Higher vocational college students' learning burnout during the COVID-19 pandemic: A case study in China

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Article Info

ABSTRACT

This study examines students' levels of learning burnout during the COVID-19 pandemic. Learning burnout levels were also investigated about students' gender, hometown, family member structure, and field of major. The study employs a random sampling survey method, with 1,098 students from a public higher vocational college in Shandong Province, China. The collected data was analyzed using SPSS 26. The results found that 71.5% of students are at a moderate burnout level, 27.0% are at a low level, and only 1.5% are at a high level, and there was no high level of learning burnout on a single item during the COVID-19 pandemic. The data showed that the levels of learning burnout of male students, students who live in town, non-only child students, and students majoring in science and engineering were higher than the other group of students. There was a statistically significant difference in the level of student learning burnout by gender, but not in the variables of hometown, family structure, or field of major. Although studies show that students' learning burnout level is not affected by COVID-19, students generally have learning burnout. Therefore, three strategies were also put forward to reduce students' learning burnout from school.

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1.   INTRODUCTION

Burnout was defined for the first time in the 1970s. Burnout refers to the comprehensive psychological symptoms caused by long-term pressure and stress at work, including emotional exhaustion, depersonalization, and diminished personal accomplishment [1]. Scholars have paid close attention to burnout research since that time [2]–[10]. These burnouts can cause workers to experience psychological and physical fatigue, thereby reducing work efficiency, affecting the quality of work, and adversely affecting the people around them. Maslach *et al*. [11], [12] developed the Maslach burnout inventory (MBI), which was widely used to evaluate the burnout level of workers. According to different scenarios and measurement objects, MBI has developed three different versions, namely: i) MBI human service survey (MBI-HSS) suitable for workers in the service industry; ii) MBI educator survey (MBI-ES) suitable for school workers; and iii) MBI general survey (MBI-GS) suitable for workers in other industries.

Learning burnout, which is derived from job burnout, is defined as a student's exhaustion of energy due to a long-term study load, loss of interest in learning activities, indifference and emotional alienation towards classmates, and a negative attitude towards learning due to poor performance [13]–[16]. Some researchers regard school studies as a similar working environment [17], [18]. According to Koutsimani, Montgomery, and Georganta [19], students may suffer from learning burnout, showing various symptoms of

burnout, such as feeling exhausted, indifferent to learning, and thus unable to activate the feeling of effectiveness. When students have no interest in education or lack motivation to learn due to learning pressure, academic burden, and psychological factors, they will suffer from learning burnout [20], [21]. Many studies have shown that college students have different levels of learning burnout [22]–[25]. and learning burnout will lead to a series of adverse consequences, such as anxiety and depression [26], [27], and harmful behaviors such as skipping classes, indulging in games and dropping out of school [28], [29].

The Chinese Government emphasizes the development of higher vocational education, and the number of higher vocational students is increasing [30]. Students learning burnout directly affects the teaching quality of higher vocational colleges and has a long-term negative impact on China's development plan. Investigating the students' learning burnout will help teachers master students' status and adjust education and teaching plans in time, which has crucial practical guidance significance for improving education and teaching quality. In addition, the COVID-19 pandemic impacts students' mental health and their study attention [31]. However, little is known about Whether COVID-19 pandemic may have affected students' levels of learning burnout. Therefore, this research aims to analyze the learning burnout level of students in higher vocational colleges in China during the COVID-19 pandemic. The following are the research questions: i) What is the level of higher vocational college students' learning burnout during the COVID-19 pandemic?; ii) Is there a significant difference in higher vocational college students' learning burnout according to demographic variables such as gender, hometown, family member structure, and field of major?; and iii) What are the methods to reduce students' learning burnout?

2. RESEARCH DESIGN

This research analyzed learning burnout among higher vocational college students during the COVID-19 pandemic. It determined whether there was a significant difference in learning burnout according to students' gender, hometown, family member structure, and field of major. A quantitative descriptive research design was adopted since this research aims to use the collected quantitative data to describe students' level of learning burnout.

2.1. Sample/participants

In this current study, participants were students from Shandong vocational college of science and technology in 2021–2022. This study adopted the method of random sampling, and the students volunteered to participate in the survey. Table 1 shows the distribution of the sample group.

