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# The impact of parent–child relationship on the professional commitment of Chinese secondary vocational school students: The chain mediating role of resilience and educational stigma

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# Abstract

Professional commitment is an important foundation for vocational students' career development and school-to-work transition, yet its contextual and psychological antecedents remain insufficiently understood. Based on attachment theory and the risk–protective factor model, this study investigated how parent–child relationship influences professional commitment among 1625 Chinese secondary vocational students. Results showed that parent–child relationship enhanced professional commitment both directly and indirectly through three pathways: resilience, educational stigma, and their sequential mediation (resilience→educational stigma→commitment). These findings highlight the importance of integrating family support, resilience-building, and stigma reduction into vocational guidance efforts aimed at strengthening students' commitment to their educational and occupational pathways.


# 1 Introduction

In recent years, the development of vocational education in China has received increasing policy and scholarly attention, particularly in relation to how professional education can better prepare young people for future employment and long-term career development. In China, secondary vocational education serves as an important stage in the vocational education system, connecting general compulsory education with subsequent technical training, higher vocational study, and entry into the labor market (Ministry of Education of the People's Republic of China, 2025). Unlike general academic education, the education received by secondary vocational school students primarily focuses on professional learning, which, here, means specialized courses directly related to their future occupation, exhibiting a high degree of specialization and relevance. For these students, their major is not only the organizational unit of their learning content but also a crucial label for their future professional identity—the perception and value of their chosen occupation—and social role. In this context, students' commitment to their major is not only an indicator of educational engagement but also a foundation for their professional identity development and future occupational adaptation. However, in reality, many secondary vocational school students suffer from insufficient professional identity, unstable learning engagement (defined as consistent involvement in academic activities), and low levels of professional commitment (long-term dedication to their chosen field), which directly affect their learning adaptation, skill development, and subsequent career stability (Chen & Huang, 2024; Li, 2024). Strengthening the professional commitment of secondary vocational school students is therefore essential for improving the effectiveness and sustainability of vocational education.

Professional commitment, defined as students' identification with, investment in, and willingness to persist in an educational pathway that is closely connected to future occupational development (Lian et al., 2005), is a key factor in the development of vocational students' careers. Higher professional commitment is associated with greater learning engagement, less burnout, and clearer career planning, whereas lower levels are associated with learning aversion and academic procrastination (Chen et al., 2025; Ying et al., 2023). Vocational students often focus on academic qualifications and neglect professional skills, which affects their career growth and raises burnout and turnover risks (Pylväs &

Nokelainen, 2025). Therefore, it is necessary to identify the key factors influencing professional commitment among vocational school students and uncover the underlying psychological mechanisms, thereby providing a targeted theoretical basis for interventions to enhance their professional commitment.

Despite its importance, the development of professional commitment among secondary vocational school students remains insufficiently understood. Existing research has largely focused on university students, nursing students, or higher vocational students, while relatively little attention has been given to secondary vocational students. This omission is important because students in secondary vocational education often encounter a distinct developmental context. On the one hand, many of them are required to make profession-related choices relatively early, before they have fully developed stable self-concepts or clear career goals. On the other hand, they may face limited family resources, lower social prestige attached to their educational pathway, and stronger public stereotypes about vocational education. These contextual conditions may make the formation of professional commitment both more difficult and more important in this population.

From the perspective of professional education, students' professional commitment does not emerge in isolation. Rather, it develops within a broader ecological context that includes family support, individual psychological resources, and social evaluation of vocational pathways. The family is one of the earliest and most influential contexts shaping adolescents' educational attitudes and career-related expectations. At the same time, vocational students often develop under conditions in which their educational track is subject to social devaluation, which may weaken their confidence in their chosen major and reduce their willingness to invest in profession-related learning. Therefore, understanding professional commitment in vocational education requires attention not only to students' internal strengths but also to the social meanings attached to their educational trajectory.

From an ecological systems perspective, the family and society are crucial systems influencing vocational school students' career development (Bronfenbrenner & Morris, 1998). On the one hand, vocational school students are more likely to be disadvantaged regarding family resources. According to data from the "China Vocational Education Quality Report (2024)", which surveyed over 6 million vocational school students, more than 70% came from rural or urban disadvantaged families (China National Institute of Education Sciences, 2025). This implies that vocational school students may lack sufficient material, emotional, and social capital support. On the other hand, societal stereotypes and derogatory evaluations of vocational education persist, making these students more likely to experience identity uncertainty and doubts about their worth when pursuing further education or seeking employment. Consequently, they may be unable to realize their full professional potential (Hilmi & Lukmantoro, 2019). The development of professional commitment depends on protective family resources and is influenced by social evaluation risks. Thus, elucidating professional commitment through family factors, psychological resources, and educational stigma reveals significant theoretical and practical implications.

