

The Relationship Between Parental Autonomy Support, Psychological Control, and Academic Adaptation of Middle School Students: The Mediation of Parent-child Relationship and Self-efficacy

Ziwei Yi^{1,a,*}

¹University of East London Business School, Docklands Campus, 4 - 6 University Way, London, E16 2RD, UK

a. ziweiyi@fsu.edu.pa

*corresponding author

Abstract: In the current contemporary competitive social environment, the academic adaptation (AA) is crucial to personal growth and future development. Many studies have shown that family parenting styles (PSs) significantly impact the academic adaptation. Nonetheless, the existing comprehension of the underlying mechanisms by which parental autonomy support (AS) and psychological control (PC) within family parenting styles influence the academic adjustment of middle school adolescents remains insufficiently elucidated. Therefore, this study explored in depth the influencing mechanism of parental AS, PC, and AA of middle school kids, while analyzing the mediators, i.e., parent-child interactions and self-efficacy (SE). The study results found that parental AS positively influenced academic adaption, whereas PC negatively affected it. The parent-child relationship and SE served as mediators in the relationship between the two variables. This study could be beneficial to improving family PSs and promoting the academic growth of middle school kids, while also emphasizing the significance of building positive parent-child bonds and enhancing students' SE in family parenting.

Keywords: Family Parenting Styles, Parental Autonomy Support, Psychological Control, Academic Adaptation.

1. Introduction

In today's society, the AA of middle school students is of significant concern because it is crucial to their personal growth. With the development of society and the increasingly fierce competition, middle school students face significant pressure to advance to higher education and intense academic competition. Therefore, their academic adaptability is crucial. Insufficient adaptability can lead to a range of detrimental issues, including poor academic performance (AP), tense interpersonal relationships, poor emotional state, and physical discomfort.

Previous studies have pointed out that exploring the antecedent mechanisms influencing the academic adaptability of middle school pupils is a crucial issue, among which the influence of the family environment is particularly significant [1].

In particular, PSs, such as parental AS and PC, may significantly impact the AA of middle school pupils. In addition, parent-child relationships (PCR) and SE can also play an essential bridging role in the relationship between the two. Nevertheless, current research still lacks a clear understanding and in-depth understanding of how parental AS and PC specifically affect the AA of middle school students, as well as the internal mechanisms.

Therefore, this paper endeavors to thoroughly investigate the association between parents' AS and PC and middle school students' AA, as well as the mediating mechanism between the two.

2. Research Overview

2.1. Middle school students' AA

One of the most crucial times for personal growth is middle school.. Middle school students in adolescence face increasing pressure in school in various aspects, such as academics and interpersonal relationships (The World Health Organization (WHO) designates adolescence as the age range from 10 to 19 years [2]. In China, this age range encompasses junior high and high school students, which is pertinent as it aligns with the age range of the secondary school students in this study). Therefore, the AA of middle school kids has garnered considerable attention, which is of great significance for their mental health and future development. Baker and Siryk defined academic adaptability as the feasibility of students achieving academic goals and the possibility of successfully passing academic assessments [3]. Subsequently, Mestre and others refined the definition of academic adaptability, describing it as “a comprehensive evaluation of students' daily performance (including submitting homework on time and abiding by class rules) and AP” [4]. In China, the definition of academic adaptability is mainly studied from the perspective of learning adaptability. Although the expressions differ, there is no significant difference in nature [5]. Generally speaking, academic adaptability denotes ‘a capacity to sustain a positive psychological state throughout educational progression, effectively manage academic challenges and pressures, surmount obstacles, and attain favorable learning outcomes [6].

2.2. Parental Autonomy Support (AS), Psychological Control (PC), and AA of Individuals at Middle Schools

When exploring the influencing factors of AA among middle school students, previous studies have demonstrated the significant impact of PSs on the academic adaptability. In the field of socialization research, parental AS and PC are two parenting dimensions that have been extensively studied on their impact on children's development [7].

Initially, researchers believed that parental AS and PC were two extremes of the same parenting approach. Moreover, more and more researchers then agree that the two belong to different categories of PSs, and their relationship is not just negatively correlated, but instead they are two different concepts that are related but relatively independent. For this reason, in some studies, the results of using only one variable could not be used to generalize different PSs and their corresponding results simply. Instead, parental AS and PC need to be considered [8]. In particular, the traditional Chinese Confucian culture values the concept of seniority, which can easily lead to a parenting style of parental authority and child obedience. Cross-cultural studies have found that the level of parental PC in the Chinese culture is higher than that of parents in European and American cultural contexts. Therefore, based on the unique connotations of PSs in the Chinese cultural context, it holds considerable practical importance to explore the impact of the two PSs of parental AS and PC on the social functioning development.

