Dean&Francis
ISSN 2959-6149

The Influence of Parenting Style on High School Students' Learning Motivation

Jialu Zhang

Medical Humanities Sciences, China Medical University, Shenyang, 110122, China
2023365820@cmu.edu.cn

Abstract:

The decline of senior high school students' learning motivation and the lack of academic input have been widely discussed, but the reasons for this phenomenon are still unclear. As an important part of learning motivation, family factors have great research value. This paper aims to reveal how parenting styles affect students' learning motivation. The importance of this research is that learning motivation not only determines students' academic engagement but also has a profound impact on their long-term academic achievement and mental health. This paper concludes that while emotional warmth was a positive predictor and overprotection a negative predictor, the rejection dimension did not show a significant independent predictive effect in the regression models. Based on this, this paper draws some constructive conclusions. Parents should show more warmth and care, avoid excessive control, and protect high school students' learning motivation to promote their academic development.

Keywords: Parenting Style, Learning Motivation, Emotional Warmth, Over Protection, High School Students

1. Introduction

A global trend of declining learning motivation among high school students now poses a significant challenge for educational psychology. In recent years, there have been endless cases of dropouts caused by academic burnout and insufficient academic input, which has aroused widespread concern. In addition to strengthening traditional methods such as school curriculum reform or teaching technology upgrading, family factors, as the source of high school students' cognitive development, are also a link that cannot be ignored. Therefore, how parents can stimulate and maintain the learning motivation of high school students through more appropriate parenting styles is a realistic and urgent problem.

Different values and life experiences have created a variety of parenting behaviors. These behaviors are classified into four types of parenting styles: authoritarian, authoritative, permissive and neglectful [1]. A good parenting style refers to the educational practice of parents to meet the needs of their children according to the standards of parenting culture that evolve with the times [2]. The research of Kong Chuibin et al. was tested by intelligent partial least squares structural equation modeling (PLS SEM v3.2.8) software. The results showed that the authoritative parenting style was positively correlated with the academic performance of Chinese students [3]. However, the process of the realization of this causal

ISSN 2959-6149

relationship is not clear, and whether there is a mediating role of learning motivation needs to be explored.

Learning motivation refers to an internal psychological state that causes and maintains individuals to carry out learning activities and orient them towards certain learning goals to meet certain learning needs [4]. In addition to autonomous learning ability, the more important influence of learning motivation is reflected in learning engagement, which is the key to achieving excellent academic performance [5]. Research by Professor Wang indicates that higher intrinsic motivation is linked to better academic performance, while extrinsic motivation is found to be negatively correlated with achievement [6]. Although intrinsic motivation does not have a significant regression effect and direct impact on academic achievement, intrinsic motivation indirectly affects academic achievement by directly affecting learning strategies [6].

Studies have shown that self-efficacy and positive coping styles have mediating effects on parental care, direct or indirect positive prediction of learning motivation [7]. These studies have proved that there is an inseparable relationship between parents' parenting style and learning motivation. At present, in the domestic research on learning motivation as the dependent variable, the influencing factors that are focused on include parenting style, social expectation and social support. In foreign related research, the role of learning strategies on learning motivation has been discussed, but the factors related to family are rarely involved. Starting from the parenting style, this study focuses on the research hotspot of parenting style-adolescent stage.

In this context, through the data processing of regression analysis of the learning motivation subscale and the parenting style questionnaire in the motivation and learning strategy scale (MLQS), this paper is dedicated to further investigation of the relationship between the two, and puts forward feasible suggestions for the current situation of high school education. With regard to the experimental outcomes, this research proposes the following two hypotheses:

H1: Parental emotional warmth will positively predict positive learning motivation components.

H2: Parental overprotection will positively predict test anxiety.

2. Method

2.1 Research Tools

The parenting style questionnaire and the motivation and learning strategy scale (MLSQ) learning motivation subscale used in this study are authoritative questionnaires that have been tested by multiple studies.

