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From Guidance to Growth: Roles of Parental Involvement, Coping Strategies, and Psychological Meaningfulness in Career Decision-Making among High School Students

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Abstract
Although parental involvement, coping strategies, and psychological meaningfulness are widely acknowledged as key influences in youth development, limited empirical work has examined their roles within African educational contexts. We investigated the moderating roles of coping strategies, and PsyM in the relationship between parental involvement (PI) and career decision-making (CDM) among high school students. Four hundred and ninety-five (495) students (males: n = 255, 51.5%; females: n = 240, 48.5%; mean age = 16.5 years, SD = 1.7) were drawn from five Nigerian secondary schools using a cross-sectional design and convenience sampling approach. Participants completed the Parental Involvement Scale, the Brief COPE Inventory, the meaningfulness domain of The Meaning and Purpose Scales (MAPS), and the Career Decision-Making Scale. Results revealed that PI did not predict CDM among high school students. However, problem-focused coping was positively associated with CDM, whereas emotion-focused and avoidance coping were negatively associated with CDM in this population. PsyM did not predict career decision making. Furthermore, neither the coping strategies domains nor PsyM moderated the relationship between PI and career decision making in this group. Interventions aimed at enhancing CDM among high school students may benefit from strengthening problem-focused coping while addressing reliance on emotion-focused and avoidance strategies.
Keywords: *Career decision-making, coping strategies, parental involvement, psychological meaningfulness, high school students*.

Introduction

Adolescence marks a critical transition period characterized by identity formation, increasing autonomy, and future-oriented decisions, including career choices (Sovet & Metz, 2022). Most

individuals enrolled in high school fall within this developmental stage, typically spanning ages 10 to 19 years (World Health Organization [WHO], 2022). Career decision-making (CDM), defined as the process of selecting educational and occupational pathways that align with one's abilities, values, and interests, remains one of the most salient developmental tasks during secondary education (Ginevra et al., 2022; Hirschi & Spurk, 2021). For high school students, these decisions are particularly pivotal, often serving as foundational steps into adulthood (Gati et al., 2009). Research indicates that students who demonstrate confidence and clarity in CDM are more likely to achieve career adaptability and life satisfaction in adulthood (Koen et al., 2020; Nota & Rossier, 2022). Exploring factors that enhance or impair CDM among high school students is therefore critical, as it can guide targeted interventions aimed at promoting clarity and effective career planning.

In the present study, parental involvement (PI) is examined as a potential predictor of career decision-making (CDM), while coping strategies and psychological meaningfulness (PsyM) are considered as potential moderators in this relationship. PI refers to the degree of parents' active engagement, emotional support, and guidance in their children's educational and career development (Hill & Tyson, 2021; Wang & Sheikh-Khalil, 2014). According to Social Cognitive Career Theory (Lent et al., 2000), parents act as proximal socializers, providing informational, emotional, and instrumental support that shapes adolescents' career interests. The influence of parents is widely recognized in educational literature, as they are often the first role models and advisors in their children's lives (Wang & Wei, 2024; Yau et al., 2022; Onongha et al., 2022). Parental attitudes are linked to career development outcomes (Kutlu & Apaydın, 2019), and adolescents whose parents adopt supportive, non-interventionist behaviors display higher levels of career adaptation compared to those whose parents exhibit negative behaviors (Liang et al., 2023). Additionally, evidence from sub-Saharan Africa suggests that sociocultural expectations and economic challenges amplify parental influence on adolescents' career choices, particularly where occupational prestige and family obligations intersect (Lindsay et al., 2021). Specifically, studies (e.g., Eccles & Roeser, 2011; Neuenschwander & Hofmann, 2021; Zhang et al., 2019) have emphasized the positive association between PI and students' CDM, demonstrating that parental guidance and encouragement regarding career options enhance students' confidence, reduce anxiety, and promote informed decision-making. Moreover, parental expectations and beliefs about education significantly affect students' academic choices and career aspirations (Eccles & Roeser, 2011).

In Nigerian samples of students, it has been shown that PI significantly influences adolescents' CDM. For instance, Ezeani et al. (2023) reported a strong positive correlation between PI and CDM among secondary school students in Oyo State. Conversely, over-involvement or controlling parental behaviors can impede independent decision-making, resulting in confusion and lower career self-efficacy (Koumoundourou et al., 2012).

Despite this evidence, much existing research has primarily focused on the direct effects of PI on career outcomes, paying limited attention to the underlying psychological mechanisms that explain how and why these effects occur (refer to a systemaic review by Damas & Kurniawati, 2025). Additionally, few studies have examined these pathways within non-Western or collectivist contexts, where family dynamics and social expectations may influence adolescents' decision-making differently.

