The Role of Higher Education Institutions Plays in Supporting Chinese International Students

Anqi Zu[1]

[1] University of Washington, Seattle, USA

Correspondence: Anqi Zu, University of Washington, Seattle, WA 98105, USA.

Abstract

Chinese international students play a crucial role in the United States' higher education systems. China remains the top source of international students in the United States, sending more than 372,000 students to the United States from 2020-to 2021. This literature review explicitly focused on Chinese international students. Acknowledging that this student group has both positive and negative experiences interacting with the United States education system, existing research is more likely to focus on individual factors. However, higher education institutions' support systems are playing vital roles in the success of Chinese international students. I looked into issues with existing supports. After reviewing the existing literature, I suggest better support for international Chinese students and future research to consider the linguistic background of research participants and acknowledge international students' heterogeneity. Finally, I conclude by recommending future research that includes more culturally sensitive longitudinal studies, focus group discussions, and relationship building.

Keywords: international education, higher education, student experiences

1. Introduction

International programs and the admission of overseas students constitute an extraordinary opportunity for schools and universities to implement a much-needed cultural shift in higher education (Hoekje & Stevens, 2018, p. 2). The definition of international students varies, while this review adapts Higgins's (2021) definition of an "international student" as someone who has experience living in a foreign country, who calls more than one country "home," and who brings that experience and that transnational identity to a college campus (p. xv). Comprising a significant international student population, Chinese international students play a crucial role in the United States' higher education systems. Today, numerous institutions place a premium on their students attaining a high cross-cultural awareness and intercultural competence; these expectations have even become institutional missions and plans (Rod-Welch, 2019). Through international funds and a more diverse study body, colleges and universities also earn the opportunity to enhance the campus diversity experience of students (Longerbeam et al., p. 338). International students pay higher tuition than domestic students, producing a larger fund for campus-wide financial benefits (Rod-Welch, 2019). While the universities and colleges in the United States view increasing international student enrollment as a critical priority, Briggs and Ammigan (2017) indicated that the recruitment efforts from the institutions did not match up with their support to students once students enrolled in universities in the United States.

Based on data from the Institute of International Education (2021), even though there was a trend of declination in the number of Chinese international students in the United States, China remains the top source of international students in the United States, sending more than 372,000 students to the United States through the year of 2020-2021. Chinese students choose the United States as their study abroad destination for complex reasons: the Institute of International Education (2016) stated that China and India have inadequate admissions rates for domestic students, leading some students to decide to study abroad. Parents' desire to send their children abroad is rooted in the passion of emerging middle- and upper-class families to pass their family status to the next generation (Ma, 2020, p. 244). Existing studies also discussed so-called "pulling" factors, including freedom of academic environment, linguistic (English) skill improvement, post-graduate employment, availability of financial aid, institutional reputation, and accessibility of information on the institution (Bertram et al., 2014; Choudaha, 2016; Daily & Kumar, 2010; Kim et al., 2018; Ma, 2020;).

Colleges and universities should pay greater attention to supporting Chinese international students acknowledging

the size and crucialness of this student group. The existing literature focuses more on the characteristics and experiences of the student group without much attention to how institutions of higher education can play an essential role in supporting Chinese international students. In addition to supporting existing students' experiences, increasing the success of Chinese international students in American higher education institutions can serve as a helpful starting point for sustaining Chinese students' desire to study in the United States in the future (Liu, 2016).

The support of universities and colleges plays a vital role in international students' campus involvement and academic performance in the United States (Ma & Murillo, 2018). The term "support" is complex without a generally agreed upon understanding. It includes but is not limited to pre-and after-arrival informational, socioemotional and instrumental supports. To that end, Chen's (2011) study discovered that international students had numerous unmet requirements and suggested that institutional players such as the offices of international student and scholar services, instructors of academic writing, writing centers, information technology services, teaching faculty, and librarians collaborate and provide resources for international students. Colleges and universities impact students' immigration status (visa and I-20), financial circumstances (international students are financially reliant on their parents, other sponsors, campus scholarships, and on-campus jobs), academic learning, and social life (Cho & Yu, 2015).

Through this literature review, I am trying to answer the following questions:

1. What are some characteristics of Chinese international students?

2. What are the factors impacting the experiences of Chinese international students?

3. What are the existing systems of support in U.S. institutions of higher education?

4. How can higher education institutions improve their international student support systems and better support Chinese (and other) international students?

