

Research Article

The Effect of Mental Toughness on Learning Burnout of Junior Middle School Students: Putting School Adaptation as a Mediator Variable

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Learning burnout has always been a key problem in school education. Junior high school students, as an important part of the student population, cannot be ignored. To explore the impact of resilience, school adaptation on learning burnout is helpful to improve students' learning level and reduce learning burnout. In this study, the junior high school students in A city were selected as the research objects, and questionnaires were used to explore the effect of mental toughness on learning burnout and the mediating effect of school adaptation. Statistical analysis methods such as descriptive statistics, correlation analysis, and regression were used. Based on the theoretical model of job burnout, data analysis showed that mental toughness of junior high school students in A city could significantly negatively predict learning burnout. Adolescent mental toughness can significantly affect the prediction of school adjustment school adjustment has a significant negative impact on learning burnout, and mental toughness can indirectly affect learning burnout through school adjustment.

1. Introduction

Junior high school students are in the adolescent period, which is the key period for individuals to develop positive psychological quality and form sound personality. Yu and Chae [1] Mental health and personality development has been highly concerned by social and psychologists. As the capital of Shaanxi Province, Xi'an has a serious problem of misallocation of educational resources for junior high school students and a high level of academic burnout of students. Zhuo [2] in the current social environment, junior high school students are faced with increasing pressure in the face of parents' expectations, urgent needs for college entrance and employment, and fast-paced lifestyle. Especially in the current Chinese society with a high proportion of only children, junior high school students shoulder unprecedented responsibilities and expectations. In the study of Zhang et al [3], with the continuous development of the

economy, people's lives are gradually improving, so parents are paying more and more attention to students' learning, especially for junior high school students, which is considered to be the critical time for learning.

In the study of Zhao Hao and Song Tianjiao [4], with the increase of expectations from society, school, and family in recent years, students can hardly bear it, resulting in an increasingly serious level of learning burnout. "Student Burnout" derived from the concept of "Job Burnout," it refers to the phenomenon of boredom occurring in the learning process of students and exists as a specific research field of burnout. Lenaert et al [5] found that the learning situation of students is not optimistic, and many students suffer from learning burnout, which reduces their interest and motivation in learning. Therefore, how to help junior high school students overcome their learning slack has become an important part of school education.

School is an important place for students to study and live, so students' adaptation to school has always been an important topic in education and psychology. School adaptation refers to the state in which students happily participate in school activities and achieve learning success under the school background. Students' adaptation is evaluated by the indicators of explicit problems, implicit problems, adaptive skills, and behavioral symptoms. It is found that students' mental health level is related to their adaptive ability. Moreover, Yanqin et al. [6] took school adaptation as the mediating variable to explore the relationship between social support and life satisfaction of urban immigrants' children, proving the mediating effect of school adaptation.

2. Research Objectives

Based on the above research background, this study will explore the relevant factors of mental toughness, learning burnout, and school adaptation among junior high school students in Xi'an, Shaanxi Province. Therefore, the purpose of this study is as follows:

- (a) To explore the impact of school adaptation on learning burnout of junior high school students in Shaanxi Province
- (b) To explore the impact of mental toughness on school adaptation of junior high school students in Xi'an, Shaanxi Province
- (c) To explore the impact of mental toughness on learning burnout among junior high school students in Xi'an, Shaanxi Province
- (d) To explore the mediating effect of school adaptation on mental toughness on learning burnout among junior high school students in A Province

3. Literature Review

In order to explore the relationship between mental toughness, learning burnout, and school adjustment, the definitions, theories, and measurement tools related to mental toughness, learning burnout, and school adjustment were explored by collecting relevant literature, and then the literature was collected to explore the relationship between the three, which laid the foundation for this study.

3.1. Mental Toughness. Folke [7] named the word Resilience in a variety of ways, including five parts, "Resilience," "psychological Resilience," "Resilience," "overcome," and "strong Resilience" [8]. In folk culture, mental toughness usually represents an individual's strong will and fortitude. However, researchers Hu Yueqin and Gan Yiqun [9] believe that all positive concepts, such as personality, coping, resources, and adaptation results, can constitute or enhance individual mental toughness. Gucciardi [10] believes that psychological resilience is the ability of an individual to withstand severe pressure and adapt to it without abnormal behavior. Anthony et al [11] proposed that resilience, as a

psychological phenomenon of individuals, can still adapt and develop well when individuals are faced with serious threats. As for mental toughness, this paper attempts to conduct research from the perspective of constructing a process model or theory among factors of mental toughness [12].

