

The Relationship Between Parental Autonomy Support and Self-Efficacy

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Abstract. With the rapidly changing social-economic environment and the popularization of higher education, college students are facing increasingly severe employment pressures as well as competition over educational qualifications. In their studies, they are confronted with problems such as anxiety and ambiguous goals. Their learning motivation and resilience in the face of setbacks can be influenced by the self-efficacy and parental rearing styles. However, existing research hasn't explored the specific mechanisms between PASS and students' SE. Therefore, this study focuses on college students as the primary research subjects, utilizing the Parental Autonomy Support Scale (PASS) and the General Self-Efficacy Scale (GSES) as measurement tools, aiming to investigate the mechanisms through which parental autonomy support affects self-efficacy, providing a theoretical basis for family education and psychological interventions in higher education. This research hopes to offer practical insights for alleviating college students' academic and employment anxiety and optimizing family support models. The findings revealed that: ① A significant positive correlation exists between parental autonomy support and general self-efficacy; ② Parental education level is correlated with general self-efficacy but not with parental autonomy support; ③ Parental education level did not exhibit a moderating effect on the influence of parental autonomy support on general self-efficacy.

1 Introduction

With the rapidly changing social-economic environment, college students face growing academic and employment pressures. On the one hand, competition over educational qualifications has intensified with the popularization of higher education, prompting students to continuously enhance their comprehensive competencies to meet the demands of the job market. On the other hand, the rise of emerging industries and the transformation of traditional sectors place higher expectations on students' adaptability. Many problems have arisen, such as anxiety over academic and career planning, self-doubt, and ambiguous goals. One of the main reasons is a lack of self-efficacy, which refers to an individual's assurance in successfully accomplishing specific tasks. Research indicates that SE directly influences

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students' learning motivation, career choices, and resilience in adversity. Crucially, family dynamics (notably parenting approaches) further shape this process.

Parental autonomy support, as a positive parenting behavior, emphasizes fostering children's autonomy by encouraging independent decision-making, providing emotional validation, and minimizing controlling interventions. Unlike traditional authoritarian or controlling parenting styles, autonomy-supportive behaviors help individuals develop intrinsic motivation, enabling them to overcome challenges [1]. For college students, although they are no longer under the direct supervision of their parents, the enduring influence of parental values, psychological support, and resource provision remains crucial. For instance, students whose academic choices are respected by their parents are more likely to explore career paths aligned with their own interests. Similarly, emotional support from parents can help them regain confidence when facing setbacks in employment.

1.1 General self-efficacy

Proposed by Bandura, self-efficacy encapsulates an individual's judgment of their capability to execute adaptive actions in response to contextual challenges. [2]. For instance, it refers to a person who believes they can handle and resolve various matters in life. According to Bandura's theory, SE influences individuals' behavior and learning motivation. Individuals exhibiting high SE demonstrate greater propensity for selecting challenging tasks because they believe in their competence to succeed, and consequently invest greater effort to accomplish them. Researchers normally view SE as a domain-specific concept, like academic self-efficacy or creative SE. However, Ralf Schwarzer and colleagues proposed the existence of a general SE, referring to an individual's overall self-assurance when dealing with a wide variety of new challenges [3].

1.2 Parental autonomy support

Parental autonomy support denotes an individual's perceived experience of parental understanding, respect for their decisions, and provision of supportive resources with emotional validation. This fosters a sense of warmth and alleviates pressure [4]. In 1988, Miller et al. proposed the Self-Determination Theory (SDT), which posits that individuals tend to act in ways that fulfill their own values, needs, and interests. However, intrinsic motivation is also influenced by external environments [5]. When external environments offer rewards that facilitate competence development, they enhance intrinsic motivation; conversely, restrictive or controlling environments threaten individuals' basic psychological needs, thereby weakening intrinsic motivation and hindering adaptation and development [1]. SDT further emphasizes SDT further emphasizes three fundamental psychological needs: competence, autonomy and relatedness: autonomy (volitional regulation), competence (effectance motivation), and relatedness (social belonging). That is, individuals need to be able to make decisions independently (autonomy); experience a sense of efficacy and control over events (competence); and receive understanding and support within relationships (relatedness). The concept of autonomy support originates from SDT [6].

Therefore, as a positive parenting dimension, autonomy support involves caring for the child's needs, offering support and assistance, and providing a growth-oriented environment for decision-making. This approach thereby stimulates the child's intrinsic motivation and potential, exerting a positive influence on their psychological development.

1.3 Parental education level

Additionally, with societal development, the level of education continues to rise. As parents themselves attain higher educational qualifications, the proportion of well-educated individuals among the younger generation also increases. Research indicates that parental education level is a stable predictor of their children's academic achievement [7]. According to the Family Investment Model (FIM), parents with advanced educational attainment demonstrate greater access to multidimensional capital reservoirs, including cognitive flexibility as well as problem-solving skills [7]. This suggests they are better equipped to move beyond traditional educational concepts, understand and embrace more progressive parenting philosophies and grant greater autonomy in their children's decision-making processes. Consequently, parental education levels may shape their parenting styles.