My own national, educational, and personal background when conducting this literature review also plays a vital role in its writing. I took my K-12 education in a middle-sized city in mainland China and pursued my higher education degrees (undergraduate and master's degrees) in the United States. I also worked as a TOEFL teacher back in mainland China to prepare high school students for higher education in the United States. My background inspired me to collect existing research on possible support for students sharing my characteristics. I tried to acknowledge my subjectivity and challenge my existing beliefs while gathering the existing literature. For example, I had never personally perceived gender as an impact on international students' experiences, yet it is identified by multiple articles.

After composing the literature review, I reflected back on my experiences as a student experiencing challenges at the beginning and gradually navigating the higher education system in the United States. I faced challenges getting along with my domestic roommates, commuting to other locations, and finding campus jobs. This process also reminded me of the time I worked in the Chinese student associations and Housing and Food Services in University of Washington. Approaching students with my best intentions, I addressed some students' needs but at the same time missed someone else's. The literature review process made me more aware of my bias and made me more prepared for my future plan as a professional supporter of international students.

2. Methods

I searched the primary library sources at the University of Washington, which connects to numerous databases, including but not limited to EBSCO, SAGE, DOAJ, and Gale. Most articles and book chapters were peer-reviewed based on Chinese students, international students, organizational support, campus support, higher education institutions, and international student services. I combined various searching key terms and alternatively used Chinese students and international students as keywords representing the population. I limited the search only to the title to prevent an overwhelming amount of unrelated works. There were pieces of literature that appeared repetitively in each search. I discovered 12 articles in the consolidated search results to be the most relevant. Through the research process, I found the book *Creating a Culturally Inclusive Campus A Guide to Supporting International Students* (Hoekje & Stevens, 2018) highly related to my topic and works as the guiding framework for my literature review. *Understanding International Students from Asia in American Universities: Learning and Living Globalization* (Ma & Garcia, 2017) which included chapters from different authors, also greatly impacted my literature review.

Because Chinese international students share some characteristics with other students visiting the United States for academic purposes, I broadened the inclusion criterion to support all international students. I expanded the literature databases by snowball searching– that is, getting additional articles from the references of the primary articles. Through this process, I found some titles of the existing articles can be misleading. Those articles spent a

relatively large section proposing support system improvement but did not include any hint about that in the title. Due to a large amount of the potentially related articles, I went through the abstract first, deciding which article to include. However, there are also some fixed criteria impacting my decisions on inclusion or exclusion. Supporting international students is valued in the field of higher education. The inclusion criterion focused on literature published after 2010, with some quotations coming from articles published in earlier times. I did not analyze any of the methodology sections for the articles published before 2010 to make sure I give my attention to the most up-to-date research. Even though there is existing research on similar topics in Australia, New Zeal, and Japan, those works of literature were excluded from this review. The criterion got less restricted, especially for the highly theoretical-based articles. For example, Miki and Thiagarajan (2003)'s article was not analyzed in detail but with some theory backgrounds information so it was not excluded from the review.

I kept my notes in one Google document and highlighted some keywords when I identified the common themes. I took notes in Mandarin and English, my first and second language, to make sure I expressed my thoughts on the readings thoroughly. The articles are numbered so I could get back to the article by just searching the number of it. Excel worked as my tool to make literature matrixes including the abstract, study design, purpose, participants, findings, and citations.

3. Findings

3.1 Unprepared Institutions

Although there was a tremendous amount of literature talking about the challenges international students are facing, limited works discussed how the unprepared higher education institutions may worsen the experiences of international students.

There has been a surge in foreign student recruitment and admissions. Based on Hoekje and Stevens (2018), one of the reasons is coincided with two tectonic shifts in the higher education landscape: massive post-recession state budget cuts and alarming projections of future domestic enrollment declines. Consequently, universities rushed to admit international students to capture their tuition payments to replace dwindling budget allocations and in anticipation of needing to fill an increasing number of seats. Administrators gained the revenue generated by students paying out-of-state tuition rates with few or no scholarships to offset the cost. However, they were extremely slow to anticipate the logistical, academic, linguistic, and cultural costs. Still, nearly all schools were caught unawares by the extent to which they failed to anticipate and adequately meet the needs of undergraduate international students (Hoekje & Stevens, 2018). Cho and Yu (2015) also noted that international students received fewer educational, social, and cultural adjustment resources in the host organizations and institutions than they needed to become successful learners (p.12). Soria and Brazelton (2018) conducted a study on international students' perception of campus climate at eight large public research universities. They used linear regression to analyze the data from the Student Experience in the Research University (SERU) survey in 2017 (n=54,349, international students n=2643). The results differed significantly with white domestic students; 19.6% of the international students disagreed moderately to enormously that they were respected on campus; 13.8% disagreed somewhat to firmly that they were comfortable; 10% of the international students believed that their universities were not welcoming; 15.9% disagreed being valued as individuals on campus; 15.6% of respondents disagreed somewhat strongly that they belonged on campus (Soria & Brazelton, 2018). This research implied that the higher education institutions were not providing a friendly enough environment for international students.

