

The Relationship between Family Functioning and College Students' Psychological Adaptation: The Mediating Effect of Perceived Social Support

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Abstract: This research explores the mechanism linking family functioning to the psychological adaptability of college students, with a specific focus on the mediating effect of perceived social support. A total of 1,291 college students were administered the Family Intimacy and Adaptability Scale, the Perceived Social Support Scale, and the Adolescent Psychological Adaptability Questionnaire, yielding 1,269 valid responses. Results revealed significant positive correlations between family functioning and perceived social support ($r=0.512$, $p < 0.01$), as well as between family functioning and psychological adaptation ($r=0.064$, $p < 0.05$). Perceived social support also showed a significant positive correlation with psychological adaptation ($r=0.206$, $p < 0.01$). Perceived social support fully mediated the relationship between family functioning and psychological adaptation among college students, indicating that family functioning can promote psychological adaptation by enhancing individuals' levels of perceived social support. These findings offer both theoretical and practical value for the field of college student mental health. They can directly inform the design of targeted prevention and intervention strategies.

1. Introduction

The college years represent a critical transition period for individuals moving from adolescence to adulthood. This phase is filled with opportunities yet accompanied by significant psychological adaptation pressures. Psychological adaptation refers to the process by which individuals achieve harmonious equilibrium with their environment through adjusting their mental states and behavioral patterns during environmental interactions. It serves as a core indicator of psychological well-being, directly impacting academic achievement, life satisfaction, and long-term development^[1]. In recent years, issues of poor psychological adaptation—such as anxiety, depression, and loneliness—have become increasingly prominent among college students. Effectively promoting their psychological adaptation has thus emerged as a critical topic in higher education and mental health fields.

Among the various ecosystems influencing college students' psychological adaptation, the family, as the earliest and most enduring setting for individual socialization, plays a foundational role through its functional status. According to family systems theory, a family functions as an

interconnected unit whose dynamics are shaped by the interactions among all its members. The family's impact on adolescents' physical and psychological development manifests through family functioning, which also serves as a comprehensive indicator for assessing the overall quality of family operations^[2]. Family functioning refers to the overall capacity of the family system to meet members' physiological, psychological, and social needs, as well as to cope with changes and emergencies. It is considered a deeper variable influencing family members' psychological development, more impactful than superficial variables such as parenting styles^[3]. Research indicates that poor family functioning may lead to a series of psychological and behavioral problems in individuals. Dysfunctional family coordination is a recognized risk factor for a range of negative emotional states, from anxiety and depression to suicidal thoughts^[4-7]. Conversely, well-functioning families significantly and positively predict adolescents' psychological adaptation. Balanced family intimacy and adaptability enhance individuals' sense of life meaning^[8] and promote interpersonal adjustment^[9]. This indicates that strong family functioning provides individuals with security and a stable psychological foundation, positively fostering adolescents' mental health and social adaptation.

Although research has confirmed the direct association between family functioning and psychological adaptation, the underlying mechanisms linking the two remain a black box requiring further exploration. In recent years, perceived social support has gained attention as a crucial mediating variable. Perceived social support serves as a vital psychological resource for individuals adapting to their environment. It refers to the emotional experience and satisfaction individuals derive from feeling respected, supported, and understood within society. This concept encompasses subjective perceptions and beliefs regarding the accessibility and supportive nature of one's social support network, distinguishing it from objective support by emphasizing individual subjective evaluations and emotional experiences^[10,11]. According to the buffering model, perceived social support serves as a crucial psychological resource. It can effectively mitigate or prevent negative psychological reactions triggered by stressful events by regulating individuals' cognitive evaluations of stressors, thereby helping them better cope with stress and adapt to their environment. Research indicates that family closeness and adaptability positively correlate with adolescents' perceived social support, while robust perceived social support significantly correlates with higher levels of social adaptation^[12,13]. This suggests that family functioning may indirectly influence psychological adaptation through the mediating pathway of shaping an individual's perceived social support levels.

Based on family systems theory and the social support buffering model, this study aims to construct a mediation model to examine the influence of family functioning on psychological adaptation, with a focus on testing the mediating role of perceived social support. In summary, two hypotheses are proposed: Family functioning positively predicts psychological adaptation among college students (H1); Perceived social support mediates the relationship between family functioning and psychological adaptation (H2).

