

Self-Awareness and Parental Support in Career Planning of Private University Students: Mediating Decision-Making Self-Efficacy

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Abstract—Background: This study explores the associations between self-awareness, parental support, and career planning among university students, with career decision-making self-efficacy as a mediator and academic year as a control variable. Data were obtained from 1,822 undergraduates at private universities in Changchun, China. **Methods:** A quantitative survey design was adopted using validated scales. Data were processed in SPSS, and hypothesized relationships were examined through PLS-based structural equation modeling. **Results:** Career decision-making self-efficacy (CDMSE) emerges as a strong predictor of career planning (CP). Parental support (PS) shows a positive relationship with career planning, while self-awareness (SA) has a weaker yet significant effect. CDMSE fully mediates the relationship between self-awareness and career planning and partially mediates the effect of parental support.

Conclusion: Overall, self-awareness, parental support, and CDMSE positively contribute to career planning, with CDMSE serving as the primary mediating mechanism. Academic year does not significantly affect career planning.

Keywords—Self-awareness, career planning, career decision-making self-efficacy, parental support.

I. INTRODUCTION

In recent years, unfavorable changes in the global economic climate and the deceleration of economic growth have markedly exacerbated employment challenges for university graduates. According to the World Employment and Social Outlook: Trends 2025 issued by the International Labour Organization, the global youth unemployment rate reached 12.6% in 2024, reflecting the persistently high risk of joblessness among young people. In addition, 20.4% of youth worldwide are currently classified as not in education, employment, or training (NEET) [1].

Against this backdrop, graduate employment has emerged as a prominent social issue [2]. University students today face a labor market characterized by both opportunities and constraints, with substantially heightened uncertainty [3]. The combined impact of an increasingly competitive employment environment and the developmental characteristics of emerging adulthood renders college students particularly vulnerable to psychological distress. Data from the Report on the Development of Mental Health of Chinese Citizens (2021–2022) indicate that individuals aged 18–24 exhibit higher anxiety levels than other adult cohorts [4].

Career planning can be understood as a systematic process in which individuals evaluate personal attributes in conjunction with external conditions, clarify career objectives, make occupational choices, design educational and training pathways, and implement concrete actions to attain these goals [5]. Kleine et al. (2023) found that effective career planning plays an important role in mitigating students' career-related anxiety [6]. Prior studies demonstrate that career planning education significantly enhances career readiness by improving students' decision-making competence, goal-setting capacity, and adaptability [7]. Moreover, such interventions strengthen career self-efficacy and enable students to respond more effectively to complex and uncertain labor market conditions [8]. Consequently, incorporating career guidance into higher education has become a key strategy for cultivating students' employability in a comprehensive manner [9].

Career decision-making self-efficacy reflects an individual's confidence in their ability to manage the mental and behavioral tasks involved in choosing a career. This includes activities such as gathering relevant information, setting objectives, planning actionable steps, and addressing challenges that may arise during the decision-making process. Students who exhibit higher levels of career decision-making self-efficacy are better equipped to navigate difficult employment situations, implement adaptive coping strategies, and make effective career choices [10]. Moreover, research suggests that this form of self-efficacy can mediate the effects of both supportive and unsupportive parental behaviors on students' career exploration efforts [11].

Parental support encompasses the degree to which parents recognize their children's developmental needs, respect their internal experiences, encourage autonomy, and promote a sense of connection and belonging [12]. This support often appears through validating children's emotions, explaining rules and expectations in a reasonable manner, and offering opportunities that foster independence and personal decision-making [13].

Family factors create an essential context for career planning. Savira et al. (2022) found that a nurturing family environment and substantial parental support not only help students clarify their career goals but also strengthen their career decision-making self-efficacy and intrinsic motivation [14]. Prior studies have demonstrated significant positive relationships between family influence, self-efficacy, and career planning outcomes [15]. Additionally, active parental involvement in career-related activities enhances students' psychological resources, thereby improving career adaptability [16]. Sustained guidance and encouragement from parents further reinforce students' confidence in career decision-making, supporting more informed and stable occupational choices [17].