Montgomery (2019) also conducted qualitative semi-structured interviews and concluded that the institutions made numerous assumptions about the Chinese students entering their campus communities. These assumptions included: the resources available to them to find appropriate off-campus accommodations (if needed); the level of cultural and linguistic knowledge/comfort they may have had before being paired with domestic roommates who were unready or uninvolved in assisting them during their transitions; and the funds available to them to cover unanticipated expenses such as buying a car to get to class or to buy groceries. In addition, these institutions failed to provide opportunities for meaningful cross-cultural interaction in their living spaces. They failed to assist them with the linguistic transition crucial to their overall success. In regards, they failed the on-campus students by not ensuring they had the means to obtain necessities without significant difficulty.

Rod-Welch (2019) talked about the staff preparedness in the library, which may shed light on other faculties and staff in higher education institutions. They indicated that as international students' populations grew, so did the difficulties and frustrations in campus staff. Staff members were frequently exasperated because they did not always comprehend what students required, why students did not adhere to the instructions they had already been given, and why students did not appear more proactive in seeking assistance. The misunderstandings between campus staff and students lead to further frustrations and unsupported students.

Despite the macro aspect, there are details in the university and college's classrooms implying the lack of preparation of the higher education institutions. Hoekje and Stevens (2018) highlighted some current issues for higher education institutions to create a culturally inclusive classroom. The authors provided specifics regarding classroom issues. Instructors frequently mispronounce students' names, particularly those linguistically distinct from the English language. Multiple factors made it difficult for students to participate in the classroom. Those factors resulted in a diminished sense of membership.

Given these challenges and concerns, Liu (2016) expressed that Chinese enrollment in American universities may not increase as the previous years did. As the introduction mentioned, Chinese international students have declined in recent years (Institute of International Education, 2021).

Seeing the challenges Chinese and other international students are facing, especially the ones due to the unprepared institution, I started gathering information from the published works about the proposed and existing supports from the higher education institutions. However, there were limited pieces of research focusing on this topic.

3.2 Supports

Acknowledging that some higher education settings are not prepared for supporting Chinese and other international students, it is valuable to learn from available existing supports. Almost all of the recent works have mentioned the crucial impact of institutional assistance. However, there is no standard definition of support or a clear description of the support categories. Cho and Yu (2015) specifically described the differences between organizational and social support, saying that social support is how international students perceive emotional and cognitive support from interpersonal sources. However, other authors defined social support more broadly, including multiple sources (Baines & Abwao, 2021; Briggs & Ammigan, 2017; Brunsting et al., 2021). Due to the conflicting definition of social support, I adapted the framework of Briggs and Ammigan (2017) combined with Baines and Abwao (2021), specifying social support as informational, instrumental support and socioemotional support: the first one (informational) is about letting information flow around between students and campus, while the second one (instrumental) is about housing, courses information, and transportation whereas the third one (socioemotional) focuses on emotional or mental support. Those supports might come from various parties.

3.3 Proposed Supports

Informational. Montgomery's (2017) research participants talked about the existing assumptions from the campus faculties about Chinese international students. The assumptions included but were not limited to the resources students have, the healthy relationship between the international students and their roommates, and the available financial resources to cover unanticipated expenses such as buying a car to get to class or buy groceries. Students might not have enough information about their college life either. With proper informational support, those issues of mistaken assumptions and insufficient knowledge could be addressed.

Multiple research projects proposed various ways to communicate students' characteristics and needs with higher education stakeholders. In "*We cannot reach them": Chinese undergraduate student perceptions of the U.S. campus* (Longerbeam et al., 2013) research was conducted from 2009 to 2010 on five United States universities and six Chinese universities. The higher education institutions were selected based on their membership in the Sino-U.S. program (students studying in the United States and China get diplomas from both countries). The author conducted quantitative research on 361 students with the International College Students Experience Scale (ICSES). Findings indicated that more favorable levels of personal and academic interactions with U.S. faculty were associated with higher (more positive) levels of perceived cultural tolerance on both sides (Longerbeam et al., 2013). Longerbeam's team recommended that faculty and staff attend more training regarding the challenges Chinese international students face and develop various supporting pedagogies (Longerbeam et al., 2013). Soria and Brazelton (2018) proposed higher education settings continue faculty training about equity and inclusion, especially with increasing efforts on the needs of international students. Ma (2020) explained faculty training in detail and recommended forums or seminars that included faculty and students. Ma (2020) further elaborated that with the support of faculty who speak Mandarin or who have Chinese backgrounds, the sessions would become opportunities for the campus to learn more about Chinese international students.

