

Examining the Roles of Social–Emotional Skills and Career Exploration Among College Students



*The Professional Counselor*TM
Volume 16, Issue 3, Pages 179–193
<http://tpcjournal.nbcc.org>
© 2026 NBCC, Inc. and Affiliates
doi: 10.15241/aa.16.3.179

Aydanur Aydin, Arpita Ghosh

Career exploration is an important developmental task to accomplish while enrolled in postsecondary education for many reasons. These reasons include establishing future career plans and being prepared for career transitions. However, little is known about the factors that inform undergraduate students' engagement in career exploration practices. Therefore, the purpose of this exploratory study is to examine whether social–emotional skills, specifically emotion regulation, self-awareness, and assertiveness, predicted career exploration among undergraduate students ($N = 241$). Findings from correlation analyses suggest that career exploration is significantly and positively related to emotion regulation and self-awareness. Multiple linear regression analyses suggest that although self-awareness and emotion regulation significantly predicted career exploration, assertiveness did not contribute significantly to the regression model. Our findings highlight the importance of integrating emotion regulation and self-awareness interventions within professional career counseling services to support undergraduate students' career exploration. Recommendations for research, implications for counseling practice, and study limitations are discussed.

Keywords: social–emotional skills, emotion regulation, self-awareness, assertiveness, career exploration

Career exploration is an important construct in counseling, particularly for professional counselors, career counselors, and psychologists working in university counseling centers and career services settings. Recent scholarship conceptualizes career exploration as a process that involves self-exploration and environmental exploration (Jiang et al., 2019; Kleine et al., 2021; Lent et al., 2016). Through this process, individuals gather information about the world of work (Kleine et al., 2021); reflect on their interests, values, abilities, and goals; and evaluate potential career opportunities (Jiang et al., 2019; Lent et al., 2016). Career exploration has become increasingly important as college students navigate rapidly changing social and occupational environments that require them to develop professional knowledge while simultaneously managing uncertainty about their future careers (Su et al., 2024). Because some students may find engaging in career exploration challenging, it is important to understand which skills may help facilitate college students' career decision-making and career exploration processes.

The purpose of this exploratory study was to examine whether the social–emotional skills, specifically emotion regulation, assertiveness, and self-awareness, predicted career exploration among undergraduate students. We utilized the Social and Emotional Learning (SEL) framework developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL; 2012). Understanding how these skills relate to career exploration can help counselors and psychologists develop and implement interventions for college students that strengthen their ability to manage emotions, communicate, and address their needs. This, in turn, may help increase clients' engagement in career exploration and support their adaptive career decision-making and career readiness.

Aydanur Aydin, MSc, is a doctoral student in Counseling Psychology at the University of Kansas. Arpita Ghosh, PhD, is an associate professor in the Department of Educational Psychology in the Counseling Psychology program at the University of Kansas. Correspondence may be addressed to Aydanur Aydin, Joseph R. Pearson Hall, Rm 221, 1122 West Campus Rd., Lawrence, KS 66045-3101, ayda@ku.edu.

College Students' Career Exploration

College is an important developmental period during which career exploration takes place, as students are required to select academic majors and to make initial career decisions (Chen & Kizilcec, 2024; Kleine et al., 2021). The career decision-making process involves students engaging in information seeking, self-reflection, evaluating career alternatives, and planning for future occupational pathways (Jiang et al., 2019; Lent et al., 2016). These activities can help students clarify their career identities and make more informed career decisions (Jiang et al., 2019). University counseling centers often provide career counseling interventions aimed at supporting students' career adaptability, employability, and transition to the professional world (Carvalho et al., 2023). Despite some of these interventions, students may still experience difficulties with career exploration tasks (Bullock-Yowell et al., 2014; Leung et al., 2011).

Although career exploration interventions have demonstrated benefits, there has been limited attention to the personal characteristics and psychological skills that may facilitate students' engagement in career exploration. For example, Cheung and Jin (2016) found that participation in a career exploration course increased students' career exploration behaviors and occupational information seeking, suggesting that structured opportunities can promote exploration. More recently, Soares et al. (2022) conducted a systematic review of career interventions among university students. They found that career interventions were being conducted across a variety of formats, including college courses, individual career counseling, and group career counseling. Studies included in their review also highlighted variation in interventions' content, including job search training, skills awareness, and career decision-making training. They also found that interventions focusing primarily on providing career information may overlook the role of social-emotional skills that support students' ability to reflect, regulate emotions, and communicate effectively during the exploration process.

Research about college students' career exploration has mostly focused on its relationship to other career-related variables. For instance, career exploration has been associated with greater career decision-making self-efficacy (Cheung & Arnold, 2014; Cheung & Jin, 2016), clearer vocational identity (Morgan & Osborn, 2025; Praskova et al., 2015), and reduced career decision-making difficulties (Storme & Celik, 2018). Some research on career exploration has focused on its relationship with college students' personalities. For example, some studies have shown that personality factors such as agreeableness, conscientiousness, and openness to experience are positively correlated with higher levels of career exploration (e.g., Li et al., 2015). Similarly, individuals who are more open to experiences tend to engage more actively in exploration behaviors by seeking feedback, building social connections, and experimenting with different career options (Yang et al., 2024). Research also suggests that conscientious individuals are more likely to engage in structured, goal-directed career exploration activities because these behaviors support planning and decision-making in complex career environments (Lee et al., 2023). In addition, proactive personality and self-esteem have been found to predict greater engagement in career exploration among university students (Cai et al., 2015).

Previous research has mostly examined environmental and personality factors as they relate to college students' career exploration. However, researchers have not examined the role of specific social-emotional skills, including emotion regulation, assertiveness, and self-awareness, in career exploration. Examining how these specific variables predict career exploration may benefit career counselors by informing counseling interventions, assessment, and case conceptualization related to career exploration.