Table 1. Summary of respondent's demographic characteristics

Variables	Characteristics	N	%
Gender	Male	388	35.3
	Female	710	64.7
Hometown	Town	923	84.1
	City	175	15.9
Major	Humanities and Social Sciences	406	37.0
	Science and Engineering	692	63.0
Family structure	Only child	222	20.2
	Non-only child	876	79.8

2.2. Instrument

The instrument used in this study was the undergraduate learning burnout scale (ULBS). The scale's Cronbach's coefficient is 0.834, with split-half reliability of 0.836, meeting the requirements of psychometrics. The scale consists of 20 questions scored by Likert's five-point method, from "completely disagree" to "fully agree," divided into three dimensions (low emotional sense, misbehavior, and low sense of achievement). The sample questions of the three dimensions are: i) Low emotional sense (eight questions): I find what I have learned useless; ii) Misbehavior (six questions): I have my learning methods and plans in place and am ready to implement them; iii) Low sense of achievement (six questions): Professional knowledge mastery easily comes to me.

2.3. Data collection and analysis

All students were randomly selected and volunteered to participate in this research. Participants complete the learning burnout questionnaire in the classroom, and each data collection process takes 10 minutes, and students have the right to stop answering at any time. A total of 1,150 questionnaires were issued and recovered in this study, of which 1,098 were valid questionnaires. The study used percentages,

means, standard deviations, and independent groups t-test functions of SPSS26 to answer the study questions. The study obtained the mean range of students' learning burnout levels after the data conversion. The mean scope is presented in Table 2.

Table 2. Mean range for learning burnout level

Mean range	Interpretation
1.00–2.33	Low level of learning burnout
2.34–3.67	Moderate level of learning burnout
3.68–5.00	High level of learning burnout

3.   RESULTS

As seen in Table 3, the average score of learning burnout of higher vocational students is 2.63 during the COVID-19 pandemic. The lowest score is 1.20, and the highest score is 4.75. The proportion of moderate-level students with learning burnout is the highest (71.5%), followed by low-level students (27%), and finally, high-level students (1.5%). The mean score of low emotional sense (2.49) is the lowest of the three subscales and is lower than the overall level of learning burnout. In this dimension, 51.7% of students are at the moderate level, 42.2% are at the low level, and 6.1% are at the high level. The average scores of misbehavior and low sense of achievement are 2.74 and 2.71, respectively, which are higher than the overall level of learning burnout, and there is a tiny difference in the proportion of students' burnout levels in the two dimensions (moderate: 77.8% and 78%; low: 18.6% and 18.6%; high: 3.6% and 3.4%).

Table 3. Descriptive statistics for learning burnout of higher vocational college students

	Item	Mean	Standard deviation (SD)	Min	Max	Percentage (%)		
						Low	Moderate	High
Learning burnout	20	2.63	0.53	1.20	4.75	27.0	71.5	1.5
Low emotional sense	8	2.49	0.77	1.00	5.00	42.2	51.7	6.1
Misbehavior	6	2.74	0.62	1.00	5.00	18.6	77.8	3.6
Low sense of achievement	6	2.71	0.60	1.00	5.00	18.6	78.0	3.4

As showed in Table 4, the table presents the students' learning burnout of low emotional sense. The mean score for low emotional sense was 2.49, which was moderate. However, the overall level of learning burnout is 2.63. Data further research found that of the eight items in the dimension of low emotional sense, item 7 (I felt exhausted after a long day's study) got the highest mean of 3.11, followed by item 5 (It's hard for me to keep a long-term passion for learning), item 17 (I want to study but I feel that learning is boring) and item 4 (When I got up early in the morning and thought of facing a day's study, I felt very tired). The average value of the above three items is between 2.70 and 2.80, which are at a moderate level. Then came item 20 (Exams always bore me) with a mean of 2.21, item 12 (I often doze off when I study) received a mean score of 2.20, and item 9 (I'm tired of studying) obtained a mean of 2.18. Item 2 has the lowest average score of 1.98. The last four items were at a low level of learning burnout.