One potential psychological mechanism that may moderate the link between PI and career decision making is coping strategies, defined as cognitive and behavioral efforts used to manage internal and external demands perceived as taxing or exceeding one's resources (Folkman & Lazarus, 1988; Compas et al., 2023). Carver (1997) proposed three broad coping dimensions: problem-focused, emotion-focused, and avoidant coping. *Problem-focused coping* involves actively seeking solutions and planning to address stressors, often associated with adaptive functioning and goal attainment, *Emotion-focused coping*, entails efforts to regulate emotional distress through strategies such as acceptance, positive reframing, or seeking support, and *Avoidant coping*, referred to as denial or disengagement which is linked to poorer outcomes (Carver & Connor-Smith, 2010; Freire et al., 2020; MacCann et al., 2022; Taylor & Stanton, 2007).

Coping strategies influence how students manage stressors related to academic and career uncertainty (Carver, 1997; Skinner et al., 2007). Students employing problem-focused coping are more likely to engage in career exploration and decision-making self-efficacy (Farnia et al., 2018), while those relying on avoidant coping exhibit greater procrastination and anxiety (Dlamini & Mokoena, 2025; MacCann et al., 2022). Emotion-focused coping may act as a balancing mechanism, mitigating stress associated with parental expectations and perceived failure (Zhu et al., 2021). However, the interaction between coping strategies and PI is complex. While studies (e.g., Zhu et al., 2021; O'Hare & Tamburri, 1986; Weinstein et al., 2002) have examined coping as a moderator in links between interpersonal constructs and CDM, research specifically testing its moderating role between PI and CDM among high school students remains sparse.

Another important potential moderator in this study is psychological meaningfulness (PsyM). PsyM has been defined as the subjective perception that life, or one's roles and activities, are significant and worthwhile—an experiential sense of coherence, purpose, and value (Delle Fave & Soosai-Nathan, 2014; Schnell & Danbolt, 2023; Stillman & Baumeister, 2009). Meaning-making processes significantly influence vocational development (Negu-Subtirica et al., 2015), shaping career purpose, coherence, and transitions (Lips-Wiersma, 2002). Longitudinal evidence indicates that meaningful motives predict both the direction and stability of career choices over time (Martela & Steger, 2021). Meaning has been shown to strengthen career adaptability—an important personal resource that links individual strengths to adaptive functioning (Gori et al., 2022). It also underpins a sense of calling that

fosters courage, flourishing, and well-being, which together support more decisive vocational behavior (Parola et al., 2023). Meaning-centered programs can enhance a sense of calling and perceived life meaning among students (Beloborodova & Leontiev, 2024), while existential meaning systems provide broader interpretive frameworks for evaluating career options (Dik & Alayan, 2023). Contemporary guidance literature emphasizes the importance of integrating questions of purpose and meaningfulness within career counseling, which is particularly beneficial for high school students (Wang et al., 2024). Despite this evidence, studies linking PsyM with CDM among high school students are limited, highlighting a critical gap that this study seeks to address.

This study is anchored in Social Cognitive Career Theory (SCCT; Lent et al., 2000) and the Social Determination Theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2000, 2017), which provide valuable frameworks for explaining the respective moderating roles of coping strategies and PsyM in PI-CDM link. SCCT posits that career development emerges from the interaction of personal cognitive factors, environmental supports and barriers, and learning experiences. Within this framework, PI may influence CDM of high school students, contingent upon individual coping strategies (Lent et al., 2000). Supportive parental engagement is likely to encourage adaptive coping (problem-focused and emotion-focused), whereas controlling or uninvolved parental behaviors may promote avoidant coping, fostering indecision (Carver, 1997; Freire et al., 2020). In the SDT framework, motivation and optimal functioning are enhanced when individuals experience autonomy, competence, and relatedness, which are considered basic psychological needs (Deci & Ryan, 2000; Guay et al., 2005). Research indicates that when PI fosters autonomy support, competence encouragement, and connectedness, students are more likely to experience meaningful engagement in their CDM process (Guay et al., 2003; Lent et al., 2000). Consequently, students who perceive their career-related activities as meaningful are better positioned to make deliberate and self-congruent career decisions, highlighting the moderating role of PsyM in this relationship.

Despite these theoretical insights, empirical research examining the interactive effects of PI, coping strategies, and PsyM on CDM among high school students is scarce, particularly in African contexts. This study therefore examines the moderating roles of coping strategy domains (problem-focused, emotion-focused, and avoidant-focused) and PsyM in the relationship between PI and CDM. Thus, the present study tests the following hypotheses:

(a) Parental involvement (PI) will be positively associated with career decision-making (CDM) among high school students.

(b) Problem-focused coping will be positively associated with CDM among high school students.

(c) Emotion-focused coping will be negatively associated with CDM among high school students.

(d) Avoidant-focused coping will be negatively associated with CDM among high school students.

(e) Psychological meaningfulness (PsyM) will be positively associated with CDM among high school students.

(f) Problem-focused coping will significantly moderate the relationship between PI and CDM among high school students.

(g) Emotion-focused coping will significantly moderate the relationship between PI and CDM among high school students.

(h) Avoidant-focused coping will significantly moderate the relationship between PI and CDM among high school students.