Despite the efforts to make faculty more prepared for Chinese international students, it is vital to provide essential information for international students before they arrive in the United States. Ma (2020) suggested higher education institutions in the United States collaborate with local Chinese schools to disseminate information and share information about navigating the application process to recruit Chinese students. Orientation is also a commonly discussed topic. Montgomery (2017) found that due to the inconsistency of the orientation program, students cannot recall the information, the holder, or whether the section is mandatory or not. The author hence

recommended that with the collaboration between different campus departments, universities and colleges should conduct a mandatory orientation before and after the arrival of international students (Montgomery, 2017). Heng's (2017) semi-structured interview revealed that one-third of participants emphasized the significance of a well-executed orientation. They mentioned that a practical orientation should clarify course availability/selection, facilities/classroom locations, and services and protocols for seeking academic and non-academic assistance. Despite the orientation proposal, Kovton (2011) mentioned the issues associated with intensified orientations: sharing all information about multiple services and resources available on-campus in a one-day orientation will lead to information overload.

Socioemotional. Hoekje and Stevens (2018) explained that due to the challenges through the adjustment process, international students were more likely than their American counterparts to experience emotional distress. However, despite the challenges students face, cross-national interaction might have long-term benefits for Chinese students, and it may ultimately improve relations between China and the United States (Longerbeam et al., 2013, p. 340). Museus (2014) proposed the culturally engaging campus environment (CECE) model. This model had four major impacting factors for students' college success. College success was measured by students' persistence and degree completion. External influences (i.e., financial conditions and employment status), precollege input (i.e., demographics, initial academic preparations), and the culturally engaging campus environment would impact students' sense of belonging, academic disposition, and outcomes. The most outstanding factors in this model were the culturally engaging campus environment with a more humanized educational environment and multiple sources of cultural community services. Students were more likely to grow in their sense of belonging, leading to a greater likelihood of college persistence and degree attainment.

There are nine indicators of CECE models that approve the success of the CECE model in the postsecondary education setting:

- Cultural familiarity: students could connect with other students and faculties and share their cultural backgrounds.

- Culturally relevant knowledge: students got chances to learn about their cultural backgrounds and get a chance to connect with their communities.

- Cultural Community Service emphasized students' chances to give back to communities of their backgrounds.

- Opportunities for Meaningful Cross-Cultural Engagement was the chance for positive and purposeful interactions with peers of diverse cultural backgrounds.

- Collectivist Cultural Orientations believes that collectivism's importance was related to students' success in higher education.

- Culturally Validating Environments proposed educators and other faculties validate and value students' cultural backgrounds.

- Humanized Educational Environments referred to campus environments where institutional agents care for, are committed, and develop meaningful relationships with their students.

- Proactive Philosophies suggested instead of making information available, faculties and staff should advocate for the information and bring it to the students.

- Availability of Holistic Support meant that institutions provided diverse sources of support for students of different backgrounds.

Some examples from the existing literature may help illustrate the model. Hoekje and Stevens (2018) provided many suggestions for higher education administrators, faculty, and staff. They recommended universities should use new students' orientation to express how the student group was valued in the inclusive campus community. International students were experiencing barriers to engaging in the campus community and encouraging the voices and leadership of students of diverse backgrounds may help with the issue of involvement. This aspect is related to the CECE model's culturally validating and humanized environment. Hoekje and Stevens' (2018) report *Creating a culturally inclusive campus: a guide to supporting international students* proposed counseling services for students facing emotional and cultural adjustment concerns adding that support with ESL staff in the students' first language will also be beneficial. Connecting with meaningful cross-cultural engagement, Hoekje and Stevens (2018) suggested having sustained programs intentionally promote interaction across nationalities, cultures, and races. Intercultural Community Bridge served as an exceptional case for this type of program. It allows students to interact with a small local family to celebrate holidays, engage in volunteer work, and attend cultural or sporting events that allowed them to develop a deeper understanding of local cultures and enduring relationships.

Longerbeam et al. (2013) provided another possibility to encourage cross-cultural engagement--providing grants or recognition that encourage the interaction between domestic and international students.