Self-awareness, often conceptualized as self-concept, refers to individuals' integrated understanding and evaluation of their physical, psychological, behavioral characteristics, and social relationships, shaped through experiences in learning, work, and everyday life [18]. It encompasses awareness of personal strengths and limitations, beliefs, interests, motivations, and emotional tendencies [19]. In the context of career planning, self-awareness is influenced by multiple factors, including cognitive attributes such as goal clarity and planning consciousness, personality characteristics, sociocultural values, and institutional conditions such as the availability of career education and guidance resources within universities [20]. Higher levels of self-awareness are consistently linked to stronger career decision-making abilities among students [21].

Recent scholarship has increasingly examined variations in career planning across academic grade levels. Existing findings generally indicate that grade level significantly affects students' career planning awareness and behaviors. First-year students often enter university with relatively clear expectations and tentative plans; however, these intentions may become less definite as academic life progresses. As graduation approaches, students tend to re-engage with career planning [22]. With advancing academic standing and increasing proximity to labor market entry, employment pressure and pragmatic considerations intensify, which in turn promotes more active career planning behaviors [23]. Consequently, senior students typically display stronger career planning awareness, a pattern that becomes particularly evident in the later stages of university education [24].

This study is based on the principles of self-determination theory, social cognitive theory, and career construction theory. Self-determination theory, introduced by Deci and Ryan (1985), offers a broad framework for examining motivation, personality development, and social functioning [25]. The theory suggests that both intrinsic and extrinsic motivations shape behavior, and the nature of one's motivation significantly influences psychological well-being and developmental outcomes. When the basic psychological needs for autonomy, competence, and relatedness are met, individuals are more likely to experience intrinsic motivation, which supports personal growth and overall psychological health.

Within the context of career planning, environments that support autonomy and competence can stimulate career exploration and enhance career decision-making self-efficacy, while adequate social support contributes to improved adaptability and subjective well-being [26]. As socioeconomic conditions continue to evolve, college students' career orientations and selection criteria also change, with career values playing a guiding role in shaping occupational choices and goal formulation [27]. Elevated levels of intrinsic motivation encourage individuals to participate more actively in career exploration, seek relevant information, and manage uncertainty, thereby strengthening career decision-making self-efficacy throughout the decision-making process [28].

The framework of Social Cognitive Theory, introduced by Bandura (1999), is commonly employed to examine educational and career-related processes. At its core is the principle of triadic reciprocal determinism, which posits that behavior results from the dynamic interaction among personal factors, behavioral patterns, and environmental influences. SCT emphasizes the pivotal role of contextual factors in shaping career development trajectories [29]. For instance, parental provision of career-related information, such as occupational pathways and job characteristics, as well as broader contextual support, has been shown to positively affect adolescents' career adaptability, including dimensions of concern, control, and curiosity [30].

Career Construction Theory (CCT), advanced by Savickas (2005), represents a contemporary approach to career development grounded in personal constructivism, social constructivism, and postmodern perspectives. From the CCT standpoint, self-awareness constitutes both the foundation for constructing career self-concept and a critical mechanism for enhancing adaptability and shaping career narratives. Career development is therefore viewed not merely as an external process of occupational selection, but as an ongoing internal process of self-construction [31]. Within this framework, parental support and guidance play an essential role in the formation of adolescents' career identity and the development of career adaptability [32]. The study's framework is illustrated in Fig. 1.

In summary, this study proposes the following hypotheses:

HA1: Self-awareness is significantly correlated with career planning.

HA2: Parental support is significantly correlated with career planning.

HA3: Self-awareness is significantly correlated with career decision-making self-efficacy.

HA4: Parental support is significantly correlated with career decision-making self-efficacy.

HA5: Career decision-making self-efficacy mediates the relationship between self-awareness and career planning.

HA6: Career decision-making self-efficacy mediates the relationship between parental support and career planning.

HA7: Career planning varies across different academic years.

Based on the proposed hypotheses, a conceptual model was constructed to depict the relationships among these variables, as shown in Fig. 2.

