

# Study on the Relationship between Self-esteem and Academic Burnout of College Students: Mediating Effect of Depression

Sisi Li

School of Guangxi Normal University, Guilin, 541000, China

## Abstract

**[Objective]** to explore the relationship between depression, self-esteem and academic burnout of college students. **[Methods]** 302 college students were tested with self rating depression scale, self esteem scale and academic burnout scale, and the data were analyzed. **[results]** there was a positive correlation between academic burnout and depression ( $r = 0.859, P < 0.01$ ). It was negatively correlated with self-esteem ( $r = - 0.816, P < 0.01$ ). Self- esteem partially mediated the effect of depression on learning burnout ( $t = - 4.972, P < 0.001$ ) **[Conclusion]** college students' academic burnout is related to depression and low self-esteem, so it is necessary to strengthen the psychological counseling and self-esteem level training of college students.

## Keywords

College students; Depression; Self-esteem; Academic burnout.

## 1. Introduction

Academic burnout refers to a passive coping style that students are unable to meet their academic needs due to course pressure, time pressure or high expectations of self-management. It mainly includes three aspects of emotional exhaustion, depersonalization, and low sense of accomplishment. [1] When these pressures last too long, academic burnout will occur [2]. Academic burnout has greatly endangered the growth of college students. It not only affects their mental health, but also easily induces various behavioral problems such as weariness and truancy of college students [3]. The occurrence of these events will bring serious consequences to students and their families. Therefore, it is necessary to explore the influencing factors and mechanisms of student burnout in our country.

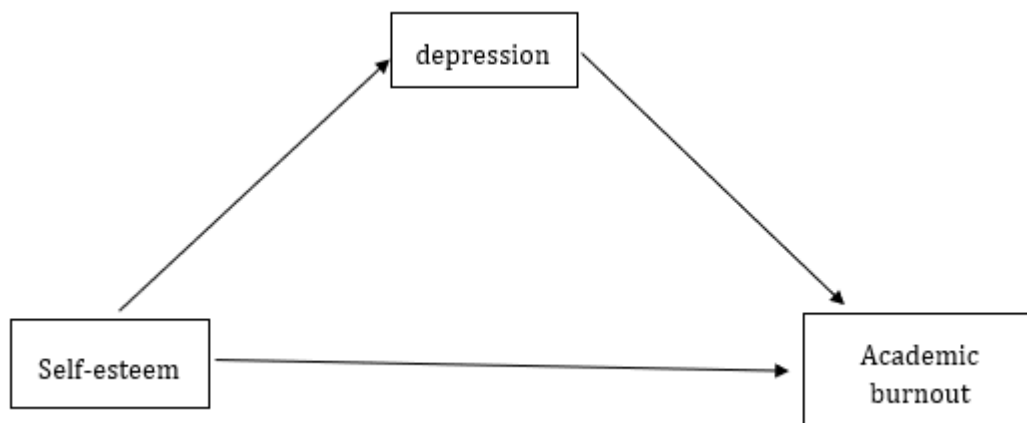
Some scholars have discussed the relationship between self-esteem and academic burnout in the past. Xu Xin found that there is a significant negative correlation between junior high school students' self-esteem and learning burnout and its various factors. Self-esteem enters the regression equation predicting learning burnout and its various factors, and has a significant negative impact on learning burnout [4]. Wu Shuiyan, Li Huiyi et al. (2010) discussed the relationship between self-esteem, teacher-student relationship, and learning burnout, and the results show that self-esteem plays a mediating role in the relationship between college students' teacher-student relationship and learning burnout [5]. Some scholars found in the study of job burnout that self-esteem not only directly affects job burnout as a personality trait [6]. This shows that there is a close relationship between self-esteem and academic burnout.

Scholars study self-esteem from the individual's evaluation of the external environment. Rosenberg (1965) defines self-esteem as a positive or negative attitude towards oneself and overall evaluation or understanding, including three aspects of value, importance and ability [7]. High self-esteem is often related to positive psychology and behavior, such as optimism and high self-efficacy, while low self-esteem is related to negative psychology and behavior such as depression, anxiety, and aggression [8]. Self-esteem is extremely closely related to mental health. Zhang Xiangkui and others studied the relationship between the level of self-esteem,

depression and anxiety of college students, and found that self-esteem has a significant impact on depression and anxiety [9]. At the same time, self-esteem can effectively predict the happiness and depression of junior high school students [10]. Self-esteem is also one of the core indicators of individual mental health [11]. Studies have shown that there is a significant positive correlation between psychological quality, self-esteem and peer relationship, which means that self-esteem has a certain negative predictive effect on depression [11]. Self-esteem is also an important individual internal psychological factor that weakens depressive symptoms [12].