1.4 The present research

Current evidence lacks granular examination of the psychological processes through which parental autonomy support translates into self-efficacy development among emerging adults in tertiary education. Particularly in contemporary China, parents' substantial investment in their children's education and excessively high expectations often coexist with implicit control—such as familial pressures arising from trends like the "civil service exam craze" or the "postgraduate entrance exam craze"—which may hinder college students' ability to make autonomous decisions. Moreover, with the emergence of new phenomena like "lying flat," it is necessary to examine how family support can enhance students' proactive learning behaviors by boosting their SE.

Therefore, the aim of this study is to explore the mechanisms by which PASS develop in collegiate self-efficacy. By integrating the real-world challenges students face in academic planning and career choices, it seeks to provide a theoretical foundation for family education and psychological interventions in higher education. By revealing how autonomy-supportive behaviors translate into intrinsic motivation, this research may offer practical insights for alleviating college students' employment anxiety and optimizing family support models.

2 Method

2.1 Participants

Participants comprised 135 undergraduates randomly selected from universities in Chengdu and Guangzhou, ranged in age from 16 to 32 years ($M=20.1$, $SD=2.00$). Questionnaire administration was conducted via the Wenjuanxing online survey platform. After excluding invalid responses, 116 valid questionnaires were retained, resulting in an effective response rate of 85.93%.

2.2 Materials

2.2.1 Parental Autonomy Support Scale

The Parental Autonomy Support Scale (PASS) used in this study was adapted from the English version developed by Wang, Pomerantz, and Chen through translation-back-translation procedures by Tang et al. This scale has satisfactory reliability and validity in Chinese contexts [8,9]. The instrument comprises 12 items assessing adolescents'

perceptions of parental autonomy support, exemplified by statements such as "Whenever possible, parents let me make my own choices." Responses were collected using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), where higher composite scores reflect stronger perceived parental autonomy support. Scale scores were computed as arithmetic means of all items. In the current study, the internal consistency coefficient (Cronbach's α) for this scale reached 0.925, indicating excellent internal reliability.

2.2.2 General Self-Efficacy Scale

The General Self-Efficacy Scale (GSES) utilized in this investigation was the Chinese adaptation validated by Wang Caikang et al. GSES has demonstrated robust psychometric properties in measuring self-efficacy among Chinese adolescents, with established reliability and validity evidence [10,11]. The instrument comprises 10 items assessing adolescents' perceived capability to cope with diverse challenges, exemplified by statements such as "If I make an effort, I can always solve problems I encounter." Responses were recorded on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), with higher total scores indicating stronger self-efficacy beliefs. The scale was scored by summing responses across all items. The internal consistency coefficient (Cronbach's α) for this scale reached 0.913, suggesting excellent internal reliability in the present study.

2.3 Statistics

SPSS 26.0 was employed for data processing, conducting correlation analysis, analysis of variance (ANOVA), partial correlation analysis, and moderation effect tests to explore variable relationships and validate research hypotheses.

3 Results

There is a significant positive association linking parental autonomy support to general self-efficacy ($p<0.01$) in table 1, while self-efficacy also shows a significant positive correlation with parental education level ($p<0.01$).

Table 1. Summary statistics and intervariable Correlations (n=116)

	M	SD	1	2	3	4	5
Parental autonomy support	3.57	0.75	1				
General self-efficacy	33.26	6.69	0.42**	1			
Parental education			0.12	0.25**	1		
Age	20.11	2	-0.01	0.07	0	1	
Sex			-0.08	0.10	0.06	0.11	1

** $p<0.01$

A one-way ANOVA was conducted to examine group differences in parental autonomy support and general self-efficacy across parental education levels (categorical variable). As shown in Table 2, only general self-efficacy exhibited marginally significant group differences $F(3,112)=2.61$, $MSE=112.253$, $p=0.055$.

Table 2. ANOVA of parental autonomy support and general self-efficacy by parental education level(n=116)

		SS	df	MS	F	p
Parental autonomy support	Between Groups	1.052	3	0.351	0.613	0.608
	Within Groups	64.112	112	0.572		
	Total	65.164	115			
General self-efficacy	Between Groups	336.759	3	112.253	2.610	0.055
	Within Groups	4817.483	112	43.013		
	Total	5154.241	115			

As demonstrated in Table 3, partial correlation analysis revealed that parental autonomy support maintained a significant positive association with general self-efficacy even after controlling for parental education level ($r=0.40$, $p<0.001$).

Table 3. Partial correlation of parental autonomy support with general self-efficacy (n=116)

		General self-efficacy		
Control		r	Sig.	df
Parental education	Parental autonomy support	0.4	<0.001	1

Moderation analysis (Table 4) revealed that parental autonomy support significantly predicted general self-efficacy ($\beta=6.95$, $p<0.05$), while parental education level did not exhibit moderating effects on this relationship.