## 1.1 Parent–child relationship and professional commitment

One's family is the primary microsystem influencing adolescent development, and the quality of the family environment may be particularly important for secondary vocational school students' professional commitment. The parent–child relationship refers to the emotional closeness and quality of interactions between parents and children and has been shown to predict adolescents' learning engagement, academic achievement, and mental health (Boldt et al., 2016; Johnson, 2019). According to attachment theory, a positive parent–child relationship provides adolescents with a secure base that facilitates the development of positive self-perceptions, emotional regulation, and adaptive functioning (Bowlby, 1982). For secondary vocational school students, family support may be especially important because they are often required to make major and career-related decisions relatively early. Parental support, understanding, and affirmation can not only improve students' general adaptability but may also further enhance their value identification, sense of belonging, and willingness to continue investing in their chosen major (Cai et al., 2025; Hua et al., 2022). By contrast, distant or conflictual parent–child relationships may undermine students' confidence in their major choice and weaken their willingness to invest in professional learning.

In addition, many secondary vocational school students come from socioeconomically disadvantaged families, in which parent–child conflict and less supportive parenting practices may be more likely (Masarik & Conger, 2017). Such family conditions may further reduce students' sense of security and long-term commitment to their professional development (Zhao et al., 2022). Based on this reasoning, we proposed the following hypothesis:

**Hypothesis 1**

**(H1)**: *The parent–child relationship positively predicts professional commitment among secondary vocational school students*.

## 1.2 Resilience as a psychological resource

Professional education often requires students to adapt to academic demands, skills-based learning, and uncertainty regarding future employment. In such settings, resilience may function as a key psychological resource. Resilience refers to the ability to adapt positively and recover effectively when facing stress, adversity, or challenge (Connor & Davidson, 2003). According to conservation of resources theory, supportive external conditions help individuals build internal resources that sustain adjustment and performance (Hobfoll, 2001). A supportive parent–child relationship may therefore contribute to the development of resilience by providing emotional security, coping skills, and stable support (Ungar, 2001). For secondary vocational school students, this is particularly relevant because they often face academic pressure, uncertainty about future careers, and social prejudice toward vocational education (Tang, 2023).

In turn, students with higher resilience may be better able to regulate their emotions, maintain optimism, and persevere with learning their major subject, despite difficulties (Zhang et al., 2023). They may also be more likely to connect current professional learning with future occupational goals, thereby contributing to stronger professional commitment. In this sense, resilience may link family support to students' capacity to sustain commitment in professional education, thereby enabling individuals to maintain positive outcomes in challenging educational and professional environments (Teng et al., 2026). Accordingly, we proposed the following hypothesis:

**Hypothesis 2**

**(H2)**: *Resilience mediates the relationship between parent–child relationship and professional commitment.*

# 1.3 Educational stigma as a contextual risk

In addition to family influences, secondary vocational school students are also shaped by the broader social context, where vocational education is still subjected to prejudice and devaluation (Liang, 2001). Educational stigma refers to the negative labeling and devaluation experienced by individuals or groups because of their lower educational status within a given social context (Corrigan & Watson, 2002; Leng et al., 2025). For secondary vocational school students, long-term exposure to stereotypes, including the assumption that such students have "low academic ability" or "limited future prospects", may increase the likelihood that such public evaluations become internalized and incorporated into their self-concept (Hansen & Woronov, 2013).

Modified labeling theory suggests that once individuals are categorized into a stigmatized group, they may gradually recognize, accept, and internalize the negative labels imposed on that group by society (Link & Phelan, 2001). A less supportive parent–child relationship may make this process more likely. When parents fail to provide sufficient emotional affirmation or positive feedback, students may be more vulnerable to external devaluation and more likely to doubt their own educational identity and choice of major. Previous research has also shown that poorer relationship quality is associated with higher levels of stigma internalization among adolescents (Wang et al., 2020).

Educational stigma may be especially harmful in vocational education because it directly targets the legitimacy and value of students' training pathway. When students internalize negative social evaluations of their educational track, they may develop lower self-esteem, weaker identification with their school and major, and stronger avoidance tendencies (Kreiner et al., 2006). They may also perceive reduced value in investing effort in learning their major subject because they expect limited educational or employment returns. Empirical research among Chinese higher vocational students has demonstrated that perceived vocational education stigma exacerbates self-stigma, which in turn diminishes students' group identification and learning engagement (Cui & Zhao, 2025). In this sense, educational stigma may serve as a socially rooted risk factor that weakens students' willingness to identify with and remain committed to their major. Therefore, we proposed a third hypothesis:

**Hypothesis 3**

**(H3)**: *Educational stigma mediates the relationship between parent–child relationship and professional commitment.*

# 1.4 Chain mediation of resilience and educational stigma

According to the risk and protective factor model, developmental outcomes depend on the interplay between protective resources and risk factors (Fergus & Zimmerman, 2005; Rolf et al., 1990). In this framework, resilience not only directly enhances professional commitment but also mitigates the impact of educational stigma. Strongly resilient adolescents consistently maintain a positive sense of self when confronted by external prejudice. Rather than accepting negative social labels, these students actively reinterpret stressful experiences and do not internalize stigma (Wang et al., 2020). Research confirms that resilience increases resistance to stigma and reduces self-stigma (Post et al., 2021; Yanos et al., 2015). For secondary vocational school students, enhanced resilience effectively reduces the internalization of negative stereotypes about vocational education. Consequently, reduced educational stigma enables students to develop positive expectations about their abilities and future, boosting their motivation and commitment to their major. This sequential process reflects how family support may shape students' development in professional education and training through both resource-building and risk-reducing mechanisms.