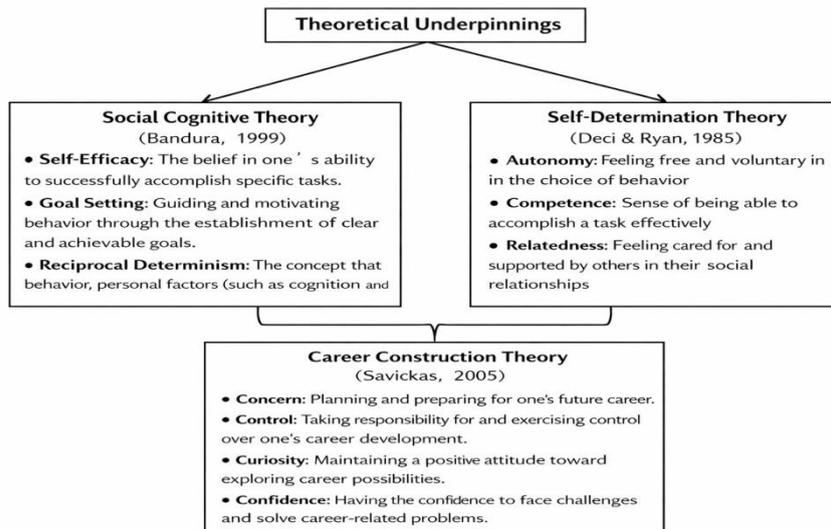


Fig.1 Theoretical Framework Diagram

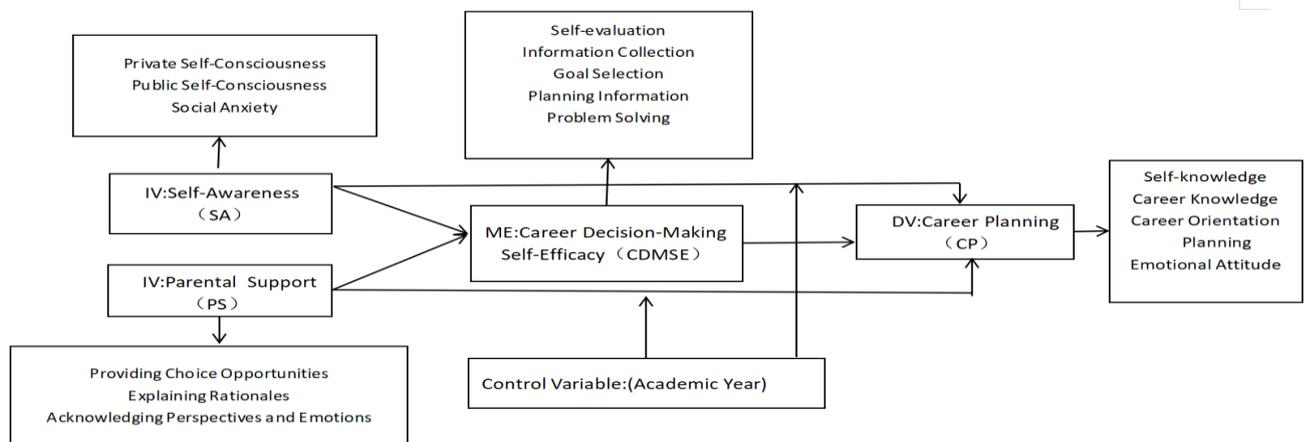


Fig.2 Conceptual Framework Diagram

II. METHODS

A. Participants

This study employed a questionnaire-based survey to collect data from multiple private universities in Jilin Province, China, using an online data collection approach. A total of 1,893 questionnaires were initially collected. After data screening and cleaning procedures, After data cleaning, 1,822 responses were retained, corresponding to a 96.3% retention rate.

In terms of sample composition, the participants represented diverse groups across gender, academic grade level, academic major, and student leadership status, demonstrating satisfactory sample heterogeneity and representativeness (Table 1) .

TABLE
 DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS (N = 1822)

Variable	Category	Frequency	Percentage
Gender	Male	733	40.2%
	Female	1,089	59.8%
Academic Grade	Freshman	765	42.0%
	Sophomore	295	16.2%
	Junior	459	25.2%
	Senior	303	16.6%
Major Category	Liberal Arts	899	49.3%
	Science	923	50.7%
Student Leadership	Yes	856	47.0%
	No	966	53.0%

B. Instrument

1) *Self-Awareness Scale (SAS)* : The Self-Consciousness Scale developed by Jiang et al. (2007) was used in this study. The 23-item instrument measures three dimensions: private self-consciousness, public self-consciousness, and social anxiety, and has demonstrated adequate reliability and construct validity.