Theoretical Framework

Our study was conceptualized within the Social and Emotional Learning (SEL) framework, which emphasizes the development of social and emotional competencies that support individuals' academic,

career, and life outcomes (CASEL, 2020). Specifically, we focused on three SEL-related competencies: self-awareness, emotion regulation, and assertiveness. Self-awareness may support career exploration by helping students identify their interests, strengths, and values when making career decisions (Osher et al., 2016). Emotion regulation may facilitate career exploration by helping students manage the uncertainty, stress, and anxiety often associated with career decision-making (Arbona et al., 2021). Additionally, assertiveness may support career exploration by enabling students to seek guidance, communicate career goals, and build professional networks (Nota & Soresi, 2003). By integrating SEL principles, career counselors can design targeted counseling interventions that enhance clients' social-emotional competencies and support adaptive career decision-making (Durlak et al., 2011).

Self-Awareness and Career Exploration

Self-awareness is an important construct in career development and is increasingly understood as a key element of effective career exploration, particularly through its role in self-reflection and self-assessment processes. Recent research conceptualizes career exploration as a process that integrates both self-exploration and environmental exploration, through which individuals actively reflect on their interests, values, abilities, and goals while also gathering information about potential career options (Jiang et al., 2019). In this process, self-reflection plays a central role in supporting decision-making and identity development. Through exploration activities, individuals gain a clearer understanding of their interests, values, skills, and career goals, which helps them identify their strengths and areas for development (Kleine et al., 2021; Ran et al., 2023).

Taken together, these findings suggest that self-awareness is closely embedded within the career exploration process itself as individuals continuously reflect on and evaluate their personal characteristics while engaging with career-related information. Therefore, students with stronger self-awareness may be more likely to engage in career exploration because they possess greater understanding of their personal characteristics and how these characteristics align with possible career paths.

Emotion Regulation and Career Exploration

Emotions are important determinants of the career decision-making process (Di Fabio et al., 2012) and are inevitably part of the workplace experience (Grandey, 2000). Emotion regulation is the process by which individuals manage their emotions, including the emotions they experience, why they have them, and how they express them (Gross, 1998).

Career exploration often involves uncertainty, ambiguity, and evaluating possible future outcomes, which may require individuals to regulate emotions associated with career-related stress and decision-making challenges. Research suggests that being hopeful about the future and having positive emotions about oneself can lead to higher levels of career exploration (Hirschi et al., 2015). Similarly, individuals who experience greater confidence and emotional control may be better equipped to engage in proactive career behaviors, including gathering information and evaluating career opportunities. Despite the theoretical connection between emotion regulation and career exploration, relatively limited empirical research has directly examined this relationship. Recent findings suggest that emotion regulation is significantly associated with career exploration, indicating that students who can effectively manage emotional experiences may be more likely to engage in career-related exploration behaviors (Ali et al., 2023). Given the limited research on emotion regulation within career counseling contexts, further investigation is warranted.

Assertiveness and Career Exploration

Career exploration is a socially embedded process through which students actively seek career-related information, engage with social networks, and access environmental resources that shape their career development (Lent et al., 2016; Patton & McMahon, 2015). Career exploration behaviors, such as conducting informational interviews, seeking guidance from advisors, and discussing career options with others, require students to communicate their needs, express their interests, and initiate interpersonal interactions (Jiang et al., 2019; Zhang & Huang, 2018). Therefore, individual differences in interpersonal skills, such as assertiveness, may influence the extent to which students engage in career exploration activities.

Assertiveness refers to the ability to express thoughts, needs, and preferences while maintaining effective interpersonal communication (Nota & Soresi, 2003). Within the career development context, assertiveness may support exploration by enabling students to actively seek career information, request assistance, and develop relationships that provide access to career-related opportunities. Supporting this perspective, Nota and Soresi (2003) developed an assertiveness training program for students who are experiencing career indecision and difficulties gathering occupational information. The intervention emphasized skills related to analyzing challenging situations, obtaining relevant information, and communicating effectively with significant others. Findings indicated that developing assertiveness skills enhanced students' ability to engage with the career exploration process.

More recent research similarly emphasizes the importance of interpersonal resources in facilitating career exploration. For example, Zhang and Huang (2018) found that career-related peer support, including informational support, emotional encouragement, and peer role modeling, was positively associated with college students' career exploration. These findings suggest that students' engagement in career exploration may be influenced not only by their internal motivation, but also by their ability to actively participate in interpersonal exchanges and to seek support from their social environments. Therefore, in our study, we examined assertiveness as a potential predictor of undergraduate students' career exploration. We hypothesized that higher levels of assertiveness would be associated with greater engagement in career exploration behaviors.

Purpose of the Study

The purpose of our exploratory study was to examine whether social-emotional skills, specifically self-awareness, emotion regulation, and assertiveness, predict undergraduate students' career exploration. We aimed to expand the existing career exploration literature by identifying specific social-emotional factors that may contribute to students' engagement in career exploration behaviors. Our findings may inform career counseling assessment and intervention approaches by highlighting skills that counselors can address to support students' career development. Our study was guided by the SEL framework. Although assertiveness is not identified as a standalone CASEL competency, it represents an interpersonal skill aligned with SEL-related competencies, particularly social awareness and relationship skills. Our study addresses the following research question: Do self-awareness, emotion regulation, and assertiveness significantly predict undergraduate students' career exploration?

Based on the previous research, we hypothesized that self-awareness, emotion regulation, and assertiveness would significantly predict career exploration, with assertiveness and self-awareness expected to be stronger predictors.