Depression refers to a variety of physical and mental behavior problems caused by an individual being hindered or frustrated in real life, mainly manifested as sadness, boredom and other negative emotional experiences. Previous studies have shown that depression is positively correlated with academic burnout, that is, the greater the level of depression Higher, the higher the level of academic burnout [13]. In severe cases, it will not only have a negative impact on study, work and life, but also may lead to suicidal ideation and suicidal behavior [14]. There is evidence that the degree of depression among college students is higher than that of their peers. Previous studies have found that burnout and depressive symptoms overlap, but the two concepts cannot wait [15]. Students who are struggling academically are more prone to negative emotions such as depression, which seriously affects academic performance [16]. Emotion is significantly related to learning burnout, and improving mood can alleviate bad behaviors such as academic burnout and procrastination [18]. Therefore, in order to improve the learning motivation of college students, explore the relationship between college students' depression and academic burnout.

In summary, it can be seen that there is a close relationship between self-esteem, depression and the level of academic burnout, but from the existing literature, the relationship between the three and the mechanism of action have not been explored. Therefore, this research constructs an intermediary analysis model. As shown in Figure 1:



**Figure 1.** Study the relationship between variables

## 2. Research Objects and Methods

### 2.1. Research Object

### 2.2. Research Tool

A questionnaire survey was conducted among college students from Yantai University, Ludong University, and Binzhou Medical College in a convenient sampling method. A total of 302 questionnaires were distributed, invalid questionnaires were eliminated, and 287 valid questionnaires were recovered, with a recovery rate of 95.03%.

### 2.2.1. Depression Self-assessment Questionnaire

The Self-Rating Depression Scale (SDS) was compiled by Zung in 1965, and its earliest use was to screen the incidence of depression in middle-aged people [19]. The internal consistency coefficient of the scale is 0.926, which has good reliability. The scale has a total of 20 items, using Likert's 4-level scoring method.

### 2.2.2. Self-esteem Scale

The Self-Esteem Scale (SES) compiled by Rosenberg was adopted to measure the self-esteem level of subjects [20]. In this study, the internal consistency coefficient of the scale was 0.865, and the scale was composed of 10 items and used four grades to score.

### 2.2.3. Learning Burnout Scale

The Self-Esteem Scale (SES) compiled by Rosenberg was adopted to measure the self-esteem level of subjects [20]. In this study, the internal consistency coefficient of the scale was 0.865, and the scale was composed of 10 items and used four grades to score.

## 2.3. Data Processing

Input the questionnaire data into SPSS17.0 software for analysis and processing, and do correlation, regression and mediation effect analysis.

## 3. Result

### 3.1. Descriptive Statistics and Correlation Analysis of Each Core Variable

**Table 1.** Correlation analysis of college students' self-esteem, depression and academic burnout

variable	M±SD	1	2	3	4	5	6
Depression	52.89±16.30						
Self-esteem	23.07±6.80	-0.87**	1				
upset	28.33±7.67	0.79**	-0.75**	1			
Misbehavior	21.83±5.11	0.75**	-0.74**	0.82**	1		
Lower -efficacy	20.02±6.05	0.81**	-0.75**	0.70**	0.76**	1	
academic burnout	70.20±17.27	0.86**	-0.82**	0.933**	0.93**	0.89**	1

