

Maternal Psychological Control and Self-esteem in Middle School Students: The Mediating Effect of Academic Efficacy

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Abstract. Using questionnaire survey, the psychological control scale, academic efficacy scale, and self-esteem scale of 774 students in Zhangzhou, Fujian, Qingdao, Shandong. Results found a significant negative correlation with self-esteem and perceived maternal psychological control with academic efficacy; There was a significant positive correlation between academic efficacy and self-esteem. Academic efficacy plays a partially mediating role between perceived maternal psychological control and self-esteem.

1 Introduction

In recent years, many scholars have explored the relationship between perceived maternal psychological control and academic efficacy, and parental psychological control is a strong predictor of poor academic performance and academic efficacy among adolescents, including academically gifted students^[1]. Research scholars found that adolescent self-esteem may be affected by the family, and there is an association between maternal psychological control and students' academic efficacy^[2]. And students' academic efficacy is related to their self-esteem^[3]. The mother's psychological control can have an impact on the students' self-esteem^[4]. The links between maternal psychological control, academic efficacy and self-esteem are closely related, but there is still in-depth research among the three.

In a family environment, the mother may not think that she has psychological control over the child, but it is exactly the opposite of the child's cognition. Therefore, from the perspective of middle school students, the paper mainly discusses the relationship between perceived maternal psychological control, academic efficacy and self-esteem. The study assumes that academic efficacy is significantly related to perceived maternal psychological control and self-esteem, and academic efficacy plays a mediating role in the perception of maternal psychological control and self-esteem.

2 Methods

2.1 Research objects

774 middle school students from Fujian and Shandong Province were randomly selected from the class. Before the issuance of the questionnaire, they explained to the

students that the requirements of filling in the questionnaire and the questionnaire would not reveal personal privacy. After the students filled in the questionnaire and took it back on the site.

2.2 Research tools

2.2.1 Maternal psychological control scale

The scale is answered by teenagers, this study is the psychological control test scale compiled by Shek, there are two subscales are mother psychological control scale and father psychological control scale, the main content of this study is whether the adolescent perceive maternal psychological control, therefore using the mother psychological control scale, the scale contains 10 items, consists of five dimensions^[5]. In the present study, the Cronbach's α of the adolescent perceived maternal psychological control scale was 0.856.

2.2.2 The Academic Efficacy Scale

This scale was answered by teenagers. In this study, Liang Yusong used the scale of Pintrich and DeGroot to compile the academic Self-efficacy Scale for Chinese students. This scale has 22 items and takes 5 points. The higher the score of the test scale, the higher the academic efficacy level of the subjects^[6]. The Cronbach's α in the present study of the academic efficacy scale was 0.927.

2.2.3 Self-esteem scale

The scale was answered by adolescents, using the Rosenberg Self-esteem Scale modified by Wang Mengcheng et al. There were 10 items and 4 points were scored. A higher score indicates a higher level of self-

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esteem [7]. The Cronbach's α of the self-esteem scale in this study was 0.865.

3 Results

3.1 Common method deviation test

The common method bias test was conducted by Harman single factor test, and all items of the maternal psychological control scale, academic efficacy scale, and self-esteem scale were included in the exploratory factor analysis to view the results before factor rotation. The results of the exploratory factor analysis show that there are seven factors with characteristic root greater than 1 when not rotated, and the top factor can explain 29.18% (<40%) of the variation, indicating that there is no serious common method bias in this study.

3.2 Correlation analysis

The correlation and regression analysis of maternal psychological control, academic efficacy and self-esteem showed a significant negative correlation between maternal psychological control and academic efficacy; maternal psychological control and self-esteem, and self-esteem (Table 1).

Table 1. Correlation analysis of maternal psychological control, academic efficacy and self-esteem.

Variable	Maternal psychological control	Self-esteem	Academic efficacy
Maternal psychological control	1		
Self-esteem	-0.242**	1	
Academic efficacy	-0.150**	0.591**	1

3.3 Regression analysis

The R^2 of the predictive effect of self-esteem by multiple regression analysis, found the model was 0.374, and the adjusted R^2 was 0.372, indicating that the amount of perceived maternal psychological control and academic efficacy on self-esteem was 37.2%. sections the formatting shown in Table 2 should be used.

