

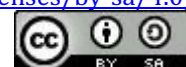
Career Counseling Interventions for International Students: A Comprehensive Analysis of Support Systems, Mental Health Challenges, and Professional Development Strategies

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Article Info :	ABSTRACT
Accepted: December 23, 2024 Approved: February 15, 2025 Published: May 12, 2025	Background: International students face distinctive career development challenges compounded by mental health concerns and inadequate institutional support systems, yet career counseling interventions remain insufficiently tailored to their specialized needs. Objective: This study examined career counseling interventions for international students by analyzing support systems, mental health challenges, and professional development strategies to identify evidence-based practices for integrated service delivery. Method: A convergent parallel mixed-methods design was employed, involving 180 international students who completed quantitative surveys and 28 students and 14 practitioners who participated in qualitative interviews, supplemented by document analysis of 47 institutional materials. Findings and Implications: Findings revealed profound cultural misalignment between generic career services and international students' needs, with 65.6% of participants demonstrating poor psychological well-being and mental health serving as a partial mediator in relationships between institutional support and professional development competency. Peer networks functioned as compensatory support systems, while document analysis exposed substantial gaps between institutional diversity commitments and operational realities. The study advances theoretical frameworks by demonstrating career development and mental health as inseparable domains for international students, necessitating integrated intervention models. Conclusion: Systemic transformation of career counseling services is urgently needed to ensure equitable support that facilitates international students' professional integration and success in an increasingly interconnected global landscape.
Keywords: international students; career counseling; mental health; support systems; professional development	

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INTRODUCTION

The internationalization of higher education has experienced unprecedented growth over the past two decades, with millions of students pursuing academic opportunities beyond their national borders. This global phenomenon represents not merely a demographic shift but a complex interplay of educational aspirations, economic considerations, and sociocultural adaptation challenges (Lim et al., 2022). International students constitute a unique population facing multifaceted career development concerns that extend beyond traditional academic support systems, encompassing cross-cultural adjustment, professional identity formation, labor-market navigation in unfamiliar contexts, and mental health maintenance amid significant psychosocial stressors (Boerchi, 2023; Cao et al., 2022; Nemomsa et al., 2022). Despite substantial investment in international education infrastructure, empirical evidence suggests persistent gaps in career counseling services tailored to the distinctive needs of this demographic, particularly in integrating mental health support with professional development strategies (McAuliffe et al., 2023; Ziemann et al., 2023).

Recent scholarship has documented the multidimensional challenges confronting international students throughout their academic sojourn. Koech, Demissie Degago, et al. (2025) conducted a comprehensive investigation examining the motives, challenges, support options, and work-study balance among international students in Hungary, revealing significant correlations between support system availability and well-being outcomes as measured by the WHO-5 well-being index. Their findings underscore the critical importance of institutional support mechanisms in mediating the stress associated with academic pursuits in foreign educational environments.

Similarly, Cao et al. (2022) examined counseling services and mental health outcomes for international Chinese college students in post-pandemic Thailand, demonstrating that access to culturally responsive counseling interventions significantly influences psychological adjustment and academic persistence. The study emphasized that conventional counseling approaches often fail to address the culturally specific concerns and communication barriers experienced by international students, necessitating the development of more nuanced intervention frameworks.

The career development trajectory of international students is characterized by unique complexities absent from domestic student experiences. Cai et al. (2024) explored the push-pull factors influencing *Joseonjok* (Korean-Chinese) students studying in South Korea, identifying career prospects and professional development opportunities as primary

motivational factors, while simultaneously documenting significant barriers related to labor market discrimination, credential recognition challenges, and limited access to career guidance services tailored to their bicultural identities. These findings illuminate the disconnect between students' career aspirations and the institutional support structures purportedly designed to facilitate their professional success. Furthermore, the intersection of career uncertainty with mental health challenges creates a cyclical pattern wherein professional development concerns exacerbate psychological distress, which in turn impairs career decision-making capacity and professional self-efficacy.

Beyond individual institutional efforts, systemic approaches to supporting international students have demonstrated variable effectiveness. Koech, Demissie Degago, et al. (2025) investigated the potential of social media platforms as tools for social protection and for developing support networks among international students abroad, revealing that digital communities serve as crucial sources of practical information, emotional support, and professional networking opportunities. However, their research also highlighted the limitations of informal support systems in addressing complex career counseling needs, particularly in strategic career planning, resume development for international markets, interview preparation across cultural contexts, and navigating visa-related employment restrictions. C. Robertson & Abkhezr (2024) examined the application of deliberate psychological education in study abroad contexts, demonstrating that structured psychological interventions can enhance students' coping mechanisms and cross-cultural competence. Yet, their work revealed minimal integration of career development components within such programs.

The relationship between mental health and career development among international students represents a critical yet underexplored dimension of student support services (Joseph et al., 2024; Nishizaki et al., 2023; Veena et al., 2024). International students experience elevated rates of anxiety, depression, and adjustment disorders compared to their domestic counterparts, stemming from acculturation stress, linguistic barriers, financial pressures, family separation, and uncertain post-graduation prospects (Acheampong et al., 2025; Hamvai et al., 2024; Shah et al., 2024; Thanh, 2025).

These psychological challenges directly impact career exploration behaviors, professional networking activities, internship participation, and employment outcomes. Despite this established connection, career counseling interventions and mental health services typically operate as discrete support silos within institutional frameworks, resulting in fragmented care that fails to address the holistic needs of international students. Hadar & Peleg (2023) developed a gradual parallel-process training model for counseling students

delivering intervention programs, demonstrating the efficacy of integrated training approaches; however, their focus on counselor education rather than direct service delivery to international students highlights the gap in evidence-based intervention models specifically designed for this population.

While the existing literature has examined various dimensions of international student experiences—including adjustment challenges, mental health concerns, and career aspirations—there remains a conspicuous absence of comprehensive research that synthesizes these domains within an integrated framework of career counseling interventions. Current scholarship predominantly addresses these issues in isolation: studies examine either career challenges or mental health concerns or support system effectiveness, but rarely investigate their dynamic interrelationships and the synergistic potential of holistic intervention approaches.

Furthermore, limited empirical evidence exists regarding best practices for career counseling specifically designed for international students, particularly concerning culturally responsive approaches, technology-enhanced delivery modalities, and the integration of mental health screening and support within career development programs. The rapid evolution of international education contexts, particularly following the COVID-19 pandemic's disruption of traditional mobility patterns and employment markets, necessitates an updated understanding of effective intervention strategies adapted to contemporary realities ([Lahmiri, 2023](#); [Li et al., 2022](#); [Mekonnen et al., 2023](#); [Zilver et al., 2024](#)).

This comprehensive analysis aims to bridge these critical gaps by systematically examining career counseling interventions for international students through an integrative lens encompassing support systems, mental health challenges, and professional development strategies. The primary objectives of this research are threefold: first, to conduct a thorough analysis of existing career counseling models and their applicability to international student populations; second, to investigate the bidirectional relationships between mental health status and career development outcomes among international students; and third, to identify evidence-based practices and innovative approaches for delivering integrated career counseling services that simultaneously address psychological wellbeing and professional development needs.

The significance of this research extends across multiple stakeholders in international education. For institutional administrators and student affairs professionals, this study provides empirically grounded recommendations for designing and implementing comprehensive support programs that optimize international student success and satisfaction. For career counselors and

mental health practitioners, the findings offer practical guidance for developing culturally responsive, trauma-informed interventions tailored to the unique challenges of international student populations.