For example, Kumpfer [13] constructed a framework model of mental toughness, which includes three aspects. Second, the individual characteristics of mental resilience; third is the dynamic mechanism of mediating effect and the elastic recombination of good individual development results. Risk factors interact with protective factors, and the effect of protective factors is related to the number and level of risk factors, so mental toughness as a protective factor is related to learning burnout as a risk factor. The increase in the number of protective factors will also effectively buffer the impact of risk factors, that is, the improvement of mental toughness will help buffer the learning burnout behavior [14].

3.2. Learning Burnout. In the 1970s, the psychological community began to study burnout. Lusheng and Yongxin [15] found through investigation that the main research object of learning burnout is the industry practitioners who serve people. Freudenberg (1989) published an article named "Staff Burnout" which first aroused people's attention and interest in burnout research. The term "Burnout" describes the physical and mental changes he experiences while working with substance abuse patients, and he believes Burnout refers to the physical and mental fatigue an individual experiences when their work goes unrecognized and unrewarded for a long period of time. On this basis, the estranged attitude towards work and related personnel and the phenomenon of reduced self-evaluation developed [16].

Attribution theory, which plays an important role in cognitive schools, is a causal analysis made by individuals for their own success or failure (Miao Rui and Xu Jian, 2018). Fishman and Husman [17] proposed the basic hypothesis that seeking to understand is the basic motivation of behavior. They believed that people have two needs to understand the world and control the environment, and the reason for people's behavior is the fundamental means to meet these two needs, and thus predicted people's behavior [18]. Li Yuan explained the reasons for academic success or failure: first, whether the reasons are internal or external; second, whether the reasons are stable or unstable; third, whether the reasons are controllable or uncontrollable. Each dimension of attribution has different effects on individual students. For the emotional response of attributing success or failure, if the success is attributed to internal causes, the individual will feel proud; if the success is attributed to external causes, the individual will feel grateful; if the failure is attributed to internal causes, the individual will feel remorse and shame; if the failure is attributed to external causes, individuals feel angry [19].

When students ascribe success or failure to stable factors, they have expected the outcome of the event at the beginning. When students attributed success or failure to unstable

factors, individual expectations of the outcome had little effect. The effect of attributions of success or failure on effort, if success or failure is attributed to effort, then he will redouble his efforts and overcome setbacks. Success or failure depends on ability; he will choose to give up, because no matter how hard he tries, he cannot achieve success. So, the success or failure attribution theory to provide a basis for the intervention experiment design, such as success or failure due to internal, unstable factors, and controllable factors will have a positive effect on learning burnout.

4. Data and Methodology

In this section, the research structure of the study and the subjects and data of the study are presented.

4.1. Research Framework. The purpose of this study was to investigate the relationship between mental toughness, school adjustment, and school burnout among adolescents in Province A. Based on the motivation and purpose of the study and the analysis of the literature, each research variable was developed. Mental toughness was used as the independent variable, school burnout as the dependent variable, and school adjustment as the mediating variable, as shown in Figure 1.

4.2. Research Subjects. Through the survey, it was found that middle school students in province A have more serious learning burnout, and it was also found that students in different areas have different learning burnout, so this study selected three middle school institutions in different areas of Xi'an, Shaanxi province as the main research object through the information published on the official website of the Education Bureau of Xi'an, Shaanxi province. These three schools in province A we used school B, school C, and school D instead, where the number of students in school B is 956, School C 859, School D 1021, the total number of students in the three institutions is 2836, in terms of data collection, the principle of Simple Random Sampling (SRS) was adopted to conduct sampling.

4.3. Research Tools. This study mainly uses questionnaire survey to collect data, and scales are mainly developed according to literature discussion and the purpose of this study. The scales used in this study are divided into three parts. It includes the mental toughness scale developed by Hu Yueqin and Gan Yiqun [9]; the school Adaptation Scale developed by Na [20], and the learning burnout scale developed by Qiao and Chunlin [21].