(i) PsyM will significantly moderate the relationship between PI and CDM.

See the hypothetical model (Figure 1) below.

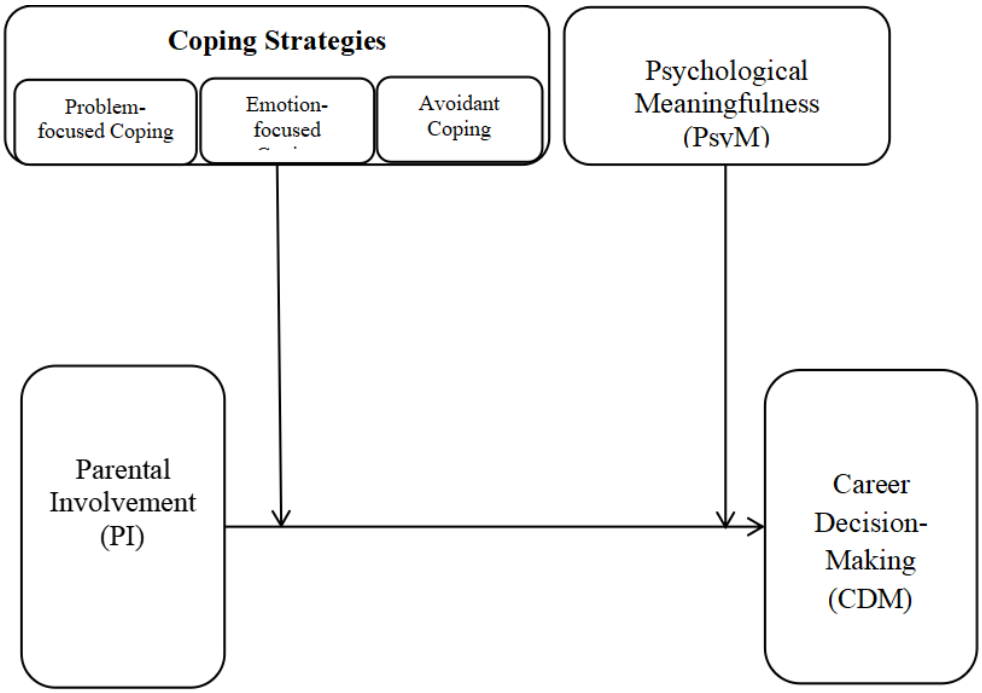

Figure 1

Hypothetical Model for the Moderating Roles of Coping Strategies, and Psychological Meaningfulness in the Relationship between Parental Involvement and Career Decision-Making among High School Students

Methods

Participants

Participants were 495 high school students aged between 14 and 19 years (males: n = 255, 51.5%; females: n = 240, 48.5%; mean age = 16.5 years, SD = 1.7) recruited from five schools in South-Eastern Nigeria. These schools represented the private and government secondary education systems respectively and were randomly selected based on accessibility and student population size. The participants were selected using a simple random sampling technique from the secondary school levels (JSS1–SSS3). Simple random sampling was employed because it provides equal opportunity for selection, minimizes researcher bias, and enhances the generalizability of the findings to the broader student population (Hayes, 2018). Only students who demonstrated the ability to read and understand English and who willingly consented to participate were included in the study. The majority of participants were in JSS1 (n = 164, 33.1%) or JSS3 (n = 154, 31.1%), followed JSS2 (n = 97, 19.6%) and SS1 students (n = 78, 15.8%). Only a very small proportion were in SS2 (n = 2, 0.4%). Additionally, almost all participants were single (n = 490, 99.0%), with only a few married (n = 5, 1.0%).

Procedure

Ethical approval for this study was obtained from the Institutional Review Board (IRB) of the Department of Psychology, University of Nigeria (Approval Number: D. PSY.UNN/REC/2025-02-011). Permission to conduct the study was also granted by the principals of the five schools. Written informed consent was obtained from the participants prior to their inclusion in the study. Two trained research assistants assisted in the administration and collection of the questionnaires. Inclusion criteria were: being an enrolled student in secondary classes (JSS1–SSS3), willingness to participate, and ability to read and understand English. Students who do not meet these criteria and those who declined participation were excluded. Participants were informed that their responses would remain confidential and used solely for research purposes. Data collection took place during regular school hours under supervised conditions, ensuring minimal distractions and maximum participation. Data collection lasted for four weeks (between February and June, 2025). A total of 520 questionnaires were distributed, and 495 were retrieved, representing a response rate of approximately 95.2% while 4.8% of the distributed questionnaires were discarded due to incomplete responses.

