Abstract

The present study explores the individual and university supports of U.S. international students during their job searches. Twenty-eight international students (93% Asian, 7% African; 57% female) from a U.S. Midwest public university participated in one-on-one semi-structured interviews in Spring 2021 regarding their U.S. job search experiences. All 28 participants (64% graduate students) were within one year of their graduation date. A transcendental phenomenological approach was employed to conduct a thematic analysis. Lower-order themes that significantly contributed to international students' successful job searches in the US were organized into individual and institutional level supports and collated into six key themes: (a) early planning for post-graduation; (b) networking; (c) in-demand majors and degree levels; (d) university-industry connections; (e) personalized department support; and (f) campus career services. Based on these findings, several implications for career development research, theory, and practice are discussed.

Keywords: U.S. international students, job search, career development, higher education institutions, networking, career services

A Phenomenological Exploration of Individual and University Supports Affecting U.S. International Students' Job Searches

The United States has long been the leading destination country for international students, with 858,395 international students enrolled in higher education institutions (IIE, 2023). Based on data from 2022/23 academic year, the plurality of international students who study in the US originate from China (19.1%), India (15.7%), and South Korea (6.5%) (IIE, 2023a). International students searching for U.S. employment face challenges that domestic students do not necessarily face, including complex immigration policies and regulations (McFadden & Seedorff, 2017), language barriers (Carlson & McHenry, 2006; Sangganjanavanich et al., 2011) and cultural barriers (Bertram et al., 2014; Reynolds & Constantine, 2007). Despite these challenges, thousands of international students procure employment in the US each year. In the 2022/23 academic year, 198,793 international students, constituting 18.8% of the total U.S. international students, utilized Optional Practical Training (OPT) work authorization for employment in the US after graduation (IIE, 2023). The current study adds to the growing body of literature on international students' career development by examining students' strategies for seeking employment and exploring environmental factors that help students to successfully secure jobs in the US.

Literature Review

Mutual Benefits for International Students and the US

The career development of international students brings mutual benefits for both U.S. society and the students themselves. Many international students find the quality of education and practical work experiences in the US appealing. According to the World Education Services, 92% of current international students (n = 1,067) and 89% of alumni respondents (n = 1,095)

perceived that studying in the US was a good investment for their future (Loo et al., 2017, p. 7). In focus group interviews among 31 international students from six nations at a public university in the US (Alberts & Hazen, 2005), most students intended to stay in the US before returning to their home countries for various professional reasons. Their reasons included the perception of better wages and a higher economic standard of living in the US, a higher degree of freedom in research and work activities, state-of-the-art research facilities, and the perception of U.S. work experiences as critical to enhancing their job prospects upon returning home. The U.S. economy benefits from international students' tuition and other study-abroad costs. The Association of International Educators estimated that during the 2020/21 academic year, international students' enrollment at U.S. colleges and universities contributed 28.4 billion to the U.S. economy and created and supported 306,000 U.S. jobs (NAFSA, 2020a). Furthermore, international students may fill positions where there are not enough U.S. workers, such as in science, technology, engineering, and mathematics (STEM) where immigrants constituted 23.1% of the entire U.S. STEM workforce in 2019 (American Immigration Council, 2022). International students are more likely to earn degrees in STEM areas (U.S. Immigration and Customs Enforcement, 2021, pp. 5-6) and to work in STEM fields (Neufeld, 2019, p. 4). Neufeld (2019, p. 1) asserts that since OPT brings 200,000 workers into the U.S. labor force each year, the OPT program may be the United States' largest recruitment program for new high-skilled workers.

Barriers to U.S. International Students' Employment

The largest barrier to international students' employment may be the U.S. immigration policies and regulations that limit the amount of time an international student can remain in the US after graduation, what jobs they can work at, and how many hours they can work (U.S. DHS; U.S. ICE, 2023). In interviews conducted with eight international students in their final year at a

U.S. university, all participants believed that immigration issues contributed to employers' hiring decisions and made international students less competitive than domestic students (Sangganjanavanich et al., 2011). Therefore, a basic overview of the policies will be provided. In order to work in the US after graduation, international students must apply for post-completion Optional Practical Training (OPT).[1] Upon graduation, students are provided with a 90-day window to secure employment in their field of study (U.S. DHS). However, not all college graduates can work in the US for the same amount of time using OPT. STEM majors can extend their OPT to work an additional 24 months in the US (U.S. Immigration and Customs Enforcement, 2023). Previous research has suggested that international students perceive that pursuing a STEM degree can improve their U.S. residency opportunities and their marketability by qualifying them for the 24-month STEM OPT extension (Adhikari, 2017; Li, 2022). To remain in the US after the OPT period ends, an international student will need to attain an H-1B visa "sponsorship" from their employer. However, the H-1B petition process costs employers of for-profit organizations hundreds to thousands of dollars, can last up to six months, and requires more paperwork than hiring an international student with OPT (McFadden & Seedorff, 2017). After the petition is received, an applicant at a for-profit company must also be selected through a government lottery system (McFadden & Seedorff, 2017).[2] In the 2019/2020 year, 201,011 petitions were received by the U.S. government and 65,000 petitions were randomly selected for H-1B visas (USCIS, 2019). In sum, the structural barrier created by U.S. federal policies and