According to Self-Determination Theory(SDT), the two PSs of autonomous support and PC affect children's development differently [9]. Autonomous support is a parenting style that supports

children's development of autonomy and independence, understands and respects their psychological needs and feelings, and provides them with opportunities and choices. When children's needs for autonomy are supported by parents, their intrinsic motivation and internalization (such as the formation of positive values and the development of good habits) are more likely to achieve optimal functioning. Parental PC, conversely, is a parenting style that lacks responsiveness to children's needs and stifles their autonomy and freedom of expression [10]. Specifically, parents use verbal or non-verbal means to aggressively manipulate their children's feelings and thoughts, ignoring their psychological needs for autonomy, emotions, etc. Parents who use this control method are perceived by their children as intrusive, possessive, overprotective, and bossy. PC can be manifested in various ways, encompassing feelings of guilt in children, giving conditional love, instilling anxiety, and denying children's opinions. Parental PC is found to be related to adolescents' social withdrawal, internalizing problems (such as depression and anxiety), and externalizing problems (such as aggression and disciplinary challenges), and has a weakening effect on their intrinsic motivation [11].

Research showed that students' perceptions of their parents' AS and control affected various aspects of their AP to varying degrees and that students show significant differences in their adaptability in challenging academic environments. Parents who provide AS in parenting generally exhibit higher acceptance and lower control [12]. It is worth noting that psychological AS positively affects children's functional development in the emotional and academic domains. A growing body of research suggested that PSs that support children's experiences of autonomy or feelings that they are in control of their actions may be beneficial for enhancing psychosocial adjustment, psychosocial functioning [13] and academic achievement [14]. For example, it was clearly shown in their study that parental AS was positively associated with academic achievement self-motivation, mental health, and positive attitudes toward school [15]. Parents of this type encourage the growth of their kids' self-confidence, which gives them the conviction that they are able to overcome obstacles and become proficient at new things. These skills are thought to be essential internal resources for effectively managing the demands of the educational setting. In secondary school, teachers are often unable to provide individual guidance due to the large number of students. Parents who support their children's autonomy can provide effective academic guidance and help children better adapt to academic difficulties and challenges.

In contrast, controlling PSs have a negative and long-term impact on development. Research has shown that controlling PSs are negatively correlated with cognitive academic ability, AP, and school performance, which in turn leads to a lack of security in children's abilities [16]. Many studies had mentioned that conditional love, as expressed in conditional support from parents, is seen as another form of PC strategy that manipulates children's matters, emotions, and attachment to parents. Furthermore, this PC strategy has a profound impact on children's AA. Specifically, children's perception of this conditional support makes them more inclined to focus on the results rather than the learning process itself, which leads to a series of problems such as test anxiety and rigid coping styles. For example, when facing an exam, they will feel more stressed about not meeting their parents' expectations and will adopt a more rigid learning method to cope with it, rather than truly understanding and mastering the knowledge through the learning process. Under this kind of long-term stress, children are prone to develop negative perfectionism and excessively criticize themselves, making it difficult for them to forgive themselves for minor mistakes. At the same time, children are influenced by their parents' PC, which causes them to lack the courage and perseverance to persevere when facing challenging tasks for fear of losing their parents' love and support. Under the combined effect of these factors, children gradually disengage from school life and even develop a tendency to drop out, seriously hindering the development of their academic adaptability over time.

In 2023, Bouffard & Labranche discovered through rigorous research methods that students who accept autonomous support-based parenting have significantly higher academic adaptability than

students who are under the parenting model of parental PC. This research result provides important empirical evidence for a deeper understanding of the influence of family PSs on the school adaptation [1]. The study used a longitudinal survey design with a sample of 741 French-speaking students (356 boys and 385 girls) from public schools in a specific region of Canada. During the study, all parents, students, and teachers completed informed consent forms, and the acceptance rate of parents for the longitudinal survey project reached more than 95%. In addition, parents provided information on their highest level of education, household income per year and the number of children. Specifically, the parents were mainly of French-Canadian origin (88.7%); in terms of family structure, they were mostly two-child (51.6%) or three-child (26.8%) families, and most belonged to the middle class (annual income between 70,000 and 79,000 US dollars); in terms of education level, parents' education levels were distributed in a diverse manner.