Table 2. Regression analysis of maternal psychological control, academic efficacy, and self-esteem

dependent variable	independent variable	R^2	R^2 after adjustment	β	t
self-esteem	maternal psychological control	0.059	0.057	-0.242	-6.939
academic efficacy	maternal psychological control	0.022	0.021	-0.150	-4.215

self-esteem	academic efficiency	0.374	0.372	0.568	19.699
	maternal psychological control			-0.157	-5.451

In this study, Preacher and Hayes (2004) proposed Bootstrap to test the mediation effect between variables. PROCESSv3.3 plug-in selection model 4 was used for 5000 times of repeated sampling. The sampling method selected nonparametric percentage method, selected 95% confidence interval, and established the mediation model. If the 95% confidence interval did not include 0, the mediation effect was significant.

Based on this, it can be seen from the Bootstrap mediation effect test in Table: the direct effect is -0.157, 95% confidence interval [-0.224, -0.092], excluding 0, indicating that the direct effect is significant. The indirect effect was -0.085, 95% confidence interval [-0.131, -0.042], excluding 0, indicating that the indirect effect was significant, that is, academic efficacy was a partial intermediary effect in middle school students' perception of maternal psychological control on self-esteem, and the intermediary effect contributed 35.12% to the total effect. See Table 3 for details.

Table 3. Total effects, direct effects and mediation effects

	Effect value	Boot SE	Boot LLCI	Boot ULCI	Effect ratio
total effect	-0.242	0.040	-0.321	-0.165	
direct effect	-0.157	0.034	-0.224	-0.092	64.88%
mediation effect	-0.085	0.023	-0.131	-0.042	35.12%

To further explore the relationship between perceived maternal psychological control, academic efficacy, and self-esteem, With perceived maternal psychological control, academic efficacy as independent variables, Self-esteem was the dependent variable, Establish the mediation model (see Figure 1), Perceived maternal psychological control is a direct prediction of self-esteem ($\beta = -0.242, p < 0.001$), It can also predict self-esteem indirectly through academic efficacy ($\beta = -0.157, p < 0.001$); besides, academic efficacy on self-esteem ($\beta = 0.568, p < 0.001$) was significant; perceived maternal psychological control on academic efficacy ($\beta = -0.150, p < 0.001$). Therefore, middle school students' academic efficacy can affect their self-esteem through perceiving maternal psychological control, and academic efficacy plays a partially mediating role between perceiving maternal psychological control and self-esteem.

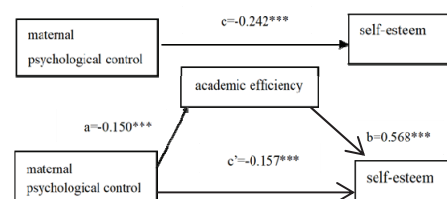


Fig. 1. Model of the mediating effect of academic efficacy between perceived maternal psychological control and self-esteem.

4 Discussion

4.1 The relationship of maternal psychological control, academic efficacy and self-esteem

4.1.1 *The relationship between the maternal psychological control and self-esteem*

The correlation analysis in this study showed that perceived maternal psychological control was negatively associated with self-esteem, and the more perceived maternal psychological control, the lower the level of self-esteem. This is consistent with previous findings, active parenting parents may socialize their family, academic related activities will take longer, provide them with more extracurricular opportunities, contact with more extracurricular opportunities teenagers have a broader vision, and will increase the positive evaluation of themselves, such as self-esteem.

4.1.2 *The relationship between maternal psychological control and academic efficacy*

Maternal psychological control was negatively associated with academic efficacy in this study. The more mothers control their children, the lower the academic efficacy. The results of this study support the conclusions of previous studies, because maternal psychological control will cause fear in study and life and fear failure, which will affect students' academic efficacy [8]. Appropriate parental control is the appropriate boundary, requirement, protection and supervision. Compulsory parental control is excessive protection of children, excessive control of children's needs, and even refuse children's requirements [9]. Therefore, parents' excessive psychological control of children will weaken children's learning motivation, resulting in the reduction of children's academic efficacy.