Method

Procedure

Our study was reviewed and received an exemption determination from the Institutional Review Board. Potential participants were recruited via snowball sampling during the 2023–2024 academic year. Aydanur Aydin sent a recruitment message via email to 10 academic departments and instructors at a large Midwestern university. The departments and instructors were selected because of the large number of undergraduate students in those departments. The recruitment messages were distributed to initial contacts during a 6-month period. We sent reminders approximately once a month. The recruitment message included an explanation of the study and contained a Qualtrics survey link. Because different departments and instructors passed along the recruitment message, the exact number of departments, instructors, and students who received the invitation is unknown.

Participants

There were 327 undergraduate students who initially began the survey. Of the 327, 47 participants had incomplete data. Thirty-nine participants did not meet the consent requirements because of procedural irregularities and were excluded. This resulted in a sample of 241 undergraduate students. Student age ranged from 18 to 30 ($M = 19.24$, $SD = 1.81$). Of the 241 participants, 150 identified as women (62.2%), 87 as men (36.1%), and four as other (1.6%). Most participants identified as White/Caucasian ($n = 170$, 70.5%). The remaining participants identified as Hispanic ($n = 22$, 9.1%), Asian ($n = 13$, 5.4%), biracial ($n = 10$, 4.1%), Black/African American ($n = 8$, 3.3%), Asian American ($n = 5$, 2.1%), multiracial ($n = 4$, 1.7%), European ($n = 4$, 1.7%), Middle Eastern ($n = 3$, 1.2%), and Native American ($n = 2$, 0.8%). Participants included those with declared majors ($n = 225$, 93.4%) and undecided students ($n = 16$, 6.6%). The majority of the participants were freshmen ($n = 169$, 70.1%), followed by 36 (14.9%) sophomores, 21 (8.7%) seniors, and 15 (6.2%) juniors. The number of participants who reported having a job was 103 (42.7%) while 133 (55.2%) participants did not. The majority of the participants ($n = 185$, 76.8%) reported not being a first-generation college student while 56 (23.2%) identified as first-generation college students.

Measures

Demographic Questionnaire

We developed a demographic questionnaire in order to obtain participants' self-reported information on demographic variables such as age, ethnicity, employment history, major, grade point average, level of education, and year in school.

Career Exploration Survey

The Career Exploration Survey (CES; Stumpf et al., 1983) was administered to measure career exploration. Career exploration refers to individuals' behaviors, attitudes, and responses related to gathering information and learning about potential career options (Stumpf et al., 1983). The CES is a self-reported measure consisting of 62 items. Participants responded to items on a 5-point Likert-type scale ranging from 1 (*little*) to 5 (*a great deal*). The measure assesses multiple aspects of the career exploration process, including individuals' beliefs about exploration, the behaviors and strategies they use while exploring career options, and their reactions to the exploration experience. A sample item is "Initiated conversations with knowledgeable individuals in my career area" (Stumpf et al., 1983).

Our study assessed career exploration using the Environment Exploration, Self-Exploration, Internal Search Instrumentality, and Intended-Systematic Exploration subscales because these subscales capture participants' engagement in career exploration activities and behaviors. This

measure has been used with college students (e.g., Cheung & Arnold, 2014; Guan et al., 2015; Sawitri & Dewi, 2015). Previous research has provided evidence supporting the internal structure of the CES through the identification of multiple dimensions related to career exploration behaviors, beliefs, and reactions (Stumpf et al., 1983).

Convergent validity for the measure is supported by correlations among the CES's core domains with one another. For example, the domains of Exploration Behaviors, Reactions to Exploration, and Exploration-Related Beliefs were correlated in ways that were expected. Furthermore, self-esteem was significantly correlated with dimensions of Focus and Certainty of Career Exploration Outcome (Stumpf et al., 1983). Each CES dimension demonstrated weak and nonsignificant correlations with social desirability, age, gender, and years of work experience, which provides evidence for discriminant validity (Stumpf et al., 1983). Reliability estimates (Cronbach's α) ranged from .79 to .92 for the undergraduate sample in the original study (Stumpf et al., 1983). In our study, the CES demonstrated excellent internal reliability in the current sample, as indicated by Cronbach's alpha ($\alpha = .94$; Cronbach, 1951) and McDonald's omega ($\omega = .94$; McDonald, 1999).

Emotion Regulation Questionnaire

The Emotion Regulation Questionnaire (ERQ) was administered to assess emotion regulation, which is defined as individuals' processes for managing emotional experiences and expressions (Gross & John, 2003). The ERQ consists of 10 items with two subscales: Reappraisal and Suppression (Gross & John, 2003). This scale was developed as a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). One sample item from ERQ is "When I want to feel less negative emotion, I change the way I'm thinking about the situation" (Gross & John, 2003).

Previous research has supported the two-factor structure of the ERQ through factor analytic studies demonstrating the distinction between cognitive reappraisal and expressive suppression (Gross & John, 2003). Gross and John (2003) found that reappraisal correlated positively with positive affect, well-being, and improved interpersonal functioning, demonstrating convergent validity. Suppression, on the other hand, was correlated with more negative affect and poorer social functioning (Gross & John, 2003). Spaapen et al. (2014) validated a nine-item version of the ERQ (ERQ-9) in two community samples, as did Andrea et al. (2024) with a large clinical sample. Both studies found that reappraisal and suppression showed similar patterns to Gross and John's original findings. Internal consistency alpha coefficients ranged from .73 to .79. Test-retest reliability was .69 across three months (Gross & John, 2003). The ERQ has been used in a variety of studies with different contexts among college students (Park et al., 2020; Schroder et al., 2015). The ERQ demonstrated acceptable internal reliability in the current sample ($\alpha = .76$, $\omega = .77$).