Building on this, from a developmental process perspective, the sequence also follows a logical temporal order: The parent–child relationship, as a relatively stable feature of the family environment, exerts its influence early on and continuously. This influence first shapes the development of internal psychological resources, including resilience, which is cultivated through repeated experiences of support, validation, and guided coping (Masten, 2014). Only after these internal resources are in place do students encounter and process broader social evaluations of their educational status. Based on this reasoning, we proposed a fourth hypothesis:

**Hypothesis 4**

**(H4)**: *Resilience and educational stigma sequentially mediate the relationship between parent–child relationship and professional commitment.*

In summary, although previous research has highlighted the role of family factors in adolescents' academic and career development, little is known about how parent–child relationship relates to professional commitment among Chinese secondary vocational school students, a group that develops under both family constraints and persistent social devaluation of vocational education. Moreover, existing studies have rarely examined how protective psychological resources and socially rooted risks operate together in this process. To address this gap, the present study investigates whether parent–child relationship predicts professional commitment directly and indirectly through resilience, educational stigma, and their sequential mediation (Fig. 1). By integrating attachment theory with the

risk–protective factor model, this study extends current understanding of professional commitment in vocational education and provides practical implications for family-based support, resilience promotion, and stigma reduction.

## 2 Methods

# 2.1 Participants

Participants were recruited from eight secondary vocational schools in Guangdong Province, China, using convenience sampling. Data were collected through an online questionnaire survey. A total of 1850 questionnaires were returned. After excluding invalid responses due to insufficient response time, missing data, failure to follow instructions, or repetitive response patterns, 1625 valid questionnaires were retained for analysis, yielding an effective response rate of 87.8%. Participants ranged in age from 14 to 19 years ($M$ = 16.24, $SD$ = 0.92). Of the final sample, 715 (44.0%) were first-year students, 535 (32.9%) were second-year students, and 375 (23.1%) were third-year students.

# 2.2 Measurements

# 2.2.1 Parent–child relationship

The Closeness to Parents Scale, developed by Buchanan et al. (1991) and revised by Zhang et al. (2011), consisted of 18 items and used a 5-point Likert scale to measure the quality of parent–child relationships between vocational school students and their fathers and mothers, respectively (e.g. “I feel comfortable and natural when I express my feelings to my father/mother”). Higher scores indicated a closer relationship between the adolescent and their parents. Cronbach’s α coefficients for this scale were 0.96 (father–child subscale) and 0.95 (mother–child subscale).

# 2.2.2 Resilience

The Resilience Scale for Chinese Adolescents, developed by Hu and Gan (2008), was used. It consists of 27 items across five dimensions: goal orientation (e.g. “I have clear goals in my life”), emotional regulation (e.g. “I can adjust my emotions quickly”), positive cognition (e.g. “Adversity can sometimes help me grow”), family support (e.g. “My parents respect my opinions”), and social support (e.g. “When I have difficulties, I will proactively seek help from others”). Participants responded on a 5-point Likert scale, on which higher scores indicate greater resilience. Cronbach’s α coefficient for this scale was 0.88.

# 2.2.3 Educational stigma

We used the Secondary Vocational School Students’ Educational Stigma Scale, developed by Zhang (2023), based on previous scales, specifically designed for secondary vocational school students. The scale consists of 18 items across four dimensions: devaluation, educational and employment discrimination, unfair treatment, and susceptibility to attack. The “devaluation” dimension describes the tendency of secondary vocational students to feel self-doubt because they believe they are not genuinely

accepted or liked by others due to their lower educational attainment (e.g. “I feel neglected because I’m a vocational school student”). The “educational and employment discrimination” dimension refers to the perception among secondary vocational students that their identity makes them susceptible to external stigmatization and discriminatory treatment (e.g. “I feel that when I go out to find a job or part-time work, I'll be looked down upon because of my vocational school diploma”). The “unfair treatment” dimension reflects the subjective sense of unfair treatment that secondary vocational school students experience in areas such as daily life, learning, and employment due to their educational background (e.g. “I feel like the school doesn’t value our learning and growth because we are vocational school students”). The “susceptibility to attack” dimension refers to the perception among secondary vocational school students that they are highly likely or easily targeted by external attacks and resentment (e.g. “I feel that if I post public opinions online, people will attack me because of my vocational school diploma, regardless of the content I post”). Responses were rated on a 5-point Likert scale. Higher scores indicate a higher degree of educational stigma. Cronbach’s α coefficient for this scale was 0.85.