The study collected data in two phases in the spring of the last year of primary school (T1) and in the spring of the first year of secondary school (T2). The final effective sample size was 672 (322 boys). In order to diversify the data sources, the study used a combination of student self-reports and teacher reports to comprehensively assess different aspects of students' AA. The adaptation assessment includes academic motivation, perceived competence, and school achievement, while the maladaptation assessment covers anxiety about tests, fear of making mistakes, and feelings of disconnection from school. Students self-report their academic motivation, perceived competence, anxiety about tests, fear of making mistakes, and feelings of disconnection from school. Teachers provide feedback on their pupils' academic performance and motivation.. In addition, at T2, students also reported on their perceptions of their parents' PSs, including autonomous support, perceived conditional support, and perceived overprotection. All of the above assessments were implemented using specific scales, which all showed good reliability (internal consistency coefficients above 0.7), and the data were analyzed using latent profile analysis (LPA) and Mplus.

The results revealed that parental AS and PC were associated with students' AA and overall school adaptation after entering secondary school. For example, an autonomous parenting style is conducive to students' AA, while a PC parenting style has an adverse effect on students' AA. At the same time, the study further emphasize the importance of an autonomous parenting style in students' secondary school transition.

However, some limitations still exist. First, the research design does not allow for a clear causal relationship, making it difficult to determine whether PSs cause differences in students' AA or whether other potential factors are at play. Second, the lack of a measure of PSs before the transition means that scholars do not know the specific PSs of parents before their children enter secondary school, a critical transition stage. It is therefore difficult to track and understand the changes before and after the transition and the dynamic impact on parent-child interactions. Third, the study mainly relies on students' perceptions of their parents' PSs, which may be subject to subjective bias. Nevertheless, these limitations do not affect the widespread recognition by many studies of the close association between these two PSs and middle school students' AA, as well as the continued focus on further exploring their underlying mechanisms.

2.3. The Mediating Role Parent-child Relationship

PCR are defined in psychology as the mutual relationships between parents and children [17]. PCR are a core element of the family ecological environment and significantly impact individual's emotional functioning and adaptability. In a meta-analysis of PCR and children's social adjustment, it was indicated in a study [18] that high-quality PCR such as intimacy, secure attachment, and positive parent-child communication could improve children's self-esteem and life satisfaction. Conversely, PC and parent-child conflict significantly predict children's internalized and externalized problem behaviors.

Parenting style is an important component of PCR, which are formed through parents' daily parenting behaviors towards their children [19]. Parenting behaviors are closely related to PCR. Research has shown that PSs that have a high degree of fit and good coordination with children in terms of cognition, emotion, and behavior can improve the quality of PCR. In turn, the quality of a good parent-child relationship can promote the improvement of children's social skills. Evidence shows that Children who have a close, loving, and trustworthy connection with their parents are more likely to be independent, flexible, and curious in the classroom.. In addition, these children usually have a higher level of self-esteem and relatively few problems with moral behavior [20]. Intimacy and conflict are two important dimensions of PCR, and both affect students' AA. Research had revealed that authoritative parenting, which embodies the trait of autonomous support, influence parent-child intimacy and impact parent-child conflict. Authoritarian parenting, which was psychologically controlling, significantly negatively predicts parent-child intimacy and significantly positively predicts parent-child conflict [21].

For adolescents, PCR play an impact on their cognitive development, emotional state, social and behavioral skills, self-esteem level, and learning emotions. In addition to going through a time of fast physical and psychological transformation, middle school adolescents frequently experience conflicting feelings of dependence on their parents and longing for independence. At this stage, PCR play a crucial role in the physical and mental growth of adolescents. A high-quality parent-child relationship is an important prerequisite for students to achieve better academic results, and it can positively predict students' AP and academic achievement. Research has found that PCR have a series of significant effects on adolescents' AP, and this effect is common among students of different ethnic groups.