2.1.1 Parenting style

To more intuitively illustrate what kind of parental behaviors can influence the learning motivation of high school students, this study focuses on dimensional traits rather than typologies. The Chinese version of the simplified parenting style scale is derived from the Egna Minnen av Barndoms Uppfostran (EMBU), which was compiled by Swiss scholars in the 1980s. After the Chinese version was revised by Dongmei Yue and others, it was simplified by Jiang Jiang in 2010. The new scale maintains the three core dimensions of the original English version, with a total of 21 questions, including 6 questions in the rejection dimension ($\alpha = 0.842$), 7 questions in the emotional warmth dimension ($\alpha = 0.864$), and 8 questions in the over protection dimension ($\alpha = 0.819$). The reliability of each dimension is above 0. 8, and the reliability is good. The representative questions include: ‚Father / mother often gets angry with me without knowing the reason', ‚Father / mother praises me', ‚Father / mother does not allow me to do something that other children can do,because she is afraid that something will happen to me'. The questionnaire was scored by 4 points, from 1 to 4, indicating that the frequency gradually increased, of which the 17th question was scored in reverse.

2.1.2 Learning motivation

The learning motivation scale of this study adopts the motivation and learning strategy scale (MLSQ) learning motivation subscale compiled by Pintrich et al. and modified by Chinese scholars Bingyuan Liu and Jizhen Cui. The scale consists of 31 items in 6 dimensions, which are divided into 4 items of external motivation orientation, 4 items of internal motivation orientation, 4 items of learning control, 6 items of task value, 8 items of self-efficacy and 5 items of test anxiety. The representative questions include: 'In the classroom I would rather learn those courses that are difficult but can be learned', 'Now for me, taking a good place in the class is the most satisfactory', 'I believe I will get a good place in my academic performance'. The questionnaire was scored by Likert's 5 points, 1 indicated 'very inconsistent', and 5 indicated 'relatively consistent'.

2.2 Research Methods

This study, uses the method of convenient sampling,some students from two key senior high schools and one ordinary senior high school in Shenyang were selected as the survey objects. The total number of students surveyed was 424, with 168 boys and 256 girls. Among them, there are 162 students in grade 1,116 students in grade 2, and 146 students in grade 3. This study adopts the method of online recovery of authoritative scales. In order to obtain more effective data, students can only answer the com-

plete questionnaire.Based on the 55 - item questionnaire length and common reaction - time studies (about 4 - 5 seconds per item for careful answering), the answering - time exclusion criteria were set. Answering in less than 180 seconds (less than 3.3 seconds per question on average) was considered not having read carefully, while taking more than 1200 seconds (more than 5.5 times the basic estimated time) suggested the process might have been severely disturbed or interrupted. After removing the data of subjects who answered incorrectly, spent too long (more than 1200 seconds), or too short (less than 180 seconds), 300 valid questionnaires were collected. The reasons for the loss of subjects may include many aspects: first, the volume of the scale is large, the filling process takes a long time, and it is easy to cause the subjects to feel tired and bored; secondly, high school students are faced with heavy academic pressure, so they may feel anxious and urgent when participating in the filling of the scale, and ultimately cannot provide effective data.

2.3 Data Processing

This study uses IBM SPSS Statistics 22 software for data analysis. Firstly, in order to test whether there are common method deviations caused by other external factors in the process of data collection, the results need to be tested by the Hamann single-factor test. In order to understand the basic characteristics of the sample and the distribution of variables, this study will conduct descriptive statistics on the scores of each dimension of parenting and learning power, and calculate the mean and standard deviation. Then, using the conventional method, the average score of each dimension is analyzed by Pearson correlation analysis to explore whether there is a relationship between the variables, the direction of correlation, and the intensity of correlation. Finally, on the basis of correlation analysis, multiple linear regression analysis was further used to test the predictive effect of parenting style on learning motivation. Specifically, the scale integrates the measurement items into two comprehensive dimensions: 'positive total score of learning motivation' composed of intrinsic motivation, task value, self-efficacy, and sense of control, and 'negative total score of learning motivation' composed of extrinsic motivation and test anxiety. Taking the three dimensions of parenting style as independent variables, the two dimensions of learning motivation are combined as dependent variables. A regression analysis with learning motivation as the dependent variable was conducted to determine the independent predictive relationships of the variables, reporting the model's fit and significance parameters.