[1] Optional Practical Training (OPT) is temporary employment that is directly related to an F-1 student's major area of study. Eligible students can apply to receive up to 12 months of OPT employment authorization before completing their academic studies (pre-completion) and/or after completing their academic studies (post-completion) (USCIS).

[2] H-1B workers who are employed or petitioned at a higher education institution, nonprofit entity, or a government research organization, are not subject to the numerical cap and lottery (USCIS, 2023).

regulations cannot be overlooked when studying international students' U.S. job search experiences.

Other challenges to international students' U.S. employment are language and cultural barriers. In one example, international students in their final year at a U.S. university perceived that having an accent or speaking English with limited fluency made them more susceptible to discrimination during the job search process (Sangganjanavanich et al., 2011). More than half of participants in the study expressed feeling discouraged from applying to positions where written and oral proficiency in English were indicated requirements. In addition, several experimental studies have found that U.S. employability evaluations are negatively affected by accents (Carlson & McHenry, 2006; Deprez-Sims & Morris, 2010). Furthermore, language proficiency can prevent students from engaging in social situations and connecting with others (Bertram et al., 2014) which can also have an impact on important employment factors like networking and seeking career guidance. In a study among 261 international college students, students' acculturative distress (e.g., language barrier, feelings of isolation, cultural differences) predicted lower levels of career outcome expectations (Reynolds & Constantine, 2007). Despite these barriers, supports also exist to facilitate international students transition to U.S. based jobs.

Individual and University Supports for International Students' Employment

Several studies provide insight into the various forms of support at the individual and university levels that contribute to international students' career exploration and job search endeavors. A common individual support is the student's ability to network or cultivate an intricate web of social connections. Lyu (2022) found that among 10 Chinese international student graduates in the US, mentors and relational networks were integral to the job search process. Students reported that professors, academic supervisors and international student peers

helped to direct them to apply for specific jobs and provided them with experience-sharing, advice, and application assistance. Similarly, Popadiuk and Arthur (2014) found that relationships with academic supervisors and mentors led international students to career opportunities in Canada. Researchers noted how academic supervisors invited students to join their lab after graduation or helped them to network with others outside the institution. In addition, they explained that the connections that students formed through campus and department jobs and internships, also assisted students in finding their first jobs after graduation.

In addition, university supports like campus career service offices (CSOs) also strive to support international students' career searches. Lin and Flores (2011) have suggested that career counselors can influence the job search self-efficacy of international students by aiding them in showcasing their vocational skills and experiences within their resume writing and interviews. Furthermore, career services also boost students' job search self-efficacy by providing them with presentations or workshops on job search strategies (e.g., self-marketing, timeline, and work visa process). In a 30-item career needs assessment completed by 227 international students attending U.S. colleges and universities, 77% of participants indicated a desire to speak with an advisor or counselor about their career plans (Spencer-Rodgers, 2000). Additionally, career service offices may host career fairs. In a study describing 14 undergraduate international students' transitions from school to employment in Canada, interviewees perceived that the well-advertised career fairs, along with having a local network and a Canadian internship, would have been helpful to their transitions (Flynn & Arthur, 2013).

The Present Research

A variety of qualitative research studies concerning international students' career development have been conducted (For example, Gautam et al., 2016; Li et al., 2021); however,

few explore the job search processes of international students in the US, and no studies solely highlight students' job search strategies and relevant university supports. The present study uses a phenomenological approach (Moustakas, 1994) to explore the individual and institutional level supports that positively contribute to U.S. international students' job searches and employment. The primary research questions guiding this study were, "What were international students' experiences searching for career opportunities in the US?" and "What strategies or supports helped students to find employment in the US?" In their own voices, students were asked to describe their experiences navigating the U.S. job market, experiences seeking assistance within and outside their higher education institutions, and how previous work experiences may have influenced their job search decisions.

Method

Since this study seeks to explore the common experiences of international students seeking employment in the US, a qualitative research design was adopted to answer the primary research questions. The present qualitative approach was based on phenomenology which aims to describe the common understanding of several individuals who have experienced the same phenomenon (Creswell & Poth, 2018, p. 75). In this study, a transcendental phenomenological approach was chosen over an interpretive approach since transcendental phenomenology focuses on the participants' given descriptions (Moustakas, 1994) while the latter approach seeks to interpret participants' accounts using psychological concepts (Larkin et al., 2006).