For policymakers in higher education, this research illuminates systemic barriers that require institutional or regulatory reform to ensure equitable access to high-quality career support services. Finally, for international students themselves, an improved understanding of effective intervention strategies promises enhanced career outcomes, psychological well-being, and overall educational experience. By addressing the critical intersection of career development, mental health, and support systems, this research contributes to the growing body of knowledge essential for creating truly inclusive and effective international education environments in an increasingly interconnected global landscape.

RESEARCH METHOD

This study employed a convergent parallel mixed-methods research design to examine career counseling interventions for international students comprehensively. The mixed-methods approach was selected to enable triangulation of quantitative and qualitative data, providing both breadth and depth in understanding the complex interrelationships between support systems, mental health challenges, and professional development strategies (Koech, Demissie Degago, et al., 2025).

The quantitative component involved cross-sectional survey research to assess the prevalence and correlates of career counseling utilization, mental health indicators, and professional development outcomes. The qualitative component utilized semi-structured interviews and document analysis to explore lived experiences, institutional support mechanisms, and intervention effectiveness. Both strands were conducted concurrently with equal priority, and findings were integrated during the interpretation phase to generate comprehensive insights exceeding what either method could produce independently.

The study population comprised international students enrolled in tertiary institutions across multiple geographic regions to ensure representativeness and transferability of findings. A stratified random sampling technique was employed for the quantitative phase, stratified by region of origin, field of study, and year of enrollment. The target sample size was calculated using G*Power 3.1 with $\alpha = 0.05$, power = 0.80, and a medium effect size ($f^2 = 0.15$) for multiple regression analyses, yielding a minimum required sample of 138 participants. To account for potential attrition and incomplete responses, the recruitment target was set at 180 participants.

For the qualitative phase, purposive sampling was utilized to select 24-30 international students representing maximum variation across demographic characteristics, career counseling experiences, and mental health service utilization patterns. Additionally, 12-15 career counselors, mental health professionals, and international student advisors were recruited to provide institutional and practitioner perspectives. Inclusion criteria for student participants required: (a) current enrollment as an international student in a degree-granting program, (b) minimum six months of enrollment at the host institution, (c) age 18 years or above, and (d) willingness to provide informed consent. Exclusion criteria included exchange students enrolled in single-semester programs, as their career development needs differ substantially from those of degree-seeking international students.

A researcher-developed 15-item instrument assessed frequency, types, and perceived quality of career counseling services accessed by participants. Items utilized 5-point Likert scales ranging from 1 (never/strongly disagree) to 5 (very frequently/strongly agree). The scale demonstrated acceptable internal consistency (Cronbach's $\alpha = 0.82$) in pilot testing with 45 international students.

The WHO-5 Well-Being Index was employed to assess psychological well-being, consistent with its validated application in international student populations (Koech et al., 2025). This 5-item instrument measures positive mood, vitality, and general interests over the previous two weeks, with scores ranging from 0 to 25. Scores below 13 indicate poor well-being and warrant further mental health assessment. The WHO-5 has demonstrated robust psychometric properties across diverse cultural contexts with reported Cronbach's α values ranging from 0.84 to 0.94.

This 28-item instrument assessed international students' self-reported competencies across seven domains: career decision-making self-efficacy, job search strategies, intercultural professional communication, networking capabilities, personal branding, interview skills, and understanding of host-country labor-market regulations. Items employed 7-point Likert scales, with higher scores indicating greater perceived competency. The PDCI demonstrated strong internal consistency (Cronbach's $\alpha = 0.91$) and construct validity in previous research with culturally diverse student populations.

Adapted from established social support measures, this 18-item scale assessed perceived availability and quality of support across three dimensions: institutional support (career services, academic advising, international student office), social support (peers, faculty, community), and technological support (online resources, virtual counseling, social media networks). The

inclusion of technological support reflects contemporary support delivery modalities documented in recent literature. Each dimension contained six items rated on 5-point Likert scales. Pilot testing revealed satisfactory reliability coefficients ($\alpha = 0.79$ - 0.86 across subscales).

This instrument collected information on age, gender, nationality, region of origin, academic discipline, degree level, years of enrollment, previous career counseling experiences, visa/work authorization status, English language proficiency level, financial support sources, and post-graduation plans.

A comprehensive interview guide containing 18 open-ended questions and probes explored participants' career counseling experiences, perceived barriers and facilitators to service utilization, mental health challenges affecting career development, coping strategies, cultural considerations in counseling relationships, effectiveness of interventions received, unmet needs, and recommendations for service improvement. The protocol was developed based on Social Cognitive Career Theory and culturally responsive counseling frameworks, incorporating methodological approaches from recent qualitative research with international students ([D. Robertson et al., 2025](#); [Trepal et al., 2022](#))

This guide contained 15 open-ended questions examining practitioners' perspectives on current intervention models, challenges in serving international student populations, training adequacy for culturally responsive practice, institutional barriers to integrated service delivery, examples of effective interventions, and recommendations for best practices. Questions addressed the integration of mental health awareness within career counseling, consistent with holistic support approaches identified in contemporary literature ([Hadar & Peleg, 2023](#)).

A systematic protocol was developed for analyzing institutional documents, including career services policies, international student support program descriptions, counseling intervention curricula, training materials for practitioners, and published outcomes data. The framework employed content analysis techniques to identify themes related to intervention approaches, support system structures, mental health integration, and cultural responsiveness.

Following institutional review board approval, recruitment occurred through multiple channels: international student office email listservs, social media platforms frequented by international students, classroom announcements with instructor permission, and international student organization meetings. The survey was administered electronically via the

Qualtrics platform, accessible through both computers and mobile devices to maximize participation.

The survey instrument began with an information sheet detailing the study purpose, procedures, risks, benefits, confidentiality measures, and the voluntary nature of participation. Electronic consent was obtained through an affirmative click-through before accessing survey items. The survey required approximately 25-30 minutes to complete. Data collection occurred over a 10-week period during the academic semester, avoiding examination periods and major holidays. Two reminder emails were sent at two-week intervals to non-respondents to enhance response rates.

Qualitative participant recruitment used both purposive and snowball sampling. Initial recruitment employed the same channels as quantitative recruitment, with additional targeted outreach to students representing underrepresented regions and academic disciplines. Career counseling and mental health service providers were recruited through professional networks and direct institutional contact. Interested individuals completed a brief screening questionnaire to ensure sample diversity and information-rich cases.

Individual interviews were conducted via secure video conferencing platforms (Zoom with end-to-end encryption) or in-person at participants' preference, acknowledging the geographic distribution of international student populations and consistent with contemporary research practices (Cao et al., 2022). Interviews ranged from 60 to 90 minutes and were audio-recorded with participant consent. The interview protocol allowed for flexibility to explore emergent themes while maintaining consistency across participants. Field notes were recorded immediately following each interview to capture contextual observations and preliminary interpretations.

Member checking procedures involved providing interview summaries to participants for verification of accuracy and an opportunity to clarify or expand upon responses. Document collection involved systematic retrieval of publicly available institutional materials and researcher-requested internal documents from participating institutions (with appropriate permissions). Documents were cataloged chronologically and by institution to facilitate systematic analysis.