A positive and good parent-child relationship can act as an “incubator” that encourages parents to become more involved in their children's academic progress and has a positive impact on their AP. Conversely, when the parent-child relationship is poor, this positive impact is not only weakened, and it can even have a negative impact. One study clearly revealed that the predictive role of the closeness of the parent-child relationship on AA was significantly higher than that of conflict. At the same time, the study further proposed that to promote the academic adaptability, it is far more important to enhance parent-child intimacy than to reduce parent-child conflict [22]. In addition, previous research had shown that negative PCR were an important cause of adolescent academic anxiety [23]. These research results are interrelated and emphasize the important impact of PCR on adolescents' AA from different perspectives.

Therefore, a high-quality and harmonious parent-child relationship not only helps students improve their AP but also motivates them to develop a more positive learning attitude, which significantly impact the process of academic development, thus helping students better adapt to the challenges in the academic environment.

2.4. The Mediating Role of Academic Self-efficacy

In addition to PCR, academic SE may also play a mediating role in the AA of middle school students. SE is an individual's belief in his or her ability to organize and execute in order to achieve specific achievements [24]. Academic SE is a person's evaluation of their capacity to complete a certain academic assignment. [25]. Middle school students' academic SE is influenced by PSs, socioeconomic conditions, and PCR.

Studies show that PSs have a significant predictive effect on SE [26]. Children who feel more emotional warmth, understanding, and support from their parents tend to have a better parent-child relationship. These children have a deeper sense of trust in their parents and are more inclined to seek help from their parents when they encounter academic difficulties. Therefore, they can obtain more resources from their parents to cope with academic difficulties and thus have a higher academic SE

[27]. Psychologically controlling parenting not only directly negatively predicted adolescents' general SE, school SE, and academic SE [28], but also indirectly affected their general SE through self-esteem and self-deprecation [29].

Academic SE is of great significance to students' AP and was a key factor affecting their learning motivation and improving AP. It could directly affect students' level of effort, psychological resilience, and emotions such as anxiety or calmness during the learning process. As an important dimension of psychological capital, the stronger students' sense of SE was, the more positive their learning attitude was [30]. At the same time, SE had a significant impact on aspects related to AP. It not only 'positively predict on students' willingness to learn and in-depth learning [31], but also positively influenced learning strategies and academic achievement [32]. This series of positive effects together builds a solid support system for students in the academic field, so that students can better adapt to the difficulties and challenges in their studies.

In 2021, Chinese scholar Hong Caiyun conducted a study on junior high school students to investigate the relation between PSs, academic SE, and AA. The study examines the internal influence mechanism of academic SE in the process of AA and provides empirical references and insights for a comprehensive understanding of how academic SE plays a role in AA [33]. This study selected students in the first and second grades of a middle school in Xiamen City, China, as the research subjects. Considering that the third-year students were approaching the high school entrance exam, their learning state was affected by exam preparation factors and was not normal, so the group of third-year students was not included in the scope of the study. Since the school adopted a random class allocation method when students enrolled, there was no difference between key classes and ordinary classes. Therefore, this study finally randomly selected four classes for empirical research.

For data collection, scales such as the academic SE scale (divided into the two dimensions of academic learning SE and academic behavior SE) and learning adaptation (covering the four dimensions of learning methods, learning tasks, interpersonal relationships, and learning attitudes) were used. All of the above scales show good reliability characteristics, with internal consistency coefficients above 0.7, providing a solid guarantee of the reliability of the research data. The questionnaire was administered using the group testing method. The professional psychology teacher at the school organized and explained the rules of the questionnaire and distributed the questionnaires to the class. A total of 200 questionnaires were distributed, and 191 valid questionnaires were eventually returned. The researcher then used correlation analysis and regression analysis.

The correlation analysis of academic SE and learning adaptation showed that all dimensions and the total score of academic SE were significantly and positively correlated with junior high school students' learning adaptation. The regression analysis found that academic SE can predict 65.3% of the variance students' learning adaptation. This shows that academic SE is a very important factor affecting students' learning adaptation. It has a greater impact on learning adaptation and is more explanatory. In addition, the researcher further analyzed in the follow-up of the article that academic SE affects learning behavior through factors such as learning task selection, effort duration, and emotional experience. Specifically, junior high school students with higher academic SE are more proactive in selecting learning tasks, have a strong desire to learn, and tend to challenge difficult tasks. When faced with academic difficulties, they can take the initiative and remain positive, which increases their chances of success. In turn, successful experiences further strengthen their academic SE, thereby enhancing their learning adaptability. On the contrary, students with low academic SE have little interest in learning, avoid challenging tasks, respond negatively to difficulties, and withdraw in pessimism, making it difficult for them to achieve success. This emphasize the important role of academic SE in the learning process of junior high school students, which interacts with learning adaptation to form a dynamic mechanism that has a significant effect on pupils' psychological and intellectual growth..