Participants

Participants were 28 international students who attended a four-year public university in the Midwest US. Eighteen participants (64%) were graduate students, and ten participants were undergraduate students. All participants were 18 years or older at the time of the study. Sixteen

participants identified as female and twelve identified as male. Ethnically, 26 participants were from East and South Asian nations, with the majority being from China's mainland (n = 16) and Taiwan (n = 6). The remaining two participants were from African nations. The inclusion criteria were as follows: students (a) held an F-1 student visa, (b) expressed the desire to pursue employment in the US after graduation, and (c) were within one year of their self-identified graduation time. Thus, all student participants had either graduated in 2020 or would graduate in 2021 (see Table 1).

[Insert Table 1]

Procedure

After receiving approval from an institutional review board, the current study utilized purposeful sampling procedures to deeply explore the phenomenon (Patton, 2002). An example of purposeful sampling was the selection of approximately half the sample from STEM majors since these students' job search experiences may have differed from non-STEM majors. Participants were recruited by flyers online, and announcements made at virtual International Student Services workshops. Word-of-mouth was also used in cases where participants invited other participants. There was not any monetary incentive or compensation for participants. However, a food order or an electronic voucher for food was offered during the interview time in line with Moustakas' suggestion that interviews being with social conversation of brief activity to create a relaxed and trusting atmosphere (Moustakas, 1994, p. 114).

Semi-Structured Interview

The three authors conducted semi-structured interviews with international student participants over Zoom. Interview questions were developed based on the empirical literature and designed to gather students' experiences and perspectives on finding a post-graduation job in

the US. An interview guide was used to ensure consistency between interviewers. Participants were asked broad, open-ended questions from four major areas of focus, including: 1) career search experiences (e.g., "Could you walk me through the steps you take to look for a job?", "When did you start looking for job opportunities for after college?", "Where did you go to look for job opportunities?"), 2) networking experiences (e.g., "How have people from your school, your department, or work helped you or not helped you to find a job you might apply to?", "Have you heard from other international students who recently found a job in the US? Did they provide information that helped you?"), 3) experiences with campus career services (e.g., "Have you used any campus career services?", "Do you think career services on campus are useful or not? Why?"), and 4) the influence of their previous work experiences (e.g., "Did any of your jobs or internships help you decide what you want to do or not want to do as a career after graduation?"). All interviews were audio recorded through Zoom video conferencing with the participants' permissions and transcribed verbatim.

Data Analysis

Data were analyzed following thematic analysis procedures outlined by Braun and Clarke (2006) to look for patterns and common themes among participant interviews. Following their guidelines, codes and themes were identified inductively rather than from a preexisting theoretical framework. During the first step, the researchers read and reread interview transcripts while adding annotations, writing memos, and highlighting dialogue relevant to the research focus. Next, initial codes were generated to better organize the topics discussed. Braun and Clarke describe codes as "pithy summaries" or key ideas such as "visa status creates barrier to hiring". Codes were expanded as more data was analyzed in an open-coding process. During each phase of the coding process, the first two authors moved toward the development of themes

(i.e., open-coding, lower-order themes, higher-order themes). Following the coding of all interview transcripts, similar codes were integrated into lower-order themes that were exclusively support-focused. The lower-order themes were organized into individual and institutional support levels. Data matrices helped to organize and compare the lower-order themes among subgroups. Particular attention was given to participants from the subgroups STEM versus non-STEM, employed versus searching, and graduate versus undergraduate. Next, the lower-order themes were further collated into six higher-order themes and relevant subthemes. For example, during this phase, lower-order themes like "clarity of plan after graduation," "previous industry-related experience," and "knowledge of OPT and immigration regulations" became subthemes under the key theme of "early planning for post-graduation". In the last step, verbatim quotes were selected to support the key themes. To ensure coding reliability, the first and second authors coded transcripts separately and met regularly to discuss intercoder agreement and the development of themes.

Reflexivity, Validity, Credibility

The research team consisted of two female-identifying doctoral students in the field of higher education and education policy, and one female-identifying Doctor of Educational Psychology. The first researcher was a domestic student from the Midwest US. The other two researchers were international students from China's mainland and Taiwan. To strengthen study validity and mitigate the risks of influencing the findings, the researchers discussed their own assumptions and biases about international students' career development during regular meetings. In phenomenology, this practice is known as bracketing. As a final validity check, the study results were debriefed with two established professors in the field of higher education who also researched international students. This process involved introducing the study, presenting

the key findings, and then inquiring whether the experts found the research design to be rigorous and the results to be plausible. Research credibility was enhanced through rich descriptions of the context of participants from different subgroups, and through documenting of the frequency of cases of participants referring to a given theme.