## 2.2.4 Professional commitment

The Professional Commitment Questionnaire for Secondary Vocational School Students, developed by Lian et al. (2005) and revised by Xu (2021) to suit secondary vocational students, was used. The questionnaire consists of 13 items and includes three dimensions: affective, normative, and continuance commitments. “Affective commitment” refers to the secondary vocational students’ willingness to introduce their major to others, their enjoyment of the challenges within the major, and their willingness to work hard to master it, reflecting their liking and aspiration toward the major (e.g. “I am passionate about studying my major”). “Normative commitment” reflects adherence to the norms and principles of professional learning, as well as responsibilities and obligations, and comprehensively embodies the basic standards expected of a secondary vocational student (e.g. “Every vocational school student should master their chosen major and become a qualified and outstanding professional”). “Continuance commitment” reflects a secondary vocational student’s willingness to continue studying their major in the future, taking into account employment prospects, their own qualifications, employment intentions, and a desire for further education (e.g. “I will not change my major because my current major will be beneficial for my further education”). Responses were rated on a 5-point Likert scale on which higher scores indicate greater professional commitment. Cronbach’s α coefficient for this scale was 0.90, indicating good reliability.

In addition to the core scales, three supplementary items regarding reasons for major choice (the question was “What are the reasons for choosing this major? (Multiple answers allowed)”, with options including “interest, employment prospects, parental advice, recommendations from classmates or friends, other reasons”), degree of liking for the major (the question was “Do you like this major?”, with response options being “yes” and “no”), and level of knowledge of major (the question was “How much do you know about this major?”, with response options being “I know nothing at all (unfamiliar with the major’s name or core content); I only know the general direction of the major (I know what the major generally involves but have no in-depth understanding); I understand the major direction and

employment prospects (I am clear on the relevant industries and job types); and I am very familiar with it (I am familiar with the major's curriculum, core courses, career development paths)" were included for descriptive purposes.

## 2.3 Procedure

Data were collected through an online survey platform (https://www.wjx.cn/). This study was conducted in accordance with the ethical principles of the Declaration of Helsinki and was approved by ******. All participants and their legal guardians provided written informed consent and consent for publication.

## 2.4 Data analysis

SPSS 27.0 was used for data analysis. First, Harman's single-factor test and multicollinearity diagnostics were conducted to examine common method bias and collinearity. Second, descriptive statistics and Pearson correlation analyses were performed for all study variables. Third, the hypothesized serial mediation model was tested using PROCESS Macro Model 6 (Hayes, 2013) with 5000 bias-corrected bootstrap samples. An indirect effect was considered significant when the 95% confidence interval did not include zero.

# 3 Results

## 3.1 Common method bias and multicollinearity test

This study employed Harman's single-factor test to assess common method bias. The results showed that there were 10 factors with initial eigenvalues higher than 1; the first factor accounted for 29.44% of the variance, below the critical threshold of 40%. This indicates that no significant common method bias was observed in the study (Podsakoff et al., 2003).

Multicollinearity diagnostics were conducted after standardizing all predictors. The tolerance statistics ranged from 0.51 to 0.66 (above the 0.10 benchmark), and variance inflation factor values ranged from 1.52 to 1.98 (below the 10 cutoff), suggesting that multicollinearity was not a substantial issue in the regression models.

## 3.2 Descriptive statistics and correlation analysis

The results of the correlation analysis were generally consistent with the research hypotheses (as shown in Table 1). The parent–child relationship is significantly and positively correlated with resilience and professional commitment and significantly and negatively correlated with educational stigma; resilience is significantly and positively correlated with professional commitment, while educational stigma is significantly and negatively correlated with professional commitment. Overall, the correlation analysis provides preliminary support for subsequent mediation model testing.

Table 1
Descriptive statistics and correlation matrix ($n$ = 1625)

| Variable | *M* ± *SD* | 1 | 2 | 3 |
|---|---|---|---|---|
| 1. Parent–child relationship | 3.74 ± 0.85 | — | | |
| 2. Resilience | 3.54 ± 0.63 | 0.55 *** | — | |
| 3. Educational stigma | 2.15 ± 0.62 | −0.51 *** | −0.66 *** | — |
| 4. Professional commitment | 3.92 ± 0.58 | 0.51 *** | 0.73 *** | −0.69 *** |

*** $p < 0.001$ (two-tailed).

Regarding the reasons for their choice of major, 487 students chose “interest,” 680 chose “employment prospects,” 1001 chose “parental advice,” 154 chose “recommendations from classmates or friends,” and 161 chose “other reasons.” Among these, students who chose “other reasons” primarily based their choice on the following situations: random selection, low scores preventing them from attending other majors or regular high schools, or the high popularity of the major. The results indicate that most vocational school students’ major choices are significantly influenced by their parents.