5. Descriptive Statistics

The descriptive statistical analysis results of the research variables are shown in Table 1. The average learning burnout of junior middle school students ($M = 2.433$, $SD = 0.512$) is less than 3, so the learning burnout of the tested junior middle school students is at the lower level of learning burnout. The average school adaptation of junior middle

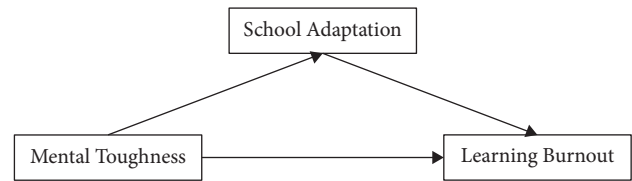


FIGURE 1: Research framework diagram.

school students ($M = 3.221$, $SD = 0.809$) was greater than 3, indicating that the school adaptation of the tested junior middle school students was above the middle level. The average mental toughness of junior middle school students ($M = 3.461$, $SD = 0.573$) was greater than 3. Objective attentiveness ($M = 3.517$, $SD = 0.766$), emotion control ($M = 3.075$, $SD = 0.853$), positive cognition ($M = 3.332$, $SD = 0.817$), family support ($M = 3.610$, $SD = 0.809$), and person and assistance ($M = 3.772$, $SD = 0.92606$), and the mean values of these dimensions were all greater than 3, indicating that most of the subjects tended to focus on goals, emotion control, positive cognition, family support, people and assistance. According to Kline [29], when the absolute value of the skewness coefficient is less than 3 and the absolute value of the kurtosis coefficient is less than 10, it can be regarded as the normal distribution. The absolute value of the skewness coefficient is less than 3, and the kurtosis coefficient is less than 10, so they all follow the normal distribution.

5.1. Analysis of Differences of Different Background Variables in Learning Burnout, School Adaptation, and Mental Toughness. The independent sample T test and ANOVA were used to test whether there were differences in gender, education level, and subject of each research variable. Differences in mental toughness of subjects with different background variables A were analysed. The difference analysis of mental toughness of subjects of different genders was conducted with the independent sample T test, as shown in Table 2. The results showed that there was no significant difference in mental toughness between different genders ($t = .363$, $P = .717$). There were no significant differences in the dimensional-objective specificity of resilience ($t = 1.471$, $P = .142$), positive cognition ($T = .539$, $P = .590$), family support ($t = .868$, $P = .062$), and interpersonal assistance ($t = 1.668$, $P = .769$). However, there was significant difference in emotion of junior middle school students of different genders ($t = 4.074$, $P = .000$), and the degree of emotion control of male students was significantly lower than that of female students.

B. With grade as independent variable and mental toughness, goal focus, emotional control, positive cognition, family support, and interpersonal assistance as dependent variables, ANOVA test results are shown in Table 3. The results showed that there were no significant differences in mental toughness, goal focus, emotion control, integral-pole cognition, family support, and interpersonal assistance among junior high school students of different grades. Dunnett's T_3 test was used for post hoc comparison when

TABLE 1: Summary table of descriptive statistics.

	Mean value	The standard deviation	Skewness coefficient	Kurtosis coefficient
Learning burnout	2.433	0.512	0.128	0.206
Emotional exhaustion	2.451	0.640	0.456	0.089
Low sense of achievement	2.422	0.705	0.199	-0.017
Distance between teachers and students	2.243	0.756	0.425	-0.127
The depletion of physiological	2.655	0.931	0.064	-0.492
Mental toughness	3.461	0.573	-0.463	1.599
Goal focus	3.517	0.766	-0.425	0.394
Emotional control	3.075	0.853	-0.023	-0.450
Positive cognitive	3.331	0.817	-0.578	0.398
Family support	3.610	0.809	-0.636	0.394
People and assistance	3.772	0.926	-0.314	-0.225
School adjustment	3.221	0.809	0.256	-0.487
Academic adjustment	3.166	0.823	0.080	-0.286
School attitude and emotion	3.247	0.904	0.183	-0.405
Peer relations	3.179	1.045	0.406	-0.878
The relationship between teachers and students	3.124	0.937	0.156	-0.769
Conventional adaptive	3.379	0.975	0.307	-0.735

Sources: the data collated was organized in the study.

TABLE 2: Summary of difference analysis of mental toughness of middle school students with different genders.