2. Methods

2.1 Participants

Participants were selected through convenience sampling from a university in Gansu Province. Questionnaires were distributed via Wenjuanxing platform, yielding 1,291 responses. After excluding invalid responses (e.g., those completed too quickly or exhibiting repetitive patterns), 1,269 valid questionnaires were obtained, representing a response rate of 98.30%. The sample comprised 875 males and 394 females, with 376 urban residents and 893 rural residents. Participants' ages ranged from 18 to 22 years old.

2.2 Tools

2.2.1 Family Adaptability and Cohesion Scale

The Chinese version of the Family Adaptive and Cohesive Forces Scale (Second Edition) was used to assess family functioning. This scale was developed by David Olson and colleagues, and later revised by Fei Lipeng, Shen Qijie, and colleagues^[14]. This 30-item scale comprises two subscales: Family Cohesion and Family Adaptability. A 5-point Likert scale ranging from “never” to “always” is used, with scores ranging from 1 to 5. Higher scores indicate stronger family cohesion and adaptability, reflecting more stable family functioning. The calculated Cronbach's alpha coefficient for the employed scale stood at 0.97.

2.2.2 Perceived Social Support Scale

The Chinese version of the Perceived Social Support Scale (PSSS), developed by Zimet et al.^[15] and translated/revised by Jiang^[16], was used to assess participants' perceived social support. This 12-item scale comprises three dimensions: family support, friend support, and other support. A 1-7 rating scale (with responses ranging from "Strongly Disagree" to "Strongly Agree") is adopted for this measure, wherein elevated scores signify a stronger subjective perception of overall social support. Reliability analysis confirmed that the scale exhibited a high degree of internal consistency (Cronbach's $\alpha = 0.96$).

2.2.3 Adolescent Psychological Adaptability Scale

The Adolescent Psychological Adaptability Scale (APAS), developed by Chen Huichang et al.^[17], was employed to assess college students' psychological adaptability levels. The scale comprises 20 items across four subscales: Physical and Sports Competition Adaptation, Adaptation to Unfamiliar and Learning Situations, Test Anxiety Situations, and Group Activity Adaptation. The scale employs a 1–5 rating scale (ranging from “strongly disagree” to “strongly agree”), with higher scores indicating greater psychological adaptability. This scale has demonstrated high reliability and validity among university students. In this study, the Cronbach's α coefficient for the scale was 0.95.

2.3 Statistical Analysis

Data processing was conducted using SPSS 26.0. Pearson's correlation method was employed to examine pairwise correlations between family functioning, perceived social support, and psychological adaptability. The Process 4.2 macro program Model 4 was used to assess whether perceived social support exerted a significant mediating effect.

3. Results

3.1 Common Method Bias Test

This study employed self-reporting methods exclusively for data collection, which may introduce common method variance (CMV). To enhance research rigor, unrotated Harman's one-factor test was applied for statistical control prior to data analysis. To further enhance the rigor of the study, statistical control was applied using Harman's single-factor test prior to data analysis^[18]. This involved conducting unrotated principal component factor analysis on all variables. Results indicated that the first factor explained 34.44% of the variance, falling below the 40% critical threshold. Therefore, no significant common method variance was present in this study's data.

3.2 Descriptive Statistics and Correlation Analysis

All variables (family functioning, perceived social support, and psychological adaptation among college students) are illustrated in Table 1. Correlation analysis revealed significant correlations among all variables. Specifically, family functioning showed significant positive correlations with perceived social support ($r = 0.512$, $p < 0.01$) and psychological adaptability ($r = 0.064$, $p < 0.05$). Perceived social support also exhibited a significant positive correlation with psychological adaptability ($r = 0.206$, $p < 0.01$). These inter-variable relationships support subsequent hypothesis testing.