Table 4. Descriptive statistics for the low emotional sense of higher vocational college students

	Mean	SD	Level
2. I find what I have learned useless	1.98	1.08	Low
4. When I got up early and thought of facing a day's study, I felt very tired.	2.70	1.15	Moderate
5. It's hard for me to keep a long-term passion for learning	2.78	1.05	Moderate
7. I felt exhausted after a long day's study	3.11	1.11	Moderate
9. I'm tired of studying	2.18	0.98	Low
12. I often doze off when I study	2.20	1.02	Low
17. I want to study, but I feel that learning is boring	2.71	1.09	Moderate
20. Exams always bore me	2.21	1.03	Low
Low emotional sense	2.49	0.77	Moderate
Learning burnout	2.63	0.53	Moderate

The results of the misbehavior of students are presented in Table 5. The mean of students' misbehavior is 2.74, higher than the average learning burnout (mean=2.63). Of the six items, the top three with the highest scores are item 14 (I don't think I'm patient enough in my study), item 19 (I rarely schedule my study time.), and item 10 (I rarely study after class). Although the students are in the moderate level in

these items, the average score from 2.80 to 3.33 is higher than that of the low emotional sense dimension. Those items were followed by item 8 (So far, a university study has fully demonstrated my ability) with a mean of 2.70. Item 1 (I have my learning methods and plans in place and am ready to implement them) received an average score of 2.56. The two items were also at a moderate level of learning burnout. Item 16 (I will only read books when I take the exam) obtained the lowest mean score of 2.20, which was a low level.

Table 5. Descriptive statistics for the misbehavior of higher vocational college students

	Mean	SD	Level
1. I have my learning methods and plans in place and am ready to implement them	2.56	0.92	Moderate
8. So far, a university study has fully demonstrated my ability	2.70	0.87	Moderate
10. I rarely study after class	2.80	1.01	Moderate
14. I don't think I'm patient enough in my study	3.33	0.99	Moderate
16. I will only read books when I take the exam	2.20	0.98	Low
19. I rarely schedule my study time.	2.85	1.00	Moderate
Misbehavior	2.74	0.62	Moderate
Learning burnout	2.63	0.53	Moderate

As presented in Table 6 is the statistical data for the low sense of achievement of higher vocational college students. The average value of this dimension is 2.71, which is also higher than the total mean score of learning burnout. Item 15 (It's easy for me to get a bachelor's degree) got the highest mean score of 3.51, followed by item 3 (Professional knowledge mastery comes so easily to me) with a mean of 3.00. Then the mean score from high to low was item 18 (I am full of energy when I study), item 11 (I'm qualified for the university course), and item 6 (When I study, I can calmly deal with my emotional problems), and item 13 (I'm interested in my major). The mean difference between these items is very small, with an average score ranging from 2.30 to 2.57. Except for item 13, which is at a low level, students' learning burnout in other items is moderate

Table 6. Descriptive statistics for the low sense of achievement of higher vocational college students

	Mean	SD	Level
3. Professional knowledge mastery comes so easily to me.	3.00	0.88	Moderate
6. When I study, I can calmly deal with my emotional problems	2.40	0.81	Moderate
11. I'm qualified for the university course	2.47	0.79	Moderate
13. I'm interested in my major	2.30	0.83	Low
15. It's easy for me to get a bachelor's degree	3.51	1.03	Moderate
18. I am full of energy when I study	2.57	0.86	Moderate
Low sense of achievement	2.71	0.60	Moderate
Learning burnout	2.63	0.53	Moderate

As shown in Table 7, the average score of learning burnout for female students is 2.59, which is 0.11 lower than that of male students (mean=2.70). In other words, the overall burnout level of female students is lower than that of male students. From each dimension, the mean of male students in the dimensions of low emotional sense (mean=2.64) and misbehavior (mean=2.80) was higher than that of female students. On the contrary, female students (mean=2.74) in the low sense of achievement dimension have a higher mean than male students (mean=2.66). The levels of male students' learning burnout from high to low are misbehavior, low sense of achievement, and low emotional sense. As for female students, the low sense of achievement got the highest mean score (mean=2.74), followed by misbehavior (mean=2.70) and low emotional sense (mean=2.40). There are significant differences in the overall level of learning burnout and its dimensions according to students' gender ($P<0.05$).