The name of the variable	Mean value (standard deviation)		df	t	P
	Male	Female			
Mental toughness	3.451(0.553)	3.469(0.592)	496.900	0.363	0.717
Focused	3.534(0.760)	3.504(0.769)	510.271	1.471	0.142
Emotional control	3.271(0.816)	3.376(0.862)	491.363	4.074	0.000
Positive cognitive	3.714(0.849)	3.715(0.793)	490.962	0.539	0.590
Family support	3.513(0.801)	3.533(0.813)	510.159	0.868	0.620
Interpersonal assist	3.220(0.937)	3.215(0.916)	492.582	0.668	0.796

Note. ***means $P < 0.001$; **, $P < 0.01$; *, $P < 0.050$. Sources: the data collated was organized in the study.

TABLE 3: Summary of the difference analysis of mental toughness among students of different grades.

The name of the variable	Mean value (standard deviation)			f	P	Posterior comparisons
	1	2	3			
Mental toughness	3.543(0.554)	3.398(0.579)	3.441 (0.580)	3.045	0.048	1 > 2
Focused	3.601(0.797)	3.457 (0.715)	3.493(0.781)	1.537	0.216	
Emotional control	3.194(0.784)	3.061(0.856)	3.068(0.920)	1.342	0.338	
Positive cognitive	3.746(0.784)	3.719(0.868)	3.750(0.793)	1.821	0.163	
Family support	3.701(0.780)	3.560(0.832)	3.568(0.810)	1.711	0.182	
Interpersonal assist	3.470(0.875)	3.194(0.968)	3.326(0.917)	3.857	0.022	1 > 2

Source: the data collated was organized in the study.

Levene test variance was not equal. When Levene test of variance is equal, Scheff method is used for post hoc comparison (Qiu Haozheng, 2008). After Levene test ($P = .455$), the variance of mental toughness variables is found to be equal. Therefore, Scheff method is used for post-hoc comparison. The variance of interpersonal assistance ($P = .571$) of psychological resilience was found to be equal after Levene test, so Scheff method was used for post hoc comparison. When comparing the mental toughness of junior high school students in different grades, it was found that the mental toughness of junior two was significantly higher than that of junior one. The post-hoc comparison of interpersonal assistance in grade one is significantly higher than that in grade two.

5.1.1. Analysis of Differences in Mental Toughness of Subjects with Different Background Variables. A. Difference analysis of school adaptation of junior high school students of different genders. The analysis results of independent sample T test are shown in Table 4. The results showed that there was no significant difference in school adaptation among primary school students of different genders ($t = 1.390, P = .165$) in the dimension of school adaptation, academic fitness ($t = .482, P = .630$), school attitude and emotion ($t = 1.693, P = .189$), peer relationship ($t = .526, P = .599$), teacher-student relationship ($T = 1.239, P = .216$), and routine adaptation ($t = 1.008, P = .314$). To sum up, there is no significant difference in school adaptation and its various dimensions among junior middle school students of different genders.

TABLE 4: Summary of school adaptation difference analysis of middle school students of different genders.

The name of the variable	Mean value (standard deviation)		DF	t	P
	Male	Female			
School adjustment	3.181(0.836)	3.251(0.779)	351.256	1.390	0.165
Academic adjustment	3.060(0.839)	3.133(0.812)	351.256	0.482	0.630
School attitude and emotion	3.275(0.957)	3.366(.859)	352.953	1.693	0.189
Peer relations	3.147(0.492)	3.168(0.454)	346.650	0.526	.599
The relationship between teachers and students	3.074(0.944)	3.143(0.920)	352.077	1.239	0.216
Conventional adaptive	3.349(0.985)	3.445(0.965)	348.419	1.008	0.314

Note: *** means $P < .001$; **, $P < 0.01$; *, $P < .05$ Sources: the data collated was organized in the study.