2) *Parental Support Scale (PSS)* : The Parental Support subscale developed by Tang Qin (2013) was applied in this study. The 12-item scale assesses three dimensions: providing options, offering explanations, and acknowledging perspectives and emotions. The overall and dimensional reliability coefficients were 0.88, and repeated testing supported its satisfactory reliability and validity.

3) *Decision-Making Self-efficacy Scale (CDMSES)* :The Career Decision-Making Self-Efficacy Scale developed by Long and Peng (2001) was used in this study. The 39-item instrument assesses five dimensions: self-appraisal, information acquisition, goal setting, plan development, and problem solving. Previous research has confirmed its high reliability and acceptable discriminant validity.

4) *Career Planning Scale (CPS)* :This study employed the College Student Career Planning Scale developed by Dai (2006). The scale comprises 20 items across five dimensions: self-awareness, career awareness, career orientation, planning formulation, and planning attitude. The overall α coefficient of 0.982 indicates that the scale possesses good reliability.

Cronbach's alpha coefficients were used to assess the internal consistency reliability of each scale. All scales measured demonstrated Cronbach's alpha coefficients exceeding 0.89, with three scales achieving excellent levels above 0.97. This indicates that the measurement tools employed in this study exhibit high internal consistency, yielding stable and reliable results. See Table 2.

C. Data Analysis

Convergent validity was further assessed using composite reliability (CR) and average variance extracted (AVE). The results indicate that, except for the private self-awareness dimension—whose AVE value (0.438) was slightly below the recommended threshold of 0.50—all other constructs met or surpassed the standard criteria for both CR and AVE. The comparatively lower AVE for private self-awareness may be attributable to the heterogeneous psychological components captured by this construct. Nonetheless, its CR value remained high (0.870), supporting the adequacy of its convergent validity, as presented in Table 3.

Discriminant validity was evaluated using the Fornell–Larcker criterion. The square roots of AVE exceeded inter-construct correlations for most variables, indicating adequate discriminant validity. Although the correlation between Career Decision-Making Self-Efficacy and Career Planning was high ($r = 0.823$) and close to the AVE square root for self-efficacy (0.894), this is theoretically expected given the central role of self-efficacy in career planning. Overall, the measurement model demonstrates acceptable discriminant validity (see Table 4).

TABLE II

INTERNAL CONSISTENCY RELIABILITY ANALYSIS OF EACH SCALE (N = 1822)

Scale	Number of Items	Cronbach's α
SA	23	0.896
PS	12	0.970
CDMSE	39	0.992
CP	20	0.982

TABLE III

RELIABILITY AND CONVERGENT VALIDITY OF CONSTRUCTS (CR, AVE, AND FACTOR LOADINGS) (N = 1822)

variable	Dimension	CR	AVE	Factor Loading Range
SA	private self-consciousness	0.870	0.438	0.034–0.757
	public self-consciousness	0.904	0.575	0.680–0.813
	social anxiety	0.861	0.534	0.168–0.825
PS	Providing choice opportunities	0.948	0.819	0.879–0.922
	Explaining Rationales	0.942	0.804	0.833–0.920
	Acknowledging Perspectives and Emotions	0.959	0.855	0.899–0.938
CDMSE	Self-evaluation	0.964	0.819	0.873–0.927
	Information Collection	0.976	0.817	0.867–0.926
	Goal Selection	0.970	0.782	0.772–0.921
	Planning Information	0.970	0.801	0.867–0.913
	Problem Solving	0.960	0.776	0.832–0.912
CP	Self-awareness	0.970	0.914	0.952–0.958
	Career awareness	0.964	0.818	0.877–0.919
	Career Orientation	0.953	0.836	0.896–0.925

TABLE IV

CORRELATION MATRIX AND DISCRIMINANT VALIDITY TEST OF VARIABLES (N = 1822)

variable	SA	PS	CDMSE	CP
SA	0.718			
PS	0.483	0.909		
CDMSE	0.390	0.698	0.894	
CP	0.366	0.630	0.823	0.924

III. RESULTS

Correlation analyses conducted in SPSS revealed significant positive associations among the study variables. Career decision-making self-efficacy was highly correlated with career planning ($r = .823, p < .001$). Parental autonomy support showed a positive relationship with self-efficacy ($r = .698, p < .001$), and parental support correlated with career planning ($r = .630, p < .001$). Self-awareness was moderately correlated with the other variables ($r = .366-.483, p < .001$); (Table 5).