Additionally, this study has many limitations, including a very small sample size that could not accurately reflect the circumstances of all middle school kids and a highly homogeneous location that results in a restricted sample representativeness. Second, the study's reliability and universality may be impacted by the sample size's small size, which might not accurately represent the variety of junior high school students. Despite the limitations of this study, it is undeniable that it provides empirical evidence for researchers to gain a deeper understanding of the role of academic SE in AA among middle school students, enriches the research results in this field, and provides an important reference direction for follow-up research and educational practice.

3. Conclusion

This study focused on the impact of parental AS and PC on the AA of middle school students and deeply analyzed the mediating role played by PCR and SE. It is committed to revealing the impact mechanism of family PSs on the academic development process of middle school students and aims to provide theoretical basis and practical guidance for improving the AA of middle school students.

The research findings show that parental AS positively and significantly the AA of middle school students, which was manifested in stimulating students' intrinsic motivation to learn and enhancing their learning initiative. Students who receive autonomy-supportive parenting tend to be more proactive in participating in academic tasks in class, keen to explore extended learning content, and show a high level of enthusiasm and self-driven motivation for learning. However, parental PC affect the AA of middle school students; for example, it can lead to learning anxiety and reduce interest in learning. Students with a psychologically controlled parenting environment for a long time often tend to show excessive tension and anxiety when facing academic tasks. They lack the curiosity and desire to explore the learning content, and their initiative and enthusiasm for learning are seriously suppressed.

Moreover, the PCR played an important mediating role between PSs and AA among middle school students. Specifically, the closer the PCR, the higher the student's AA level, and vice versa. Students who have a close relationship with their parents can more quickly adapt to the new learning pace and requirements in the school environment, arrange academic tasks reasonably and effectively, and calmly cope with academic pressure, while students with tense PCR may face more problems and challenges in these areas. Further analysis found that parental AS had a positive shaping effect on PCR. Autonomous support PSs help strengthen the emotional connection between parents and children and promote the intimate development of PCR through positive interaction patterns, such as respecting children's opinions and giving them a certain degree of autonomy. However, PC, due to their excessive interference in children's thoughts and behaviors, often destroyed the balance of trust between parents and children, triggered tension and conflict between parents and children, weakened the quality of PCR, and in turn affected AA.

At the same time, academic SE also played a key mediating role in the relationship between the two. Research had found that parental AS could significantly and positively predict students' academic SE. In other words, parents giving their children sufficient autonomy and support helps them develop a positive perception and confidence in their academic abilities, so that they believe they have the ability to complete academic tasks and can overcome difficulties through their own efforts to achieve academic success. When faced with academic challenges, these students are more likely to actively seek solutions to problems, be brave in trying new learning strategies and tasks, and thus excel in AA. In contrast, parental PC negatively predicted academic SE. Children who grow up with a controlling parenting style are likely to doubt their abilities and have a greater tendency to self-doubt. When they encounter difficulties in their studies, they are more likely to feel helpless and frustrated and lack the courage and confidence to persevere. This in turn leads to difficulties in AA. As for the influence of family education methods on academic SE, children under an autonomous

support education method were more likely to hold a positive view of their academic abilities and thus establish a higher academic SE because they felt the trust and encouragement of their parents during their growth. They are more willing to take on difficult tasks during the learning process, and when facing failure, they can also maintain a positive attitude and believe that they can improve through hard work. In contrast, a controlling parenting style often conveys a sense of distrust to children, making them lack confidence in their academic abilities, resulting in a low sense of academic SE and a negative attitude towards academics.

In summary, this study provides important insights for family and school education. Parents should focus on cultivating a supportive parenting style, reduce controlling behaviors, and actively create a harmonious PCRPCR, which will help enhance students' sense of academic SE and in turn promote the development students' AA. School educators should also pay close attention to the family education environment of students, guide students to establish a correct learning concept in a targeted manner in the teaching and education process, and improve students' SE through encouragement and affirmation. Moreover, this study offers a theoretical reference for further exploring the relationship between family education methods and the academic development of middle school students. Future research can consider expanding the sample size and using a variety of research methods to further verify and expand the research results, so as to enrich theoretical and practical research.

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