Hutson and Williford (2018) recommended universities provide service-learning courses that fulfill the students' degrees. The authors believed students will learn more about service-learning learning opportunities and give back to the communities. The proposal connected with the cultural community services aspect of the CECE model.

Instrumental. In a guidebook for incoming international students, Le (2017) suggested a long list of instrumental support for international students. The resources include but are not limited to the academic advising office, the financial aid office, food pantry, computer labs, and career counseling.

One of the most commonly mentioned instrumental supports is the academic assistance from campus faculty. Hoekje and Stevens (2018) proposed additional lab and linguistic support hours; utilizing technologies to support linguistic needs; posting related course materials in advance to allow students more time; accommodating written exams and assignments; clarifying requests and accessible examples for assignments; and support with individual students when requested (p. 175). The book also suggested using electronic advising apps for early advising, consolidated one-stop, all-inclusive facilities, and new advisory position assigned to international students on their admitted day.

Li et al. (2021) conducted an open-ended survey on Chinese students' expectations of career services. By collecting demographic information and gathering information from the open-ended survey, the researchers gathered data from 58 self-identified Chinese international students (38F+19M+1 missing) from a large midwestern and a large northeastern university. They found out that 93.6% of the participants believed career counseling were only related to decision making and future planning. The research team also noted why students refused to use career services: 44.33% believed career services lack relevance and are not specified. The students described information from career services as general, superficial, already existing on the internet, and lacking cultural relevance. This article confirmed the value of career services to Chinese international students and implied if Chinese students experienced realistic setbacks (e.g., unemployment, financial struggles, job search stagnation) and negative emotions, they would be motivated to seek career counseling. Researchers proposed career centers emphasize peer support throughout the job search process. Chinese students were expecting culturally specific counseling but, at the same time, held inaccurate biases on the existing career services. It was also essential to highlight career counselors' knowledge and expertise in the U.S. job market, where international students' families and friends may not provide information (p. 83).

Another aspect was the function of the International Student Services (ISS) office. One issue with this office was that the department serving international students spent significant time and energy administering U.S. government regulations and ensuring visa requirements and hence could not have enough efforts to address the obstacles and needs of the students. (Briggs & Ammigan, 2017) Interestingly, although there were articles discussing cooperation between ISS and other offices, there was no specific description of the role of the ISS office.

3.4 Existing Supports

Higher education institutions are making great efforts on international student support. Martirosyan and Saxon (2019) conducted research on the top twenty international students' host universities identified by Institute of International education (2016b) in their 2016 Open Doors report. The name of the university and the number of students enrolled are demonstrated in Table 1. The research team went through the official website of the schools as well as international students' services. They entered the information they found in Microsoft Excel and analyzed the design of the websites, international student handbooks, and other outreach systems that detailed support from the institutions. Several services commonly included English language programs, academic support, student success initiatives, targeted writing support, social and cultural activities for international students, professional development workshops, and family member programs. Research results indicated that the majority of the sampled universities had user-friendly websites. The websites' detailed handbooks, guides, and frequently asked questions (FAQs) provided information on academic-related matters and housing, getting to know the community, regulations, and procedures for obtaining a driver's license. In addition, quick and easy links to supplemental institutes and support systems were available on many of the international offices websites. In some instances, separate links were available for specific resources for the students of different degrees and visiting scholars, making many of the resources accessible. Some participating institutions' websites also offered live chats, virtual tours, student testimonials, and newsletters for international students and their families. The following sections will provide information on existing support in higher education institutions as examples of the outreach and support discussed in Martirosyan and Saxon (2019).

Informational. Hoekje and Stevens (2018) demonstrated the possibility that the United States higher education institutions cooperate with reliable agencies on student outreach. The two main ways of recruiting international students were from high schools in China or secondary schools in the United States. Before most Chinese international students arrived in the United States, they sought help from the study abroad supporting agents. Instead of treating the agency as improper, the authors proposed that universities should carefully select practical and ethical agencies and actively build relationships with them (p. 23). The research team used the example of the Drexel Preview—an information spreading session coffered by Drexel and several agencies in 2014 in Beijing and Shanghai. Through this section, Drexel University cooperated with several agencies in mainland China to provide related information about Drexel University and study abroad life in the United States. Immediate translation between school representatives and potential parents and students happened through those sections. Agencies and school representatives also answered questions and addressed the concerns of students and parents. This example serves as a pre-arrival outreach event, something not mentioned in Martirosyan and Saxon (2019).