Table 7. Mean, SD, and t-test analysis of the study variables according to students' gender

Dimension	Male		Female		t	p
	Mean	SD	Mean	SD		
Learning burnout	2.70	0.55	2.59	0.51	3.056	0.002
Low emotional sense	2.64	0.79	2.40	0.74	4.998	0.000
Misbehavior	2.80	0.66	2.70	0.59	2.496	0.013
Low sense of achievement	2.66	0.65	2.74	0.56	-2.278	0.038

Note: Male=388; Female=710

Table 8 shows that the learning burnout average score of students from the city is 2.56, while that of students from the town is 2.64. It means that students who live in town have relatively higher levels of burnout. The mean score of students in the city is lower than that of students in the town on three subscales. The levels of students who come from a town in learning burnout from high to low are misbehavior (mean=2.75), low sense of achievement (mean=2.73), and low emotional sense (mean=2.50). The order of city students is the same as that of town students in three dimensions, with a mean score ranging from 2.45 to 2.68. The results of the t-test showed no significant difference except in the dimension of a low sense of achievement (P<0.05) according to the students' hometown variable.

Table 8. Mean, SD, and t-test analysis of the study variables according to students' hometown

Dimension	Town		City		t	p
	Mean	SD	Mean	SD		
Learning burnout	2.64	0.52	2.56	0.56	1.814	0.070
Low emotional sense	2.50	0.76	2.45	0.79	0.698	0.485
Misbehavior	2.75	0.61	2.68	0.65	1.421	0.156
Low sense of achievement	2.73	0.59	2.60	0.62	2.710	0.007

Note: Town=923; City=175

As seen in Table 9, the difference in average scores between only child students (mean=2.62） and non-only child students (mean=2.63) is tiny, showing that the two groups have similar levels of learning burnout. The mean score of only child students in low emotional sense (mean=2.51) and misbehavior (mean=2.76) was higher than that of non-only child students. In contrast, the opposite is true in the low sense of achievement dimension. The burnout degree of two groups in misbehavior is higher than the other two dimensions. The data of the t-test confirmed that there was no significant difference in all aspects according to students' family structure (p>0.05).

Table 9. Mean, SD, and t-test analysis of the study variables according to students' family structure

Dimension	Only child		Non-only child		t	p
	Mean	SD	Mean	SD		
Learning burnout	2.62	0.56	2.63	0.52	-0.129	0.898
Low emotional sense	2.51	0.78	2.48	0.77	0.418	0.676
Misbehavior	2.76	0.64	2.74	0.61	0.532	0.595
Low sense of achievement	2.65	0.63	2.72	0.58	-1.661	0.097

Note: Only child=222; non-only child=876

Table 10 shows that the learning burnout average score of students who study humanities and social sciences (mean=2.61) was lower than that of science and engineering students (mean=2.67). The highest level of burnout in the two groups is misbehavior, and the lowest in the low emotional sense, but the mean of students majoring in Science and Engineering is higher than the other group in these two dimensions. The average score in low sense of achievement for students who choose humanities and social sciences is 2.72, which is higher than that of the other group (mean=2.69). The result found that the differences in the low emotional sense and misbehavior are statistically significant (P<0.05), while other aspects are not significant (P>0.05).

Table 10. Mean, SD, and t-test analysis of the study variables according to students' major

Dimension	Science and Engineering		Humanities and Social Sciences		t	p
	Mean	SD	Mean	SD		
Learning burnout	2.67	0.52	2.61	0.53	1.882	0.069
Low emotional sense	2.55	0.79	2.45	0.75	2.222	0.026
Misbehavior	2.80	0.62	2.71	0.61	2.088	0.037
Low sense of achievement	2.69	0.60	2.72	0.59	-0.592	0.554

Note: Science and Engineering=406;
Humanities and Social Sciences=692

4.   DISCUSSION

The data of higher vocational college students' learning burnout concluded that the average score for students' learning burnout is 2.63, and 71.5% of students are at the moderate level (mean score range from 2.34–3.67). The studies carried out by several scholars [23], [24], [32], [33], all got similar findings. Misbehavior obtains the highest score (mean=2.74), followed by low sense of achievement (mean=2.71), and finally low emotional sense (mean=2.49). The study results are consistent with ours [15]. However, the scores of learning burnout from high to low are low emotional sense, low sense of achievement, and misbehavior [34]. In addition, Ying [22] found that the mean score of low emotional sense is in the middle of these three dimensions.

The research result showed that in the dimension of low emotional sense, four items are at a low level, and four are at a moderate level. Regarding misbehavior and low sense of achievement, one item is at a low level, and the other five are at a moderate level. All items did not indicate a high level of learning burnout.

Our study found that students of different genders significantly differ in the overall level and dimensions of learning burnout. Female students' learning burnout is lower than that of male students. The differences in gender variables in each subscale of learning burnout were statistically significant [35]. In the two dimensions of depression and misconduct, the scores of females are significantly higher than those of males. Dan and Pan [15] also found that female students' learning burnout is lower than that of male students. However, there is no significant difference in gender variables.