Regarding their liking of their major, 1272 students (78.3%) liked their current major, while 353 students (21.7%) disliked it. This shows that the vast majority of students like their chosen major.

Regarding the knowledge of their majors, the number of students who were completely unfamiliar with their major (44 students) and very familiar with it (69 students) was relatively small; more than half of the students (888 students, 54.6%) only knew the general content of their major and lacked in-depth understanding; 624 students (38.4%) understood the major direction and employment prospects.

Given that gender, grade, and knowledge of the major were significantly correlated with the four research variables, they were included as control variables in subsequent analyses.

# 3.3 Chain mediation analysis

To further examine the internal mechanism through which the parent–child relationship may help explain professional commitment, a chained mediation model was tested with the parent–child relationship as the independent variable, resilience and educational stigma as mediators, and professional commitment as the dependent variable. Gender, grade, and knowledge of major were included as control variables. All variables were standardized prior to analysis. The mediation model was tested using PROCESS Model 6 with 5000 bootstrap samples.

The results show that the overall regression equation was significant, with $R^2 = 0.62$, $F(6, 1618) = 447.10$, and $p < 0.001$ (see Table 2 for details). The parent–child relationship significantly and positively predicted professional commitment ($\beta = 0.08$, $t = 4.27$, $p < 0.001$) and resilience ($\beta = 0.51$, $t = 24.05$, $p < 0.001$) and significantly and negatively predicted educational stigma ($\beta = -0.21$, $t = -9.45$, $p < 0.001$).

Resilience significantly and negatively predicted educational stigma ($\beta$ = −0.53, $t$ = − 23.87, $p$ < 0.001) and significantly and positively predicted professional commitment ($\beta$ = 0.44, $t$ = 20.48, $p$ < 0.001). Lastly, educational stigma significantly and negatively predicted professional commitment ($\beta$ = −0.34, $t$ = − 16.31, $p$ < 0.001). The coefficients (standardized coefficients) for each path are shown in Fig. 2.

Table 2
Results of the chain mediation regression analysis ($n$ = 1625)

| **Outcome Variable** | **Predictor Variable** | ***β*** | ***SE*** | ***t*** | **95% CI** | $R^2$ | ***F*** |
|---|---|---|---|---|---|---|---|
| Resilience | Gender | −0.17 | 0.04 | −4.22 *** | [− 0.26, − 0.09] | 0.33 | 198.74 *** |
| | Grade | −0.06 | 0.03 | −2.19 * | [− 0.11, − 0.01] | | |
| | Knowledge of major | 0.23 | 0.03 | 6.84 *** | [0.16, 0.29] | | |
| | Parent–child Relationship | 0.51 | 0.02 | 24.05 *** | [0.47, 0.55] | | |
| Educational stigma | Gender | −0.04 | 0.04 | −0.95 | [− 0.11, 0.04] | 0.48 | 292.96 *** |
| | Grade | 0.07 | 0.02 | 2.91 ** | [0.02, 0.11] | | |
| | Knowledge of major | −0.13 | 0.03 | −4.32 *** | [− 0.19, − 0.07] | | |
| | Parent–child Relationship | −0.21 | 0.02 | −9.45 *** | [− 0.25, − 0.16] | | |
| | Resilience | −0.53 | 0.02 | −23.87 *** | [− 0.57, − 0.48] | | |
| Professional commitment | Gender | −0.02 | 0.03 | −0.66 | [− 0.08, 0.04] | 0.62 | 447.10 *** |
| | Grade | 0.04 | 0.02 | 2.22 * | [0.01, 0.08] | | |
| | Knowledge of major | 0.13 | 0.03 | 5.02 *** | [0.08, 0.18] | | |
| | Parent–child Relationship | 0.08 | 0.02 | 4.27 *** | [0.04, 0.12] | | |
| | Resilience | 0.44 | 0.02 | 20.48 *** | [0.40, 0.49] | | |
| | Educational stigma | −0.34 | 0.02 | −16.31 *** | [− 0.39, − 0.30] | | |

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-tailed).

**Note**

*** $p < 0.001$ (two-tailed).

The mediation path was examined using a bootstrap method with 5000 resampling iterations, and 95% confidence intervals (CIs) were calculated. The results are shown in Table 3. The results indicate that the direct effect of the parent–child relationship on professional commitment is significant (direct effect = 0.081, accounting for 17.38% of the total effect), and none of the 95% CIs calculated using the bootstrap method included the value zero. This supports the mediating roles of resilience and educational stigma in the association between the parent–child relationship and professional commitment (total indirect effect = 0.385, total effect = 0.466, accounting for 82.62% of the total effect). Specifically, the parent–child relationship may help explain professional commitment through three distinct pathways: (1) parent–child relationship → resilience → professional commitment (effect = 0.224, 48.07% of the total effect); (2) parent–child relationship → educational stigma → professional commitment (effect = 0.070, 15.02% of the total effect); (3) parent–child relationship → resilience → educational stigma → professional commitment (effect = 0.091, 19.53% of the total effect). These findings support the proposed chain mediation model and indicate that the parent–child relationship influences professional commitment not only directly but also through independent and sequential mediating processes.