Structural equation modeling (Figure 3) indicated that career decision-making self-efficacy strongly predicted career planning ($\beta = 0.746$). Parental support had a substantial positive effect on self-efficacy ($\beta = 0.664$) but a limited direct effect on career planning ($\beta = 0.097$). Self-awareness did not significantly predict career planning ($p = .055$), and grade level had no meaningful effect (Table 6).

One-way ANOVA showed no significant differences across grade levels for self-consciousness, parental autonomy support, career decision-making self-efficacy, or career planning ($p > .05$). Effect sizes were small (η^2), indicating minimal grade-level influence. Overall, students' career planning and related psychological measures remained relatively stable from freshman to senior year (Table 7).

TABLE

CORRELATION MATRIX AMONG VARIABLES (N = 1822)

V

variable	SA	PS	CDMSE	CP
SA	1			
PS	0.483***	1		
CDMSE	0.390***	0.698***	1	
CP	0.366***	0.630***	0.823***	1

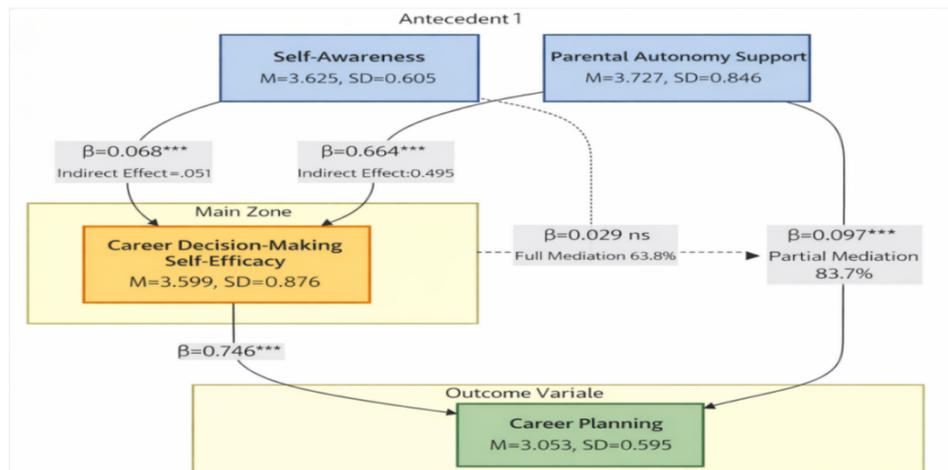


Fig3 Structural Equation Modeling (SEM)

TABLE

PATH COEFFICIENT TEST OF THE STRUCTURAL MODEL (N = 1822)

VI

Path	Standardized Coefficient (β)	Std. Error	z-Value	p-Value	Conclusion
SA → CDMSE	0.068	0.019	3.587	< .001***	Significantly positive
PS → CDMSE	0.664	0.019	34.840	< .001***	Significantly and strongly positive
CDME → CP	0.746	0.018	40.398	< .001***	Significantly and strongly positive
SA → CP	0.029	0.015	1.916	.055	Not significant
PS → CP	0.097	0.019	4.979	< .001***	Significantly positive
Academic Year) → CDMSE	0.031	0.017	1.831	.067	Not significant
Academic Year) → CP	-0.021	0.013	-1.585	.113	Not significant

TABLE VII

ONE-WAY ANOVA OF MAIN STUDY VARIABLES ACROSS DIFFERENT GRADES (N = 1822)

Variable	Freshman	Sophomore	Junior	Senior	F	p	η^2
SA	3.61	3.67	3.58	3.67	2.034	.107	.003
PS	3.73	3.68	3.73	3.79	0.842	.471	.001
CDMSE	3.58	3.54	3.61	3.70	2.000	.112	.003
CP	3.05	3.04	3.06	3.07	0.193	.901	.000

IV. DISCUSSION

Career decision-making self-efficacy emerged as the central finding of this study, demonstrating the strongest and most direct predictive effect on career planning. Correlation analysis revealed an extremely strong positive relationship between the two variables ($r = .823, p < .001$). In the structural model, the direct path coefficient was as high as 0.746 ($p < .001$), indicating that, after controlling for other variables, career decision-making self-efficacy is the most critical psychological driver of career planning. Simultaneously, it also serves as an indispensable mediating variable; both self-awareness and parental support must enhance it to effectively promote career planning. This aligns with existing research, such as Hu et al. (2024), who found that college students' career decision-making self-efficacy significantly and positively influences their job-seeking behavior and acts as a mediator [33].