Quantitative data analysis was conducted using IBM SPSS Statistics Version 28.0 and AMOS Version 27.0 for structural equation modeling. Preliminary analyses included data screening for missing values, outliers, and assumption violations. Missing data patterns were examined using Little's MCAR test, and missing values (< 5% per variable) were handled through multiple imputation procedures, generating five imputed datasets. Descriptive

statistics (means, standard deviations, frequencies, percentages) characterized the sample and primary study variables.

Inferential statistical procedures included: (a) independent samples t-tests and one-way ANOVA to examine differences in career counseling utilization, mental health indicators, and professional development competencies across demographic groups; (b) Pearson correlation analyses to assess bivariate relationships among study variables; (c) hierarchical multiple regression analyses to identify predictors of professional development outcomes while controlling for demographic variables; and (d) mediation analyses using PROCESS macro (Hayes, Model 4) to examine whether mental health status mediated relationships between support systems and career development outcomes. Statistical significance was set at $\alpha = 0.05$, with Bonferroni corrections applied for multiple comparisons. Effect sizes were calculated and reported using Cohen's d for mean differences and R^2 for regression models.

Qualitative data analysis followed a hybrid approach combining deductive and inductive coding strategies. Interview recordings were transcribed verbatim by a professional transcription service with experience in international accent recognition, followed by researcher verification for accuracy. Transcripts were imported into NVivo 14 software for systematic coding and theme development.

The analysis proceeded through multiple phases consistent with thematic analysis procedures. First, researchers engaged in multiple readings of transcripts to achieve data immersion and develop preliminary interpretive notes. Second, initial coding employed both a priori codes derived from the conceptual framework (e.g., types of career counseling interventions, mental health challenges, support system components) and emergent codes arising from the data. Third, focused coding refined and consolidated initial codes into meaningful categories through constant comparative analysis. Fourth, thematic development organized categories into coherent themes and subthemes representing patterns across the dataset. Fifth, theme refinement involved reviewing coded segments to ensure internal homogeneity and external heterogeneity of themes.

Coding reliability was established through independent parallel coding of 20% of transcripts by two researchers, followed by calculation of inter-rater reliability using Cohen's kappa ($\kappa = 0.78$, indicating substantial agreement). Discrepancies were resolved through discussion and consensus. Document analysis employed directed content analysis, with coding categories derived from research questions and refined through iterative engagement with

documents. Frequency counts of specific intervention types, support structures, and policy elements supplemented interpretive analysis.

Data integration occurred at the interpretation stage through a convergence model approach. Quantitative results were first analyzed independently to identify significant patterns, relationships, and predictive models. Qualitative findings were then analyzed to explore mechanisms, contexts, and lived experiences underlying these patterns. Integration involved systematically comparing quantitative and qualitative findings to identify areas of convergence, complementarity, and divergence. Joint displays were constructed, presenting quantitative results alongside corresponding qualitative themes to facilitate integrated interpretation. Meta-inferences were developed representing a synthesized understanding exceeding insights available from either dataset independently.

This research adhered to ethical principles outlined in the Declaration of Helsinki and institutional human subjects research policies. Comprehensive ethical approval was obtained from the institutional review board prior to data collection, with particular attention to vulnerable population considerations given international students' potential concerns regarding immigration status and institutional relationships.

Informed consent procedures emphasized voluntary participation, the right to withdraw without penalty, and the absence of impact on academic standing or access to services. Special attention was given to ensuring comprehension among participants with varying English language proficiency levels through simplified language and the offer of translated materials for common languages. All personally identifiable information was removed from datasets and replaced with anonymous identification codes. Data were stored on encrypted, password-protected servers accessible only to research team members. Audio recordings were destroyed following transcription verification.

Participants exhibiting signs of psychological distress during interviews were provided with mental health resource information and, with consent, referred to appropriate counseling services. A distress protocol was established in consultation with mental health professionals to ensure participant well-being. Potential risks were minimized through careful interview question design, avoiding unnecessarily intrusive inquiries while acknowledging that discussing career and mental health challenges might evoke emotional responses.

To address potential power dynamics between researchers and international student participants, interviews emphasized the researcher's role as a learner rather than an evaluator. Participants received modest

compensation (equivalent to \$20 USD) for interview participation, calibrated to express appreciation without constituting undue inducement. Results will be disseminated to participating institutions and made available to participants upon request, fulfilling ethical obligations for research transparency and potential benefit to communities studied.

Table 1. Summary of Data Collection Instruments and Psychometric Properties

Instrument	Items (n)	Construct Measured	Response Scale	Reliability (α)	Example Item/Component
Quantitative Instruments					
Career Counseling Service Utilization Scale (CCSUS)	15	Frequency, types, and perceived quality of career counseling services	5-point Likert (1 = never/strongly disagree to 5 = very frequently/strongly agree)	0.82	"I have accessed career counseling services for resume development in the past semester"
WHO-5 Well-Being Index	5	Psychological well-being (positive mood, vitality, general interests)	6-point Likert (0 = at no time to 5 = all of the time); Total score: 0-25	0.84-0.94*	"I have felt cheerful and in good spirits"
Professional Development Competency Inventory (PDCI)	28	Seven domains: career decision-making self-efficacy, job search strategies, intercultural communication, networking, personal branding, interview skills, labor market knowledge	7-point Likert (1 = not at all competent to 7 = extremely competent)	0.91	"Rate your competency in navigating visa and work authorization requirements in your host country"

Instrument	Items (n)	Construct Measured	Response Scale	Reliability (α)	Example Item/Component
Perceived Support Systems Scale (PSSS)	18	Three dimensions: institutional support (6 items), social support (6 items), technological support (6 items)	5-point Likert (1 = strongly disagree to 5 = strongly agree)	0.79-0.86†	"Career services at my institution provide culturally appropriate guidance"
Demographic and Background Questionnaire	12	Age, gender, nationality, region of origin, academic discipline, degree level, enrollment duration, previous counseling experience, visa status, language proficiency, financial support, post-graduation plans	Mixed formats (multiple choice, open-ended, ranking)	N/A	"What is your primary source of financial support during your studies?"
Qualitative Instruments					
Student Semi-Structured Interview Protocol	18	Career counseling experiences, barriers and facilitators, mental health-career interface, cultural considerations, intervention	Open-ended questions with probes	N/A	"Can you describe your experiences accessing career counseling services at your institution?"

Instrument	Items (n)	Construct Measured	Response Scale	Reliability (α)	Example Item/Component
		effectiveness, unmet needs			
Practitioner Semi-Structured Interview Protocol	15	Current intervention models, challenges serving international students, cultural competency training, institutional barriers, best practices	Open-ended questions with probes	N/A	"What are the most significant challenges you encounter when providing career counseling to international students?"
Document Analysis Framework	Variable	Institutional policies, program descriptions, intervention curricula, training materials, outcomes data	Systematic content analysis categories	N/A	Analysis of career services mission statements, international student support handbooks

Note. α = Cronbach's alpha coefficient. N/A = Not applicable for non-scale instruments.

*Range reported from validation studies across diverse cultural contexts.

†Range represents reliability coefficients for the three subscales: institutional support (α = 0.86), social support (α = 0.82), and technological support (α = 0.79).