Measures

The Parental Involvement (PIS)

The PIS developed by Voydanoff and Donnelly (1999) was used to assess the extent of parents' participation in their children's educational and developmental activities. The 9-item PIS measures dimensions such as communication, encouragement, and monitoring. Representative items include statements such as "My parent discusses my school progress with me," "My parent helps me with homework," and "My parent attends school meetings or academic activities." Items are rated on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"), with higher scores indicating greater perceived parental involvement. Voydanoff and Donnelly (1999) reported a Cronbach's alpha of .86. Studies conducted in Nigeria have also supported the reliability of the scale. For example Shoaga (2019) used the scale among primary school pupils and obtained reliability coefficients above .70, confirming its suitability in Nigerian educational settings. In the present study, the Cronbach's alpha coefficient was .87, indicating high internal consistency in the context of high school students.

The Brief COPE (BCOPE)

The Brief COPE is a 28-item self-report inventory developed by Carver (1997) to assess coping responses to stress. In the present study, the three domains of coping strategies (emotion-focused strategies, problem-focused strategies, and avoidance strategies) were utilized. Sample items include: "I take practical steps or make a plan to deal with the problem directly," "I manage my feelings by seeking comfort, reframing the situation, or relying on emotional support," and "I avoid the problem by distracting myself, denying it, or withdrawing from efforts to cope." Each item is rated on a four-point Likert scale ranging from 1 ("I haven't been doing this at all") to 4 ("I've been doing this a lot"), with higher scores indicating greater use of the particular coping strategy. In the original validation, Carver (1997) reported reliability coefficients for the subscales ranging from approximately .62 to .90, indicating acceptable internal consistency. Marakshina et al. (2025) validated the Brief COPE in a student sample found a 6-factor model, with Cronbach's alphas for the subscales ranging from .73 to .91 for most subscales, but one subscale ("Avoidance") had a lower alpha of .65. In the present study, the Brief COPE demonstrated acceptable internal consistency for use among high school students, with an overall Cronbach's alpha of .72 and subscale reliabilities of .71 for emotion-focused coping, .70 for problem-focused coping, and .73 for avoidant coping, indicating acceptable internal consistency of brief COPE for use in the context of high school students.

Meaning and Purpose Scales (MAPS)

The Meaning and Purpose Scales (MAPS), developed by Schnell and Danbolt (2023) comprises of three main domains: Meaningfulness, Crisis of Meaning, and Sources of Purpose. In the present study, the Meaningfulness domain was used to assess psychological meaningfulness

(PsyM). This domain reflects the extent to which individuals perceive their lives as significant, coherent, goal-directed, and connected to a larger context (Schnell & Danbolt, 2023). Sample items from the Meaningfulness domain include statements such as "My life is meaningful," "I have found my way," "My life makes sense to me," "I feel connected to this world," and "My existence enriches the life of others." Respondents indicate their agreement with each item on a six-point Likert scale ranging from 0 ("totally disagree") to 5 ("totally agree"), with higher scores reflecting greater perceived meaningfulness. Psychometric evaluations in the original validation studies reported high internal consistency for the Meaningfulness domain (Cronbach's alpha .89) and strong item discrimination (corrected item-total correlations ranging from 0.60 to 0.83), as well as robust test–retest reliability across intervals of four weeks to two months. The meaningfulness subscale demonstrates high internal consistency, with Cronbach's alpha of .80 in this study.

Career Decision Scale (CDS)

The Career Decision Scale (CDS), originally developed by Osipow et al. (1976), is an 18-item instrument designed to assess an individual's CDM, including the degree of confidence, readiness, and clarity in making career choices. Sample items include: "I have decided on a career and feel comfortable with it" and "Several careers have equal appeal to me; I am having a difficult time deciding among them" (Osipow et al., 1976). Participants respond to each item on a 4-point Likert scale, ranging from 1 (Not at all like me) to 4 (Exactly like me). Total scores are obtained by summing all items, with higher scores indicating stronger CDM. Items originally measuring indecision (Items 3–18) are reverse-scored so that higher scores reflect better decision-making. The CDS has been used unidimensionally in prior research, treating the indecision items as a single factor of CDM (McAllister, 1992; Solberg et al., 1994). The scale demonstrates good reliability across different populations, with Cronbach's alpha values ranging from .83 to .90 (Osipow et al., 1976; PAR Inc., n.d.). In the present study, the CDS yielded a Cronbach's alpha of .85, confirming it as a reliable measure of CDM among high school students.

Design and Statistics

The study adopted a cross-sectional survey design. Data were analyzed using IBM SPSS version 25. Descriptive statistics (mean, standard deviation, and frequency) were computed to summarize the demographic characteristics of the participants. Pearson's correlation analysis was conducted to examine the interrelationships among PI, coping strategies, PsyM, and CDM. To test the study hypotheses, Model 1 of Hayes' PROCESS macro for SPSS (Hayes, 2018) was employed. Moderation analysis provides an in-depth understanding of how the strength or direction of the relationship between the independent and dependent variables varies at different levels of the moderators (Hayes, 2018; Onu et al., 2025). All statistical tests were two-tailed and interpreted at a significance level of $p < .05$.