Note.\*\*\*.p<0.001, \*\*. P<0.01, \*.p<0.05

### 3.2. Mediating Effect Test

The Model 4 of the SPSS Process component is used for multiple regression analysis, and the Bootstrap method is selected for the confidence interval estimation test. The sampling is repeated 5000 times, and the 95% confidence interval (CI) is calculated. In Equation 1, negative self-esteem predicts academic burnout ( $\beta = -0.816$ ,  $t = -23.87$ ,  $P < 0.001$ ); in Equation 2, negative self-esteem predicts depression ( $\beta = -0.866$ ,  $t = -29.257$ ,  $P < 0.001$ ); In Equation 3, self-esteem ( $\beta = 0.289$ ,  $t = 10.43$ ,  $P < 0.001$ ) and depression ( $\beta = 0.608$ ,  $t = -4.972$ ,  $P < 0.001$ ) both negatively predict academic burnout; finally, Bootstrap test As a result, the 95% CI of the direct and indirect effects of self-esteem on academic burnout does not contain 0. The 95% CI of the direct and indirect effects of self-esteem does not contain zero. In summary, the partial mediation equation model of depression is established, and the indirect effect is -1.337, accounting for 64.5% of the total effect. The results are shown in Table 2 and 3.

**Table 2.** Mediating effects of depression n=287

variable	Equation 1 Academic burnout			Equation 2 Depression			Equation 3 Academic Burnout		
	$\beta$	boot SE	t	$\beta$	boot SE	t	$\beta$	boot SE	t
Self-esteem	-0.81	0.09	-23.87***	-0.87	0.06	-29.26**	0.29	0.17	10.43***
Depression							0.61	0.17	-4.97***
R2		0.68			0.75			0.76	
F		569.91***			855.98***			447.25***	

Note. \*\*\*.p<0.001, \*\*. P<0.01, \*.p<0.05

**Table 3.** Bootstrap analysis of mediation effect n=287

Effect type	Effect size	Boot SE	% Of total effect	Bootstrap 95%CI	
				Lower limit	Upper limit
Total effect	-2.072	0.088		-2.251	-1.900
Direct effect	-0.736	0.171	35.5%	-1.083	-0.413
Indirect effect	-1.337	0.136	64.5%	-1.588	-1.053

Note.\*\*\*.p<0.001, \*\*. P<0.01, \*.p<0.05

## 4. Discuss

### 4.1. Analysis of the Relationship Between Self-esteem and Academic Fatigue

The survey results found that the higher the level of academic burnout, the lower the level of self-esteem. In each dimension, academic burnout and self-esteem are negatively correlated in different dimensions. This research is basically consistent with Zhao Qiannuo's research [22]. It is also consistent with Yang Yuran's research results [23]. It is also consistent with the results of Xue Shaocong's research [24].

People with high levels of self-esteem can recognize themselves, create good learning resources, and avoid academic burnout.

### 4.2. Depression Plays A Mediating Role Between Self-esteem and Academic Burnout.

The results of this study show that depression plays a mediating role between self-esteem and academic burnout. Therefore, the mediating role of depression enlightens us that we can start with improving the level of self-esteem of college students and reduce their level of academic burnout. By improving the psychological quality of college students, reducing their anxiety, depression and other negative emotions, reducing their level of academic burnout, and improving college students' learning motivation.

### 4.3. Analysis of the Relationship Between Depression and Academic Burnout

The survey results found that depression and academic burnout are positively correlated. The higher the degree of depression, the higher the level of academic burnout. This is consistent with previous studies which found that boredom reduces subjective well-being, and that depression and academic burnout play a mediating role between the two [13]. Therefore, it is necessary to maintain an optimistic attitude in the learning process.

The survey results found that there is a significant negative correlation between the total score of depression and the total score of self-esteem. The higher the level of self-esteem, the lower the individual's depression level. The relationship between family environment, self-esteem and depression discovered by Wang Jianing among college students in Inner Mongolia is consistent [25]. The correlation between self-worth and mental health discovered by Huang Xiting and Zhong Hui in junior high school students is also consistent [10]. The degree of mental

health development is directly related to self-esteem, and has a very important impact on the development of individual cognition, emotions, will, and behavior. According to the susceptibility theory of depression, people with high self-esteem are always aware of their own value. Be able to recognize oneself clearly, have a positive and optimistic attitude, so that it is not easy to have self-destructive thoughts in learning [26]. However, people with low self-esteem are more prone to depression and anxiety [27]. Therefore, we must pay attention to the self-esteem education of students, carry out more psychological education, and carry out psychological intervention in time.

## 5. Conclusion

Self-esteem is significantly negatively correlated with depression, and significantly negatively correlated with academic burnout; depression is significantly positively correlated with academic burnout.

Self-esteem has a direct impact on academic burnout, and at the same time indirectly affects academic burnout through the mediating effect of depression.

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