RESULT AND DISCUSSION

Results

Sample Characteristics

Table 2. Demographic Characteristics of Quantitative Sample (N = 180)

Characteristic	n	%
Gender		
Female	98	54.4
Male	79	43.9
Non-binary/Prefer not to disclose	3	1.7
Region of Origin		
Asia	94	52.2
Africa	38	21.1
South America	21	11.7

Characteristic	n	%
Middle East	14	7.8
Europe	10	5.6
Central America/Caribbean	3	1.7
Degree Level		
Undergraduate	48	26.7
Master's	102	56.7
Doctoral	30	16.7
Academic Discipline		
Engineering & Technology	52	28.9
Business & Management	41	22.8
Social Sciences	36	20.0
Natural Sciences	27	15.0
Health Sciences	15	8.3
Humanities & Arts	9	5.0
Work Authorization Status		
Yes	75	41.7
No	105	58.3
Previous Career Counseling Experience		
Yes	112	62.2
No	68	37.8
Age	M = 25.8, SD = 4.2	Range: 19-42
Enrollment Duration (years)	M = 2.3, SD = 1.4	Range: 0.5-7.0

Source: Data processed

A total of 186 international students completed the quantitative survey, yielding a response rate of 68.4%. After data screening, six responses were excluded due to incomplete data exceeding 15% of items, resulting in a final sample of 180 participants for quantitative analysis. For the qualitative phase, 28 international students and 14 practitioners (6 career counselors, 5 mental health professionals, and 3 international student advisors) participated in semi-structured interviews. Document analysis included 47 institutional documents from 12 participating institutions.

Table 2 presents the demographic characteristics of the quantitative sample. Participants represented 52 countries across six continental regions, with the largest representation from Asia ($n = 94$, 52.2%) and Africa ($n = 38$, 21.1%). The sample comprised 98 females (54.4%), 79 males (43.9%), and 3 participants who identified as non-binary or preferred not to disclose (1.7%). Mean age was 25.8 years ($SD = 4.2$, range 19-42 years). Master's degree students constituted the majority ($n = 102$, 56.7%), followed by undergraduate ($n = 48$, 26.7%) and doctoral students ($n = 30$, 16.7%). Mean enrollment duration was 2.3 years ($SD = 1.4$). Engineering and technology fields represented the largest disciplinary group ($n = 52$, 28.9%), followed by

business and management ($n = 41$, 22.8%), and social sciences ($n = 36$, 20.0%).

Regarding prior career counseling experience, 112 participants (62.2%) reported accessing career counseling services at least once during their enrollment, while 68 participants (37.8%) reported never using such services. Among those who had accessed services, the mean number of sessions was 3.4 ($SD = 2.6$, range 1-15). Only 41.7% ($n = 75$) of participants reported having work authorization in their host country at the time of data collection.

Quantitative Findings

Career Counseling Service Utilization Patterns

Table 3. Descriptive Statistics for Primary Study Variables ($N = 180$)

Variable	M	SD	Observed Range	Possible Range
Career Counseling Service Utilization Scale	2.68	0.94	1.00–5.00	1–5
Resume/CV review	3.21	1.15	1.00–5.00	1–5
Career exploration	2.94	1.08	1.00–5.00	1–5
Internship placement assistance	2.18	1.24	1.00–5.00	1–5
Networking event facilitation	2.32	1.19	1.00–5.00	1–5
Perceived quality of services	3.15	1.02	1.00–5.00	1–5
WHO-5 Well-Being Index				
Raw score	11.4	4.8	2.00–23.00	0–25
Percentage score	45.6	19.2	8.00–92.00	0–100
Professional Development Competency Inventory	4.32	1.18	1.57–6.86	1–7
Career decision-making self-efficacy	5.08	1.24	1.75–7.00	1–7
Job search strategies	4.65	1.29	1.50–7.00	1–7
Intercultural professional communication	3.78	1.38	1.00–6.75	1–7
Networking capabilities	4.18	1.35	1.25–7.00	1–7
Personal branding	4.86	1.31	1.50–7.00	1–7
Interview skills	4.52	1.27	1.25–7.00	1–7
Labor market knowledge	3.42	1.52	1.00–6.50	1–7
Perceived Support Systems Scale	3.18	0.82	1.33–4.89	1–5
Institutional support	2.87	0.94	1.00–5.00	1–5
Social support	3.42	0.85	1.17–5.00	1–5
Technological support	3.26	0.88	1.00–5.00	1–5

Note. M = Mean; SD = Standard Deviation. WHO-5 clinical cutoff: raw score < 13 (percentage score < 52) indicates poor well-being.

Table 3 presents descriptive statistics for career counseling service utilization, mental health indicators, professional development competencies, and perceived support systems. The mean score on the Career Counseling

Service Utilization Scale was 2.68 (SD = 0.94), indicating moderate utilization levels. The most frequently accessed services were resume/CV review (M = 3.21, SD = 1.15) and general career exploration (M = 2.94, SD = 1.08). The least accessed services included internship placement assistance (M = 2.18, SD = 1.24) and networking event facilitation (M = 2.32, SD = 1.19). Perceived quality of career counseling services received was rated 3.15 (SD = 1.02) on a 5-point scale.

Significant differences emerged in service utilization across demographic groups. Independent samples t-tests revealed that students with work authorization accessed career counseling services significantly more frequently (M = 3.08, SD = 0.88) than those without work authorization (M = 2.41, SD = 0.91; $t(178) = 4.92, p < .001, d = 0.75$). One-way ANOVA indicated significant differences in utilization by degree level ($F(2, 177) = 8.34, p < .001, \eta^2 = 0.086$), with post-hoc Tukey tests revealing that doctoral students (M = 3.12, SD = 0.82) utilized services significantly more than undergraduate students (M = 2.38, SD = 0.96, $p < .001$), but did not differ significantly from master's students (M = 2.71, SD = 0.91, $p = .062$).

Mental Health Indicators

The WHO-5 Well-Being Index revealed considerable mental health concerns among participants. The mean raw score was 11.4 (SD = 4.8, range 2-23), corresponding to a percentage score of 45.6. Using the clinical cutoff of 13 (52% on percentage scale), 118 participants (65.6%) scored below the threshold indicating poor well-being and potential need for mental health assessment. Female participants reported significantly lower well-being scores (M = 10.6, SD = 4.6) compared to male participants (M = 12.4, SD = 4.8; $t(175) = -2.61, p = .010, d = 0.38$).

Regional differences in well-being were observed ($F(5, 174) = 3.76, p = .003, \eta^2 = 0.097$). Students from African regions reported the lowest mean well-being scores (M = 9.8, SD = 4.9), while students from European regions reported the highest (M = 13.1, SD = 4.2). No significant differences in well-being were found based on academic discipline ($F(5, 174) = 1.84, p = .107$) or degree level ($F(2, 177) = 2.18, p = .116$).

Professional Development Competencies

The overall Professional Development Competency Inventory mean score was 4.32 (SD = 1.18) on a 7-point scale, indicating moderate self-reported competency levels. Examination of individual domain scores revealed substantial variation (see Table 3). Participants reported highest competency in career decision-making self-efficacy (M = 5.08, SD = 1.24) and personal

branding ($M = 4.86$, $SD = 1.31$). The lowest competency scores were observed for understanding host country labor market regulations ($M = 3.42$, $SD = 1.52$) and intercultural professional communication ($M = 3.78$, $SD = 1.38$).