Results

Drawing on the participants' experiences and perspectives, six key themes significantly contributed to international students' successful job searches in the US. Themes included: (a) early planning for post-graduation, (b) networking, (c) in-demand majors and degree levels, (d) university-industry connections, (e) personalized department support, and (f) campus career services. As shown in Table 2, results were organized into higher-order themes with more specific subthemes. In the following section, higher-order themes were presented at the individual and institutional levels. Individual-level themes consisted of the decisions and actions that the students had direct control over. Institutional-level themes consisted of the opportunities and supports that the university offered. Pseudonyms were used in the quotes presented to protect the identity of the participants. Additionally, identifying names of companies, cities, programs, and schools were also substituted.

[Insert Table 2]

Individual Level

Early Planning for Post-Graduation

Early planning for post-graduation refers to how students formulated clear career goals and took the necessary steps at an early stage of their academic program. Three subthemes within the early planning theme included procuring internships in their desired fields, researching immigration regulations, and developing a long-term plan for working in the US. Attaining an

industry-related internship in the US was a common step for 17 international students. Internships helped students to determine if a certain employer or career path was a good fit for them, assisted students' networking efforts, and led nine students to attaining return offers from U.S. employers. Nylah shared how her internship helped her to reflect on her career goals and procure a job offer.

> Actually at the beginning [of 2019], I, I don't know which kind of jobs that that I'm looking for. So, I applied data scientist and also for those quant companies like [Company A] and also machine learning engineer. So basically on the one side, I started my job preparation and on the other side also search for like which kind of job is the most appropriate ones for me. And after that, I found a software engineer position at [Company B]. And then in summer 2020, I finished my job intern at that time and also receive the full time offer from [Company B]. And then I decided to accept that offer.

Prompt familiarization with the U.S. legal policies that regulate international student workers was another subtheme. Familiarity with these policies alerted international students to begin job searching earlier in their programs, and to adjust their search strategies to be more time efficient. For instance, Scott described his experiences using online job search platforms while also being mindful of immigration policies.

> But one like of the drawbacks of LinkedIn is I don't know whether the company is going to sponsor international students. I don't know which is my target company I should spend, uh, I should do my homework on. But Handshake better to tell you about whether companies sponsor me or not so I can just maybe filter but there's some criteria and just apply for this company that has international students, so I don't need to waste my time.

A third subtheme involved students' clarity regarding whether or not they wanted to work in the US beyond their OPT period. Among the interviewees, graduate students were more likely to know if they wanted to work in the US longer-term. Eleven students, ten of which were graduate students, confirmed that applying to companies that sponsored H-1B work visas was important to their job search. Students with clearer long-term goals appeared to narrow their job searches further to only consider companies that sponsor H-1B. As Michelle explained,

> If you start finding your job after graduation, most of the time you will not have time to make it...I started to prepare for my internship like one year ago...And [it's] the first semester when I entered graduate school... I only consider the company who sponsor H-1B.

Networking

In the current study, networking is defined as using personal, professional, academic, or family contacts to assist with one's job search (i.e., introductions in a desired career field, learning about job openings, application preparations, obtaining job referrals). Twenty of the 28 students explicitly mentioned networking during their job search process. Professional connections benefited international students by sharing job openings, sending job referrals and recommendations, and even providing job offers when appropriate. Subthemes within the theme of networking included several categories of persons with whom students networked (See Table 2), and students' perceptions that networking led to securing a job or job offer in the US. Regarding the first subtheme, students most frequently indicated that they networked with individuals in their industry. Students mentioned networking with professors most often, followed by alumni, individuals at job or internship sites, and friends in the US. The following quote provides an example of how Callahan networked with friends in his industry.

> I used to have some friends that is more senior than me, especially when I was an undergrad in Taiwan. And those senior, they come to America before me like two or three years…they got some job and performed really well, so they told me that, oh, maybe they can introduce me some of the job in their company. And that is one of the main reasons that I get interview, because I know those people for a long time and those people know me that I'm currently searching for a job. So they are really willing to help me even write some strong recommendation...Like you refer someone and you take your personal experience, take your recommendation and stand for this person, which makes this candidate to become more competitive in the job situation.

A second subtheme was that five of the 13 students who attained U.S. job offers attributed their offers to networking. A closer examination revealed commonalities among these five students. These students had had in-person, rather than electronic, relationships with the individuals who helped them to gain employment. Due to the nature of these relationships, it appeared that students were able to showcase their professional strengths, such as their work ethic, personality, and technical skills, before revealing their immigration status. For example, Madeline met and conversed with her future manager in-person at a small networking event hosted by her degree program. She shared:

> After the info session where you get to talk to the recruiter, sometimes the manager on the team, you can ask about their day-to-day life. It's like a time where you sell yourself, where they get to see you as a person instead of a piece of paper. That's where they can also make better judgments… everyone's resume pretty much look the same if we're coming out from the same program. What makes you more competitive or what makes

> the company see you as a more suitable candidate, is your personality-- the way you present yourself and what you can bring to the table.

