

The Influence of Self-esteem on College Students' Learning Burnout: A Mediation Model*

MENG Xiangyin

Kashi University, Xinjiang, Kashi, China

ZHANG Lei

Shaanxi Executive Leadership Academy, Shaanxi, Yan'an, China

OU Guiyu

Sichuan University of Science and Engineering, Zigong, China

We measured 324 college students' self-esteem, motivation for achievement, and learning burnout, and also we examined the inner mechanism of self-esteem's influence on students' learning burnout. The results show: (1) There is a negative effect of self-esteem on college students' learning burnout; (2) Motivation of pursuing succeed plays partial mediating effect between self-esteem and learning burnout, but mediating effect of avoiding failure motivation between them is not significant. The study reveals that: the degree of learning burnout can be reduced by improving college students' level of self-esteem.

Keywords: college students, self-esteem, learning burnout, motivation for achievement

Introduction

Burnout has appeared in research reports since the 1970s and has gradually been recognized as an important factor harming modern life, mainly manifested in three dimensions of emotional exhaustion, depersonalization, and low sense of accomplishment. Learning burnout is very common among today's college students, which will lead to their listless spirit, lack of ambition, and low personal achievement in learning, which is very unfavorable to their happiness in college life, mental health, and future employment. On the one hand, the causes of learning burnout come from within the individual, such as the lack of motivation caused by the lack of interest in the major; On the other hand, it comes from the outside of the individual, for example, the uncertainty and competition of the future employment environment or the lack of sufficient learning resources (Poythress & Skeem, 2006).

***Fund Project:** Kashi University Research Project on High-Quality Economic and Social Development in Southern Xinjiang, "Research on Online Presence, Participation and sense of Gain of Southern Xinjiang College Students in Online Course Learning under the Background of Epidemic" (Project number: NFG2202); Kashi University Graduate Education Teaching Reform research project "New Flipped Classroom Research Based on OBE Concept-Teaching Reform Based on Graduate Talent Training" (Project number: KD2022J007).

MENG Xiangyin, Ed.M., Lecturer of Psychology, Faculty of Educational Science, Kashi University, Kashi; Researcher, Southern Xinjiang Education Development Research Center, Kashi, China.

ZHANG Lei, Ed.M., Lecturer of Ideological and Political Education, Xi Thought Teaching and Research Section, Shaanxi Executive Leadership Academy, Shaanxi, China.

OU Guiyu, Ed.M., Assistant of Mathematics Teaching, School of Mathematics and Statistics, Sichuan University of Science and Engineering, Zigong, China.

Literature Review

Developed from job burnout, learning burnout is considered to be the phenomenon of emotional exhaustion, dehumanization, and reduced personal achievement caused by psychological adverse factors. By combing the literature on learning burnout at home and abroad, it is found that there are more researches on learning burnout in four aspects: (1) Multi-factor analysis of learning burnout from demographic variables such as gender, grade, and major (e.g., L Yang et al., 2007); (2) Explore the influence mechanism of internal and external factors on learning burnout (e.g., Xiao Lifeng, 2015); (3) Effective strategies for alleviating learning burnout (e.g., Li Jing, 2016); (4) Develop a learning burnout scale with high reliability and validity (e.g., MBI compiled by Maslach). On the basis of the previous research on the internal mechanism of learning burnout, this study has been extended.

Self-esteem, first proposed by James, refers to the formation of social comparison and the result of individuals' experience and evaluation of their social roles, and Smelter believes that it contains three components, namely cognition, emotion, and evaluation, and self-esteem can show gender differences in some ways (Hannah Streck et al., 2022). Current studies on self-esteem mainly focus on the concept, structure, type, and level of self-esteem (Meng Xiangyin, 2017), and the level of explicit self-esteem is selected in this study. Many studies have found that the level of self-esteem can predict learning burnout to some extent. Therefore, the following hypothesis is proposed:

H₁: Self-esteem influences learning burnout.