According to the variable of students' hometown, there is no significant difference in learning burnout and its subscales. The learning burnout level of students living in the city is lower than that of students living in the town on the three subscales. Li and Li [36] came to the same conclusion that there were no significant differences in the low emotional sense, low sense of achievement, and misbehavior among students, and the average scores of students from the town were higher than those of students from the city in each category. The level of learning burnout of students in different hometowns is the same, and there is no significant difference in the variable of students' hometowns [24].

The current study found that whether the students are only children, the average difference in their overall learning burnout is only 0.01. There is no significant difference between the two groups. According to Ren, Zhang, and Zhang [37], learning burnout of only child students is lower than that of non-only child students, and significant gender differences exist between the two groups.

The overall level of learning burnout and the dimension of low sense of achievement do not significantly differ in students' major choices. Still, significant differences were found in misbehavior and low emotional sense. The average learning burnout score of humanities and social sciences students was lower than that of science and engineering students. Liao, Zhang, and Hu [32] also confirmed that science and engineering students are more prone to learning burnout than humanities and social sciences students [33]. They are more likely to show misbehavior and low emotional sense. There is also no statistically significant difference in the variable of students' major [38].

5.   CONCLUSION

According to the research results, higher vocational students' level of learning burnout is similar to that of previous studies and has not increased. There is no significant difference from previous studies regarding student gender, hometown, major, and family structure. In other words, although the pandemic of COVID-19 has some influence on students' psychology and normal teaching activities, it does not increase students' learning burnout levels. However, the impact of the COVID-19 pandemic on the learning psychology of Chinese higher vocational college students still has much to be studied. In addition, from the research data, we know that students in higher vocational colleges generally suffer from learning burnout, which will inevitably lead to declining students' learning quality and wasting educational resources. Therefore, the study proposed three strategies from the perspective of educators to reduce student burnout.

Pay attention to the emotional management of students. First, through emotional education for students, teachers let students learn to control their emotions and prevent negative emotions from interfering with their regular learning. Second, we should also help students exercise their rational thinking ability, let students learn to observe behavior objectively and reasonably, and promote the realization of learning objectives and life values through thinking and learning.

Create a good campus learning atmosphere and stimulate students' interest in learning. Higher vocational colleges can create a more suitable learning atmosphere by introducing new teaching equipment, building new training rooms, and creating a good campus environment for academic research. In the teaching process, we need to be "student-oriented", respect students, understand students, and fully mobilize students' subjective initiative. In addition, teachers stimulate students' interest in learning by constantly reforming teaching methods, exploring new methods, and increasing their interest in teaching as much as possible.

Strengthen students' career development and employment guidance education. First, employment guidance teachers should improve students' employability and discover and tap students' potential. Secondly, teachers should formulate their career planning with students' professional development. Finally, teachers should constantly revise students' career planning to improve college students' willpower and prevent learning burnout continuously.

REFERENCES

[1]   H. J. Freudenberger, "Staff Burn-Out," *Journal of Social Issues*, vol. 30, no. 1, pp. 159–165, Jan. 1974, doi: 10.1111/j.1540-4560.1974.tb00706.x.

[2]   C. Maslach and S. E. Jackson, "The role of sex and family variables in burnout," *Sex Roles*, vol. 12, no. 7–8, pp. 837–851, Apr. 1985, doi: 10.1007/BF00287876.

[3]   M. R. Lahoz and H. L. Mason, "Maslach Burnout Inventory: Factor Structures and Norms for USA Pharmacists," *Psychological Reports*, vol. 64, no. 3_suppl, pp. 1059–1063, Jun. 1989, doi: 10.2466/pr0.1989.64.3c.1059.

[4]   S. E. Jackson, R. L. Schwab, and R. S. Schuler, "Toward an understanding of the burnout phenomenon.," *Journal of Applied Psychology*, vol. 71, no. 4, pp. 630–640, 1986, doi: 10.1037/0021-9010.71.4.630.

[5]   M. R. Abarghouei, M. H. Sorbi, M. Abarghouei, R. Bidaki, and S. Yazdanpoor, "A study of job stress and burnout and related factors in the hospital personnel of Iran," *Electronic Physician*, vol. 8, no. 7, pp. 2625–2632, Jul. 2016, doi: 10.19082/2625.