The Rathus Assertiveness Schedule

The Rathus Assertiveness Schedule (RAS) was administered to measure students' assertiveness, defined as individuals' ability to express themselves, communicate effectively, and advocate for their needs in interpersonal situations (Rathus, 1973). The measure is comprised of 30 items, and items are scored on a Likert-type scale. Each response ranges from 3 (*very much like me*) to -3 (*very much unlike me*). A sample item is "I enjoy starting conversations with new acquaintances and strangers" (Rathus, 1973). Items 1-2, 4-5, 9, 11-17, 19, 23-24, 26, and 30 are reverse scored. A total score is obtained by adding numerical responses to each item after changing signs of reversed items, ranging from 90 to -90 (Rathus, 1973).

The RAS has shown convergent and discriminant validity with college student samples. The original development of the RAS included validation verification by incorporating items derived from the diaries of college juniors and seniors. Additionally, Harris and Brown (1979) found that RAS scores in a sample of college students were significantly correlated with six Class I scales of the California Psychological Inventory, which measures poise, ascendancy, and self-assurance. Rathus (1973) found that the measure's test-retest reliability over 2 months was .78, internal reliability coefficient was .82, and split-half reliability was .77. This measure has been effectively administered to college students in previous studies with different contexts and cultures (Parray & Kumar, 2016; Toktas et al., 2022). In our study, the RAS demonstrated good internal reliability in the current sample ($\alpha = .82$, $\omega = .81$).

Self-Awareness Outcomes Questionnaire

The Self-Awareness Outcomes Questionnaire (SAOQ) is a 38-item measure that assesses self-awareness, which is defined as individuals' ability to recognize and understand their own thoughts, emotions, behaviors, and personal characteristics (Sutton, 2016). The scale has four factors assessing self-awareness: Reflective Self-Development, Acceptance of Self and Others, Proactivity at Work, and Emotional Costs (Sutton, 2016). Items are rated on a 5-point Likert-type scale from 1 (*never*) to 5 (*almost always*). A sample item from the scale is "I'm aware of my abilities and limitations" (Sutton, 2016).

Previous research has supported the four-factor structure of the SAOQ through examination of its dimensions (Sutton, 2016). Internal consistency coefficients were .87 for Reflective Self-Development, .83 for Acceptance of Self and Others, .81 for Proactivity at Work, and .77 for Emotional Costs. All of the subscales demonstrated adequate reliability estimates ($\alpha > .70$; Sutton, 2016). Validation evidence for the SAOQ focuses on general adult samples and not college student-specific populations (Sutton, 2016). In this study, we used this measure because the items focused on the outcomes of self-awareness. Internal consistency reliability for self-awareness scores was $\omega = .91$. The SAOQ demonstrated excellent internal reliability in our sample ($\alpha = .91$, $\omega = .92$).

Data Analyses

Means, standard deviations, and correlations were calculated for each measure. Total scale scores were utilized for all measures in the analyses. Internal consistency reliability was evaluated using both Cronbach's alpha and McDonald's omega. Following the guidelines proposed by Nunnally and Bernstein (1994), reliability coefficients of .70, .80, and .90 were interpreted as indicating acceptable, good, and excellent internal consistency, respectively. Regression analyses were utilized to answer our research question.

Results

Preliminary Analyses

Means, standard deviations, and correlation coefficients for independent and dependent variables are presented in Table 1.

Table 1*Descriptive Statistics (N = 241)*

	Assertiveness	Career exploration	Emotion regulation	Self-awareness	<i>M</i>	<i>SD</i>
Assertiveness	1				-5.29	22.16
Career exploration	0.095	1			64.96	17.49
Emotion regulation	-.110	.228**	1		45.58	8.10
Self-awareness	.009	.375**	.305**	1	139.35	16.60

Note. Means and standard deviations are of total scores.

**Correlation is significant at the 0.01 level (2-tailed).

Variables were correlated in expected ways. There were statistically significant low correlations between emotion regulation and career exploration ($r = .228, p < .01$), and self-awareness and emotion regulation ($r = .305, p < .01$). There was a moderately significant relationship between self-awareness and career exploration ($r = .375, p < .01$).

Regression Analyses

Prior to conducting the regression analyses, assumptions of linear regression were examined. Linearity and homoscedasticity were assessed through examination of scatterplots of standardized residuals and predicted values. Normality of residuals was examined through inspection of histograms and normal probability plots. Multicollinearity was assessed using tolerance and variance inflation factor (VIF) values. The Durbin–Watson statistic was examined to assess independence of errors. Results indicated that assumptions of linear regression were adequately met.

To answer the research question, we conducted a multiple linear regression analysis examining whether emotion regulation, self-awareness, and assertiveness predicted career exploration. Career exploration was entered as the criterion variable. Emotion regulation, self-awareness, and assertiveness were the predictor variables. See Table 2 for a summary of the regression findings.

A multiple linear regression analysis was conducted to examine whether emotion regulation, self-awareness, and assertiveness predicted career exploration. The overall regression model was significant, $R = .41$, $R^2 = .17$, adjusted $R^2 = .16$, $F(3, 237) = 15.74, p < .001$, accounting for 16.6% of the variance in career exploration. Results indicated that self-awareness ($\beta = 0.33, p < .001$) and emotion regulation ($\beta = 0.14, p = .03$) were significant positive predictors of career exploration. However, assertiveness was not a statistically significant predictor of career exploration ($\beta = 0.11, p = .08$).