Achievement motivation was first proposed by Murray in 1938. It refers to an internal psychological process in which individuals spontaneously demand high standards of themselves for some important and valuable learning or work, and actively promote individual actions. Achievement motivation, as one of personality tendencies, is also affected by self-esteem (e.g., C Chen et al., 2023). According to Atkinson's theory of achievement motivation, individual motivation is antagonistic in psychological activities: striving for success and producing positive emotion after success, and avoiding failure and producing negative emotion after failure. Some studies have shown that the pursuit of success motivation and the avoidance of failure motivation have different influences on learning burnout. Self-esteem is significantly negatively correlated with the pursuit of success motivation, while significantly positively correlated with the avoidance of failure motivation, which suggests that the two dimensions of achievement motivation are independent structures. In addition, pursuing success can negatively predict academic procrastination, and avoiding failure can positively predict academic burnout. Therefore, the following hypothesis is proposed:

H₂: The motivation to pursue success and the motivation to avoid failure play a mediating role between self-esteem and learning burnout respectively.

The model based on the above assumptions is shown in Figure 1:

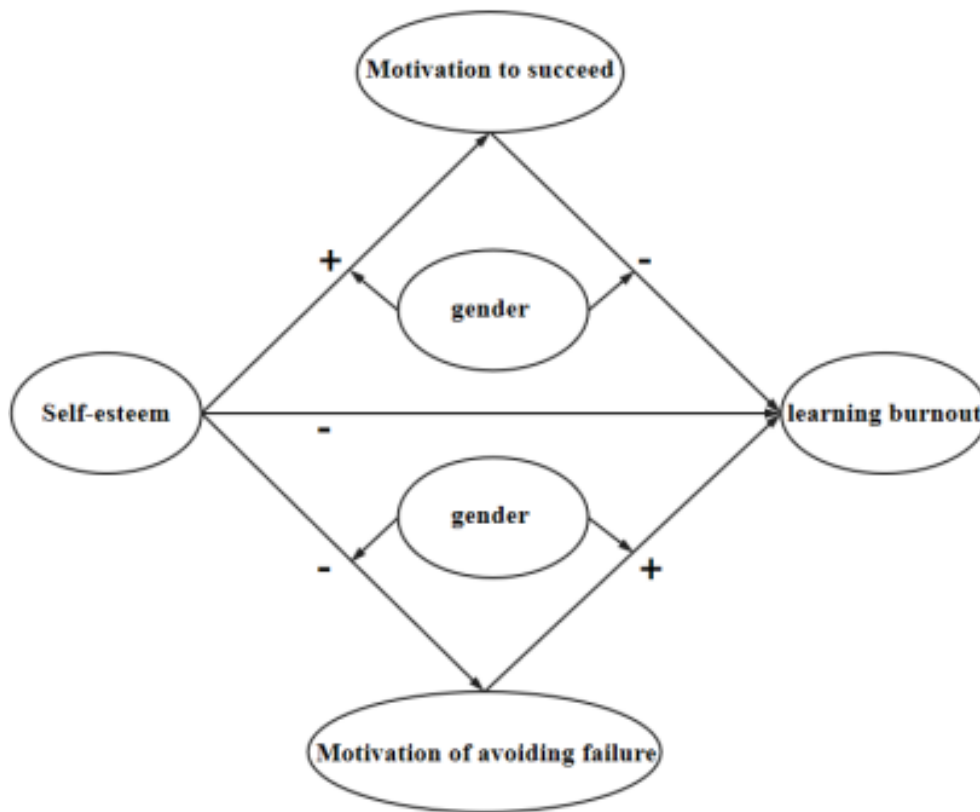


Figure 1. Hypothesis model.

Study Design

Sample

The study subjects were selected by completely random sampling from a university in southern Xinjiang. We used scales to gather 350 pieces of data. After removing invalid data such as missing answers, 324 valid data remained, the effective rate was 93%. Among them, 158 were male, accounting for 48.77%, and 166 were female, accounting for 51.23%. They ranged from 18 to 24 years old, with a mean age of 20.75 and a standard deviation of 1.08 years.

Tools

Self-esteem scale. It was compiled by Rosenberg (1965). There are 10 items in the scale, among which 3, 5, 8, 9, and 10 are reverse scoring items. The scale uses the 4-point scale from 1 “completely inconsistent” to 4 “completely consistent”, the higher the score, the stronger the self-esteem. The item-total correlation was between 0.44 and 0.75. The results of confirmatory factor analysis were $\chi^2/df = 2.78$, RMSEA = 0.08, TLI = 0.89, CFI = 0.91, SRMR = 0.05.