Table 3
Results of the mediation analysis

| Pathway | Effect | Effect Proportion (%) | Boot SE | Bootstrap 95% CI |
|---|---|---|---|---|
| Total effect | 0.466 | 100 | 0.02 | [0.424, 0.509] |
| Direct effect | 0.081 | 17.38 | 0.02 | [0.044, 0.118] |
| Total indirect effect | 0.385 | 82.62 | 0.02 | [0.348, 0.426] |
| Parent–child relationship → Resilience → Professional commitment | 0.224 | 48.07 | 0.02 | [0.193, 0.259] |
| Parent–child relationship → Educational stigma → Professional commitment | 0.070 | 15.02 | 0.01 | [0.052, 0.090] |
| Parent–child relationship → Resilience → Educational stigma → Professional commitment | 0.091 | 19.53 | 0.01 | [0.072, 0.112] |

# 4 Discussion

This study examined the relationship between the parent–child relationship and professional commitment among secondary vocational school students and tested the mediating roles of resilience and educational stigma. Overall, the findings suggest that professional commitment in secondary vocational education is shaped by both family-based support and socially rooted risk. More specifically, a positive parent–child relationship was associated with stronger professional commitment directly and indirectly through greater resilience, lower educational stigma, and a sequential pathway linking resilience to educational stigma. These findings enrich the literature on vocational education by showing that students' commitment to their major is shaped not only by family support and internal psychological resources but also by the social devaluation attached to vocational education.

# 4.1 Influence of parent–child relationship on professional commitment

Consistent with previous research (Chen et al., 2025; Xu et al., 2025), the parent–child relationship between vocational school students significantly and positively predicted their professional commitment, supporting Hypothesis 1. A positive parent–child relationship enhances students' well-being, fosters positive coping strategies, and promotes adaptive behaviors (Dam et al., 2023; Lifintsev et al., 2016). Parents play a multifaceted role in shaping adolescents' career trajectories. Beyond acting as decision-makers and financial supporters, they provide career guidance and encourage exploration of various fields. Simultaneously, they offer emotional support to help adolescents navigate career-related difficulties and facilitate their career development (Zeng et al., 2024; Yu et al., 2026).

This finding also aligns with attachment theory (Bowlby, 1982). For vocational school students navigating the transition from adolescence to early adulthood while facing multiple pressures, the secure base provided by the parent–child relationship not only buffers external stress but also enhances their positive commitment to their chosen field of study. The small acts of care parents demonstrate in daily life—such as monitoring academic progress, respecting their choice of major, and engaging in supportive discussions about future career development—subtly influence vocational students' attitudes toward their majors and their career values (Zeng et al., 2024).

Furthermore, our descriptive research findings indicate that over 60% of the students reported that their parents' advice influenced their major choices, further highlighting the central role of the family environment in shaping the career development of vocational students. Therefore, the parent–child relationship is a key family factor influencing students' professional commitment.

# 4.2 Mediation effect of resilience

The results show that resilience mediates the association between the parent–child relationship and professional commitment among vocational school students, validating Hypothesis 2. The results also support the resource conservation theory, suggesting that the parent–child relationship, as an important external resource, has a positive predictive effect on the development of resilience in vocational school students. A positive parent–child relationship provides emotional support, guidance when problem-

solving, and role modeling. Furthermore, high-quality parent–child communication and emotional bonding can promote the development of resilience in adolescents, enhance their sense of security, and improve their psychological coping abilities when facing stressful situations (Matheson et al., 2005; Zapf et al., 2024; Zimmerman & Arunkumar, 1994).

In turn, students with higher resilience may be better able to remain engaged when learning their major subject despite obstacles, remain more positive about their future, and persevere in achieving their professional goals (Galve-González et al., 2026; Zhang et al., 2023). Notably, among the three indirect pathways examined in this study, that via resilience showed the largest effect. This suggests that resilience may be a particularly important psychological resource for sustaining commitment in professional education. Students with higher resilience may be more capable of maintaining motivation in profession-related learning, persisting after setbacks, and viewing short-term training challenges in relation to longer-term occupational goals. From this perspective, resilience is not only a general protective factor but also a vocationally relevant resource that may support students' persistence and development within their training pathway.

## 4.3 Mediation effect of educational stigma

This study also found that educational stigma serves as a mediating factor between the parent–child relationship and professional commitment among vocational school students, thereby validating Hypothesis 3 and verifying the applicability of the modified labeling theory among vocational students. This finding indicates that family support may shape professional commitment not only through strengthening internal resources but also through influencing how students respond to negative social evaluation (Wang et al., 2020). When parents fail to provide sufficient emotional support and positive feedback, students are more likely to internalize negative external evaluations. Such educational stigma may undermine students' professional commitment in multiple ways. It may weaken their identification with their chosen educational track, reduce their confidence in their own future development, and lower their perceived value of sustained effort in learning their major subject (Chang & Wang, 2025). The present finding underscores the need to address not only students' internal adjustment but also the broader social meanings attached to vocational education.