Table 2*Summary of the Multiple Linear Regression Analysis*

<i>R</i>	<i>R</i> ²	adj. <i>R</i> ²	Predictor	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
0.41	0.17	0.16	—	—	—	—	—	—
			Constant	3.08	9.38	—	0.33	.74
			Emotion Regulation	0.30	0.14	0.14	2.21	.03
			Self-awareness	0.35	0.07	0.33	5.31	< .001
			Assertiveness	0.08	0.05	0.11	1.79	.08

Note. Career Exploration is the criterion variable.

Discussion

The purpose of our exploratory study was to examine whether self-awareness, emotion regulation, and assertiveness predicted career exploration among undergraduate students. Initially, findings from our study suggested significant positive relationships between emotion regulation, self-awareness, and assertiveness with career exploration. There has been limited investigation on the relationship among all of these variables in one study. However, when examined separately, the correlations among each of these variables with career exploration are consistent with previous research. Some of these relationships are supported within the SEL framework (CASEL, 2012; 2020) and align with counseling literature that emphasizes emotional and self-reflective processes in career counseling.

Additionally, findings from the multiple linear regression analyses suggested that emotion regulation and self-awareness significantly predicted career exploration of undergraduate students while assertiveness did not. The finding of self-awareness being a significant predictor of career exploration is consistent with previous research. For instance, findings from Abdullah's (2018) study with university students identified career exploration difficulties, including limited self-awareness, as barriers to effective career decision-making. Students do not have to know their interests to be able to decide benefits and limitations of a career path. Similarly, recent research suggests that individuals' career decision-making involves drawing on interests, intuition, experiences, emotions, and skills as part of self-awareness and intuitive processing in their decision-making (Gati et al., 2025; Özek & Ferraris, 2018).

Assertiveness was not a significant predictor of career exploration in this study, which is partially inconsistent with previous findings in the literature. In our study, assertiveness was hypothesized to be a significant predictor, considering how undergraduate students might need this social skill to engage in career exploration, such as seeking guidance, networking, initiating professional conversations, and expressing career-related needs. However, findings indicated assertiveness was not a significant predictor of career exploration. This finding is partially inconsistent with existing literature. For instance, Solberg et al. (1995) stated that there was no direct relationship between assertiveness and the number of career search activities performed. Conversely, Reed et al. (2004) suggested that individuals who were assertive and extroverted were more engaged in information-seeking behaviors as part of their career exploration process.

Lastly, the finding of emotion regulation being a significant predictor of career exploration fills a research gap in the literature. The career exploration process often presents emotional challenges that career counselors directly address. For instance, students may experience emotional challenges during career exploration and job searching, such as uncertainty about the job market, coping with rejection and negative feedback, elevated anxiety about their future, and social anxiety when networking. They may cope with these challenges more effectively if they are able to regulate their emotions.

Previous research suggests that social-emotional skills are important in career exploration activities (Nota & Soresi, 2003). Considering the importance of networking and the influence of social relationships on work, especially regarding finding new job opportunities and learning about specific fields, it is expected that people with more social-emotional skills may be more likely to engage in career exploration activities.

Recommendations for Future Research

Findings of our study support the need for further investigation. Future studies should emphasize developing specific interventions that focus on undergraduate students' social-emotional skills, specifically emotion regulation and self-awareness. These interventions may involve career counseling, career coaching, or academic advising in order to expand undergraduate students' career exploration. Future studies should also investigate what other social skills (e.g., communication, adaptability) may be beneficial in the career exploration process among undergraduate students.

In addition to the development of these interventions, studies should empirically investigate their efficacy to determine if they are promoting students' career exploration behaviors. Future studies could also investigate the development of these specific social skills over time. Researchers are encouraged to longitudinally examine career exploration, emotion regulation, and self-awareness each year an undergraduate student is enrolled to discover changes.

Implications for Practice

Our study has several implications for professional counseling practice, particularly career counseling. Career counselors may integrate self-awareness and emotion regulation interventions into individual and group career counseling to support clients' engagement in career exploration. Counselors should recognize that these competencies may include both dispositional characteristics and skills that can develop over time. Therefore, the goal of career counseling interventions may not be to completely change these characteristics, but rather to increase students' awareness of their internal experiences and strengthen their ability to apply adaptive strategies during career decision-making.

Specifically, counselors may consider assessing clients' levels of self-awareness and emotion regulation early in the career counseling process to identify potential barriers to career exploration. Students with limited self-awareness may benefit from interventions focused on values clarification, strengths identification, interest exploration, and reflective activities to develop a clearer understanding of their career goals. Similarly, students who experience anxiety, uncertainty, or emotional distress related to career decision-making may benefit from emotion regulation strategies, such as identifying emotional responses, cognitive reframing, and developing coping strategies for career-related stress. Research suggests that these skills can be strengthened through targeted interventions (Bagheri et al., 2016; Jia-Yuan et al., 2022); even brief counseling encounters may focus on teaching practical strategies for recognizing, understanding, and managing emotions that arise during career exploration.

Our findings also suggest that career counselors should conceptualize career exploration difficulties beyond a lack of information or motivation and consider the role of social-emotional competencies in the exploration process. When students avoid career exploration behaviors, counselors may explore whether emotional barriers (e.g., fear of failure, uncertainty about the future, difficulty managing negative emotions) or limited self-understanding contribute to avoidance. Addressing these factors may allow counselors to develop more individualized and effective career interventions.

Group career counseling and psychoeducational interventions may also incorporate SEL-informed activities to address emotional barriers to career exploration. For example, career counseling groups may include structured activities that promote self-reflection, emotional awareness, and coping with career-related uncertainty. Counselors may incorporate experiential activities, such as guided reflection and discussion about previous career-related experiences, to enhance students' self-awareness during the exploration process. Given the time-limited nature of many college counseling services, these interventions may be most appropriate when framed as opportunities to increase awareness and provide students with practical tools that they can continue developing beyond counseling.