Learning burnout scale. It was compiled by Lian Rong (2005). There are 20 items in the scale, among which 1, 3, 6, 8, 11, 13, 15, and 18 are reverse scoring items, including three dimensions: “low mood”, “improper behavior”, and “low sense of accomplishment”. The scale uses the 5-point scale from 1 “completely inconsistent” to 5 “completely consistent”, the higher the score, the stronger the learning burnout. The item-total correlation was between 0.33 and 0.75. The results of confirmatory factor analysis were $\chi^2/df = 2.25$, RMSEA = 0.06, TLI = 0.90, CFI = 0.92, SRMR = 0.06.

Achievement motivation scale. It was compiled by Ye Renmin (1992). There are 30 items in the scale, including two dimensions: “pursuing success” and “avoiding failure”. The scale uses the 5-point scale from 1 “completely inconsistent” to 5 “completely consistent”, the higher the score, the stronger the achievement motivation. The item-total correlation was between 0.30 and 0.62. The results of confirmatory factor analysis were $\chi^2/df = 2.56$, RMSEA = 0.07, TLI = 0.91, CFI = 0.90, SRMR = 0.07.

Data Analysis

CFA and SEM were analyzed using LISREL 8.7, and SPSS 26.0 was used for the rest of the statistical analysis.

Study Results

Common Method Biases Test

We tested the common method bias using Harman single factor method. It is found that the eigenvalues of 18 factors are greater than 1 in the case of no rotation, and the variance explained by the first factor is 13.33%, which is lower than the 40% evaluation standard commonly used in China. So it can be concluded that there is no serious common method bias. Since the amount of variance explained by the first factor almost exceeds the common criteria, we then test the common method bias using the control unmeasured latent method factor (ULMC) method with higher testing power. After the common method factor is added to the model, RMSEA and SRMR of the model only decrease by 0.01 and 0.03, and TLI and CFI only increase by 0.03 and 0.02 respectively, indicating that the common method bias is not serious.

Describe Statistics and Correlation Analysis

Table 1 shows that: (1) Self-esteem is positively correlated with the pursuit of success motivation, negatively correlated with the avoidance of failure motivation, and negatively correlated with learning burnout; (2) There is a significant negative correlation between the pursuit of success motivation and the avoidance of failure motivation, and there is a significant negative correlation between learning burnout; (3) There is a significant positive correlation between motivation to avoid failure and learning burnout.

Table 1

Descriptive Statistics and Correlation of Self-esteem, Achievement Motivation, and Learning Burnout (n = 324)

	<i>M</i>	<i>SD</i>	1	2	3	4
Self-esteem	30.14	4.26	1			
Motivation to pursue	49.20	7.85	0.29**	1		
Motivation to avoid failure	46.73	8.13	-0.36**	-0.32**	1	
Learning burnout	58.17	10.66	-0.36**	-0.27**	0.28**	1

** $p < 0.01$.

Mediation Effect Analysis

We constructed an SEM to investigate the effects of self-esteem and achievement motivation on learning burnout. Achievement motivation is divided into two factors: the pursuit of success motivation and the avoidance of failure motivation, and learning burnout is divided into three factors: low mood, improper behavior, and low sense of achievement. Using the packaging method (Wen, Huang, & Tang, 2018), the first three, middle three, and last three items of the subscale of motivation to pursue success were added together and packaged into three

indicators: pursuit of success 1, pursuit of success 2, and pursuit of success 3. The first three items, the middle three items, and the last three items of the motivation to avoid failure subscale were added together and packaged into three indicators of avoiding failure 1, avoiding failure 2, and avoiding failure 3 respectively, and the three factors of learning burnout were directly packaged into one indicator respectively (Wu & Wen, 2011).

(1) The direct effect model (M1) of self-esteem on learning burnout was constructed. The results showed that M1 fitted well and self-esteem had a significant negative effect on learning burnout ($\beta = -0.51, p < 0.05$). The results support H_1 .

(2) With self-esteem as the independent variable, learning burnout as the dependent variable, and motivation to pursue success and motivation to avoid failure as the two mediating variables, the mediation effect model (M2) was constructed. The results showed that: With a good M2 fit, self-esteem had a significant positive effect on the motivation to pursue success ($\beta = 0.40, p < 0.05$), a significant negative effect on the motivation to avoid failure ($\beta = -0.46, p < 0.05$), and a significant direct negative effect on learning burnout ($\beta = -0.39, p < 0.05$). The pursuit of success motivation has a significant negative effect on learning burnout ($\beta = -0.18, p < 0.05$), while the avoidance of failure motivation has no significant positive effect on learning burnout ($\beta = 0.10, p > 0.05$).