Table 1: Descriptive Statistics for Each Variable and Correlation Matrix among Variables (N = 1269)

	1	2	3
1 Family Functioning	1		
2 Perceived Social Support	0.512**	1	
3 Psychological Adaptation	0.064*	0.206**	1
M	108.896	57.290	56.554
SD	23.169	12.935	15.872

** $P < 0.01$; * $P < 0.05$.

3.3 Mediating Effect Analysis

We employed Model 4 from the SPSS PROCESS plugin to execute the mediating effect analysis. Family functioning was set as the independent variable, psychological adaptability among college students as the dependent variable, and perceived social support as the mediating variable within the mediation model. Variables were standardized prior to formal data processing. Results are presented in Table 2. Regression analysis revealed that overall, family functioning significantly and positively predicted psychological adaptation ($\beta = 0.064$, $p < 0.05$). Mediation analysis revealed that family functioning significantly predicted perceived social support ($\beta = 0.512$, $p < 0.001$). However, when family functioning, perceived social support, and psychological adaptation were simultaneously included in the regression equation, the predictive effect of family functioning on psychological adaptation became insignificant ($\beta = -0.057$, $p > 0.05$), and the direction of prediction shifted to negative. There was a significant predictive relationship between perceived social support and psychological adaptation, with $\beta = 0.235$ and $p < 0.001$. See Table 2 for details. $p > 0.05$) and shifted to a negative direction. A significant positive relationship was observed between perceived social support and psychological adaptation ($\beta = 0.235$, $p < 0.001$). Comprehensive results are detailed in Table 2.

Table 2: Mediating effect of Perceived Social Support between Family Functioning and Psychological Adaptation

Dependent Variable	Independent Variable	R ²	F	β	t	p
Psychological Adaptability	Family Functioning	0.045	29.669	-0.057	-1.777	>0.05
	Perceived Social Support			0.235	7.348	<0.001
Perceived Social Support	Family Functioning	0.262	450.637	0.512	21.228	<0.001
Psychological Adaptability	Family Functioning	0.004	5.135	0.064	2.266	<0.05

As shown in Table 3, the direct effect of family functioning on college students' psychological adaptation was -0.057, with a Bootstrap 95% CI of (-0.119 to 0.006), which included zero, indicating a non-significant effect. The mediating effect of perceived social support between family

functioning and psychological adaptation among college students was 0.120, with a Bootstrap 95% CI of (0.079 to 0.163), excluding zero. This indicates that perceived social support fully mediates the relationship between family functioning and psychological adaptation. The effect of the mediating role is illustrated in Figure 1.

Table 3: Bootstrap 95% Confidence Intervals for Mediating Paths

Item	Effect Size	Boot SE	Boot CI		Conclusion
			Lower Bound	Upper Bound	
Direct Effect	-0.057	0.032	-0.119	0.006	Not Significant
Indirect Effect	0.120	0.022	0.079	0.163	Full Mediation

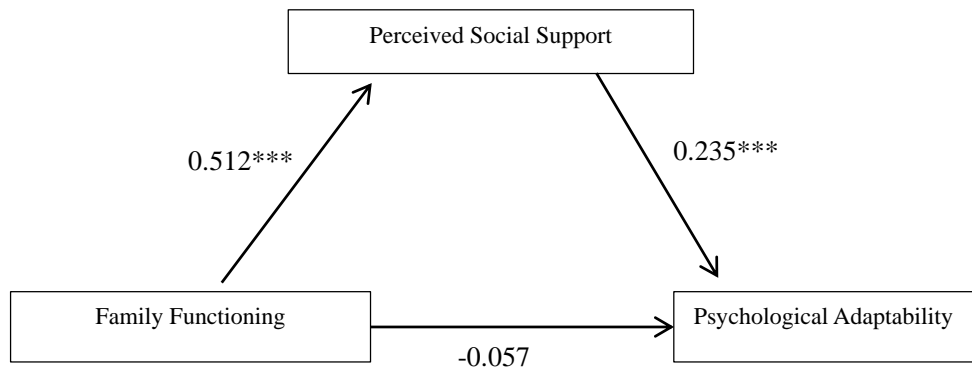


Figure 1: Mediating Effect Model of Perceived Social Support

4. Discussion

This study examined the effects of family functioning and perceived social support on the students' psychological adaptation, while also investigating the mediating effect of perceived social support. Results indicate that family functioning significantly and positively predicts psychological adaptation among college students, with perceived social support playing a fully mediating effect, thus supporting the research hypotheses.

First, the analysis identified the quality of family functioning as a key positive correlate of individuals' psychological adaptation levels. Overall, family functioning exerted a significant positive predictive effect on psychological adaptation, though its direct predictive effect did not reach statistical significance. This finding aligns with previous research ^[13], indicating that family functioning, as a core microsystem in individual psychological development, profoundly influences university students' psychological adaptation levels. According to family systems theory, the family is not merely a collection of members but a complex emotional unit whose functionality manifests across multiple dimensions, including problem-solving, communication, role division, emotional responsiveness, and behavioral regulation ^[19]. A well-functioning family provides members with an emotional environment characterized by high intimacy, good adaptability, and effective communication. This positive early experience serves as a secure psychological base, enabling college students to develop greater psychological resilience and positive cognitive patterns when facing challenges such as academic pressure and interpersonal restructuring. Consequently, they exhibit stronger psychological adaptability, achieving balanced development with their environment ^[20,21].