In-demand Majors and Degree Levels

An additional theme revealed was students' perceptions of certain majors and degrees being more marketable in the US. The first subtheme identified was students' perceptions of a STEM major advantage during their job searches. Nine out of 28 students stated that they thought STEM degrees would be more beneficial than non-STEM degrees for securing a job in the US, while no students claimed the opposite. Two reasons were provided for the STEM degree advantage, including 1) the STEM students' eligibility for the OPT extension, and 2) the demand for STEM workers in the U.S. job market. Although a nearly equal percentage of STEM and non-STEM students had secured jobs in the US at the time of the interview, students' experiences lend support to the idea of a STEM advantage. In the following example, Kassandra described a job offer that fell through because she did not qualify for the STEM OPT extension.

> The person who I talked to apparently shows interest in me and then says, oh, your skill set matches our position descriptions. And he you would like to invite me to the next stage of the interview, but then he says, oh, you should provide your scanned a copy of your I-20. And I did that. And he rejected me because he says, oh, you only have one year of OPT. But for our position, we need someone who has at least three years.

An additional subtheme was students' perception of a graduate degree advantage. Three students explicitly discussed the advantages of pursuing an advanced degree in the context of their job searches. Several students shared that they would consider graduate school in the US if they could not get a job using their OPT which could also imply students' perceptions of a graduate degree advantage. Three students indicated that undergraduate degrees may be limited

to "entry-level" positions that can be filled by domestic students, whereas graduate-level degrees make international students more specialized and prepare students for specific jobs. Subgroup analyses revealed that over half of graduate students had received job offers in the US at the time of the interview, whereas only one-fifth of undergraduate students achieved the same outcome. A difference in employment rates among international students with and without advanced degrees is consistent with prior research findings. Demirci (2019) reported that among international students who graduated from U.S. colleges and universities between January 2004 and June 2011, 88.2% of STEM master's students used student visas to stay in the US 6 months after graduation while only 80.5% of STEM bachelor's did the same.

Institutional Level

University-Industry Connections

A fourth theme supported by student interviews was that a degree program with more ties to industry better supported international students' job searches. Two subthemes composed the university-industry connections theme. The first subtheme was that university-industry connections led students to internships and jobs more directly. The most direct pipeline between university and employer was illustrated by two cases in which students were "matched" to internship sites as part of their degree programs and later secured more permanent positions. Cherise, one of the students, described the university-industry connections that led to her internship.

> I think they [internship site] are very open to have an intern because the owner of the company is also an alumni, she's also a graduate of our program. So she knows that all every year or every semester, like students are looking for opportunities to do their

> practicum or internships. She's very welcoming us to do an internship. Yeah, so once my professor contacts her, she's pretty open to it and then we just go through the interview.

In another example, a visiting professor who was also employed by an industry company, recruited a student participant. In this example, the student Baker, explained:

> I get help from a guest professor… which is my current my current boss in [Company], is also a lab director, also in [University]… He was a guest professor for my two courses. And then he also conducted an independent study for my, during my last semester. And he is the one who tell me that, he told me that the [Company] position is finally reopen and encourage me to apply for that position.

A second subtheme was that university-industry connections created more networking opportunities with industry professionals. Several professors had successful careers in industry before becoming professors and carried over their professional connections and resources to their professorships. Eight of the 13 students who attained U.S. job offers spoke about their professors' connections to the industry during their job search processes. In the following statement, Olivia described her professor's local industry connections.

> So, and then my professor, like my advisor, he is like the one that people [employers] goes to when they're looking for students in [City]. They will ask for his recommendation to-- not necessarily like a recommendation letter-- but just like his student who works in his lab or whoever he recommends, the industry will go after him.

Personalized Department Support

A fifth theme was that smaller-sized programs and departments often provided international students with personalized support during their job searches. There were two

subthemes that emerged within this theme. First, smaller programs offered more personalized job search assistance. For example, smaller graduate-level programs, appeared to be more likely to coordinate industry internships or consulting opportunities for graduate international students. In addition, departments with a larger proportion of international students tended to be more familiar with students' needs and legal parameters regardless of their department's size. Five students perceived that their program's small size positively related to their faculty advisors' involvement in their job search processes. Maybelle shared how her department's size benefited her while she prepared her application materials.

> I just often talk to her [advisor/program coordinator] and to discuss, like, how can I improve my portfolio and I just send my portfolio to her and yes. Because my program is like 10 peoples per semester, new grad, so I think not many…Yeah I just think that I can contact her directly if I want.