Kovtun (2011) conducted mixed-method research navigating the impact of U.S. Education and Culture, a first-year course offered at a large Midwestern public university in 2009. All of the students enrolled in this course are first-year students holding a student visa. The researcher conducted two surveys and one interview, together with analyzing their writing samples and assignments. The researchers found out that the program improved students' academic skills, psychosocial development, understanding of social diversity in the U.S., use of university resources, and academic and social engagement. This support leaned toward the transitional student success initiatives.

Socioemotional. Hoekje and Stevens (2018) discussed two peer mentoring programs for international students in English Language Preparation and undergraduate programs. In the University of Delaware in 2002, there was a mentorship program for international students meeting the University of Delaware's language requirement through the Conditional Admissions Program (CAP) of the English Language Institute (ELI). University of Delaware support team included six to nine students in each cohort, mostly Chinese students with some students from Saudi Arabia. They had one American undergraduate working ten hours per week as the group's peer mentor. One faculty member supervised the activities of the group. The researchers found that the program was beneficial for both the mentors and the mentees. The peer mentor became more culturally sensitive and tolerant. They would be more aware of the assumptions and biases within their own culture. The mentored students were more likely to be active members socializing with other students of diverse backgrounds. The program offers a series of progressively challenging academic, social, and service tasks that increasingly immerse cohort students in all dimensions of university life (p.142). Those students-built trust among each other and became interdependent after the cohort was finished. The students went to one of their mentor's regular classes, getting a brief overview of their future class sessions. They also attended to special leadership training and got information about campus resources. In 2015, Michigan State University offered a peer mentorship program having one international student from English Language Center (ELC) meet with two mentors for 25 hours throughout the course of the semester. With the support of the supervisor, the mentors met with their mentees who shared similar majors. The mentors helped students with assignments, campus involvement and other aspects. The two programs are close to the social and cultural activities for international students and also functioned as professional development workshops.

Instrumental. Chen (2011) specifically focused on improving students' research writing skills to reflect their academic performance. Cooperating with a university at Albany (the author did not indicate the specific name of the site), Chen (2011) and the writing tutors conducted a series of workshops: The research workshop supported selecting topics, formulating questions, as well as identifying and evaluating resources. The workshop on plagiarism focused on acknowledging sources, situations requiring citations, instances of plagiarism, differences between quoting, summarizing, and paraphrasing, examples of citation styles, and tips for avoiding plagiarism. Seventy participants did a pre-and post-workshop test; the results were 15.2 (76.0%) and 18.4 (92.0%), respectively for questions regarding to writing skills, researching techniques and plagiarism related information. This research indicated that the research writing improved students' writing skills and academic integrity.

Rod-Welch (2019) included multiple support ideas in their book. One of the supports was a student panel inviting international undergraduate students from diverse backgrounds (Saudi Aribia, China, India, Iraq) to talk about their experiences. The students had been to the United States for 6-18 months. Researchers allowed time for students to talk about their positive and negative experiences navigating campus in the United States. At the end of the session, students got a chance to give suggestions to the campus community. Students got a chance to prepare before talking and some of them were invited to the faculty training sessions. The library also prepared a tip guide for faculties in the library with some students' suggestions. Through this process, faculties got to know more about students' needs and become more able to provide supports.

Hutson and Williford (2018) discussed a series of high-impact practices in University of North Carolina-Chapel Hill (UNC), a predominantly White research institution. The practices mentioned in this article included a first-year seminar for incoming students, a summer reading program to have students read and discuss a simulating book, a living-learning community having students with same academic and linguistic backgrounds living together, undergraduate research programs with mentorship and financial supports, an honors Program that afforded students multiple benefits, internships, and communication intensive courses to practice linguistic skills. With the rate of participations, UNC collected data about students' participation in those programs in 2017 and found out the first-year seminar was most participated in, followed by the writing supports.

Some other highlights for the campus support did not go with any category. For example, Hoekje and Stevens (2018) proposed data-driven student support using existing research data to guide other supporting programs. Briggs and Ammigan (2017) elaborated on this aspect, suggesting the ISS office develop communication plans and assessment tools to gather feedback from the international students.