By applying the above methods, this paper examines the relationship between parental rearing patterns and learning motivation in high school students, in order to provide a basis for the development and reform of the education sector.

3. Result

3.1 Common Method Bias

In this study, the Haman single-factor test method was used to evaluate the common method bias. The results showed that among the seven factors of the learning motivation scale, the variance interpretation of the maximum factor was 20.164 %, which was lower than the critical threshold of 40 %, and the eigenvalue was greater than 1. The analysis results based on 11 factors exclude significant common method bias, which effectively verifies the validity of the data in this study.

3.2 Pearson Correlation Analysis

In this study, Pearson correlation analysis was used to explore the relationship between the various dimensions. The four positive dimensions of learning motivation (intrinsic motivation orientation, task value, self-efficacy, and learning control concept) were merged into the 'positive total score of learning motivation'. Table 1 shows the analysis results. An association was observed whereby greater parental emotional warmth corresponded to higher levels of positive learning motivation in students ($r = 0.318$, $p < 0.001$), rejection was significantly negatively correlated with positive learning motivation ($r = -0.2$, $p < 0.001$), and overprotection was significantly negatively correlated with positive learning motivation ($r = -0.121$, $p < 0.005$). The results show that emotional warmth is conducive to the maintenance of positive learning motivation, and rejection and overprotection will destroy learning motivation.

Table 1. The influencing factors of a positive total score of learning motivation.

		Rejection	Emotional warmth	Over protection
Positive total score of learning motivation	Pearson correlation	-0.200**	0.318**	-0.121*
	significance (double test)	0	0	0. 037
	N	300	300	300

ISSN 2959-6149

* When the confidence level (double test) is 0.05, the correlation is significant.
**When the confidence level (double test) is 0.01, the correlation is significant.
At the same time, the negative dimensions of learning motivation (extrinsic motivation orientation, test anxiety) are shown in Table 2, which are significantly positively correlated with rejection ($r = 0.241$, $p < 0.001$) and overprotection ($r = 0.308$, $p < 0.001$) in parenting styles. There is no significant correlation between emotional warmth and extrinsic motivation orientation, and test anxiety, and there may be a moderating effect, which varies from person to person and environment. For high neurotic senior high school students, emotional warmth may not be enough to alleviate the deep-rooted test anxiety; for easy-going high school students may have a better effect. In this study, the effect of emotional warmth on learning motivation may be averaged out.
As shown in the Table 1 and 2, parental emotional warmth demonstrated the strongest positive correlation with positive learning motivation, while rejection and overprotection showed weaker but significant negative correlations.

Table 2. Influencing factors of the negative total score of learning motivation.

		Rejection	Emotional warmth	Over protection
Negative total score of learning motivation	Pearson correlation	0.241**	-0.022	0.308**
	significance (double test)	0	0.7	0
	N	300	300	300

**When the confidence level (double test) is 0.01, the correlation is significant.

Overall, the three dimensions of parenting styles showed significant correlations with both positive and negative aspects of learning motivation. As indicated in Table 3, emotional warmth was positively correlated with several positive motivation indicators: intrinsic orientation ($r = 0.296$, $p < 0.001$), task value ($r = 0.272$, $p < 0.001$), and self-efficacy ($r = 0.327$, $p < 0.001$). Conversely, the rejection dimension correlated negatively with task value ($r = -0.206$, $p < 0.001$) and self-efficacy ($r = -0.201$, $p < 0.001$), but positively with test anxiety ($r = 0.288$, $p < 0.001$). Overprotection was positively correlated with test anxiety ($r = .334$, $p < .001$). To sum up, Parents' emotional warmth can significantly improve the positive learning motivation of high school students, while rejection and overprotection will lead to higher test anxiety and weaken their sense of learning efficacy and value.

Table 3. Analysis of various dimensions of parenting style and learning motivation.