Counselor educators and supervisors may also consider integrating SEL-informed career interventions into training curricula that prepare counselors to address emotional and self-reflective aspects of career development. Training programs may emphasize the connection between social-emotional skills and career development by preparing future counselors to assess these competencies and apply interventions that support students' career exploration. Additionally, supervisors may encourage counselors-in-training to consider how emotional experiences and self-perceptions influence clients' engagement in their career decision-making.

Finally, although assertiveness was not a significant predictor of career exploration in our study, counselors should continue to consider interpersonal skills when supporting career development. Career exploration often involves networking, seeking mentorship, and communicating career goals; therefore, counselors should assess whether clients need support developing communication and advocacy skills even when these skills do not directly predict exploration behaviors.

Limitations

There are several limitations to our study that should be considered when interpreting findings. First, the cross-sectional design of the study limits any ability to draw causal inferences. Although regression analyses identified self-awareness and emotion regulation as significant predictors of career exploration, the directionality of these relationships cannot be established. It is plausible that students who are more engaged in career exploration subsequently develop greater self-awareness and improved emotion regulation, or that these variables mutually influence one another over time. Additionally, the sample was drawn from a single large Midwestern university, which limits the generalizability of the findings to other undergraduate populations. Students at different types of institutions (e.g., community colleges, private universities, non-U.S. institutions) may differ in their levels of career exploration and social-emotional competencies because of contextual, cultural, or institutional factors.

Although this study focused on three social skills—self-awareness, emotion regulation, and assertiveness—career exploration is a multifaceted construct influenced by a broader set of individual and contextual variables. Factors such as personality traits, career decision-making self-efficacy, socioeconomic status, cultural background, labor market perceptions, and access to career resources were not included in our model and may explain additional variance in career exploration.

Lastly, the measurement approach may also represent a limitation. Although well-established instruments were used, each construct was operationalized through a specific self-report scale, which may not fully capture the complexity of the constructs assessed. In particular, the assertiveness measure may not have captured domain-specific or career-relevant assertiveness behaviors, which could have influenced its nonsignificant contribution in the regression model.

Conclusion

In summary, this study identified an important gap in the literature by examining social-emotional skills and career exploration within a social-emotional learning framework. Emotion regulation, self-awareness, and assertiveness have typically been investigated independently; this study proposed examining these skills together. Our findings suggested significant relationships among career exploration, emotion regulation, and self-awareness. Emotion regulation and self-awareness predicted career exploration significantly while assertiveness did not. These findings highlight the importance of considering social-emotional competencies as an integrated set of skills in understanding college students' engagement in career exploration. We hope that these findings assist career counselors and counseling psychologists in developing assessment-informed and SEL-integrated career counseling interventions.

Conflict of Interest and Funding Disclosure

The authors reported no conflict of interest or funding contributions for the development of this manuscript.

References

- Abdullah, S. M. (2018). Career decision making in college students. *Guidena: Jurnal Ilmu Pendidikan, Psikologi, Bimbingan dan Konseling*, 8(1), 30–39. <https://doi.org/10.24127/gdn.v8i1.1192>
- Ali, Y., Amin, F., Ali, H., & Draz, U. (2023). Dark triad of personality, difficulties in emotional regulation and career exploration behavior in students. *Journal of Psychological Science and Research*, 3(1), 1–7. <https://doi.org/10.53902/JPSSR.2023.03.000540>
- Andrea, A. M., Galiano, C. S., Rosellini, A. J., & Brown, T. A. (2024). Psychometric evaluation of the Emotion Regulation Questionnaire in a clinical sample. *Journal of Psychopathology and Behavioral Assessment*, 46(2), 495–503. <https://doi.org/10.1007/s10862-023-10108-x>
- Arbona, C., Fan, W., Phang, A., Olvera, N., & Dios, M. (2021). Intolerance of uncertainty, anxiety, and career indecision: A mediation model. *Journal of Career Assessment*, 29(4), 699–716. <https://doi.org/10.1177/10690727211002564>
- Bagheri, Z., Kosnin, A. M., & Besharat, M. A. (2016). Improving emotion regulation skills through an emotional intelligence training course. *Khazar Journal of Humanities and Social Sciences*, 19(4), 36–48. <https://doi.org/10.5782/2223-2621.2016.19.4.36>
- Bullock-Yowell, E., McConnell, A. E., & Schedin, E. A. (2014). Decided and undecided students: Career self-efficacy, negative thinking, and decision-making difficulties. *NACADA Journal*, 34(1), 22–34. <https://doi.org/10.12930/NACADA-13-016>
- Cai, Z., Guan, Y., Li, H., Shi, W., Guo, K., Liu, Y., Li, Q., Han, X., Jiang, P., Fang, Z., & Hua, H. (2015). Self-esteem and proactive personality as predictors of future work self and career adaptability: An examination of mediating and moderating processes. *Journal of Vocational Behavior*, 86, 86–94. <https://doi.org/10.1016/j.jvb.2014.10.004>