The fitting indexes are shown in Table 2:

Table 2

Results of Fitting Indexes (n = 324)

Model	χ^2	df	χ^2/df	RMSEA	TLI	GFI	IFI	CFI	AGFI
M1	197.85	64	3.09	0.06	0.91	0.90	0.90	0.92	0.91
M2	383.25	147	2.61	0.07	0.93	0.92	0.93	0.95	0.91

Based on the Bootstrap method proposed by Wen Zhonglin et al. (2014), the mediating role of M2 was tested. The results of 5,000 Bootstrap samples show that: (1) Self-esteem has a significant effect on learning burnout; (2) The indirect effect of self-esteem on learning burnout through the pursuit of success motivation (indirect path 1) is significant, accounting for 15% of the total effect; (3) The indirect effect of self-esteem on learning burnout through avoiding failure motivation (indirect path 2) is not significant; (4) The direct effect of self-esteem on learning burnout is significant. This suggests that success motivation plays a partial mediating role in the relationship between self-esteem and learning burnout. The results partially support H_2 .

Table 3

Effects and Confidence Intervals of the Mediated Model (n = 540)

	Standardization effect	Standard error	Lower bound of 95% CI	Upper bound of 95% CI
Indirect path	-0.508	0.066	-0.628	-0.368
Direct path 1	-0.077	0.018	-0.086	-0.016
Direct path 2	-0.042	0.052	-0.078	0.048
Total path	-0.390	0.092	-0.555	-0.196

Discussion

This study takes learning burnout as a starting point to consider how to improve this important problem affecting college students' self-development and future employment. Many studies have shown that college students' self-cognition, attitude, and evaluation are important reasons affecting their learning burnout. Among the factors that affect learning burnout, self-esteem, the core factor of relatively stable self, is selected as the

influencing variable. The latent variable structural equation model is used to test the influence of college students' self-esteem on learning burnout. The results show that the direct effect is significant, and the hypothesis that self-esteem can have an impact on learning burnout is verified. This is consistent with the study by C. Ceccatelli et al. Many related studies (e.g., Ding Xiangjun, 2023) also found that self-esteem has a positive effect on alleviating individual psychological fatigue, enhancing self-identity and consistency, reducing psychological conflicts, avoiding excessive waste of psychological resources, and thus enabling people to focus more on one thing.

The level of achievement motivation will affect learning burnout. This study shows that there is a significant negative correlation between the two dimensions of achievement motivation: the pursuit of success motivation and the avoidance of failure motivation, which verifies Atkinson's achievement motivation theory and is consistent with the existing research results. We put the two factors in the relationship of self-esteem and learning burnout respectively, and found that only the pursuit of success motivation plays a part of the mediating role. The Bootstrap test showed the same result. The higher the level of self-esteem, the more they are able to go forward without fear of failure; the bias of learning motivation is closely related to their own learning attitude; the more they value their studies, the more they are able to pursue success; the satisfaction they gain can offset part of the physical and mental fatigue brought by learning. On the contrary, the easier it is to underestimate oneself, the more likely it is to react negatively and muddle through the attitude toward learning, the easier it is to relax and have internal conflicts, and the exam will become a dream. From the results, we can see that most of our subjects belong to the former group, that is, a considerable part of them do not study for the purpose of not failing the exam, which may have a certain relationship with some policies of the school that attract students (such as scholarships, etc.).

Prospect

It is hoped that representativeness can be more fully taken into account in the selection of research objects in the future. Before data modeling, more suitable statistical tools and methods should be selected as far as possible to conduct stricter checks, and measurement data should be considered from multiple angles and in all directions to ensure a solid foundation before questionnaire data modeling (Wen et al., 2018). Finally, most of the college students in southern Xinjiang come from the mainland and have moved here with their parents for a short time. Are the differences between regions manifested as differences between ethnic groups? Further research can be done.