Parental autonomy support plays a pivotal role in fostering an individual's career development. Not only does it directly and positively predict career planning levels ($r = .630$), but more importantly, it exerts its primary influence indirectly by significantly enhancing children's career decision-making self-efficacy ($\beta = 0.664$). In contrast, its direct effect on career planning is relatively small ($\beta = 0.097$). These findings suggest that the mechanism of family support operates largely through empowerment, that is, by nurturing children's confidence and sense of competence in making career decisions, which in turn encourages more deliberate and structured career planning.

The influence of family may be especially pronounced during adolescence [34]. Specifically, support from parents proves critical: parental autonomy support shows a significant positive association with career planning [35]. Likewise, parental autonomy support is a key factor for achieving success in adulthood; individuals who receive such support find it easier to engage in career-related reflection and commitment, and are better able to attain their personal self-development goals [36]. Hu (2019) found that the more career-related parental support college students receive, the higher their level of career maturity and overall well-being [37].

Self-awareness plays a foundational yet relatively indirect role in the network of career development variables. It exhibits moderate, significant positive correlations with career decision-making self-efficacy, parental support, and career planning, with r values ranging from .366 to .483. A key finding from the mediation model analysis is that when career decision-making self-efficacy is introduced as a mediator, the direct path from self-awareness to career planning becomes non-significant ($p = .055$). This indicates that the facilitative effect of self-awareness on career planning does not occur directly, but is fully mediated through the enhancement of an individual's career decision-making self-efficacy. This result reinforces the view that "cultivating career planning consciousness and competence serves as a prerequisite and safeguard for effective career planning among university students" [38], and is consistent with findings that self-awareness is positively associated with career planning [39].

Taken together, the three variables operate through a clear pathway: both self-awareness and parental support serve as important antecedents that significantly enhance an individual's career decision-making self-efficacy, which in turn jointly promotes the development of career planning. Within this model, career decision-making self-efficacy functions as the central, direct psychological driver and mechanism.

V. CONCLUSION

This study developed a structural equation model in which self-awareness and parental support served as independent variables, career decision-making self-efficacy functioned as a mediator, career planning was the dependent variable, and grade level acted as a moderator. The findings are as follows:

1. Self-awareness, parental support, and career decision-making self-efficacy all show positive associations with career planning.
2. Parental support and career decision-making self-efficacy have statistically significant effects on career planning.
3. Career decision-making self-efficacy mediates the influence of both self-awareness and parental support on career planning.
4. Grade level does not significantly affect career planning.

REFERENCES

- [1] ILO, World Employment and Social Outlook: Trends 2025, Geneva, Switzerland: Int. Labour Org., 2025. <https://www.ilo.org/publications/flagship-reports/world-employment-and-social-outlook-trends-2025/>
- [2] Q. Shi and K. Ren, "The connotation and influencing factors of employment ability of college students in China: based on the comparison between applied universities and research universities," Journal of East China Normal University (Educational Sciences), vol. 41, no. 8, pp. 1–12, 2023, doi: 10.16382/j.cnki.1000-5560.2023.08.001.
- [3] A. Velásquez, J. Gómez, B. Claudio, and J. Ruiz, "Soft skills and the labor market insertion of students in the last cycles of administration at a university in northern Lima," Southern perspective / Perspectiva austral, 2024, doi: 10.56294/pa202421.