[6]   C. C. Lebares, E. V Guvva, N. L. Ascher, P. S. O'Sullivan, H. W. Harris, and E. S. Epel, "Burnout and Stress Among US Surgery Residents: Psychological Distress and Resilience," *Journal of the American College of Surgeons*, vol. 226, no. 1, pp. 80–90, 2018, doi: 10.1016/j.jamcollsurg.2017.10.010.

[7]   L. S. Rotenstein *et al.*, "Prevalence of Burnout Among Physicians," *JAMA*, vol. 320, no. 11, pp. 1131-1150, Sep. 2018, doi: 10.1001/jama.2018.12777.

[8]   T. C. Ogbuanya *et al.*, "Effect of Rational-Emotive Behavior Therapy Program on the Symptoms of Burnout Syndrome Among Undergraduate Electronics Work Students in Nigeria," *Psychological Reports*, vol. 122, no. 1, pp. 4–22, Feb. 2019, doi: 10.1177/0033294117748587.

[9]   Y.-Y. Hu *et al.*, "Discrimination, Abuse, Harassment, and Burnout in Surgical Residency Training," *New England Journal of Medicine*, vol. 381, no. 18, pp. 1741–1752, Oct. 2019, doi: 10.1056/NEJMsa1903759.

[10]   C. Zhang *et al.*, "Survey of Insomnia and Related Social Psychological Factors Among Medical Staff Involved in the 2019 Novel Coronavirus Disease Outbreak," *Frontiers in Psychiatry*, vol. 11, Apr. 2020, doi: 10.3389/fpsyt.2020.00306.

[11]   C. Maslach and S. E. Jackson, *The Maslach burnout inventory*. Palo Alto: Consulting Psychologists Press, 1981.

[12]   C. Maslach, S. E. Jackson, and M. P. Leiter, *Maslach burnout inventory manual*. Palo Alto, CA: Consulting Psychologists Press, 1996.

[13]   D. Kafry, A. Pines, and E. Aronson, *Burnout: From tedium to personal growth*. New York, NY: Free Press, 1981.

[14]   Y. Dan, L. Sancai, and W. Haimei, "The Relationship between College Students' Achievement Motivation and Learning Burnout: Hope as a Mediator," *China Journal of Health Psychology*, vol. 24, no. 2, pp. 225–259, 2016, doi: 10.13342/j.cnki.cjhp.2016.02.026.

[15]   W. Dan and H. Pan, "Study on Influencing Factors of College Students' Academic Burnout," *Theory and Practice of Contemporary Education*, vol. 10, no. 5, pp. 71–77, 2018, doi: 10.13582/j.cnki.1674-5884.2018.05.014.

[16]   R. Cui, "Effects of College Students' psychological elasticity and learning adaptation on Learning Burnout," *Modern Communication*, no. 8, pp. 163–169, 2021.

[17]   S. R. Jacobs and D. Dodd, "Student Burnout as a Function of Personality, Social Support, and Workload," *Journal of College Student Development*, vol. 44, no. 3, pp. 291–303, 2003, doi: 10.1353/csd.2003.0028.

[18]   C. Sulea, I. van Beek, P. Sarbescu, D. Virga, and W. B. Schaufeli, "Engagement, boredom, and burnout among students: Basic need satisfaction matters more than personality traits," *Learning and Individual Differences*, vol. 42, pp. 132–138, Aug. 2015, doi: 10.1016/j.lindif.2015.08.018.

[19]   P. Koutsimani, A. Montgomery, and K. Georganta, "The Relationship Between Burnout, Depression, and Anxiety: A Systematic Review and Meta-Analysis," *Frontiers in Psychology*, vol. 10, p. 284, Mar. 2019, doi: 10.3389/fpsyg.2019.00284.

[20]   R. Lian, "The Status and Relationship of Undergraduates' Professional Commitment and Learning Burnout," *Journal of Psychological Science*, no. 1, pp. 47–51, 2006.

[21]   Y. Y. Zou, "Research on the Relationship between College Students' Achievement Motivation and Learning Burnout," *Value Engineering*, vol. 20, no. 31, pp. 16–17, 2011.

[22]   W. Ying, "A Study of College Students' Learning Boredom and Corresponding Countermeasures," *Journal of Luoyang Institute of Science and Technology (Social Science)*, vol. 30, pp. 91–96, 2015, doi: 10.3969/j.issn.1674-5035.2015.06.018.