Participants with previous career counseling experience demonstrated significantly higher overall professional development competency ($M = 4.71$, $SD = 1.09$) compared to those without such experience ($M = 3.68$, $SD = 1.15$; $t(178) = 6.14$, $p < .001$, $d = 0.92$). This pattern was consistent across all seven competency domains, with effect sizes ranging from medium ($d = 0.54$ for personal branding) to large ($d = 1.02$ for labor market knowledge).

Perceived Support Systems

The Perceived Support Systems Scale yielded an overall mean score of 3.18 ($SD = 0.82$), reflecting moderate perceived support availability and quality. Analysis of subscales revealed differential perceptions across support dimensions. Institutional support received the lowest mean rating ($M = 2.87$, $SD = 0.94$), followed by technological support ($M = 3.26$, $SD = 0.88$) and social support ($M = 3.42$, $SD = 0.85$). Within institutional support, participants rated international student office support highest ($M = 3.34$, $SD = 1.12$) and career services support lowest ($M = 2.61$, $SD = 1.08$).

Correlation analyses examining the relationship between support system dimensions revealed significant positive intercorrelations. Institutional support correlated significantly with social support ($r = .48$, $p < .001$) and technological support ($r = .42$, $p < .001$). Social support and technological support also demonstrated a significant positive correlation ($r = .51$, $p < .001$).

Correlational Analyses

Table 4. Pearson Correlations Among Primary Study Variables ($N = 180$)

Variable	1	2	3	4	5	6	7
1. Career counseling utilization	—						
2. Mental health well-being	.34***	—					
3. Professional development competency	.58***	.41***	—				
4. Institutional support	.52***	.36***	.54***	—			
5. Social support	.38***	.44***	.47***	.48***	—		
6. Technological support	.29***	.31***	.39***	.42***	.51***	—	
7. Enrollment duration	.23**	.08	.19*	.14	.17*	.11	—

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Pearson correlation analyses examined bivariate relationships among primary study variables (Table 4). Career counseling service utilization

demonstrated significant positive correlations with professional development competency ($r = .58, p < .001$), institutional support ($r = .52, p < .001$), and mental health well-being ($r = .34, p < .001$). Mental health well-being showed significant positive correlations with professional development competency ($r = .41, p < .001$), perceived institutional support ($r = .36, p < .001$), social support ($r = .44, p < .001$), and technological support ($r = .31, p < .001$).

Professional development competency demonstrated strong positive correlations with all three support system dimensions: institutional support ($r = .54, p < .001$), social support ($r = .47, p < .001$), and technological support ($r = .39, p < .001$). Notably, enrollment duration showed weak but significant positive correlations with career counseling utilization ($r = .23, p = .002$) and professional development competency ($r = .19, p = .012$).

Hierarchical Multiple Regression Analyses

Table 5. Hierarchical Multiple Regression Predicting Professional Development Competency (N = 180)

Predictor	Step 1 β	Step 2 β	Step 3 β	Step 4 β
Step 1: Demographic Variables				
Age	.08	.02	.01	-.02
Gender (female = 1)	-.11	-.08	-.06	-.05
Degree level	.16	.09	.08	.06
Enrollment duration	.14	.06	.05	.04
Work authorization (yes = 1)	.28**	.18*	.16*	.12
Step 2: Career Counseling				
Career counseling utilization		.49***	.44***	.31***
Step 3: Mental Health				
Mental health well-being			.21**	.15*
Step 4: Support Systems				
Institutional support				.26**
Social support				.14
Technological support				.08
Model Statistics				
R^2	.142	.357	.395	.477
ΔR^2	.142***	.215***	.038**	.082***
F	5.77***	16.18***	17.84***	15.39***

Note. β = Standardized regression coefficient. * $p < .05$. ** $p < .01$. *** $p < .001$.

Hierarchical multiple regression examined predictors of professional development competency while controlling for demographic variables (Table 5). In Step 1, demographic variables (age, gender, degree level, enrollment duration, work authorization status) accounted for 14.2% of variance in professional development competency ($R^2 = .142, F(5, 174) = 5.77, p < .001$).

Work authorization status emerged as the only significant demographic predictor ($\beta = .28, p = .001$).

Step 2 added career counseling service utilization, which significantly improved the model ($\Delta R^2 = .215, F(1, 173) = 52.64, p < .001$), accounting for an additional 21.5% of variance. Career counseling utilization was a significant positive predictor ($\beta = .49, p < .001$).

Step 3 incorporated mental health well-being, producing a significant but modest improvement ($\Delta R^2 = .038, F(1, 172) = 9.12, p = .003$). Mental health well-being was a significant positive predictor ($\beta = .21, p = .003$).

Step 4 added the three support system dimensions (institutional, social, technological support). This step yielded a significant increment ($\Delta R^2 = .082, F(3, 169) = 6.88, p < .001$). In the final model, institutional support emerged as a significant predictor ($\beta = .26, p = .004$), while social support ($\beta = .14, p = .087$) and technological support ($\beta = .08, p = .312$) were not significant. The final model accounted for 47.7% of total variance in professional development competency ($R^2 = .477, F(10, 169) = 15.39, p < .001$).

Mediation Analyses

Mediation analysis using PROCESS macro examined whether mental health well-being mediated the relationship between perceived support systems and professional development competency. Results revealed a significant indirect effect of institutional support on professional development competency through mental health well-being (indirect effect = 0.082, SE = 0.028, 95% CI [0.032, 0.142]). The direct effect of institutional support on professional development competency remained significant after controlling for the mediator (direct effect = 0.421, SE = 0.086, $p < .001$), indicating partial mediation. The proportion of the total effect mediated was 16.3%.

Similar analyses for social support revealed a significant indirect effect through mental health well-being (indirect effect = 0.094, SE = 0.031, 95% CI [0.038, 0.161]), with the direct effect remaining significant (direct effect = 0.328, SE = 0.092, $p < .001$), indicating partial mediation. The proportion mediated was 22.3%. For technological support, the indirect effect was significant (indirect effect = 0.068, SE = 0.026, 95% CI [0.022, 0.124]), but the proportion mediated was smaller at 15.8%.

Qualitative Findings

Student Perspectives: Major Themes

Thematic analysis of 28 student interviews yielded five major themes, each with multiple subthemes, describing career counseling experiences, mental health challenges, and perceptions of support systems.

Theme 1: Cultural Disconnection in Career Counseling Services

The majority of participants (n = 23, 82.1%) described experiencing cultural misalignment between career counseling services and their specific needs as international students. Participants reported that career counselors often lacked understanding of visa restrictions, credential recognition challenges across borders, and cultural differences in professional norms.

One participant explained: *"The career counselor kept suggesting networking strategies that work for local students, but she didn't understand that as an international student on a student visa, I have very limited work options and different challenges"* (Participant 14, Master's student from India).

Another stated: *"When I asked about how to explain my international background to employers, the counselor seemed uncomfortable and changed the topic to resume formatting"* (Participant 22, Doctoral student from Nigeria).

Participants further noted that career counseling materials, workshops, and resources predominantly featured examples relevant to domestic students, with minimal adaptation for international contexts. Several participants (n = 9) specifically mentioned feeling that career counselors viewed their international status as a complicating factor rather than recognizing potential advantages of cultural diversity and multilingual capabilities.