- [4] Fu Xiaolan and Zhang Kan, Eds., Report on the development of Chinese national mental health (2021–2022). Beijing: Inst. Psychol., Chinese Acad. Sci. & Social Sci. Acad. Press, 2023.
- [5] Y. Wang, “Research on career planning education for college students,” *Journal of Contemporary Educational Research*, vol. 7, no. 12, pp. 192–196, 2023.
- [6] A. K. Kleine, A. Schmitt, and A. C. Keller, “Career planning and self-efficacy as predictors of students’ career-related worry: Direct and mediated pathways,” *Journal of Career Development*, vol. 50, no. 1, pp. 185–199, 2023.
- [7] H. Zhang, “Career planning and career education for contemporary college students,” *The Educational Review, USA*, vol. 7, no. 7, 2023.
- [8] Z. Jingwen, M. A. Talib, W. Jiajian, J. Cuiping, and S. Xia, “Effects of career planning education on career readiness among undergraduates based on social learning theory,” *Jurnal Pendidikan Bitara UPSI*, vol. 16, pp. 93–99, 2023.
- [9] X. Yuan and Z. Zainudin, “Integrating career planning and guidance to foster career readiness: A conceptual perspective on student development,” *Journal of Digitainability, Realism & Mastery (DREAM)*, 2025, doi: 10.56982/dream.v4i05.310.
- [10] J. G. Kim, H. J. Kim, and K. H. Lee, “Understanding behavioral job search self-efficacy through the social cognitive lens: A meta-analytic review,” *Journal of Vocational Behavior*, vol. 112, pp. 17–34, 2019.
- [11] L. Liu and D. Zhang, “The influence of parental rearing behavior on career exploration: the mediating effect of career decision-making self-efficacy,” *Journal of Southwest University Natural Science Edition*, vol. 43, no. 10, pp. 44–51, 2021.
- [12] B. Soenens, M. Vansteenkiste, W. Lens, K. Luyckx, L. Goossens, W. Beyers, and R. M. Ryan, “Conceptualizing parental autonomy support: adolescent perceptions of promotion of independence versus promotion of volitional functioning,” *Developmental Psychology*, vol. 43, no. 3, pp. 633–645, 2007.
- [13] G. A. Mageau, F. Ranger, M. Joussemet, R. Koestner, E. Moreau, and J. Forest, “Validation of the perceived parental autonomy support scale (P-PASS),” *Canadian Journal of Behavioural Science / Revue canadienne des sciences du comportement*, vol. 47, no. 3, pp. 251–262, 2015.
- [14] F. Savira, D. Y. P. Sugiharto, and M. Mulawarman, “The effect of family and peer environments on students’ career planning,” *Jurnal Bimbingan Konseling*, vol. 11, no. 3, pp. 215–220, 2022.
- [15] R. Joshi and R. Rawat, “Factors influencing career choice among undergraduate students of Pokhara University in Kathmandu,” *Nepalese Journal of Economics*, 2025, doi: 10.3126/nje.v9i3.84473.
- [16] X. Zhang, Y. Shen, J. Xu, and G. Cui, “How does career-related parental support benefit career adaptability of medical imaging technology students in Asia-Pacific LMICs? The roles of psychological capital and career values,” *Frontiers in Psychology*, vol. 16, 2025, doi: 10.3389/fpsyg.2025.1508926.
- [17] S. Li, Q. Pan, and Y. Nie, “The impact of career-related parental behaviors on career decision-making self-efficacy and ambivalence: A latent growth model,” *Front. Psychol.*, vol. 13, 2022, Art. no. 951092. [Online]. Available: <https://doi.org/10.3389/fpsyg.2022.951092>.
- [18] J. Westover, “Better decisions through self-reflection and assessment,” *Human Capital Leadership Review*, 2024, doi: 10.70175/hclreview.2020.12.3.11.
- [19] J. Carden, R. J. Jones, and J. Passmore, “Defining self-awareness in the context of adult development: A systematic literature review,” *Journal of Management Education*, vol. 46, no. 1, pp. 140–177, 2022.
- [20] B. Xiong, “Research on educational guidance of college students’ career planning awareness in the context of informatization,” *Applied Mathematics and Nonlinear Sciences*, vol. 9, 2024, doi: 10.2478/amns-2024-2272.
- [21] D. Mardlia, D. S. Sukiati, and R. Kusumandari, “Self awareness dan pengambilan keputusan karier pada siswa,” *INNER: Journal of Psychological Research*, vol. 1, no. 2, pp. 61–69, 2021.
- [22] X. Zeng, F. Yang, X. Xu, T. He, S. Huang, X. Luo, and L. Min, “Employment intention and career planning of male nursing students in different levels of colleges and universities: a qualitative study,” *Nursing Open*, vol. 10, no. 12, pp. 7659–7667, 2023.
- [23] Y. Li, Y. Huang, Y. Xu, R. Huang, X. Wen, and N. Wang, “Investigation and analysis of the current situation of college students’ career development planning,” in *2nd International Conference on Education, Language and Art (ICELA 2022)*, Atlantis Press, pp. 562–567, Mar. 2023.
- [24] L. Chen and Y. Dong, “A study on the current situation and strategy of college students’ career planning education,” *Education Reform and Development*, 2025, doi: 10.26689/erd.v7i4.10239.
- [25] E. L. Deci and R. M. Ryan, *Intrinsic motivation and self-determination in human behavior*, Springer Science & Business Media, 1985.
- [26] R. M. Ryan and E. L. Deci, “Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being,” *American Psychologist*, vol. 55, no. 1, pp. 68–78, 2000.
- [27] X. Yuan and Z. Zainudin, “Integrating career planning and guidance to foster career readiness: a conceptual perspective on student development,” *Journal of Digitainability, Realism & Mastery (DREAM)*, 2025, doi: 10.56982/dream.v4i05.310.
- [28] E. Deci and R. Ryan, “The ‘What’ and ‘Why’ of goal pursuits: human needs and the self-determination of behavior,” *Psychological Inquiry*, vol. 11, pp. 227–268, 2000, doi: 10.1207/s15327965pli1104_01.
- [29] R. W. Lent and S. D. Brown, “Social cognitive model of career self-management: toward a unifying view of adaptive career behavior across the life span,” *Journal of Counseling Psychology*, vol. 60, no. 4, pp. 557–568, 2013.