4.1.3. *The relationship between academic efficacy and self-esteem*

In this study, academic efficacy was positively associated with self-esteem. The higher the students' academic efficacy, the higher the self-esteem level, the students may gain high self-esteem due to the satisfaction of their academic behavior efficacy and academic performance efficacy. Consistent with previous studies, students' behavioral performance assessment of their preset learning goals has a clear impact on the development of self-esteem^[10].

4.2. Mediating the role of academic efficacy

Academic efficacy plays a mediating role between perceived maternal psychological control and self-esteem. That is, the mother's psychological control can directly affect self-esteem and by affecting academic efficacy. This is consistent with previous studies showing that maternal psychological control has a

predictive effect on the child's self-esteem^[11]. Maternal mental control can predict academic efficacy^[12] and that on self-esteem.^[13]Therefore, mothers and children get along in a tolerant, understanding, equal and warm way, and children will apply warm care to learning and self-assessment, which is more likely to improve academic efficacy, thus affecting the level of individual self-esteem. Academic efficacy plays a partial intermediary role in the perception of the mother's psychological control and self-esteem. Paying attention to family education and reducing the mother's psychological control, which will enable children to actively face the difficulties in learning in the future study, have a positive evaluation, and self-esteem will also be significantly improved.

5 Conclusions

This study showed that maternal psychological control predicted students' academic efficacy and self-esteem. Therefore, the family has a profound impact on people, as a parent, how to promote their children's physical and psychological development, how to have a warm family environment? Great starts from the family, school education focuses on teaching, family education focuses on education, the correct way of raising and raising children determines a child's life. As a part of the ecological model, the family has the most direct impact on the children. First of all, parents have the responsibility and obligation to educate their children. Similarly, parents also need to receive education and promote each other, so that their children can grow up together with their parents. Second, sometimes parents may think they are not control, but contrary to the child's cognition, suggest that parents and children know whether inadvertently beyond their own autonomy, realize that children make their decisions is normal, even if these decisions and different views of parents, when they make the wrong decision, parents can try to keep an open mind, and regard it as an important learning process of children growth. In short, parents should support their children's autonomy and reduce excessive psychological control.

The best education is to respect the individual differences of students and subtly influence children. Children can not see the occurrence of education, but they can inspire children's hearts and give full play to the potential of students. This study shows that the intervention of students' academic efficacy helps to improve students' self-esteem, and teachers, as a model of students' life path, teachers' attitude and education methods may be in different degrees, and influence the development of students' academic efficiency and self-esteem. In previous studies, many scholars have also begun to discuss the influence of ecosystem theory and development situation theory on children. School plays a vital influence on children's life, and plays an imperceptible role in children.

In addition, teachers should pay more attention to communication in the process of education with parents. Only home cooperation, parents and teachers cooperate

with each other, to promote the healthy growth of children. As a head teacher, we can hold parents 'meeting and communicate with parents in the form of parents' meeting, so as to alleviate the influence of mother's bad psychological control on children. Therefore, teachers should jointly cultivate their homes and subtly promote the development of students' self-esteem.

Pay attention to family education, reduce the mother's psychological control, will make the children in the future study to actively face the learning difficulties, have a positive evaluation, self-esteem will also be significantly improved. In addition, this study only adopts the cross-sectional study. In the future study, the combination of cross-sectional study and tracking study can be tried to make up for the deficiencies in this study. Only the perception of middle school students for mothers 'psychological control, but not the perception of middle school students for fathers' psychological control, can be added in the future research to make the research more comprehensive.

Acknowledgments

This work was funded by the scientific research funds for 2022 Shaoguan University doctoral talent introduction project, China (Project Number: 9900064703; 9900064602). The funding sources had no role in study design.

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