		Intrinsic motivation orientation	Extrinsic motivation orientation	Task value	The concept of learning control	Self-efficacy	Test anxiety
Rejection	Pearson correlation	-0.199**	0.083	-0.206**	-0.044	-0.201**	0.288**
	significance (double test)	0. 001	0.152	0	0.448	0	0
Emotional warmth	Pearson correlation	0.296**	0.168**	0.272**	0.140*	0.327**	-0.172**
	significance (double test)	0	0.003	0	0.015	0	0.003
Over protection	Pearson correlation	-0.11	0.147*	-0.127*	0.056	-0.197**	0.334**
	significance (double test)	0.056	0.011	0.028	0.334	0.001	0

* When the confidence level (double test) is 0. 05, the correlation is significant.
**When the confidence level (double test) is 0.01, the correlation is significant.

These outcomes show that the emotional warmth shown by parents in the process of educating high school students is related to positive learning motivation, while rejection and overprotection are related to negative learning motivation, which are important factors affecting high school students' learning motivation.

3.3 Multiple Linear Regression Analysis

Based on the results of Pearson correlation analysis, this study explores the predictive effect of three dimensions of parenting style on learning motivation. Because learning motivation may be affected by many factors other than parenting styles, such as learning environment, personality differences, etc., the prediction R2 obtained by multiple linear regression analysis is small. However, on the whole, the three dimensions have a significant predictive effect on the positive and negative aspects of learning motivation. Multiple linear regression analysis showed that for positive learning motivation, $F(3,296) = 11.245$, $p < 0.001$. The adjusted R2 is 0.093, which means that the three dimensions of parenting styles together explain 9. 3 % of the variation in the positive aspect of learning motivation. In terms of negative learning motivation, $F(3,296) = 13.791$, $p < 0.001$. The adjusted R2 was 0.114, meaning that 11.4 % of the variation in negative learning motivation was caused by parenting style.

Further analysis of the respective variables found that emotional warmth had a significant positive predictive effect on positive learning motivation ($\beta = 0.15$, $p < 0.001$). The predictive effect of overprotection is reflected in negative learning motivation ($\beta = 0.079$, $p < 0.001$). Rejection did not reach a significant level in the prediction of positive ($\beta = -0.032$, $p = 0.573$) and negative motivation ($\beta = -0.076$, $p = 0.025$). Among them, the prediction of emotional warmth on positive learning motivation is mainly reflected in the self-efficacy dimension ($\beta = 0.052$, $p < 0.001$), and the prediction of overprotection on negative learning motivation is mainly reflected in the test anxiety dimension ($\beta = 0.049$, $p < 0.001$).

4. Discussion

This study explores the predictive influence of parenting patterns on high school students' learning motivation and finds that different dimensions of parenting style have specific predictive effects on the positive and negative aspects of learning motivation, which not only verifies the results of previous correlation analysis but also provides support for the study of the influencing factors of learning motivation.

First of all, emotional warmth constitutes a pivotal protective factor for learning motivation. Data analysis shows that emotional warmth can significantly positively predict positive learning motivation, especially for the dimension of self-efficacy. This finding is highly consistent with the core idea of self-determination theory. According to this theory, the full stimulation of individual intrinsic motivation depends on the satisfaction of their basic psychological needs, including the sense of autonomy, the sense of ability, and the sense of relationship. Parents' emotional warmth behaviors, such as understanding, acceptance, and encouragement, are conducive to children's positive academic emotions, and are a direct way to meet children's needs for a sense of belonging and competence [8]. When children feel unconditional love and support from their parents, they will be more willing to explore the world, meet challenges, and have stronger confidence in their ability to complete tasks, that is, to form a higher sense of self-efficacy, thus driving them to produce more positive and autonomous learning motivation.

Secondly, this study reveals the predictive power of overprotection on negative learning motivation. Excessive protection significantly positively predicts negative learning motivation, and its effect is mainly reflected in increasing students' test anxiety. Research indicates that over protection and interference from parents are not conducive to the cultivation and development of children's independence and self-reliance. If children rely on their parents for everything, they will be at a loss when facing difficulties and will struggle to handle exams calmly, which can easily lead to exam anxiety. [9]. In the learning situation, this sense of control will lead to the lack of subjectivity of high school students, fear of the condemnation and punishment that may be brought about by the failure of the examination, and then worry too much about the examination results and damage the internal learning motivation.