- [30] N. Zhou, “Perceived parental career expectation and adolescent career development: The mediating role of adolescent career-planning and goal-setting self-efficacy and the moderating role of perceived parent-adolescent career congruence,” *Journal of Counseling Psychology*, 2024, doi: 10.1037/cou0000736.
- [31] M. L. Savickas, “The theory and practice of career construction,” *Career Development and Counseling: Putting Theory and Research to Work*, vol. 1, no. 1, pp. 42–70, 2005.
- [32] H. Zhou, Q. Li, J. Shen, J. Jia, W. Tong, and X. Fang, “A transactional model of career adaptability: Longitudinal links between parental career-related behaviors, parent-child relationship, and career adaptability among Chinese adolescents,” *Journal of Vocational Behavior*, 2024, doi: 10.1016/j.jvb.2024.104025.
- [33] S. Bae and O. Cho, “The impact of nursing students' career decision self-efficacy and future time perspective on job preparation behavior,” *Korean Association for Learner-Centered Curriculum and Instruction*, 2025, doi: 10.22251/jlcci.2025.25.10.73.
- [34] C. Rodríguez, M. Inda, and C. M. Fernández, “Influence of social cognitive and gender variables on technological academic interest among Spanish high-school students: testing social cognitive career theory,” *International Journal for Educational and Vocational Guidance*, vol. 16, no. 3, pp. 305–325, 2016.
- [35] R. You, “The relationship between parental autonomy support and college students' career adaptability: The mediating role of meaning in life,” *Advances in Psychology*, 2024, doi: 10.12677/ap.2024.148593.
- [36] N. K. Nguyen, H. Y. P. Le, V. H. A. Nguyen, B. T. Nguyen-Duong, and D. T. Thanh, “The relationship between emotional intelligence and career decision-making difficulties: mediation role of career adaptability of university students,” *Journal of Curriculum and Teaching*, vol. 13, no. 2, pp. 67–82, 2024.
- [37] A. Jameel, Z. Li, M. Hussain, M. Asif, and Y. Wang, “The effects of social support and parental autonomy support on the mental well-being of university students: the mediating role of a parent-child relationship,” *Humanities and Social Sciences Communications*, vol. 11, pp. 1–8, 2024, doi: 10.1057/s41599-024-03088-0.
- [38] H. Chen, “Exploration on the realization path of college students' career planning course teaching reform from the perspective of communication studies,” *Advances in Education*, 2023, doi: 10.12677/ae.2023.137737.
- [39] S. Liu, A. Lu, X. Chen, M. Zhang, C. Liu, and M. Li, “The relationship between self-consciousness and career decision-making self-efficacy in disabled and non-disabled people: two moderated mediation models,” *Psihologija*, 2022, doi: 10.2298/psi210403014l.