Results

Table 1 presents the bivariate correlations among demographic, psychosocial, and career-related variables of the study participants (N = 495). Age was positively correlated with academic level ($r = .56, p < .001$) and marital status ($r = .25, p < .001$), suggesting that older participants were generally in higher academic levels and slightly more likely to be married. Age showed a small negative correlation with emotion-focused coping ($r = –.10, p < .05$), indicating that younger participants reported slightly higher use of emotion-focused coping strategies.

Table 1: *Correlations between Study Variables (N = 495)*

Variable	1	2	3	4	5	6	7	8	9	10
1. Age	–									
2. Gender	–.13*	–								
3. Academic Level	.56***	–.13**	–							
4. Marital Status	.25***	–.02	.12**	–						
5. Parental Involvement	.03	.04	.01	–.07	–					
6. Problem-focused Coping	–.07	.03	–.18***	.02	.16***	–				
7. Emotion-focused Coping	–.10*	.01	–.14**	.03	.10*	.64***	–			
8. Avoidance Coping	–.07	.11*	–.04	.01	.14**	.61***	.55***	–		
9.Psychological Meaningfulness	–.05	.08	–.01	–.07	.02	.07	.04	.04	–	
10. Career Decision Making	–.07	.01	–.16***	–.12**	–.01	.25***	–.11*	–.18***	.05	–

*Note: *p < .05; **p < .01; ***p < .001; Gender (Male = 0, Female = 1). Bolded correlations with indicate statistical significance.*

Gender was negatively correlated with age ($r = –.13, p < .05$) and academic level ($r = –.13, p < .01$), showing that female participants (coded 1) tended to be slightly younger and in lower academic levels compared to males (coded 0). Gender was also positively correlated with avoidance coping ($r = .11, p < .05$), indicating that females reported slightly higher use of avoidance strategies. Academic level was negatively correlated with problem-focused coping

(*r = –.18, p < .001*), emotion-focused coping (*r = –.14, p < .01*), and CDM (*r = –.16, p < .001*), suggesting that participants in higher academic levels reported somewhat lower coping scores and slightly lower CDM effectiveness. Academic level was positively associated with marital status (*r = .12, p < .01*), indicating that those in higher academic levels were marginally more likely to be married.

PI showed positive correlations with problem-focused coping (*r = .16, p < .001*) and avoidance coping (*r = .14, p < .01*), indicating that greater PI was linked to higher use of both adaptive and avoidance coping strategies. Problem-focused coping was strongly positively correlated with emotion-focused coping (*r = .64, p < .001*) and avoidance coping (*r = .61, p < .001*), reflecting the interconnectedness of different coping strategies. Similarly, emotion-focused coping correlated positively with avoidance coping (*r = .55, p < .001*), suggesting that participants often used multiple coping approaches simultaneously.

CDM was positively correlated with problem-focused coping (*r = .25, p < .001*) and negatively correlated with emotion-focused coping (*r = –.11, p < .05*) and avoidance coping (*r = –.18, p < .001*), indicating that higher use of problem-focused strategies was linked with better CDM, whereas higher use of emotion-focused or avoidance coping was related to poorer CDM.

Table 2: *Hayes PROCESS Macro Results for Parental Involvement (PI) Predicting Career Decision Making (CDM) with Coping Strategies (problem-focused coping, emotion-focused coping, and avoidance coping) and Psychological Meaningfulness (PSY_M) as Moderators (N = 495)*

Moderator (W)	Variables	B	SE	t	95% CI	R^2	F (df1, df2)
Problem-focused Coping (COPE_PF)							
	PI	-.111	.110	-1.006	[-.328, .106]	.071	7.513 (5,489)***
	COPE_PF	.750	.128	5.876***	[.499, 1.001]		
	PI × COPE_PF	-.023	.025	-.923	[-.072, .026]		
	Age	-.243	.207	-1.175	[-.649, .163]		
	Gender	-.110	1.025	-.108	[-2.124, 1.903]		
Emotion-focused Coping (COPE_EF)							
	PI	-.55	.113	-.485	[-.276, .167]	.018	1.745 (5,489)

	COPE_EF	-.229	.095	-2.405*	[-.417, -.042]	
	PI × COPE_EF	-.011	.020	-.553	[-.028, .050]	
	Age	-.281	.213	-1.320	[-.700, .137]	
	Gender	.061	1.055	.057	[-2.013, 2.134]	
Avoidance Coping (COPE_AC)						
	PI	-.093	.112	-.828	[-.314, .128]	.039 3.933 (5,489)**
	COPE_AC	-.604	.151	-4.004***	[-.901, -.308]	
	PI × COPE_AC	-.021	.028	-.761	[-.034, .077]	
	Age	-.295	.210	-1.403	[-.708, .118]	
	Gender	-.385	1.047	-.368	[-2.443, 1.672]	
Psychological Meaningfulness (PSY_M)						
	PI	-.025	.114	-.218	[-.248, .198]	.008 .799 (5,489)
	PSY_M	.501	.457	1.095	[-1.399, .398]	
	PI × PSY_M	.037	.100	.369	[-.160, .233]	
	Age	-.342	.214	-1.600	[-.762, .078]	
	Gender	.107	1.061	.101	[-1.978, 2.192]	