- Carvalho, L., Mourão, L., & Freitas, C. (2023). Career counseling for college students: Assessment of an online and group intervention. *Journal of Vocational Behavior*, 140, 1–14. <https://doi.org/10.1016/j.jvb.2022.103820>
- Chen, Y., & Kizilcec, R. F. (2024). Showing authentic examples of academic and career trajectories to influence college students' career exploration. *Journal of Vocational Behavior*, 153, 104026. <https://doi.org/10.1016/j.jvb.2024.104026>
- Cheung, R., & Arnold, J. (2014). The impact of career exploration on career development among Hong Kong Chinese university students. *Journal of College Student Development*, 55(7), 732–748. <https://doi.org/10.1353/csd.2014.0067>
- Cheung, R., & Jin, Q. (2016). Impact of a career exploration course on career decision making, adaptability, and relational support in Hong Kong. *Journal of Career Assessment*, 24(3), 481–496. <https://doi.org/10.1177/1069072715599390>
- Collaborative for Academic, Social, and Emotional Learning. (2012). *Effective social and emotional learning programs. Preschool and elementary school edition*. <https://files.eric.ed.gov/fulltext/ED581699.pdf>
- Collaborative for Academic, Social, and Emotional Learning. (2020). *What is SEL?* <https://casel.org/what-is-sel>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. <https://doi.org/10.1007/BF02310555>
- Di Fabio, A., Palazzeschi, L., & Bar-On, R. (2012). The role of personality traits, core self-evaluation, and emotional intelligence in career decision-making difficulties. *Journal of Employment Counseling*, 49(3), 118–129. <https://doi.org/10.1002/j.2161-1920.2012.00012.x>
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405–432. <https://doi.org/10.1111/j.1467-8624.2010.01564.x>
- Gati, I., Izrailevitch, V., & Tatar, M. (2025). Clients' intuitions in career decision making: Should career counselors trust them? *Journal of Career Assessment*, 33(3), 549–568. <https://doi.org/10.1177/10690727241287532>
- Grandey, A. A. (2000). Emotional regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Occupational Health Psychology*, 5(1), 95–110. <https://doi.org/10.1037/1076-8998.5.1.95>
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2(3), 271–299. <https://emotion.wisc.edu/wp-content/uploads/sites/1353/2021/11/Gross-1998-The-Emerging-Field-of-Emotion-Regulation-An-Integrative-Review.pdf>
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. <https://doi.org/10.1037/0022-3514.85.2.348>
- Guan, Y., Wang, F., Liu, H., Ji, Y., Jia, X., Fang, Z., Li, Y., Hua, H., & Li, C. (2015). Career-specific parental behaviors, career exploration and career adaptability: A three-wave investigation among Chinese undergraduates. *Journal of Vocational Behavior*, 86, 95–103. <https://doi.org/10.1016/j.jvb.2014.10.007>
- Harris, T. L., & Brown, N. W. (1979). Congruent validity of the Rathus Assertiveness Schedule. *Educational and Psychological Measurement*, 39(1), 181–186. <https://doi.org/10.1177/001316447903900125>
- Hirschi, A., Abessolo, M., & Froidevaux, A. (2015). Hope as a resource for career exploration: Examining incremental and cross-lagged effects. *Journal of Vocational Behavior*, 86, 38–47. <https://doi.org/10.1016/j.jvb.2014.10.006>
- Jiang, Z., Newman, A., Le, H., Presbitero, A., & Zheng, C. (2019). Career exploration: A review and future research agenda. *Journal of Vocational Behavior*, 110, 338–356. <https://doi.org/10.1016/j.jvb.2018.08.008>
- Jia-Yuan, Z., Xiang-Zi, J., Yi-Nan, F., & Yu-Xia, C. (2022). Emotion management for college students: Effectiveness of a mindfulness-based emotion management intervention on emotional regulation and resilience of college students. *The Journal of Nervous and Mental Disease*, 210(9), 716–722. <https://doi.org/10.1097/NMD.0000000000001484>
- Kleine, A.-K., Schmitt, A., & Wisse, B. (2021). Students' career exploration: A meta-analysis. *Journal of Vocational Behavior*, 131, Article 103645. <https://doi.org/10.1016/j.jvb.2021.103645>
- Lee, S. D., Aquino, A., Kuncel, N. R., & Hansen, J.-I. C. (2023). Personality predictors of career exploration: A meta-analysis. *The Career Development Quarterly*, 71(1), 41–55. <https://doi.org/10.1002/cdq.12315>