"Collaboration" was also a commonly discussed topic in the existing literature. Montgomery (2017) pointed out that every campus area is responsible for international students being welcomed and feeling valued. All of the offices related to student affairs should be part of this process instead of leaving all duties to ISS. Hoekje and Stevens (2018) proposed the cooperation of all stakeholders (students, faculties, parents, legislators, donors, etc.) to ensure the students' success. Supporting students not only through academic support but also through helping them get summer internships or honing interviewing skills could help undergraduates parlay their degrees toward rewarding careers (p. 85). Choudaha (2016) supported this aspect, saying that it is essential to build intercultural competence between multiple departments on campus, including but not limited to the multicultural center, faculty, staff, and administrators. Rod-Welch (2019) included a case that was an example of meaningful cooperation. University of Northern Iowa (UNI) Rod Library held a special outreach event to have students share some particular aspects of their culture. To promote this event, the Culture and Intensive English Program (CIEP), International Students and Scholars Office, International Programs, and the Study Abroad Center worked together to share relevant information. The American Council of Education (2016) described the collaborations as serving more students and helping stakeholders develop global and intercultural competencies.

Limitations within Existing Supports. Bustamantea and Saxon (2019) pointed out some issues they found when they went through the international student services websites. They found that institutions neglected international students' needs for financial support.

Some support that seemed to function well at the moment was judged as problematic later. Different stakeholders may also hold diverse perspectives on the same case. For example, the finance department cares more about the cost and benefit balance while the international services officers might care more about the diversity of students. The writing center and the libraries might care more about students' academic skills while the recreation center want to focus on students' self-care strategies. Sometimes when the stakeholders' goals align (to some extent), they could cooperate well. However, there were occasions that the goal of stake holders got conflicted with each other. For example, The Rod Library's outreach event holders believed the event made the library a friendlier space, gave international students a sense of appreciation, improved campus diversity, and increased international students' awareness of library services. However, the event did not persist in the second year due to the conflict with the campus library policies. The library dean at the time stated, "This is not a true diversity event. (p.253)"

Most of the existing support described in the literature happened in English. However, as mentioned above, Chinese and some other international students were facing linguistic challenges, and thus providing supports in English could not ensure effectiveness. Rod-Welch (2019) discussed the previous efforts at the University of Cincinnati, including the library website designed specifically for international students, the information session at the international student orientation, and the writing skill workshops. Those events were described by Rod-Welch (2019) as imperfect because of the lack of follow up research on students' future experiences and the effectiveness of the workshops. In conclusion, much of the existing research either proposed strategies for support or examined the impact of a specific support for a short duration of time without longitudinal research on the impact of those efforts.

4. Discussions and Future Implications

With the increasing number of Chinese international students presenting in the United States, schools are putting more attention on this student group. I acknowledge the higher education institutions' efforts in providing resources to this student group. However, good intentions may not always lead to the desired results. International students are a group with diverse backgrounds and experiences. Even those with the same nationality may differ significantly due to their academic, family, and other backgrounds. Those factors are impacting the challenges they

experienced through basic lives, language uses, socio-cultural involvement and hence impact their academic performance and psychological well-being. Unprepared institutions were unable to provide essential supports. Informational, socioemotional and instrumental supports are crucial for students' stage of pre-and post-arrival. Research on existing supports and experiences of international students have provided a guide for stakeholders to better address the needs of Chinese and other international students. Figure 1 will summarize essential understandings from the literature review process.

Being clear that my intended group is Chinese international students, I started my literature review broadly. I found out that most of the existing research focused on the characteristics and challenges this student groups faced. Even though most of the existing work talked about the impact of the students' self, I started wondering about the role higher education institutions played in supporting this student group. There were limited published pieces mentioning this aspect, but the existing literature addressed this topic mainly through the discussion of case studies (existing research) and proposal at the end of article. Three outstanding types of supports are informational, socioemotional and instrumental supports.

5. Limitations and Future Research

Some researchers combined the discussion of international students with students of other minority backgrounds. Even for researchers talking about international students, this category is relatively broad in that it includes students from diverse national backgrounds. For example, Soria and Brazelton (2018) conducted research on international students' perceptions on career services in the United States. Even though there is no research explaining the impact of nationality on students' perceptions of career services, there is the possibility that it holds an impact. Discussing international students with other minority groups, or concluding international students are identical, even categorizing international students within one nationality group as the same, is inaccurate. Hutson and Williford (2018) discussed the high impact research on different student groups and international students served only as one part of the research participants. This research was useful as it tried to see the effectiveness of the high-impact practices, but specific research on the impact of those practices on different populations of international students might be more helpful.

I am uncertain about how much students are willing share about their experiences with the research team. For example, Li et al. (2021) asked students about their negative experiences with career counseling. Talking about negative experiences requires great courage, even in front of highly trusted acquaintances, peers, or campus staffs. Facing a group of researchers and possibilities being presented as samples, students may hesitate to share their whole experiences.