An additional subtheme was that smaller programs held tailored career events, such as career fairs. The career development events organized by smaller-sized departments, provided attendees with greater opportunities to network with industry professionals and gain insights into potential career paths. For example, Olivia's department invited major companies to speak to only a few students, and to attend her program's career fair. Olivia suggested that this may not be the case in other departments.

> I think it's not like that for every major, because my friends who majored in engineering don't really have as good career resources as what I had in [Program]. I guess because it's a small program, we probably have like 50 students, including grad students.

Campus Career Services

Campus career service offices (CSOs) are broader entities that offer career services to schools composed of multiple programs (i.e., college of letters and sciences, the school of business) and are distinct from the career services mentioned in the previous theme. The utilization of campus career services was a common theme among international students during their job search processes. One subtheme was that CSOs assisted students with mock interviews and revising application documents. Nearly all students (93%) utilized CSOs to revise professional documents (i.e., resume, cover letter, or curriculum vita), or attend mock interviews. The majority of students perceived these services to be helpful in ensuring that their applications and interview performances met basic U.S. standards. For example, Marisa shared:

> So I did a mock interview with her and then she kind of found out like what kind of attitude I have towards the interview and she kind of fixed help me fix that. So it's not only like revising the resume or like looking at the cover letter, but also like about the any concerns that I have… there's a big difference between the Japanese and American interviews. I brought up this point to her that in the Japanese interview, I have to be more like polite and not look quiet, but like kind of like serious looking.

A second subtheme was that students attended the CSOs campus-wide career fairs. However, the CSOs' large career fairs did not appear to support international students' job search processes. None of the 17 students who attended the CSOs' career fairs secured a job in the companies that they met at these events. Students provided reasons why they thought campus career fairs were not helpful. Students perceived that many employers would not consider hiring international student workers or would consider international workers but were unfamiliar with OPT. Students also noted that campus career fairs did not necessarily host employers from their fields or industries. For example, Natasha shared, "And career fair, I've gone to once in

[University], but it seemed that, they are all about the business students there, engineering students…" Students frequently recommended that CSOs improve their understanding of federal work regulations that accompany F-1 student visas.

Discussion

Few qualitative studies have explored the job search processes of U.S. international students. The present study sought to highlight successful job search strategies and university supports that helped international students to secure jobs in the US. This research is important given that a successful placement of international students into U.S. workplaces can provide students with beneficial experiential learning opportunities (Alberts & Hazen, 2005; Loo et al., 2017) and positively impact the U.S. economy (NAFSA, 2020; 2020a; Neufeld, 2019). The primary research questions guiding this study were, "What were international students' experiences searching for career opportunities in the US?" and "What strategies or supports helped students to find employment in the US?" An analysis of interviews of 28 participants revealed six themes that contribute to the broader literature regarding the career development of international students and add unique insights regarding the function of individual and university supports during international students' job search processes.

The present study extends the previous finding (Lyu, 2022; Popadiuk & Arthur, 2014) that networking with industry professionals can assist international students in securing jobs in two ways. First, this study demonstrated that university-industry connections (i.e., professors in industry, program-appointed internships, student-industry consulting opportunities, etc.) were critical to increasing networking opportunities for international students. Secondly, this study highlighted a function of networking that is unique to international students; in which

networking served as a way for employers to observe students' work ethic and personalities before taking into account immigration challenges associated with their F-1 visa statuses.

The present data echoed previous findings (Adhikari, 2017; Li, 2022) demonstrating that international students perceive STEM degrees as beneficial to securing a job in the US due to the STEM OPT extension, or three years of OPT. Unique to the present study was students' perceptions of a graduate degree advantage and the observation that few undergraduates had secured employment within one year of their graduation date. Advanced degrees have been shown to increase a students' employment prospects regardless of whether they are international or domestic. Harris Poll conducted a nationwide online survey in 2015 among 2,300 hiring managers that showed that 27 percent of employers are seeking candidates with master's degrees for positions that were primarily held by persons with 4-year degrees in the past (CareerBuilder, 2016). The present findings also revealed that undergraduate international students were far less likely than graduate international students to have long-term plans to attain an H-1B visa after the OPT period to stay in the US. Accordingly, an undergraduate international student may require greater university support since they tend to have less work specialization and experience and are less likely to have formal employment goals for after graduation.

Previous research has suggested that international students want to meet with career counselors or advisors regarding their career plans (Spencer-Rodgers, 2000). In the present study, nearly all students utilized campus career service offices (CSOs) and over third of students sought job search guidance from their professors and advisors. These results suggest that international students are both aware of university supports and frequently utilize by the time they are within one year of their graduation time. Thus, higher education institutions should be

mindful of international students' desire for university assistance regarding their career plans and job search processes.