Third, the predictive effect of the rejection dimension did not show stable significance in either the positive or negative motivation models.Rather than indicating an absence of relationship, it may suggest that the link between parental rejection and student motivation is not direct or universal, but is likely complex and conditional. For instance, its effect could be moderated by other factors—such as a student's resilience, the quality of relationships with teachers or peers, or cultural perceptions of parental strictness—which may attenuate or reshape its influence in contemporary educational settings. Thus, the result invites future research to explore under what conditions, and through what mechanisms, perceived rejection might affect academic motivation.

Although this study has drawn some meaningful conclusions, there are still some limitations. Although the regression model is significant, its relatively small R^2 value indicates that the model's explanatory power for learning motivation variations is limited. This confirms the complex and multifaceted nature of learning motivation, which is determined by multiple factors. In addition to the family environment, it is also shaped by a lot of elements like self-esteem, attribution, and life value orientation [10]. Future research can incorporate these variables

ISSN 2959-6149

to construct a more comprehensive explanatory model.

5. Conclusion

This study proves that middle school students who receive more emotional support are more likely to develop a positive learning motivation. Students who get more emotional warmth in their growth show stronger self-efficacy in high school, which is an important part of positive learning motivation. On the contrary, over-protected high school students will face more test anxiety in learning, which weakens learning motivation.

Based on the above research results, this study believes that in order to effectively improve the learning motivation of high school students and solve the problem of suspension and dropout caused by insufficient academic input. Parents should show more warmth and care in the process of raising their kids, and take care of the cultivation of self-efficacy. Instead of over-controlling in the name of protection, it will cause children to have serious test anxiety under pressure and damage their learning motivation at the critical stage of life.

In future research, the mediating effect between parents' refusal behavior and high school students' learning motivation may be a valuable issue. This can more clearly elucidate the factors influencing learning motivation and, from a family perspective, effectively facilitate the academic progress of high school students.

References

[1] McWhirter A C. The impact of parenting styles and parent and child risk factors on child behavioral and learning outcomes. Pro Quest Dissertations & Theses Global, 2021.

[2] Lanjekar P D, Joshi S H, Lanjekar P D, Wagh V. The Effect of Parenting and the Parent-Child Relationship on a Child's Cognitive Development: A Literature Review. Cureus, 2022, 14(10): e30574.

[3] Kong C, Yasmin F. Impact of Parenting Style on Early Childhood Learning: Mediating Role of Parental Self-Efficacy. Frontiers in Psychology, 2022, 13: 928629.

[4] Zhou R, Wang G, Guo C. Analysis of high school students' learning motivation and its influencing factors. Chinese Journal of School Health, 2007, 28(9): 790-793.

[5] Guo X, Peng Q, Wu S, Li Y, Dong W, Tang H, Lu G, Chen C. Perceived parenting style and Chinese nursing undergraduates' learning motivation: The chain mediating roles of self-efficacy and positive coping style. Nurse Education in Practice, 2023, 68: 103607.

[6] Wang Z, Liu P. The influence of motivation factors, learning strategies, and intelligence level on students' academic achievement. Acta Psychologica Sinica, 2000, (1): 65-69.

[7] Peng B, Hu N, Yu H, et al. Parenting style and adolescent mental health: The chain mediating effects of self-esteem and psychological inflexibility. Frontiers in psychology, 2021, 12: 738170.

[8] Shi Q. The influence of parenting style and achievement goal orientation on middle school students' academic emotions. Jiangxi Normal University, 2012.

[9] Wu Z, Liu Z, Jiang Z, Fu X, Deng Q, Palaniyappan L, Xiang Z, Huang D, Long Y. Overprotection and overcontrol in childhood: An evaluation on reliability and validity of 33-item expanded Childhood Trauma Questionnaire (CTQ-33), Chinese version. Asian Journal of Psychiatry, 2022, 68: 102962.

[10] Shi S, Gao J, Zheng G. Study on Middle School Students' Learning Motivation and Its Influencing Factors. Educational Research, 2002, (1): 65-70.