Table 4. Testing the moderating role of parental education level in the parental autonomy support - general self-efficacy

		B	SE.	t	p	95%CI
Main effects	Constant	4.8	10.08	0.48	0.63	[-15.17,24.77]
	Parental autonomy support	6.95	2.84	2.45	<0,05	[1.33,12.57]
	Parental education	5.22	3.14	1.66	0.1	[-1.01,11.45]
Interaction	Parental autonomy support × Parental education	-1.1	0.87	-1.26	0.21	[-2.83,0.63]

4 Discussion

General self-efficacy shows a notable positive correlation with Parental autonomy support. Different analysis method all presented significant correlation between parental autonomy support and general self-efficacy, this indicates that the correlation remains stable.

Parental education level was correlated with general self-efficacy, but did not present any correlation with parental autonomy support. Though they presented in contrast in the correlation analysis, but this relationship disappeared after controlling for parental education level. This indicates that the relationship remains unstable. Thus caution is warranted in interpreting the correlation between parental education level and general self-efficacy, as the observed significant association may reflect confounding influences from parental autonomy support.

The mitigating effect of parents' educational level on the relationship between parents' independent support and general SE was not statistically significant. Furthermore, parental autonomy support accounted for only a moderate portion of the variance in general SE, suggesting that additional factors significantly contribute to it.

Prior research indicates that students with high self-efficacy not only exhibit stronger academic motivation but also adopt more effective self-regulated learning strategies [9]. This study's findings reveal a significant positive effect of parental autonomy support (as an active parenting approach) on such self-efficacy. Compared to over-controlling parenting, autonomy-supportive parenting provides children with adequate resources and encouragement. This supportive family environment facilitates intrinsic motivation, thereby fostering autonomous behaviors and the development of self-perception.

However, parents' educational attainment did not play a significant role in this context. This may be attributed to the development of social informatization and evolving societal attitudes: even parents with lower levels of formal education have demonstrated the capacity for rapid learning, enabling them to continuously adapt to the developmental needs of the younger generation. Such adaptability has facilitated shifts in their perspectives on education, fostering greater understanding and respect for their children.

5 Discussion

5.1 Limitations

The limitations of this study are as follows: 1. The sample primarily consisted of undergraduate and postgraduate students, which may have introduced certain constraints and potentially influenced the experimental findings. To address this, future studies could expand the participant pool to include individuals from colleges and universities of varying tiers (e.g., junior colleges) and appropriately increase the overall sample size to enhance the representativeness of the results. 2. The collected data exhibited an imbalance in gender, as female participants constituted the larger proportion. To mitigate this, future research should strive to balance the gender ratio in the sample. Additionally, building on prior studies, further exploration of gender differences in the effects of perceived PASS on general self-efficacy would be valuable. 3. Employing a cross-sectional design, this study collected data at a single time point. However, the effects of PASS may differ depending on the child's developmental stage. Consequently, future investigations could adopt longitudinal research methods to examine how parental support dynamically influences children's general self-efficacy over the course of their development.

5.2 Future directions

Future directions for this research include two key aspects: 1. increasing incorporated cross-cultural comparisons: comparing the impact of autonomy support across different cultural backgrounds (e.g., Chinese vs. Western families) to explore localized intervention plans. 2. delineating the utility of support strategies: further differentiating the effects of specific

support forms (e.g., financial support vs. psychological support) on students from different socioeconomic strata to avoid overly generalized recommendations.

This study has confirmed that parental autonomous support is a key factor in enhancing the self-efficacy of college students. However, its effectiveness depends on the scientific nature of the support method. In the future, it is necessary to collaborate among multiple entities (family - school - society) to convert the theoretical results into practice, thereby helping college students achieve sustainable development in an uncertain environment.

6 Conclusion

This research investigates the mechanisms through which PASS influences self-efficacy among college students, offering a theoretical foundation for family education and psychological interventions in higher education. The discoveries demonstrate that PASS is a critical component and exhibits a significant positive correlation with enhanced self-efficacy. Students develop greater confidence in their abilities and leading to improved academic performance and career readiness when parents encourage them to make independent decision, and providing them emotional support, and respect their perspectives.

The study highlights the importance of parents acting as a strong backing for their children. It offers guidance rather than control, and fosters an environment where autonomy is prioritized. Support not only alleviates academic and employment anxiety, but also equips students with the resilience needed to navigate challenges in higher education. In the current competitive and rapidly changing societal environment, parental autonomy support serves as a safeguard for students' future.

These views highlight the need to optimize family support models through the promotion of open communication, trust and self-learning. By doing so, parents can greatly boost their children's mental health and future growth. This research provides practical advice to families and educators to increase students' self-efficacy and ultimately build a more supportive and effective educational ecosystem.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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