[23]   M. Charkhabi, M. A Abarghuei, and D. Hayati, "The association of academic burnout with self-efficacy and quality of learning experience among Iranian students," *SpringerPlus*, vol. 2, 2013, doi: 10.1186/2193-1801-2-677.

[24]   L. L. Duan, P. Ye, P.Q. Shen, and D. Zhu, "Survey of Students' Learning Burnout in Higher Vocational Colleges and Countermeasures: Taking Jiangsu Aviation Technical College as an Example," *Journal of Suzhou Education Institute*, vol. 24, no. 2, pp. 93–97, 2021.

[25]   J. Wang, L. Bu, Y. Li, J. Song, and N. Li, "The mediating effect of academic engagement between psychological capital and academic burnout among nursing students during the COVID-19 pandemic: A cross-sectional study," *Nurse Education Today*, vol. 102, p. 104938, Jul. 2021, doi: 10.1016/j.nedt.2021.104938.

[26]   D. K. Creedy, M. Sidebotham, J. Gamble, J. Pallant, and J. Fenwick, "Prevalence of burnout, depression, anxiety and stress in Australian midwives: a cross-sectional survey," *BMC Pregnancy and Childbirth*, vol. 17, no. 1, p. 13, Dec. 2017, doi: 10.1186/s12884-016-1212-5.

[27]   J. E. Lehto, L. Kortesoja, and T. Partonen, "School burnout and sleep in Finnish secondary school students," *Sleep Science*, vol. 12, no. 1, 2019, doi: 10.5935/1984-0063.20190051.

[28]   L. Xu, "An investigation on normal school students' learning burnout - A case study of English normal students," *Research on Modern Higher Education 4*, pp. 111–115, 2017, doi: 10.24104/rmhe/2017.04.02012.

[29]   E. M. de Vasconcelos, C. O. Trindade, L. R. Barbosa, and M. M. F. de Martino, "Predictive factors of burnout syndrome in nursing students at a public university," *Revista da Escola de Enfermagem da USP*, vol. 54, 2020, doi: 10.1590/s1980-220x2018044003564.

[30] Y. Zhang and W. L. Xu, "Investigation on learning burnout and its influencing factors of medical students in Vocational Schools," *Journal of Qiqihar Medical College*, vol. 37, pp. 4081–4082, 2016.
[31] X. T. T. Le *et al.*, "Evaluating the Psychological Impacts Related to COVID-19 of Vietnamese People Under the First Nationwide Partial Lockdown in Vietnam," *Frontiers in Psychiatry*, vol. 11, Sep. 2020, doi: 10.3389/fpsyt.2020.00824.
[32] Y. Liao, L. J. Zhang, and W. Hu, "Research on the current situation and countermeasures of college students' academic burnout," *Time Education*, vol. 5, pp. 55–56, 2016, doi: 10.3969/j.issn.1672-8181.2016.09.040.
[33] C. Ding, "A Study on the Dropout Predictive System – Lunghwa University as an Example," *Educator*, vol. 9, pp. 86–89, 2021.
[34] C. Q. Guo, "On the Relationship among the Academic Self – efficacy, Coping Style and Learning Burnout of University Students," *Contemporary Continuing Education*, vol. 33, pp. 81–84, 2015.
[35] W. J. Zhang, L. L. Jin, and M. Zhang, "The Relationship between College Students' Learning Engagement, Academic Self-efficacy and Learning Burnout," *Journal of Bingtuan Education Institute*, vol. 31, pp. 39–43, 2021.
[36] X. Li and W. M. Li, "The Research on the College Students' Learning Burnout in Guizhou," *Journal of Xingyi Normal University for Nationalities*, vol. 3, pp. 55–56, 2011.
[37] A.Q. Ren, H. F. Zhang, and W. C. Zhang, "Study on the relationship between academic self-efficacy, professional commitment and learning burnout of clinical medical undergraduates," *Journal of Taiyuan Urban Vocational College*, vol. 2, pp. 103–107, 2020.
[38] Z. W. Deng, "Investigation on Learning Burnout Situation of Engineering Higher Vocational College and the Corresponding Countermeasures," *Journal of Beijing Vocational and Technical College*, vol. 14, pp. 63–65, 2015, doi: 10.3969/j.issn.1671—6558.2015.04.016.

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