B. Difference analysis of school adaptation of tested junior high school students of different grades. The analysis results of ANOVA test are shown in Table 5. The results showed that there were significant differences in school adaptation among junior high school students of different grades ($F = 4.353, P = .017$) in the school adaptation variable dimension, academic adaptation ($F = 3.434, P = .033$), school attitude and emotion ($F = 3.269, P = .039$), peer relationship ($F = 7.205, P = 0.001$), teacher-student relationship ($F = 2.839, P = 0.046$), and conventional adaptation ($F = 3.66, P = 0.026$). Dunnett’s T3 test was used for post hoc comparison when Levene test variance was not equal. Scheff method was used for post hoc comparison when Levene’s test variances were equal. The Levene test showed that the variables and dimensions of school adaptation were significant, including school-industry adaptation, school attitude and emotion, peer relationship, teacher-student relationship, and conventional adaptation, indicating that the variables and dimensions of school adaptation were unequal in variance. Therefore, Scheff test was used in the post hoc comparison. After comparing the school adaptation of students in different grades, it is found that the school adaptation of students in grade 3 is significantly higher than that in grade 1. In terms of school adaptation variables, academic adaptation, school attitude and emotion, teacher-student relationship, and routine adaptation, the comparison results show that the degree of grade 3 students is significantly higher than that of grade 1 students. In terms of peer relationship of school adaptation dimension, the comparison results showed that the degree of peer relationship of grade 3 students was significantly higher than that of grade 1 and grade 2 students. To sum up, there are significant differences in school adaptation and its dimensions of middle school students in different grades, and the degree of school adaptation and its dimensions of middle school students in grade 3 are significantly higher than those in grade 1 and grade 2.

5.2. *Correlation Analysis.* In order to study the logical relationships between variables, they pointed out that the correlation range of .900 is very high correlation, .700–0.900 is high correlation, .500–0.700 is medium correlation, .300–.500 is low correlation, and 0.000–0.300 is very little correlation. It shows that there is significant correlation between variables. The study of correlation analysis plays a very important role, which is directly

related to whether the hypothesis testing of the next part is needed. If the correlation is good, the hypothesis should be tested in the next step; if the correlation is bad, the hypothesis should not be tested in the next step (see Table 6).

As can be seen from the correlation analysis in Table 6, mental toughness is negatively correlated with learning burnout ($r = -0.379, P < 0.001$), and positively correlated with school adaptation ($r = 0.649, P < .001$). School adaptation was negatively correlated with learning burnout ($r = -0.438, P < .001$).

5.3. *Regression Analysis.* In this study, linear regression analysis was used to test the direct hypothesis of this study, including the impact of mental toughness on school adaptability, the impact of school adaptation on learning burnout, and the impact of school adaptation on learning burnout. Regression analysis was used to test the direct influence of variables.

As shown in Table 7, R^2 is .422 in the impact of psychological toughness and school adaptation, and the adjusted R^2 is .421. The result of ANOVA is $F = 447.922, P < .001$, indicating that the result is suitable for regression analysis. There is a significant positive correlation between mental toughness and school adaptation ($\beta = .766, P < .001, t = 21.166$), indicating that the better the students’ mental toughness, the better the school adaptation. Therefore, hypothesis H1 is valid.

As shown in Table 8, in the influence of mental toughness and learning burnout, R^2 is .144, and adjusted R^2 is .142, wherein the result of ANOVA is $F = 103.253, P < .001$, indicating that the result is suitable for regression analysis. There is a significant negative influence between mental toughness and learning burnout ($\beta = -.435, P < .001, t = -10.161$), indicating that the better the students’ mental toughness, the lower learning burnout. Therefore, hypothesis H2 is true.

As shown in Table 9, in the influence of school adaptation and learning burnout, R^2 was 0.208, and the adjusted R^2 was 0.206. The result of ANOVA was $F = 80.682, P < .001$, indicating that the result was suitable for regression analysis. There is a significant negative influence between school adaptation and learning burnout ($\beta = 2212.319, P < .001, t = -6.949$), indicating that the stronger the school adaptation, the lower the learning burnout. Therefore, hypothesis H3 is true.

TABLE 5: Summary table of school adaptation difference analysis of middle school students in different grades.

Variable the name of the	Mean value (standard deviation)			f	P	Posterior comparisons
	1	2	3			
School adjustment	3.103(0.872)	3.212(0.774)	3.345(0.749)	4.353	0.017	3 > 1
Academic adjustment	3.043(0.754)	3.128(0.817)	3.313(0.881)	3.434	0.033	3 > 1
School attitude and emotion	3.037(0.877)	3.107(0.927)	3.281(0.898)	3.269	0.039	3 > 1
Peer relations	3.153(0.952)	3.183(1.003)	3.301(1.130)	7.205	0.001	3 > 1; 3 > 2
The relationship between teachers and students	3.022(0.888)	3.129(0.914)	3.200(0.989)	2.839	0.046	3 > 1
Conventional adaptive	3.410(0.929)	3.513(0.942)	3.630(1.035)	3.660	0.026	3 > 1

Note. 1 = Grade 1; 2 = Grade 2; 3 = Grade 3; *, *, *, P < 0. 001; *, *, P < 0. 01; *, P < .05. Source: The data collated was organized in the study.