Second, the findings indicate that perceived social support plays a pivotal role in this process. Perceived social support fully mediates the positive predictive effect of family functioning on psychological adaptation. The indirect effect is positive, suggesting that family functioning

promotes psychological adaptation by enhancing individuals' levels of perceived social support, with this mediating pathway exerting a positive influence. This aligns with the stress buffering model, where social support serves as a vital psychological resource enabling individuals to effectively cope with stress, with supportive cognitions enhancing coping resources^[22]. According to the stress buffering model, family functioning directly influences individuals' subjective perceptions of social support—perceived social support—by shaping their internal working models. Specifically, individuals raised in functionally sound families are more likely to develop the positive core belief that “others (including family and friends) will provide help when I need it”^[23]. This belief in “support availability” serves as potent psychological capital, enhancing college students' sense of self-worth, belonging, and coping efficacy, thereby indirectly promoting psychological adaptation^[23,24]. The negative direct effect indicates that, after controlling for perceived social support, family functioning exerts a negative direct influence on psychological adaptation. This may suggest that certain dimensions of family functioning (such as high expectation pressure or behavioral control) exhibit a “double-edged sword” effect, directly inhibiting psychological adaptation and producing a masking effect^[25]. That is, while enhancing perceived social support indirectly promotes psychological adaptation, excessive control or high expectation pressure within family functioning may directly inhibit college students' autonomy, thereby exerting a direct negative impact on psychological adaptation^[26]. In other words, the positive impact of family functioning relies on enhanced perceived social support, while its inherent negative factors may directly undermine psychological adaptation capacity. This indicates that family functioning influences psychological adaptation through multiple pathways. Future research should further subdivide dimensions of family functioning and explore other potential mediating or moderating variables—such as psychological flexibility and self-control—to more comprehensively elucidate its underlying mechanisms.

5. Conclusions and Implications

This study primarily draws the following conclusions: There exists a significant positive correlation between family functioning and psychological adaptation among college students; perceived social support fully mediates the relationship between family functioning and psychological adaptation. Simultaneously, the findings caution against simplistically concluding that “family functioning necessarily promotes psychological adaptation,” emphasizing the need to delve deeper into the underlying mechanisms. The competitive mediation effect suggests that future research could further subdivide dimensions of family functioning or explore other potential mediating variables to explain the negative direct effect.

This relational model offers clear implications for mental health education in higher education: while focusing on students' psychological adaptation, intervention measures can be extended to the front end. On one hand, through home-school collaboration, families can be guided to improve communication and enhance family functioning, thereby solidifying students' psychological safety bases. On the other hand, school education should consciously cultivate students' ability to perceive and utilize social support (especially peer support), helping them transform objectively existing support networks into positive psychological capital to better adapt to university life.