References

- Abouserie, R. (1995). Self-esteem and achievement motivation as determinants of students' approaches to studying. *Studies in Higher Education*, 20(1), 19-26.
- Aziz, S., Zamy, S., & Wuensch, K. (2018). The endless pursuit for self-validation through attainment: An examination of self-esteem in relation to workaholism. *Personality and Individual Differences*, 121, 74-79.
- Balogun, J. A., Helgemoe, S., & Pellegrini, E. (1996). Academic performance is not a viable determinant of physical therapy students burnout. *Perceptual and Motor Skills*, 14(3), 21-22.
- Chen, C. M., Shen, Y. Y., Zhu, Y. J., Xiao, F. H., Zhang, J. W., & Ni, J. C. (2023). The effect of academic adaptability on learning burnout among college students: The mediating effect of self-esteem and the moderating effect of self-efficacy. *Psychology Research and Behavior Management*, 16, 1615-1629.
- Daseking, M., Lemcke, J., & Petermann, F. (2006). Review: SELLMO scales for assessment of learning and achievement motivation. *Kindheit Und Entwicklung*, 15(2), 129-132.
- Ding X J. (2023). The mediating effect of self-esteem on quality of life and fatigue in patients with bronchial asthma. *Henan Medical Research*, 32(4), 667-669.

- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotype. *Psychological Review*, 102(1), 4-27.
- Hannah S., Anna K. N., & Ursula K. (2022). Instrumentality gives girls the edge: gender-differential relations between instrumentality, Achievement Motivation, and Self-Esteem. *Sex Roles*, 86, 379-394.
- Jiang, J. J., Klein, K., & Balloun, J. L. (2001). The joint impact of internal and external career anchors on entry-level IS career satisfaction. *Information Management*, 15(2), 35-47.
- Kang, J. W., & Kang, J. W. (2017). A study of the relationships between self-esteem, achievement motivation and learning flow on pre-service early childhood teachers Perception. *Journal of the Korea Entertainment Industry*, 11(5), 151-164.
- Lian R., Yang L. X., Wu L. H. (2005). The relationship between professional commitment, learning burnout and scale development of college students. *Acta Psychologica Sinica*, 37(5), 632-636.
- Li J. (2016). A study on the intervention of Affective teaching in high school students' learning burnout (Master's Thesis, Nanjing Normal University).
- Meng X. Y., & L J. (2017). Relationship between explicit self-esteem, implicit self-esteem and mental health of Uyghur college students. *Journal of Lanzhou Institute of Education*, 33 (6), 160-163.
- Meriläinen, M. (2014). Actors affecting study-related burnout among Finnish university students: teaching-learning environment, achievement motivation and the meaning of life. *Quality in Higher Education*, 20(3), 309-329.
- Poythress NG, Skeem JL, & Lilienfeld SO. (2006). Associations among early abuse, dissociation, and psychopathy in an offender sample. *Journal of Abnormal Psychology*, 115(2), 288-297.
- Park, M. (2018). The investigation of relationships: Self-esteem, self-confidence, and conduct problems in counselling. *International Journal of Information Technology & Management*, 23(4), 55-61.
- Poythress, N. G., Skeem, J. L., & Lilienfeld, S. O. (2006). Associations among early abuse association and psychopathy in an offender sample. *Journal of Abnormal Psychology*, 115(2), 288-287.
- Rosenberg. (1965). Society and the adolescent self-image. *Princeton University Press*.
- Sommer. (2002). Functional localization and mechanisms of sequential effects in serial reaction time tasks. *Perception and Psychophysics*, 2(64), 1169-1188.
- Wen, Z. L., & Ye, B. J. (2014). Mediation effect analysis: Method and model development. *Advances in Psychological Science*, 22(5), 731-745.
- Wen, Z. L., Huang, B. B., & Tang, D. D. (2018). Prequel to questionnaire data modeling. *Journal of Psychological Science*, 41(1), 240-210.
- Wu, Y., & Wen, Z. L. (2011). Problem packing strategy in structural equation models. *Advances in Psychological Science*, 19(12), 1859-1867.
- Xiao L. F. (2015). The impact of school interpersonal relationship on learning burnout in junior Middle School students: the mediating role of coping styles (Master's Thesis, Shaanxi Normal University).
- Yang L. X., Lian R., & Zhang J. K. (2007). The relationship between learning burnout and personality in middle school students. *Psychological Science*, 30 (6), 1409-1412+1417.
- Yabiku, S. T., Axinn, W. G., & Thornton, A. (1999). Family integration and children's self-esteem. *American Journal of Sociology*, 104(5), 1494-1524.
- Ye R. M., & Kunt A. Hagtv. (1992). Measurement and analysis of achievement motivation. *Psychological Development and Education*, (2), 14-16.