*Note: CDM = Career Decision Making; PI = Parental Involvement; COPE_PF = Problem-focused Coping; COPE_EF = Emotion-focused Coping; COPE_AC = Avoidance Coping; PSY_M = Psychological Meaningfulness; SE = Standard Error; CI = Confidence Interval; Int_1 = interaction term (PI × W). where PI=parental involvement, while W= the moderator; R^2 = coefficient of determination; F = F-test of model significance; df1 = numerator degrees of freedom, df2 = denominator degrees of freedom. ***p < .001; **p < .01; *p < .05. Higher scores in CDM indicate greater effectiveness in career decision making.*

Table 2 presents the moderation model examining the influence of parental involvement (PI) on career decision making (CDM), with coping strategies (problem-focused, emotion-focused, and avoidance coping) and PsyM (PSY_M) tested as potential moderators. Moderation implies that the relationship between PI and CDM changes depending on the level of the moderator variable (Hayes, 2018). The model controlled for participants' age and gender, given that they were correlated with the major variables in the bivariate correlation analysis.

When problem-focused coping (COPE_PF) was considered as the moderator, the overall model was significant, $F(5, 489) = 7.513$, $p < .001$, explaining 7.1% of the variance in CDM. Although PI did not significantly predict CDM ($B = –.111$, $t = –1.006$, $p > .05$), COPE_PF emerged as a strong positive predictor ($B = .750$, $t = 5.876$, $p < .001$). This indicates that students who engaged more in problem-focused coping reported higher levels of CDM effectiveness. However, the interaction between PI and COPE_PF ($B = –.023$, $t = –.923$, $p > .05$) was not significant, suggesting that problem-focused coping did not moderate the relationship between PI and CDM.

When emotion-focused coping (COPE_EF) served as the moderator, the overall model was non-significant, $F(5, 489) = 1.745$, $p > .05$, explaining only 1.8% of the variance in CDM. PI was not a significant predictor ($B = –.055$, $t = –.485$, $p > .05$), whereas COPE_EF negatively predicted CDM ($B = –.229$, $t = –2.405$, $p < .05$). This suggests that students who relied more on emotion-focused coping reported lower levels of CDM ability. The interaction term between PI and COPE_EF ($B = –.011$, $t = –.553$, $p > .05$) was not significant, indicating no moderating effect.

With avoidance coping (COPE_AC) as the moderator, the model reached statistical significance, $F(5, 489) = 3.933$, $p < .01$, accounting for 3.9% of the variance in CDM. PI also did not significantly predict CDM ($B = –.093$, $t = –.828$, $p > .05$), but COPE_AC showed a significant negative effect ($B = –.604$, $t = –4.004$, $p < .001$), implying that higher levels of avoidance coping were associated with poorer CDM outcomes. The interaction between PI and COPE_AC ($B = –.021$, $t = –.761$, $p > .05$) was again non-significant, showing that avoidance coping did not moderate the effect of PI on CDM.

Finally, When psychological meaningfulness (PSY_M) was tested as a moderator, the overall model was not significant, $F(5, 489) = .799$, $p > .05$, explaining less than 1% of the variance in CDM. Neither PI ($B = –.025$, $t = –.218$, $p > .05$) nor PSY_M ($B = .501$, $t = 1.095$, $p > .05$) significantly predicted CDM, and the interaction effect (PI × PSY_M; $B = .037$, $t = .369$, $p > .05$) was also non-significant.

Taken together, these findings indicate that PI did not directly predict career decision making, and none of the domains of coping strategies (problem-focused, emotion-focused, avoidance coping) and PsyM significantly moderated this relationship. However, coping styles

independently influenced CDM: problem-focused coping enhanced, whereas emotion-focused and avoidance coping diminished CDM effectiveness.

Discussion

The primary aim of this study was to examine the moderating roles of coping strategies, and PsyM in the relationship between how PI, coping strategies, and PsyM relate to and career decision-making (CDM) among high school (university-aged) students. We tested nine hypotheses regarding direct associations and moderation.

Contrary to our first hypothesis which stated that PI would be positively associated with CDM, PI did not predict CDM in this study (across the models: problem-focused, emotion-focused, avoidance coping, and PsyM). This suggests that, in the context of high school students, the simple presence or degree of parental engagement may not directly translate into effective CDM. This finding diverges from a substantial body of literature (e.g., Ezeani et al., 2023; Zhang et al., 2019; Wang & Sheikh-Khalil, 2014) which revealed positive links between PI and career clarity or adaptability, suggesting that PI plays a critical supportive role in adolescents' career development. This lack of influence in the present study could reflect developmental differences. One possible explanation is that high school students may already have reached a level of autonomy where parental influence is less significant. As high school students become older and more independent, the impact of parents may reduce, replaced by internal or peer influences. Indeed, over-involvement or controlling parental behaviors have been shown in other contexts to hinder independent CDM (Koumoundourou et al., 2012). In collectivist cultures or societies with strong parental expectations, the quality of involvement (e.g., autonomy support vs. control) matters more than mere presence (Deci & Ryan, 2000). Our results suggest that the *manner* of PI is more important than its *extent*, as excessive involvement can hinder adolescents' independent decision-making.