- Lent, R. W., Ezeofor, I., Morrison, M. A., Penn, L. T., & Ireland, G. W. (2016). Applying the social cognitive model of career self-management to career exploration and decision-making. *Journal of Vocational Behavior*, 93, 47–57. <https://doi.org/10.1016/j.jvb.2015.12.007>
- Leung, S. A., Hou, Z.-J., Gati, I., & Li, X. (2011). Effects of parental expectations and cultural-values orientation on career decision-making difficulties of Chinese university students. *Journal of Vocational Behavior*, 78(1), 11–20. <https://doi.org/10.1016/j.jvb.2010.08.004>
- Li, Y., Guan, Y., Wang, F., Zhou, X., Guo, K., Jiang, P., Mo, Z., Li, Y., & Fang, Z. (2015). Big-five personality and BIS/BAS traits as predictors of career exploration: The mediation role of career adaptability. *Journal of Vocational Behavior*, 89, 39–45. <https://doi.org/10.1016/j.jvb.2015.04.006>
- McDonald, R. P. (1999). *Test theory: A unified treatment*. Lawrence Erlbaum.
- Morgan, M. J., & Osborn, D. S. (2025). College career courses and growth toward vocational identity achievement status. *Journal of Career Assessment*, 33(1), 73–91. <https://doi.org/10.1177/10690727241250352>
- Nota, L., & Soresi, S. (2003). An assertiveness training program for indecisive students attending an Italian university. *The Career Development Quarterly*, 51(4), 322–334. <https://doi.org/10.1002/j.2161-0045.2003.tb00613.x>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Osher, D., Kidron, Y., Brackett, M., Dymnicki, A., Jones, S., & Weissberg, R. P. (2016). Advancing the science and practice of social and emotional learning: Looking back and moving forward. *Review of Research in Education*, 40(1), 644–681. <https://doi.org/10.3102/0091732X16673595>
- Özek, H., & Ferraris, A. (2018). The role of self-awareness and self-efficacy on career decision-making: An innovative perspective. In D. Vrontis, Y. Weber, A. Thrassou, S. M. Riad Shams, & E. Tsoukatos (Eds.), *Innovation and capacity building: Cross-disciplinary management theories for practical applications* (pp. 207–229). Palgrave Macmillan. https://doi.org/10.1007/978-3-319-90945-5_11
- Park, C. L., Williams, M. K., Hernandez, P. R., Agocha, V. B., Lee, S. Y., Carney, L. M., & Loomis, D. (2020). Development of emotion regulation across the first two years of college. *Journal of Adolescence*, 84(1), 230–242. <https://doi.org/10.1016/j.adolescence.2020.09.009>
- Parray, W. M., & Kumar, S. (2016). Assertiveness among undergraduate students of the university. *The International Journal of Indian Psychology*, 4(1), 283–291. https://www.researchgate.net/publication/316663003_Assertiveness_among_Undergraduate_Students_of_the_University
- Patton, W., & McMahon, M. (2015). *Career development and systems theory: Connecting theory and practice* (3rd ed.). Sense Publishers.
- Praskova, A., Creed, P. A., & Hood, M. (2015). Career identity and the complex mediating relationships between career preparatory actions and career progress markers. *Journal of Vocational Behavior*, 87, 145–153. <https://doi.org/10.1016/j.jvb.2015.01.001>
- Ran, J., Liu, H., Yuan, Y., Yu, X., & Dong, T. (2023). Linking career exploration, self-reflection, career calling, career adaptability and subjective well-being: A self-regulation theory perspective. *Psychology Research and Behavior Management*, 16, 2805–2817. <https://doi.org/10.2147/PRBM.S420666>
- Rathus, S. A. (1973). A 30-item schedule for assessing assertive behavior. *Behavior Therapy*, 4(3), 398–406. [https://doi.org/10.1016/S0005-7894\(73\)80120-0](https://doi.org/10.1016/S0005-7894(73)80120-0)
- Reed, M. B., Bruch, M. A., & Haase, R. F. (2004). Five-factor model of personality and career exploration. *Journal of Career Assessment*, 12(3), 223–238. <https://doi.org/10.1177/1069072703261524>
- Sawitri, D. R., & Dewi, K. S. (2015). Academic fit, adolescent-parent career congruence, and career exploration in university students. *Procedia Environmental Sciences*, 23, 105–109. <https://doi.org/10.1016/j.proenv.2015.01.016>
- Schroder, H. S., Dawood, S., Yalch, M. M., Donnellan, M. B., & Moser, J. S. (2015). The role of implicit theories in mental health symptoms, emotion regulation, and hypothetical treatment choices in college students. *Cognitive Therapy and Research*, 39(2), 120–139. <https://doi.org/10.1007/s10608-014-9652-6>
- Soares, J., Carvalho, C., & Silva, A. D. (2022). A systematic review on career interventions for university students: Framework, effectiveness, and outcomes. *Australian Journal of Career Development*, 31(2), 81–92. <https://doi.org/10.1177/10384162221100460>
- Solberg, V. S., Good, G. E., Fischer, A. R., Brown, S. D., & Nord, D. (1995). Career decision-making and career search activities: Relative effects of career search self-efficacy and human agency. *Journal of Counseling Psychology*, 42(4), 448–455. <https://doi.org/10.1037/0022-0167.42.4.448>

- Spaapen, D. L., Waters, F., Brummer, L., Stopa, L., & Bucks, R. S. (2014). The Emotion Regulation Questionnaire: Validation of the ERQ-9 in two community samples. *Psychological Assessment, 26*(1), 46–54. <https://doi.org/10.1037/a0034474>
- Storme, M., & Celik, P. (2018). Career exploration and career decision-making difficulties: The moderating role of creative self-efficacy. *Journal of Career Assessment, 26*(3), 445–456. <https://doi.org/10.1177/1069072717714540>
- Stumpf, S. A., Colarelli, S. M., & Hartman, K. (1983). Development of the Career Exploration Survey (CES). *Journal of Vocational Behavior, 22*(2), 191–226. [https://doi.org/10.1016/0001-8791\(83\)90028-3](https://doi.org/10.1016/0001-8791(83)90028-3)
- Su, X., Ahmad, A., & Alias, J. (2024). Examining career calling through career exploration: The influence of decision self-efficacy and openness. *Social Sciences, 13*(12), 685. <https://doi.org/10.3390/socsci13120685>
- Sutton, A. (2016). Measuring the effects of self-awareness: Construction of the Self-Awareness Outcomes Questionnaire. *Europe's Journal of Psychology, 12*(4), 645–658. <https://doi.org/10.5964/ejop.v12i4.1178>
- Toktas, S., Demir, A., & Barut, A. İ. (2022). Examining of university students' assertiveness levels and attitudes towards physical education course. *African Educational Research Journal, 10*(4), 388–393. <https://doi.org/10.30918/AERJ.104.21.150>
- Yang, W., Wang, Y., Choi, M., & Li, Y. (2024). Influence of mentoring on the proactive behavior of new employees: Moderated mediation effect of agreeableness. *Frontiers in Psychology, 15*, 1370815. <https://doi.org/10.3389/fpsyg.2024.1370815>
- Zhang, H., & Huang, H. (2018). Decision-making self-efficacy mediates the peer support–career exploration relationship. *Social Behavior and Personality: An International Journal, 46*(3), 485–498. <https://doi.org/10.2224/sbp.6410>