TABLE 6: Correlation coefficients.

	Mental toughness	Learning burnout	School adjustment
Mental toughness	1		
Learning burnout	-0.379***	1	
School adjustment	0.649***	-0.438***	1

Note. *** means P < .001; *, *, P < 0. 01; * indicates P < .05. Sources: The data collated was organized in the study.

TABLE 7: Analysis table of psychological resilience and school adaptation hypothesis.

	School adjustment	
	β	t
Mental toughness	0.766	21.166***
R2		0.422
Adj R2		0.421
F		447.992***

Note. *** means P < .001; *, *, P < 0. 01; *, P < .05. Sources: The data collated was organized in the study.

TABLE 8: Hypothesis analysis of mental toughness and learning burnout.

	Learning burnout	
	β	t
Mental toughness	-0.435	-10.161***
R2		0.144
Adj R2		0.142
F		103.253***

Note. *** means P < 0. 001; *, *, P < 0. 01; *, P < .05. Sources: The data collated was organized in the study.

TABLE 9: School adaptation and learning burnout hypothesis analysis table.

	Learning burnout	
	β	t
School adjustment	-0.319	-6.949***
R2		0.208
Adj R2		0.206
F		80.682***

Note. *** means P < .001; *, *, P < . 01; *, P < .05. Sources: the data collated was organized in the study.

As shown in Table 10, R2 in model 1 is .144 and adjusted R2 is .142. The result of ANOVA is F = 103.253, P < .001, indicating that the result is suitable for regression analysis. Psychological toughness has a significant negative impact on learning burnout ($\beta = 2212.435, T = -10.161, P < .001$). The

R2 of model 2 was .422, and the adjusted R2 was .421. The result of ANOVA was F = 447.992, P < .001, indicating that the results were suitable for regression analysis. Psychological toughness had a significant positive effect on school adaptation ($\beta = .766, T = 21.166, P < .001$). The R2 of model 3 was .208, and the adjusted R2 was .206. The result of ANOVA was F = 80.682, P < .001, indicating that the results were suitable for regression analysis. Psychological toughness had a significant negative effect on learning burnout ($\beta = -0.193, T = -3.572, P < .001$). School adaptation had a significant negative effect on learning burnout ($\beta = -0.319, t = -6.949, P < 0.001$). To sum up, the results show that the strength of the student's mental toughness, adaptability, the better school, and learning burnout is lower, because the independent variable mental toughness has a significant effect on the dependent variable learning burnout, as a result, the said school adjustment in the relationship between the mental toughness and learning burnout plays a partial intermediary role, therefore this study founded the H4 intermediary effect (see Table 10).

5.4. Research Findings. According to the research results, hypothesis H1 in this study is supported: adolescents' mental toughness has a positive impact on school adaptation; H2: Psychological toughness has a negative impact on learning burnout, which is supported; H3: School adaptability of adolescents has a negative impact on learning burnout. H4: School adaptation plays a partially mediating role in the

TABLE 10: Mediation analysis table.

	Learning burnout Model 1		School adjustment Model 2		Learning burnout Model 3	
	β	t	β	t	β	t
Mental toughness	-0.435	-10.161***	0.766	21.166***	-0.193	-3.572***
School adjustment					-0.319	-6.949***
R2	0.144		0.422		0.208	
Adj R2	0.142		0.421		0.206	
F	103.253***		447.992***		80.682***	

Note. *** means $P < .001$; *, **, $P < .01$; *, $P < .05$. Sources: the data collated was organized in the study.

TABLE 11: Summary of research results.