The second hypothesis stated that problem-focused coping would be positively associated with CDM was strongly supported by findings of this study. In the present study, the findings supported this hypothesis. This aligns with prior research (e.g., Carver, 1997; Farnia et al., 2018; Freire et al., 2024) demonstrating that problem-focused coping, characterized by planning, active problem-solving and solution-seeking behaviours tends to be adaptive and positively related to goal-directed behaviors. High school students who adopt problem-focused strategies may more effectively confront uncertainties, explore options, and take good steps toward making informed career decisions. The importance of this is that, fostering problem-focused coping in students could be a powerful mechanism for enhancing their CDM capacity. Interventions (e.g., in-school counseling) could help students develop planning and problem-solving skills, enabling them to more confidently tackle career-related stressors.

The third hypothesis that emotion-focused coping would be negatively associated with CDM was supported by our findings. High school students who more frequently used emotion-focused coping reported lower effectiveness in CDM. Although emotion-focused coping is not inherently maladaptive, it appears that greater reliance on emotion focused strategies corresponded to poorer CDM. One possible interpretation is that excessive emotional management may distract from vocational planning or reduce problem engagement. When students focus more on their feelings than on actively solving stressors, they might delay or avoid the hard work of career exploration. This links to prior literature suggesting that emotion-focused coping strategies may, under some conditions, interfere with goal commitment or productive decision-making processes (Carver & Connor-Smith, 2010; Monzani et al., 2015). It suggests that while emotional coping may provide short-term relief, it might undermine the proactive processes necessary for effective career choice in long run.

The fourth hypothesis stated that avoidant-focused coping would be negatively associated with CDM. Again, our findings supported this hypothesis. Higher levels of avoidance were related to worse CDM outcomes. This is consistent with literature (see Carver, 1997; Dlamini & Mokoena, 2025; MacCann et al., 2022) indicating that avoidance coping which involves denial, disengagement, or procrastination is generally maladaptive and associated with poorer outcomes. In career decision making, avoidant strategies may prevent high school students from engaging in necessary exploration or decision tasks. Students who avoid thinking about their future or deny the stress inherent in decision-making may delay or make less accurate career choices.

PsyM will be positively associated with CDM was the fifth hypothesis tested in this study. Contrary to our expectation, PsyM did not significantly predict CDM. Thus, this hypothesis was not supported. This does not align with findings of extant literature (e.g., Martela & Steger, 2021; Gori et al., 2022; Parola et al., 2023) which demonstrated PsyM as a significant and valuable resource in career adaptability, calling, and decisiveness. Meaning-centered frameworks (e.g., deci & Ryan, 2000; Lips-Wiersma, 2002) suggest that when individuals find their vocational decisions meaningful, they engage more deliberately. However, in our sample, the lack of influence may reflect developmental or cross cultural differences. It could be that although adolescents perceive their lives or roles as meaningful in general, this meaning does not necessarily translate into immediate CDM behaviour in the context of high school students. It could be that their sense of meaning is still taking shape and has not yet become strong enough to actually guide the real choices they have to make about their careers.

The hypotheses which stated that, coping strategies (problem-focused, emotion-focused, avoidance) would moderate the relationship between PI and CDM, were not supported by our findings. None of the interactions (PI × COPE_PF, PI × COPE_EF, PI × COPE_AC) were significant in their respective models (all $p > .05$). That is, the strength or direction of the relationship between PI and CDM did not vary significantly across levels of problem-focused, emotion-

focused, or avoidance coping. From a theoretical standpoint, Social Cognitive Career Theory suggests that the impact of environmental supports (like PI) might be contingent upon individual characteristics, such as coping strategies (Lent et al., 2000). Similarly, one might expect that the benefit of parental engagement would be greater for students who cope actively (problem-focused) or that PI could buffer against maladaptive coping (e.g., avoidance). However, the result did not support such interactions in this sample. One possible explanation is that while coping strategies are linked to CDM on their own, they may not alter the role of PI at least not in a way our study detected. It is possible that these two factors work through different pathways: PI might shape students' confidence or expectations about outcomes, while coping mainly may affect how they deal with stress. However, it may also be that in the context of high school students, PI is less influential in a way that interacts with coping. Parental influence could already have exerted its influence in earlier stages of development, before students reached this age.