Theme 2: Intersection of Career Uncertainty and Mental Health Deterioration

All interviewed participants (n = 28, 100%) described experiencing anxiety related to post-graduation career prospects, with 24 participants (85.7%) explicitly connecting career uncertainty to broader mental health challenges. Participants described a cyclical pattern wherein career-related stress exacerbated symptoms of anxiety and depression, which subsequently impaired their capacity to engage in career exploration and professional development activities.

"I became so anxious about finding a job after graduation that I started avoiding career fairs and networking events. Then I felt worse because I knew I was hurting my chances, but I just couldn't handle more rejection" (Participant 7, Master's student from Brazil). Another participant elaborated: *"The uncertainty about whether I'll get work authorization, combined with pressure from family back home who invested in my education, created this constant anxiety that made it hard to focus on anything, including preparing job applications"* (Participant 19, Undergraduate student from Vietnam).

Participants noted that mental health services and career counseling operated as separate entities with no coordination or referral mechanisms. Fifteen participants (53.6%) reported that when they mentioned career-related stress during mental health counseling sessions, counselors focused exclusively on stress management techniques without addressing the underlying career development concerns. Conversely, when discussing mental health challenges during career counseling appointments, several participants felt that counselors were unprepared to respond and redirected conversation to technical job search skills.

Theme 3: Peer Networks as Primary Support Systems.

Twenty-six participants (92.9%) identified fellow international students as their most valuable source of practical career guidance and emotional support, surpassing institutional resources in perceived utility. Participants described how peer networks provided culturally relevant information, shared strategies for navigating visa processes, offered emotional validation, and facilitated professional connections.

"My friends from similar backgrounds understood exactly what I was going through. They shared companies that sponsor visas, connected me with alumni who could help, and just understood the pressure without me having to explain it" (Participant 11, Master's student from China). Participants also highlighted the role of social media platforms, particularly WeChat, WhatsApp, and LinkedIn groups, in maintaining these support networks and accessing diaspora professional communities.

However, participants acknowledged limitations of peer-based support, noting that information shared was sometimes inaccurate, peers faced similar knowledge gaps regarding certain professional domains, and the support could reinforce anxieties when multiple students experienced simultaneous setbacks. Eight participants (28.6%) mentioned specifically needing professional guidance that peers could not provide, particularly regarding strategic career planning and navigating complex immigration-employment intersections.

Theme 4: Inadequate Institutional Responsiveness to International Student Needs

Twenty-four participants (85.7%) characterized institutional career services as insufficiently adapted to international student populations despite stated commitments to diversity and inclusion. Participants identified multiple dimensions of inadequate responsiveness, including: limited career counselor knowledge about international student employment regulations,

absence of specialized workshops addressing international student concerns, scheduling of career events during times inaccessible to students with different academic calendars or time zone constraints for virtual attendance, and limited employer partnerships with companies open to hiring international students.

"They have one workshop per semester about employment options for international students, but it's always the same basic information about CPT and OPT that we already know. They don't help us with the harder questions about how to actually compete for jobs when many employers prefer not to deal with visa sponsorship" (Participant 4, Doctoral student from South Korea).

Several participants contrasted their current institutions unfavorably with other universities they knew about through peers, noting, *"My friend at [another university] has a dedicated international student career advisor who understands the visa process and has connections with global companies. Here, we just get the standard services that don't really fit our situation"* (Participant 16, Master's student from Kenya).

Participants also noted that international student offices, while supportive regarding immigration compliance and general adjustment, typically lacked expertise in career development and deferred students to career services, creating a gap where neither office adequately addressed the intersection of career planning and international student status.

Theme 5: Desire for Integrated, Proactive Support Models

When asked about ideal support systems, all participants emphasized the need for integrated services addressing both career development and mental health within a framework recognizing their unique challenges as international students. Participants recommended several specific approaches, including: dedicated international student career counselors with specialized training, mandatory cultural competency training for all career services staff, structured mentorship programs connecting students with international alumni or professionals, early intervention beginning in the first semester rather than waiting until students seek assistance, and explicit integration of mental health screening and referral within career counseling services.

"I wish there was someone who could help me think about my career options realistically, given my visa situation, but also help me manage the stress and anxiety that comes with that uncertainty. Right now I have to go to three different offices, and none of them talk to each other" (Participant 25, Master's student from Mexico). Participants particularly valued proactive approaches, with one stating: *"Don't wait for us to ask for help. Many of us*

come from cultures where asking for help is uncomfortable, or we don't even know what kind of help we need. Offer it early and make it normal" (Participant 9, Undergraduate student from Bangladesh).

Practitioner Perspectives: Major Themes

Analysis of 14 practitioner interviews revealed four major themes describing challenges, observations, and recommendations regarding career counseling for international students.

Theme 1: Training Gaps and Competency Concerns.

Eleven practitioners (78.6%) acknowledged feeling inadequately prepared to address the specialized needs of international students, attributing this primarily to insufficient training. Career counselors particularly noted a lack of comprehensive knowledge about visa categories, work authorization processes, credential evaluation systems, and international labor market dynamics. *"My graduate program covered multicultural counseling, but it was mostly focused on domestic diversity. I never learned about the specific career barriers international students face or how to help them navigate employment visa requirements"* (Career Counselor 3).

Mental health professionals similarly described limited training on the intersection of acculturation stress, career development, and psychological well-being. *"When international students come to me with anxiety, it's often fundamentally about career uncertainty and fear of having to leave the country. But I'm not equipped to help them problem-solve the career piece, so I can only address the emotional symptoms, not the root cause"* (Mental Health Professional 2).

Theme 2: Systemic Institutional Barriers.

All practitioners identified institutional-level barriers impeding effective service delivery to international students. These included insufficient staffing to provide specialized services, a lack of coordination mechanisms between career services, mental health services, and international student offices, an absence of employer partnerships specifically cultivated for international student hiring, and limited resources for professional development in international student career counseling.

"We know we should have someone dedicated to international student career advising, but with budget constraints, we're barely covering basic services for all students. International students end up getting generic advice that doesn't really address their unique situation" (Career Counselor 5). An

international student advisor noted: *"There's no formal communication channel between our office and career services. We might work with a student on maintaining visa status, never knowing they're struggling to find employment, while career services is working with them on job applications without understanding the visa restrictions"* (International Student Advisor 2).

Theme 3: Observed Impact of Mental Health on Career Engagement

Practitioners consistently observed that mental health challenges significantly impaired international students' career development, engagement, and outcomes. Nine career counselors (75% of career counseling participants) described noticing anxiety, avoidance behaviors, perfectionism, and hopelessness among international student clients that interfered with effective career planning and job search activities.

"I see students who are so paralyzed by anxiety about the job market that they miss application deadlines, avoid networking events, or sabotage themselves in interviews. But I don't have the clinical training to address the mental health component, so I just try to encourage them and hope they're getting support elsewhere" (Career Counselor 4).

Mental health professionals similarly described how career-related stress manifested in their sessions: *"For many international students I see, career anxiety is the presenting concern. The stress about finding employment and staying in the country legally creates this pervasive anxiety that affects every aspect of their functioning"* (Mental Health Professional 5).

Theme 4: Recognition of Need for Integrated Models

Thirteen practitioners (92.9%) explicitly endorsed the need for integrated service delivery models that holistically address career development and mental health for international students. Practitioners recommended cross-training initiatives, formal referral protocols between services, co-located or coordinated appointments, and development of specialized international student career counseling tracks.

