation of employment pressure. Moreover, the model passes the F test, indicating that psychological capital must have an impact on employment pressure. The formula of the model is: employment pressure = 115.051 - 0.374 \* psychological capital. Specific analysis shows that the regression coefficient value of psychological capital is -0.374, indicating that psychological capital will have a significant negative influence on the total stress.

**Table 4.** Regression prediction analysis of psychological capital on employment pressure

Dependent variable	Predictive variable	B	$R^2$	F	t	p
Employment pressure	psychological capital	-0.374	0.075	8.797	-2.966	0.004

The four factors of psychological capital and employment pressure are respectively analyzed by regression prediction, and the results are shown in Table 5 below.

As can be seen from the following table, employment pressure is the dependent variable, and the independent variable is the four factors of psychological capital, among which the  $R^2$  values of self-efficacy, hope and optimism model are 0.129, 0.084 and 0.117, respectively, which means that self-efficacy, hope and optimism can explain 12.9%, 8.4% and 11.7% of the variation of employment pressure. The regression coefficients were -1.205, -1.473 and -1.157 respectively, and all the three models passed the F test with statistical significance, indicating that the increase of these three factors would significantly reduce employment pressure. The result of the toughness factor in psychological capital is contrary to the other three factors. The regression coefficient is 1.433, and the model  $R^2$  is 0.084, indicating that 8.4% of the variation of the total stress can be explained by the toughness. Moreover, the model can be known by F test that the toughness will have a significant positive influence on the total stress.

**Table 5.** Regression prediction analysis of psychological capital factors on employment pressure

Variable of prediction	<i>B</i>	$R^2$	<i>df</i>	<i>F</i>	<i>t</i>	<i>p</i>
Self efficacy	-1.205	0.129	1	15.932	-3.991	0.000
toughness	1.433	0.084	1	9.886	3.144	0.002
hope	-1.473	0.116	1	14.14	-3.760	0.000
optimistic	-1.157	0.117	1	14.336	-3.786	0.000

## 4 Discussion

### 4.1 Overall situation of employment pressure and psychological capital of college students

The results show that the employment stress score of college students is higher than the theoretical median, and the average level of psychological capital is above the average. This is inconsistent with the results of Wang Hua et al. [7], which may indicate that the employment pressure of college graduates is greater than before. The reason for the increased employment pressure is that in addition to the already grim employment situation, the outbreak of the epidemic at the beginning of this year delayed the resumption of work and production of enterprises, and major recruitment activities and internship programs could not be carried out as scheduled. In addition, on the one hand, with the expansion of colleges and universities, the supply of college graduates and employers between the present situation, and some enterprises only recruit students from famous universities in disguise, resulting in ordinary college graduates are difficult to get the favor of recruiters; On the other hand, the professional level and comprehensive quality of college graduates are uneven and can not meet the requirements of employers, which is also an important reason for the difficult employment of graduates. Due to the enrollment expansion of colleges and universities, the overall quality of students declines, and some students do not pay attention to the cultivation of their comprehensive quality, lack of basic skills and social practice ability [8]. In addition, the social and economic transformation has improved the requirements for the ability of employment personnel, college students in the employment ability is insufficient and psychological quality is too low,

so that they can not be qualified for the job requirements, can not be hired by employers. Moreover, recent graduates have less social experience, and their personal expectations for employment are too high. There is a situation of "high is not low".

#### **4.2 Differences between employment pressure and psychological capital of college students**

The results show that there is no significant difference in employment pressure in gender, family type, family member and profession, and household registration. It shows that gender and major are not the main factors affecting the employment pressure of college students. Previous studies have shown that there is gender discrimination in employment. On the whole, the employment rate of women is lower than that of men. In terms of majors, science and engineering are in great demand, and it is easier to find jobs than literature. This may be due to the small sample size of this study, with most of the subjects living in the Pearl River Delta region. Moreover, female graduates are in the prime stage of life and have more employment opportunities than married and child-bearing women, so gender discrimination is relatively less obvious in employment. The distribution of educational resources is relatively balanced, the industry is diversified, and the demand of different majors is large and the gap is small, so the employment pressure of majors and genders shows consistency.

Psychological capital also showed no significant difference in the included demographic variables, indicating that physiological differences, professional differences and family environment differences are not the key factors affecting the level of psychological capital. It should be noted that the research results of this study are different from those of Zhang Fandi (2015) in terms of gender. His conclusion shows that there is a significant gender difference in psychological capital of post-90s college students, which shows that the overall level of psychological capital of female college students is higher than that of male college students [9]. The difference in results shows that social concepts are constantly progressing and penetrating at all levels. The concept of equality between men and women is the consensus of today's modern society. Women's confidence level is on the rise, while men's gender advantage is constantly weakened. The in-depth development of the knowledge society has also given birth to more industries that do not exist in the traditional society, more diversified economic models, people of different majors can find a suitable position in the industry field, and there are more cross-industry opportunities to try. The limitations of family background on personal development are also shrinking, and social equity is improving day by day.

#### **4.3 Correlation and regression between psychological capital and employment pressure**

The results show that there is an overall negative correlation between psychological capital and employment pressure of college students, and psychological capital can predict their employment pressure to a certain extent. This shows that psychological capital can regulate individual mental state and maintain mental health [10]. Individuals with a high level of psychological capital will be more calm and firm in the face of crisis, expect success, know how to promote their strengths and avoid weaknesses, and actively adjust their own actions according to the environment, so as to show a low level of anxiety and pressure. Positive psychological capital of high graduates in employment, can fully assess the employment situation, according to their own clear cognition and accurate positioning, fully prepared for employment, targeted delivery of resumes, rather than "wide net" and eventually "nothing".

It is worth noting that the analysis results in Table 3 show that resilience, the second factor of psychological capital, is positively correlated with various factors of employment pressure, while the other three factors are negatively correlated. Regression analysis shows that resilience can positively predict employment pressure, while self-efficacy, hope and optimism can negatively predict employment pressure. Based on the concept of resilience, it can be inferred that the better the ability of individuals to recover from setbacks and change strategies, the higher their expectations for their own ability and employment, and the higher their requirements for posts, so they will show greater employment pressure.

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