Implications for Career Development Theory and Practice

The present study offers implications for career development theories. Common psychological career development theories such as social cognitive career theory (Lent & Brown, 1996; Lent & Fouad, 2011) and Zikic and Saks' (2009) job search behavior theory, which are based on Bandura's social cognitive theory (Bandura, 1986), emphasize students' self-efficacy beliefs during the job search and career choice process. When applying these theories to international students' career development, it is important to consider how themes from the present study, including personalized department support, familiarity with immigration regulations, perception of STEM advantage, industry internships, and the students' networks, can impact students' self-efficacy beliefs. Similar considerations should be made with sociological theories like network theory (Rosenbaum et al., 1990) which asserts that personal connections bridge the trust gap between students and employers and link institutions and employers. For instance, an employer trusts that a program or instructor will nominate the highest achieving or most qualified students for a position. Researchers who are guided by this theoretical lens should consider how linkages between institution and employer may be even more impactful for international students whose F-1 status can be perceived as a burden to some employers.

While themes from the present study are generally relevant and beneficial for all university students, we argue that they have unique implications for international students' career development since international students face several challenges that are distinct from those experienced by domestic students (Bertram et al., 2014; Carlson & McHenry, 2006; McFadden & Seedorff, 2017; Reynolds & Constantine, 2007; Rose et al., 2006; Sangganjanavanich et al.,

2011). Therefore, we believe that the principles of the Universal Design for Learning (UDL) can be applied to the supports offered by high education institutions in order to make the job search process more accessible and inclusive for international students. UDL is an educational framework that provides multiple means of engagement, expression, and representation to students with diverse learning needs.

Following the UDL principle of multiple means of engagement, the current findings underscore the various ways that universities can establish industry connections to support international students' networking efforts. In the students' narratives, we saw that two academic programs supported students by directly matching them to internship sites. During their "matched" internships, students were able to showcase their skills and network with industry professionals. In a similar way, the inclusion of visiting professors with industry connections in students' programs allowed students to engage with industry professionals in their own classrooms. Findings also demonstrated how smaller programs ushered in employers to meet students in more intimate settings, such as networking dinners and program-tailored career fairs.

The UDL principle of multiple means of expression, or expressing what one knows, is reflected in the theme of networking and the subtheme of attaining an industry-related internship. Both themes highlight distinct means by which students can demonstrate their abilities to employers outside of a resume or job interview. Among the 13 participants who had secured U.S. job offers at the time of the interview, internships and networking were the most frequently referenced job search strategies. Thus, it is important to reiterate higher education institutions' roles in fostering connections with industry to allow international students multiple means of expressing their knowledge and capabilities.

The UDL principle of multiple means of representation can be applied to campus career service offices (CSOs). In the present study, nearly all students used the CSOs' services like resume and cover letter editing and career fairs. However, CSOs often could not consistently accommodate international students' needs. Several student narratives described how job search platforms recommended by career service advisors and campus career fairs proved unhelpful because they lacked identification of employers willing to hire international students. Previous qualitative investigations among U.S. international students have also reported on campus career services' limited knowledge of international students' needs and mixed perceptions of these services (Jachowicz, 2007; Monahan, 2018; Shen & Herr, 2004). Multiple means of representation by CSOs might include additional materials to help students to identify employers at career fairs, or on job search platforms, who have previously hired international students. If feasible, CSOs might consider alternative job search platforms or campus career fairs specifically for international students. Furthermore, it is important for career advisors to become familiar with the work-related legal regulations that govern international student workers during and after their studies to recognize when career service offerings are not accessible to international students.

Study Limitations

There were several limitations in the present study that should be considered. To start, this study was limited by a non-representational sample of U.S. international students so the experiences and perspectives captured may not fully narrate how U.S. international students more broadly are navigating their job searches. Specifically, all student participants were from a single Midwest public university and the majority of students were from Asian nations. In addition, only 10 of the 28 students were in undergraduate programs. Secondly, interview

participants were only interviewed at one time-point. Students who were within a year from their graduation date at the time of the interview could have attained job offers later. To the researchers, it appeared that several students were on track to receiving job offers. It would have been beneficial to follow up with these participants. Thirdly, many of the interview questions focused on the students' search for full-time jobs post-graduation. However, questions targeting the students' search for internships pre- and post-graduation would have provided additional valuable information regarding their job search processes since many students received job offers directly from their internship sites. For instance, two undergraduate participants spoke about searching for internships after graduation in addition to full-time jobs. A final limitation was that the current study did not inquire about the amount of time students had been in the US. We suspect that spending more time in the US would allow for increased knowledge of U.S. employers, increased familiarization with OPT and immigration regulations, and increased time in which to establish broader networks.