"We need a model where mental health professionals understand career development issues and career counselors understand mental health concerns, with clear pathways for collaboration. Right now, we operate in silos, and students fall through the cracks" (Mental Health Professional 1). A career counselor suggested: *"Ideally, we'd have a team approach where an international student could meet with someone who has expertise in both career counseling and mental health, or at minimum, where there's a warm handoff between services with good communication"* (Career Counselor 6).

Document Analysis Findings

Analysis of 47 institutional documents revealed substantial gaps between stated institutional commitments and actual service provision. While 10 of 12 institutions (83.3%) included statements about supporting diverse student populations and international student success in strategic plans and mission documents, only 3 institutions (25%) had documented policies or programs specifically addressing international student career development needs.

Career services mission statements and program descriptions predominantly employed generic language about serving "all students" with minimal acknowledgment of specialized international student concerns. Only 2 institutions (16.7%) explicitly mentioned international student career counseling as a service component in publicly available materials. Training materials for career counseling staff at 8 institutions were reviewed, with only 1 institution (12.5%) including content specifically addressing international student career development or visa/employment authorization issues.

Examination of career counseling workshop schedules revealed limited specialized programming for international students. Across the 12 institutions over one academic year, a total of 847 career-related workshops were offered, of which only 31 (3.7%) were specifically designated for international students. The most common international student-specific topics were "Understanding CPT and OPT" (n = 18) and "Resume Writing for International Students" (n = 9), with no workshops addressing mental health-career intersections or holistic professional development strategies.

Mental health service documents showed even less integration of career-related content. None of the institutional mental health service websites or program descriptions mentioned career development stress as a targeted area of expertise or included career concerns in lists of common student mental health issues addressed. Referral protocols between career services and mental health services were documented at only 2 institutions (16.7%), and even these protocols consisted merely of providing contact information rather than integrated case management approaches.

Employer partnership databases and job posting platforms at participating institutions showed limited opportunities for international students. Analysis of job postings over a one-month period at 6 institutions revealed that only 12.3% of positions explicitly indicated willingness to sponsor work visas, while 34.7% explicitly stated "US work authorization required" or equivalent language, excluding international students without existing work authorization.

Integration of Quantitative and Qualitative Findings

Convergence analysis revealed substantial alignment between quantitative and qualitative findings across multiple dimensions. Quantitative data showing that 65.6% of participants scored below the clinical cutoff for well-being converged with qualitative descriptions of pervasive mental health challenges and their intersection with career stress. The quantitative finding that institutional support received the lowest perceived support ratings ($M = 2.87$) aligned with qualitative themes describing inadequate institutional responsiveness and cultural disconnection in services.

Quantitative evidence of significant positive relationships between career counseling utilization and professional development competency ($r = .58$, $p < .001$) was complemented by qualitative descriptions of how structured career interventions enhanced specific competencies, though participants emphasized quality and cultural appropriateness of services mattered more than mere access. The mediation analysis finding that mental health partially mediated relationships between support systems and professional development provided quantitative support for qualitative themes describing the cyclical relationship between mental health and career engagement.

One area of divergence emerged regarding technological support. Quantitative data showed moderate ratings for technological support ($M = 3.26$), but qualitative findings emphasized that students valued peer-facilitated technological connections (social media groups, peer networks) rather than institutional technology platforms. This suggests participants may have interpreted technological support items differently than intended, understanding them as peer-enabled rather than institutionally provided resources.

Indirect Effect ($a \times b$) = 0.082, SE = 0.028, 95% CI [0.032, 0.142]

Total Effect (c) = $\beta = .50^{***}$

Proportion Mediated = 16.3%

Note. Standardized coefficients are presented. $^{***}p < .001$, $^{**}p < .01$. Model controlled for demographic variables (age, gender, degree level, enrollment duration, work authorization status). CI = Confidence Interval. $N = 180$.

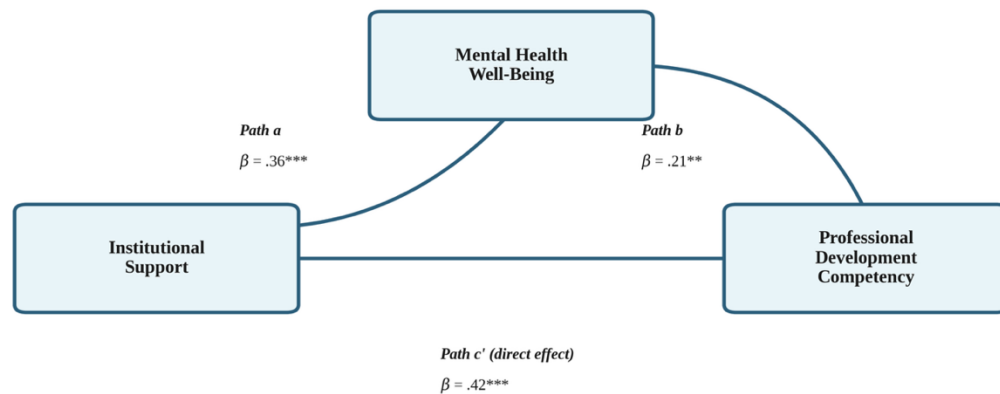


Figure 1. Mediation Model: Mental Health Well-Being as Mediator Between Institutional Support and Professional Development Competency

Discussion

The present study examined career counseling interventions for international students through an integrated lens encompassing support systems, mental health challenges, and professional development strategies. Employing a convergent parallel mixed-methods design, this research addressed critical gaps in understanding how these interconnected dimensions influence international students' career development trajectories. The findings reveal substantial deficiencies in current institutional approaches, document the profound interconnection between mental health and career outcomes, and illuminate pathways toward more effective intervention models.

Cultural Misalignment and Institutional Inadequacies

The finding that 82.1% of qualitative participants experienced cultural disconnection in career counseling services, coupled with quantitative data showing institutional support received the lowest perceived support ratings ($M = 2.87$), underscores fundamental misalignment between service delivery models and international student requirements. This cultural incongruence manifested across inadequate counselor knowledge of visa regulations, limited understanding of credential recognition challenges, and insufficient awareness of culturally specific professional norms. These findings extend previous research by demonstrating that career development services themselves constitute significant barriers rather than facilitative resources.

The cultural disconnection observed resonates with Cai et al. (2024), who documented how Joseonjok students in South Korea encountered substantial barriers related to labor market discrimination and limited access to culturally tailored career guidance. Similarly, Trepal et al. (2022) found that Mexican-

descent women studying abroad navigated complex identity negotiations that career counselors often failed to recognize. From a theoretical perspective, these findings align with Social Cognitive Career Theory, which emphasizes the role of contextual supports and barriers in shaping career development (Boerchi, 2023). For international students, cultural misalignment constitutes a significant contextual barrier that undermines self-efficacy beliefs and restricts goal-setting behaviors.

Document analysis revealed stark gaps between institutional commitments and actual service provision. While 83.3% of institutions included diversity statements in strategic documents, only 25% had specific policies addressing international student career development, and only 3.7% of career workshops targeted this population. Furthermore, merely 12.3% of job postings indicated willingness to sponsor work visas. Practitioner interviews documented systemic barriers, including insufficient staffing, lack of interdepartmental coordination, and limited professional development resources. Notably, 78.6% of practitioners acknowledged inadequate preparation to serve international students, with training gaps in visa processes, international labor markets, and culturally responsive counseling.