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References

- [1] Jia Xiaobo. *The Essence and Mechanism of Psychological Adaptation*[J]. *Journal of Tianjin Normal University (Social Science Edition)*, 2001, (01): 19-23.
- [2] Chi Liping, Xin Ziqiang. *Research on Family Function and Its Related Factors* [J]. *Psychological Exploration*, 2001, 21(3): 55-60, 64.
- [3] Olson D H. *Circumplex model of marital and family systems*[J]. *Journal of Family Therapy*, 2000, 22(2): 144-167.
- [4] Yen C, Yang P, Wu Y, et al. *The relation between family adversity and social anxiety among adolescents in Taiwan: Effects of family function and self-esteem*[J]. *Journal of Nervous and Mental Disease*, 2013, 201(11): 964-970.
- [5] Zhao Yan, Zhang Xiang, Guo Jichang. *A Longitudinal Study on the Impact of Family Functioning on the Psychological Adaptation of Children Relocated for Poverty Alleviation*[J]. *Chinese Journal of Health Psychology*, 2022, 30(5): 641-646.
- [6] Yuan Songyun, Chen Fengju, Xie Li, et al. *Relationship between Family Function and Psychological Adaptation in Rural Left-Behind Children* [J]. *Chinese Journal of Health Psychology*, 2016, 24(2): 231-235.
- [7] Peng B, Hu N, Guan L, et al. *Family functioning and suicidal ideation in college students: A moderated mediation model of depression and acceptance*[J]. *Frontiers in Public Health*, 2023, 11: 1137921.
- [8] Yuan, W., Zhang, X., Meng, B., et al. *The influence of family functioning on college students' life satisfaction: A chain mediation effect of life meaning and psychological resilience*. *Chinese Journal of Health Psychology*, 2024, 32(4): 498-502.
- [9] Tinghu K, Qian X, Biru C, et al. *The association between family functioning and interpersonal adaptation in Chinese college students: A moderated mediation model*[J]. *Current Psychology*, 2024, 43(29): 25831-25842.
- [10] He, X. Zhan, & You, H. Y. (2006). *The relationship between intimacy, adaptability, and perceived social support among college students*. *Chinese Journal of Rehabilitation Theory and Practice*, 12(7), 634-636.
- [11] Zhang Xu. *A Study on the Relationship between Narcissism and Psychological Adaptation among College Students* [J]. *Psychological Science*, 2011, 34(5): 1174-1177. DOI: 10.16719/j.cnki.1671-6981.2011.05.011.
- [12] Ruihua M, Smith J, Johnson L. *A systematic review on the impact of social support on college students' wellbeing and mental health*[J]. *PLOS ONE*, 2025, 20(3): e0256789. DOI: 10.1371/journal.pone.0256789.
- [13] Zhong, X. X., & Wang, J. *Family functioning and social adaptation: Mediating effects of perceived social support. Mental Health Education in Primary and Secondary Schools*, 2016(8): 4-8.
- [14] Fei Lipeng, Shen Qijie, Zheng Yanping, et al. *Preliminary Evaluation of the "Family Intimacy and Adaptability Scale" and "Family Environment Scale": A Comparative Study of Normal Families and Families with Schizophrenic Members* [J]. *Chinese Journal of Mental Health*, 1991, 5(5): 198-202.
- [15] Zimet G D, Dahlem N W, Zimet S G, et al. *The multidimensional scale of perceived social support*[J]. *Journal of Personality Assessment*, 1988, 52(1): 30-41.
- [16] Jiang Qianjin. *Understanding the Social Support Scale* [J]. *Chinese Journal of Behavioral Medicine*, 2001, 10(10): 41-43.
- [17] Chen Huichang, Dan Zengshou, Chen Jianji. *Development and Preliminary Norms of the Adolescent Psychological Adaptation Scale (APAS)* [J]. *Psychological Development and Education*, 1995(3): 28-32.
- [18] Zhou Hao, Long Lirong. *Statistical Testing and Control Methods for Common Method Bias* [J]. *Advances in Psychological Science*, 2004(6): 942-950.
- [19] Beavers R, Hampson R B. *The Beavers systems model of family functioning*[J]. *Journal of Family Therapy*, 2000, 22(2): 128-143.
- [20] Kerr M E, Bowen M. *Family evaluation: An approach based on Bowen theory*[M]. New York: W. W. Norton & Company, 1988.
- [21] Li J M, Guo X. *A study on present condition of family function*[J]. *China Journal of Health Psychology*, 2008, 16(9): 1071-1075.
- [22] Cohen S, Wills T A. *Stress, social support, and the buffering hypothesis*[J]. *Psychological Bulletin*, 1985, 98(2): 310-357.
- [23] Lin Y, Zhang Q, Wang F. *The influence of physical exercise on psychological capital of college students: The mediating role of perceived social support and self-control*[J]. *BMC Psychology*, 2025, 13(1): 45.
- [24] Sarason B R, Pierce G R, Shearin E N, et al. *Perceived social support and working models of self and actual others*[J]. *Journal of Personality and Social Psychology*, 1991, 60(2): 273-287.
- [25] Wen, Z. L., & Ye, B. J. . *Mediating effects analysis: Methodological and model developments*. *Advances in Psychological Science*, 2014, 22(5), 731-745.
- [26] Yang H, Li S, Chen X. *Child psychological maltreatment, depression, psychological inflexibility and difficulty in*

identifying feelings, a moderated mediation model[J]. Scientific Reports, 2025, 15: 12345.