The mediating effect of educational stigma accounts for approximately 20% of the total mediating effect, which is slightly smaller than the proportion attributed to resilience. According to the conservation of resources theory, individuals actively maintain and accumulate resources; the "gain spiral" effect of positive resources tends to be stronger than the "loss spiral" effect of negative resources (Hobfoll, 2001; Hobfoll et al., 2018). Highly resilient vocational school students tend to actively seek and utilize external support resources (such as emotional support from parents and school career guidance services). These external resources, in turn, further strengthen their resilience, forming a positive cycle and thereby exerting a stronger mediating effect. In contrast, educational stigma, as a resource depletion path, operates through a gradual process involving "perceiving public stereotypes → internalizing stereotypes → attributing stigma to oneself" (Corrigan et al., 2011). At each step of this process, there is the potential to intervene with protective factors, such as resilience, thereby interrupting or weakening

the progression of internalized stigma to some extent. This implies that the positive driving effect of resource gains is often stronger than the negative inhibitory effect of resource depletion.

## 4.4 Chain-mediating effect of resilience and educational stigma

Resilience and educational stigma formed a significant sequential mediation pathway, supporting Hypothesis 4. This result suggests that family support may influence professional commitment through a “resource-building and risk-reducing” process. Specifically, a supportive parent–child relationship may first enhance students’ resilience, and greater resilience may then reduce their tendency to internalize negative social evaluations, ultimately promoting stronger professional commitment (Fergus & Zimmerman, 2005; Rolf et al., 1990). A positive parent–child relationship helps improve adolescents’ resilience and fosters positive self-beliefs (Nickerson & Nagle, 2004). Resilience enhances cognitive reappraisal and emotion regulation, enabling vocational school students to view external prejudices more rationally and reduce identification with negative labels, thereby lowering the risk of educational stigma development. When educational stigma levels are low, vocational school students are more likely to have strong beliefs about their professional abilities and future development, as well as positive expectations of career outcomes, thus being more willing to invest time and energy in their studies and exhibiting higher levels of professional commitment (Leng et al., 2025).

This sequential pathway extends previous research by showing that family support may shape professional development through a layered mechanism: it strengthens internal adaptation first, which then reduces vulnerability to external devaluation, providing a more comprehensive explanation of how commitment may be formed and maintained in vocational education settings. For secondary vocational school students, who often face limited family resources and persistent social stereotypes, this mechanism may be especially relevant.

## 4.5 Implications for professional education

The findings have several implications for educational and vocational guidance. First, career guidance for secondary vocational school students should not focus only on occupational information or skill training, but should also consider the family relational context in which students form attitudes toward their majors. School counsellors may involve parents in guidance activities and help them provide more supportive communication about students’ vocational choices. Second, resilience-building should be integrated into vocational guidance programmes through activities that strengthen emotional regulation, goal setting, coping skills, and adaptive problem solving. Third, guidance interventions should address educational stigma directly by helping students critically understand social stereotypes about vocational education, connect their current learning with realistic career opportunities, and develop more positive expectations about their vocational futures.

# 5 Limitations and future directions

Several limitations should be noted. First, the cross-sectional design does not permit causal inference, so the observed relationships should be interpreted as associations rather than directional effects. Future longitudinal studies are needed to examine how family support, resilience, educational stigma, and professional commitment develop over time in vocational education contexts. Second, all measures were based on self-report, which may introduce shared method bias and social desirability effects. Future research could incorporate teacher reports, parent reports, or behavioral indicators of educational engagement. Third, the sample was drawn from Guangdong Province, an economically developed area with relatively strong vocational education resources. The generalizability of the findings to other regions, especially areas with different labor market conditions or lower social support for vocational education, remains to be tested. Finally, future studies may extend this work by examining additional vocational development variables, such as career adaptability, self-efficacy (Shoval et al., 2021) and future work self (Zeng et al., 2022), in order to build a more comprehensive model of students' professional commitment.

## 6 Conclusion

This study showed that the parent–child relationship was positively associated with professional commitment among secondary vocational school students. Resilience and educational stigma each played significant mediating roles in this association and also formed a significant sequential mediation pathway. These findings suggest that professional commitment in secondary vocational education is shaped not only by family support but also by students' psychological resources and their experiences of social devaluation toward vocational pathways. Overall, the study highlights the importance of strengthening supportive family relationships, promoting resilience, and reducing educational stigma to foster student engagement and professional development in professional education.

## Declarations

# Author Contribution

A: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Supervision, Writing–original draft, Writing–review & editing. B: Conceptualization, Writing–review & editing. C: Methodology, Writing–review & editing. All authors approved the final version of the article.