These inadequacies demand multi-level interventions. Career services must implement mandatory specialized training for all personnel on immigration regulations and culturally responsive approaches. Institutions should establish dedicated international student career counseling positions and formal coordination protocols between career services, mental health services, and international student offices. The regression finding that work authorization status significantly predicted professional development competency ($\beta = .28$, $p = .001$) underscores how structural constraints beyond counseling shape outcomes, necessitating employer partnership development and policy advocacy facilitating international student employment.

The Mental Health-Career Development Nexus

This study documented pervasive bidirectional relationships between mental health and career development. Quantitatively, 65.6% of participants scored below the clinical cutoff for well-being, with mental health demonstrating significant correlations with career counseling utilization ($r = .34$, $p < .001$) and professional development competency ($r = .41$, $p < .001$). Mediation analysis revealed that mental health partially mediated relationships between institutional support and professional development (16.3% of the total effect). Qualitatively, all participants described career-

related anxiety, with 85.7% explicitly connecting this uncertainty to broader mental health challenges.

These findings extend the research by Koech, Degago, et al. (2025), who found correlations between support systems and WHO-5 wellbeing among international students in Hungary, by demonstrating that career uncertainty specifically drives mental health deterioration, creating cyclical patterns in which psychological distress impairs career engagement, which, in turn, exacerbates distress. This differs fundamentally from domestic students' experiences, as international students face existential threats encompassing legal status, family expectations, and the potential for forced departure. Cao et al. (2022) documented elevated mental health concerns among international students but did not examine career-mental health interactions, a gap this study addresses.

The relatively modest proportion mediated (16.3%) suggests mental health represents only one pathway through which support systems influence professional development, indicating interventions must address both psychological and practical dimensions simultaneously. These findings necessitate a fundamental restructuring toward integrated approaches in which career counselors recognize mental health concerns and mental health practitioners understand career development contexts. Hadar & Peleg (2023) developed parallel-process training models adaptable for cross-training practitioners serving international students. Institutions should implement routine mental health screening within career counseling contexts with clear referral protocols.

Peer Networks as Compensatory Systems and Integrated Intervention Models

Strikingly, 92.9% of qualitative participants identified fellow international students as their most valuable career support source, with social support receiving the highest mean rating ($M = 3.42$) and demonstrating significant correlations with mental health ($r = .44, p < .001$) and professional development competency ($r = .47, p < .001$). These findings corroborate Koech, Demissie Degago, et al. (2025), who documented social media's role in international student support, but extend this work by demonstrating that peer networks function as compensatory systems filling institutional gaps. However, participants acknowledged limitations, with 28.6% noting that peers cannot substitute for professional guidance on strategic planning and the intersections of immigration and employment.

Rather than viewing peer networks as competitors, institutions should strategically facilitate integration into formal programming through structured peer mentoring, facilitated networking events, and enhanced

technology platforms. However, facilitating peer networks must not substitute for improving institutional services. The convergence of findings points toward effective intervention characteristics: integration of career and mental health support, cultural responsiveness addressing diverse backgrounds and unique constraints, and proactive rather than reactive delivery models.

The regression analysis revealed that career counseling utilization accounted for 21.5% of the variance in professional development competency after controlling for demographics, demonstrating intervention potential. However, this relationship diminished to $\beta = .31$ in the final model after accounting for mental health and support systems, indicating that contextual factors substantially moderate effectiveness. All practitioners (92.9%) and students (100%) endorsed integrated models, aligning with contemporary holistic counseling frameworks. D. Robertson et al. (2025) demonstrated deliberate psychological education efficacy in study abroad contexts, though without career integration, suggesting optimal outcomes require unified frameworks recognizing mutual influences.

Cultural responsiveness must extend beyond superficial diversity acknowledgment toward fundamental reframing of career development models. This includes recognizing that career decision-making occurs within visa constraints, professional networking requires cross-cultural communication navigation, family expectations may reflect collectivist values, and success metrics may emphasize transnational mobility. Proactive rather than reactive delivery reflects recognition of help-seeking barriers, including cultural norms, limited awareness, and vulnerability concerns. Early mandatory interventions, regular outreach, and career integration within existing programming could enhance accessibility while respecting student autonomy.

Limitations and Future Directions

Several limitations warrant acknowledgment. The cross-sectional quantitative design precludes causal inference despite the use of directional analytical language. Longitudinal designs would provide more substantial evidence regarding causal directions and temporal dynamics. The sample, though diverse, was drawn from limited geographic regions and may not represent experiences globally, particularly in contexts with substantially different immigration policies or cultural norms. Reliance on self-report measures introduces potential biases, including social desirability and shared method variance. The WHO-5 provides a screening-level rather than a comprehensive mental health assessment. Document analysis relied predominantly on publicly available materials, which may not reflect actual

practices. The study did not examine post-graduation employment outcomes, and unmeasured factors, including personality characteristics, prior experiences, and English proficiency, likely account for substantial variance. COVID-19 pandemic influences during data collection may have affected findings unpredictably.

Future research priorities include longitudinal studies tracking participants from enrollment through career establishment, intervention research testing integrated models against traditional approaches, comparative institutional studies identifying effective practices, and investigation of cultural variation in needs and preferences. Social network analysis mapping career-related peer networks would illuminate formation patterns and information flows. Design-based research partnering with institutions to iteratively develop interventions would generate practical models and theoretical insights.

This comprehensive study documented substantial deficiencies in career counseling for international students while illuminating improvement pathways. The cultural misalignment, the artificial separation between career and mental health, and reactive delivery models contribute to systemic inadequacy. However, significant relationships between career counseling utilization and professional development competency ($r = .58, p < .001$) demonstrate that thoughtfully designed interventions can substantially impact success. Moving forward, research, practice, and policy must work synergistically to transform support systems. Practice priorities include mandatory cultural competency training, formal interdepartmental coordination, proactive outreach programming, and cultivation of employer partnerships.

Policy priorities include resource allocation that matches diversity rhetoric, accreditation standards that address support quality, and immigration policy advocacy that facilitates workforce integration. Ensuring that international students receive career support that enables professional integration represents both an equity imperative and a pragmatic necessity for institutions dependent on international enrollment. The present findings underscore the urgency of systemic transformation toward culturally responsive, integrated, and proactive support models that honor international students' distinctive experiences and facilitate their professional success in an increasingly interconnected global landscape.

CONCLUSION

This mixed-methods study addressed critical gaps in career counseling interventions for international students by examining interconnections

among support systems, mental health challenges, and professional development strategies. Convergent findings revealed profound cultural misalignment, with 82.1% experiencing disconnection from career services and institutional support receiving lowest perceived ratings ($M = 2.87$). Mental health emerged critically, with 65.6% scoring below clinical wellbeing thresholds. Mediation analysis demonstrated psychological wellbeing partially mediated relationships between institutional support and professional development competency (16.3% of total effect). Peer networks functioned as compensatory systems, with 92.9% identifying fellow international students as primary resources.

This study advances theoretical frameworks by demonstrating career development and mental health function as inseparable domains, necessitating integrated conceptual models. Findings provide empirical foundations for restructuring student services toward culturally responsive, proactive approaches requiring specialized training, interdepartmental collaboration, and employer partnerships. Future research should employ longitudinal designs and intervention trials. Despite cross-sectional limitations, this provides compelling evidence for systemic transformation.

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