PsyM would moderate the relationship between PI and CDM was our last hypothesis. This hypothesis was also not supported by our findings. This suggests that PsyM does not change the way PI relates to CDM in our sample. Even though theory (Self-Determination Theory, meaning-making frameworks) might suggest that meaningfulness could enhance or buffer the influence of social supports like PI (Deci & Ryan, 2000; Martela & Steger, 2021), our findings did not support this interaction. One possible explanation is that meaningfulness and PI contribute in parallel (rather than interactively) to CDM via different mediators such as identity processes, self-regulation (Guan et al., 2016; Lee & Jung, 2022; Ran et al., 2023).

The findings of the present study have both theoretical and practical implications. Theoretically, the findings add to the ongoing discussion on both Social Cognitive Career Theory (SCCT) and the Social Determination Theory. While SCCT (Lent et al., 2000) recognizes PI as an important form of environmental support, the present findings indicate that its direct influence on high school students' career choices may be weaker or more conditional than often assumed. Students' own coping strategies, especially the tendency to approach problems actively or to retreat from them, appear to play a more decisive role in shaping their career-related decisions (Zhu et al. 2021; Zhang et al., 2024). This pattern points to the possibility that adolescents and high school students rely more heavily on internal regulatory tools than on external guidance when navigating vocational questions (Wen et al., 2023; Çelik, 2024). For the SDT (Deci & Ryan, 2000) standpoint, the present study suggests that PsyM may not deliver its full motivational effect in high school students because many of them are still learning how to meet their needs for autonomy, competence, and relatedness in a steady and reliable way (Ryan & Deci, 2000). The findings of this study suggests that existing SDT assumptions may overestimate the influence of external support alone and underestimate the importance of adolescents' internal need-regulation skills, which are still building up during the high-school years. These results also offer practical insights for those involved in

supporting students' career development, especially at the high-school level. One clear importance is the value of helping students to build strong problem-focused coping habits. When young people learn how to actively investigate career options, weigh alternatives, and handle the stress that comes with making future-oriented decisions, they are better positioned to choose paths that genuinely suit them (Betz & Voyten, 1997; Hirschi, 2021; Zhao et al., 2022).

Although parents continue to play an important role in this process, the pattern of findings suggests that professionals such as school counselors and psychologists should guide parents toward forms of involvement that are encouraging but not overbearing. Supporting adolescents' autonomy, while still offering reassurance and relevant information, may help prevent the confusion that often arises when parental influence becomes excessive. The study's implications also extend beyond students and parents. School leaders can integrate coping-skills training and healthier parent–school partnerships into existing guidance structures. Teachers may also reinforce these skills by integrating problem-solving and reflective activities into everyday instructional practices. Career counselors and mental-health practitioners can use the evidence to design interventions that focus not only on family input but also on strengthening students' internal resources for navigating decisions. Parents and guardians benefit from understanding how their involvement can either advance or unintentionally hinder their child's vocational growth. Finally, education policymakers may draw on these findings to shape curricular guidelines or support programs that prioritize coping competence and student autonomy within career education.

While our study offers valuable insights, it is not without limitations. First, our reliance on self-report measures introduces the possibility of social desirability bias or common method variance. Second, the cross-sectional design limits our ability to draw causal inferences. Longitudinal or experimental approaches would provide better insight into how PI, coping, and meaningfulness influence CDM over time. Thirdly, cultural and contextual factors (e.g., socioeconomic status, collectivist values) likely influence both parental behavior and coping, so it will be important for future studies to sample more diverse populations and explicitly measure cultural variables.

In conclusion, this study contributes to the growing literature on high school students' career development by highlighting the roles of coping strategies and PsyM. While PI alone did not predict CDM, adolescents' coping strategies emerged as significant predictors of CDM outcomes. These findings demonstrate the importance of equipping students with adaptive coping skills to navigate career choices successfully, and provide direction for evidence-based interventions targeting both students and parents in high school settings.

Declarations

Ethical Approval

The Institutional Review Board (IRB) of the Psychology Department at the University of Nigeria, Nsukka, examined and approved the study protocol (Approval Number: D. PSY.UNN/REC/2025-02-011). The study was carried out in compliance with the University of Nigeria's ethical rules and regulations for research involving human participants as well as the Declaration of Helsinki's principles of informed consent, ethical review, participant welfare, and scientific validity.

Informed Consent
Informed consent was obtained from all individual participants included in the study. Participation was voluntary, and participants were informed of their right to withdraw at any point without penalty.

Consent to Publish
All participants provided consent for the anonymous publication of their data. No personally identifiable information is disclosed in this study.

Conflict of Interest
The authors declare that they have no conflicts of interest concerning the authorship or publication of this article.

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Data Availability
The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

Author Contributions

All authors were involved in the study's conception. Emmanuella U. Anozie, , and Elisha John Igwe conceptualized the study design, and prepared the study materials, while Elisha John Igwe analyzed the data. Emmanuella U. Anozie collected the study data. Precious Obianuju Oti, and Elisha John Igwe prepared the initial draft of the manuscript. All authors provided feedback on earlier versions, read and approved the final manuscript.

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