Implications for Future Research

The current study contributed to the literature by revealing the commonalities among international students seeking employment in the US. Findings highlighted the university supports and individual strategies that assisted international students with their job-seeking efforts. However, more empirical research is needed to see if the recommendations made to foster industry-university relations, based on the study's findings, truly support international students' job searches. Researchers also suggest that future research explore whether international students attending universities or colleges that are smaller in size or in other geographic regions also utilize similar strategies and supports. Although the semi-structured interviews yielded rich narratives, the present study could have been enhanced by other sources

of data, including, observational data (i.e., online chatrooms, campus career fairs), interviews with campus career advisors and international student services professionals, and artifacts like campus career service webpages. Lastly, we suggest that research exploring the job search experiences of international students be conducted in a longitudinal manner to increase study validity and credibility. Job searches are dynamic processes that unfold over time. Interviews over different time points could capture multiple stages, from preparing resumes, to interviewing for internships and ultimately securing employment.

Conclusion

The current phenomenological study adds to the growing body of literature on international students' career development by exploring students' job search experiences in the US. Specifically, this study identified strategies and relevant university supports that contributed to internationals students' job searches, and in some cases, their successful employment. The present thematic analysis highlighted six themes that positively contributed to U.S. international students' job search processes, including: (a) early planning for post-graduation (i.e., attaining an internship, familiarization with OPT), (b) networking, (c) in-demand majors and degree levels, (d) university-industry connections, (e) personalized department support, and (f) campus career services. Findings should be considered in light of the limitations. Primarily, the generalizability of this study is limited by its sample size of 28 international students who were majorly from Asian nations and attended a single public university in the Midwest US. The present findings have implications for U.S. higher education institutions seeking to create more accessible and inclusive career development services for international students.

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Table 1

Profile of Interview Participants

Student	Gender	Education Level	Eligible for STEM OPT	Intended Graduation Time	Secured a Job in the US Post-graduation
Olivia	Female	Undergraduate	Yes	May 2020	Yes
Karl	Male	Undergraduate	Yes	December 2021	No
Garrick	Male	Undergraduate	Yes	May 2021	No
Emma	Female	Undergraduate	Yes	May 2021	No
Scott	Male	Undergraduate	Yes	May 2021	Yes
Horatio	Male	Undergraduate	No	August 2021	No
Rafferty	Male	Undergraduate	No	December 2021	No
Kim	Female	Undergraduate	No	December 2020	No
Natasha	Female	Undergraduate	No	December 2021	No
Shannon	Female	Undergraduate	No	December 2021	No
Nylah	Female	Graduate	Yes	December 2021	Yes
Callahan	Male	Graduate	Yes	December 2020	Yes
Baker	Male	Graduate	Yes	December 2020	Yes
Roman	Male	Graduate	Yes	December 2020	Yes
Michelle	Female	Graduate	Yes	December 2020	Yes
Maybelle	Female	Graduate	Yes	December 2020	No
Harry	Male	Graduate	Yes	May 2021	No
Lisette	Female	Graduate	Yes	May 2021	No
Cailyn	Female	Graduate	No	May 2021	Yes
Lilly	Female	Graduate	No	May 2021	Yes
Marisa	Female	Graduate	No	December 2020	Yes
Stephany	Female	Graduate	No	May 2021	No
Alexandra	Female	Graduate	No	May 2021	No
Madeline	Female	Graduate	No	May 2020	Yes
Cherise	Female	Graduate	No	December 2020	Yes
Lance	Male	Graduate	No	May 2020	No
Pranav	Male	Graduate	No	May 2021	No
Kassandra	Female	Graduate	No	October 2020	Yes

Note. All names are pseudonyms determined by a random name generator. Education level refers to the participant's type of degree by March 2021.

Table 2

Higher-Order Themes and Subthemes of 28 Cases

Higher-order theme	Number of Cases
Subtheme code	
Theme 1: Early Planning for Post-graduation	
Attained an industry-related internship	17
Importance of familiarization with OPT and immigration regulations	20
Long-term plan for working in US	11
Theme 2: Networking	
Networking with alumni	5
Networking with friends in the US	3
Networking with individuals at an internship site or job site	4
Networking with individuals in industry	14
Networking with professors	10
Networking attributed to securing a job or job offer	5
Theme 3: In-demand Majors and Degree Levels	
Perceived STEM Advantage	9
Perceived Graduate Degree Advantage	3
Theme 4: University-Industry Connections	
University-Industry connections associated with securing a job offer	8
University-Industry connections create networking opportunities	12
Theme 5: Personalized Department Support	
Smaller program leads to more personalized job search assistance	5
Smaller program introduces tailored career events	3
Theme 6: Campus Career Services	
Assisted with mock interviews and revising application documents	26
Attended campus-wide career fairs	17