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**Ethics Approval and Consent to Participate:** This study was conducted in accordance with the ethical principles of the Declaration of Helsinki and was approved by the Ethics Committee of Shenzhen

Institute of Education Sciences (protocol code SIESIRB: 2025-34). All participants and their legal guardians provided written informed consent and consent for publication.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author.

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# Figures

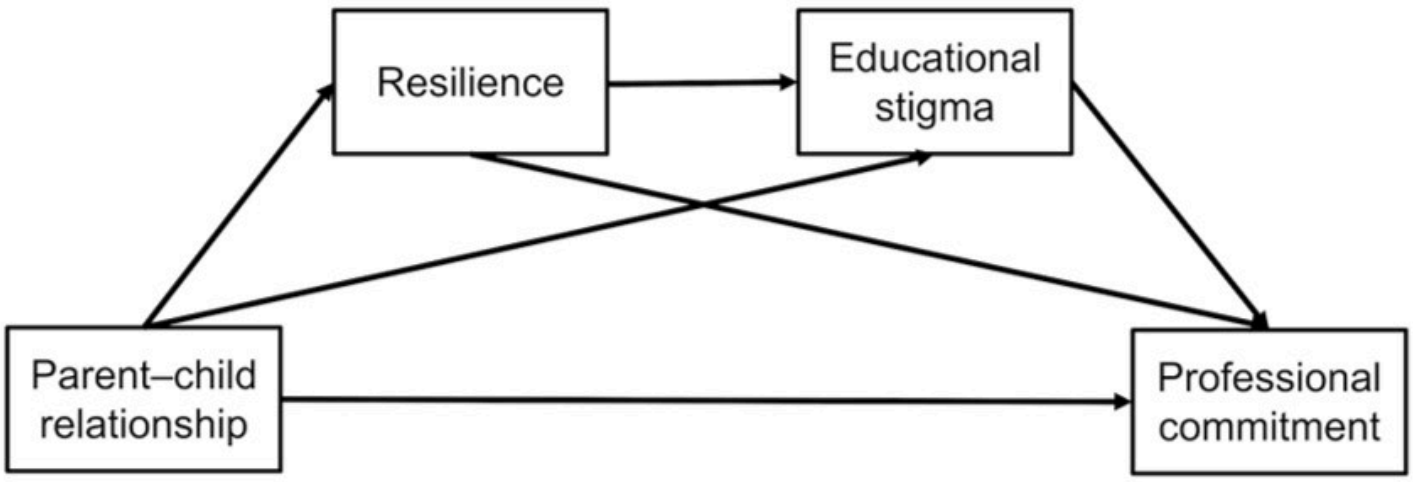



**Figure 1**

Research hypothesized model.

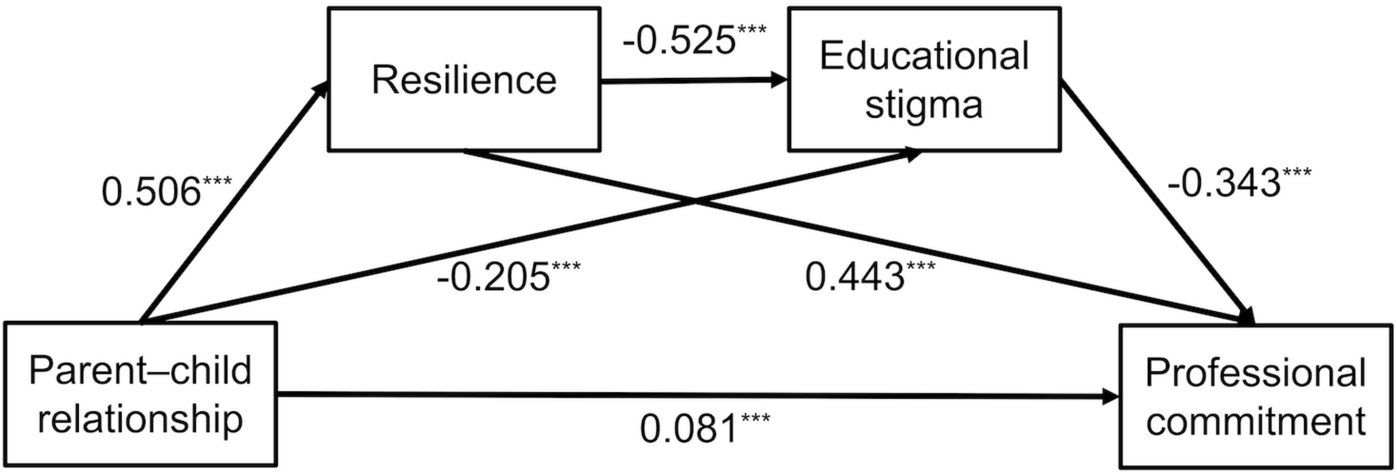



**Figure 2**

Chain mediation model between parent–child and professional commitment.

Note: *** $p < 0.001$ (two-tailed).