The research hypothesis verifies the results	The verification results
H1: Adolescents' mental toughness has a significant positive impact on school adaptation. Set up	Set up
H2: Adolescents' mental toughness and learning burnout have a significant negative impact. Set up	Set up
H3: School adaptation and learning burnout of adolescents have a significant negative impact. Set up	Set up
H4: School adaptation has a mediating effect on psychological toughness and learning burnout. Set up	Set up

Sources: The data collated was organized in the study.

relationship between mental toughness and learning burnout, so the mediating effect of school adaptation can be supported. As shown in Table 11:

6. Research Conclusions

Based on the statistical analysis performed in subsection IV, the corresponding conclusions are now drawn:

6.1. The Impact of Mental Toughness on School Adaptation. When students' mental toughness increases, students' school adjustment also increases, and the scores of each dimension will be in an upward trend, and when students' mental toughness decreases, students' school adjustment will decrease, concluding that the lower the mental toughness, the lower the degree of school adjustment. Therefore, mental toughness as an individual subjective psychological factor will naturally have a certain impact on school adaptation, and individuals have a higher level of mental toughness, indicating that their ability to adapt and develop is still good in different environments and states.

6.1.1. The Impact of Mental Toughness on Learning Burnout. According to the investigation and analysis of junior high school students, the same situation will occur in junior high school students. With the increase of mental toughness, learning burnout will decrease. Data analysis shows that the increase of mental toughness will lead to the decrease of learning burnout, that is to say, the higher mental toughness, the lower the degree of learning burnout. The reason can be explained that mental toughness can improve students' academic status, so that individuals can maintain a positive learning attitude, promote individual mental health and adaptation, and reduce learning burnout. If the individual has a high level of mental toughness, it will not easily produce learning burnout, If individuals have high mental

toughness, they are less prone to learning burnout, which is consistent with our previous findings, while such findings are also consistent with our previous literature, but Gerber et al [30] suggested that the effect of mental toughness on learning burnout is limited by age, when age increases mental toughness decreases learning burnout will increase, the subjects of this study are fixed. So the conclusion is correct in our study.

6.1.2. The Impact of School Adaptation on Learning Burnout. There was a significant negative correlation between school adjustment and academic burnout and a significant negative correlation between school adjustment and academic burnout. We found a significant negative correlation between school adjustment and learning burnout. School adaptation significantly predicted learning burnout, that is, the stronger the school adaptation, the lower the students' learning burnout. Poor school adaptation affects their level of learning burnout, and improving middle school students' adaptation is beneficial to improving learning burnout. Learning adaptability, as an external environmental factor, can be expected as a result of learning burnout as a behavior. The higher the level of school adaptability, the lower the level of learning burnout naturally, this finding is in line with what was mentioned in the previous literature, but Ezenwaji et al [26] suggested that students' school adaptability is related to school facilities and when the school facilities are updated, students' adaptability will also be more adaptable and learning burnout will diminish.

6.1.3. The Mediating Relationship between School Adaptation and Mental Toughness and Learning Burnout. It was found that school fit had a significant mediating effect between mental toughness and academic burnout. First, mental

toughness has a direct effect on academic burnout. Therefore, to help students reduce or alleviate academic burnout, students can build strong mental toughness, improve their ability to cope with different environments, crises, and difficulties, and promote positive attitudes. Through our study, we found that school adaptability has a significant negative relationship with academic burnout. After introducing school adaptability as a mediating variable, we found that school adaptability partially mediated the relationship between mental toughness and academic burnout. Therefore, improving adolescents' mental toughness and further improving their school adjustment will be more effective in reducing their academic burnout. However, Mind et al [30] suggested that school adjustment is the moderating effect between mental toughness and academic burnout, and their research subjects are different from those of college students.

6.2. Research Recommendations. According to the research results confirmed that the school adjustment, there is close relationship between learning burnout and mental toughness, according to the results and conclusions of this study, put forward concrete suggestions, when the sample quantity reach a certain value, can affect the results of our produce, in the future research can expand the choice of the object of study samples, there are differences between different areas, and different schools. However, due to the limited samples selected in this research, all types of samples cannot be completely covered, and the existing samples cannot fully demonstrate the differences of learning burnout in different regions and schools.

(A) In terms of the mediating mechanism, this study only selects school adaptation as A mediating variable. Other mediating variables, such as family environment, can also be selected in future studies to enrich the research on related theories.

(B) In terms of research methods, we can also adopt a combination of qualitative and quantitative research methods. In addition to quantitative research using question-paper analysis, qualitative research methods such as interview method, field investigation method, and observation method can also be adopted to understand students' in-depth thoughts.

Data Availability

All data used in this study can be accessed by request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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