Existing research failed to address the needs of the students within the relative minority groups of Chinese international students. The articles discussing the potential impact of gender did not include the needs of the LGBTQ student population. When discussing the academic and linguistic needs, most of the authors ignored the students with learning disabilities. Hoekje and Stevens (2018) mentioned that it is harder to diagnose international students' learning disabilities. Some students might be characterized as problematic learners due to their lack of linguistic proficiency. In addition, the students with disabilities are also not included in the discussion of support.

The languages that research was conducted with had impact on the results. Most Chinese international students speak Mandarin Chinese as their first language, with some speaking accents related to Mandarin. However, most studies are conducted in English despite the research of Heng (e.g., Heng, 2017; Heng, 2018; Heng, 2019). As the finding section discussed, the language barrier is one of the challenges Chinese international students face. In English, asking questions, especially interview questions, might lead to inaccurate inputs and interpretations.

In 2020, COVID-19 spread worldwide and impacted students' course arrangement, assessment, learning, and academic exchange with colleges, tutors, and schoolmates, challenging students accustomed to in-person instruction. Through my research process, I did not intentionally search for nor exclude the term "Covid." Still, minimal research appeared to discuss the support for international students after Covid. All students are full-time enrolled at various levels (60% female, 90% aged 18–25 years, and 65% undergraduates). From May 3rd to May 12th, 2020, Whatley and Fischer (2022) conducted 1.5-hour online focus group interviews with twenty Chinese international students from Hong Kong aged 18 or older attending universities in the United Kingdom or the United States. The study results indicated that students faced personal, interpersonal, and environmental stresses, such as worries about health and academic attainment, perceived prejudice and lack of social support, uncertainties about academic programs, and unclear COVID-19-related information. The students also faced additional psychological stresses due to the COVID-19 (Whatley & Fischer, 2022). Those challenges and negative experiences led to the need to research ways of supporting students at this moment. Note that Whatley and Fischer's (2022) study focused more on the early time of COVID; more research should attempt to unfold students'

experiences at later stages.

This literature review has limiations. Due to the time constraints, I did not read all of the articles in detail. I skimmed the methodology sections, and some literature review sections for some articles that I decided were not highly related to campus involvement. After reviewing their abstracts, I removed some articles from the reading list and found them unrelated to the topic. Those exclusions may lead to missing some meaningful methodologies or details about possible student characteristics and impacting factors. I decided to include most of the literature written after 2020, which may lead to some missing information. Some articles written earlier may include valuable proposals for supporting international Chinese students. The restrictions on the countries that the researchers were in may exclude some articles with solid theoretical backgrounds or support systems.

Researchers need to acknowledge the uniqueness of international students and prevent discussing this student group with students from other minority groups. For example, international students and immigrant students shared similarities but immigrant students are not holding student visa or having concern not able to find off campus jobs. Future research should give a more explicit focus on international student groups of different characteristics and try to detect differences between and in the nationality backgrounds. Surveys in students' first languages and detailed instructions are ways to make sure students are giving the most accurate input. Reducing the length of surveys will also lead to more accurate results.

I would also like to propose focused group discussions as a way of collecting qualitative data– the attendance of other students will make interviewees feel supported, and other students will inspire each other through the discussion process. Presenting how research may help the student population and explaining more about anonymity will help get more detailed experiences. The longitudinal qualitative research process will help build trust between students and researchers, which will lead to more insightful discussions. Future literature reviews should expand the inclusion criteria, read more articles in-depth, and focus on distinct differences between nationality groups. Last but not least, educational stakeholders should clarify their roles as potential supporters instead of critical judges of international students.

References

American Council on Education. (2016). Leading internationalization: Student affairs professionals make key contributions to campus internationalization. Retrieved from http://www.acenet.edu/newsroom/Pages/Report-Highlights-Role-of-Student-Affairs-Professionals-inCampus-Internationalization.aspx

Bertram, P., M., Elsasser, B. S., & Kumar, E. (2014). Social support and acculturation in Chinese international students. *Journal of Multicultural Counseling and Development*, *42*(2), 107-124. https://doi.org/10.1002/j.2161-1912.2014.00048.x

Briggs, & Ammigan, R. (2017). A collaborative programming and outreach model for international student support offices. *Journal of International Students, 7*(4), 1080-1095. https://doi.org/10.5281/zenodo.1035969

Brunsting, Z., C., Liu, J., Bryant, R., Fang, X., Wu, S., & Luo, Z. (2021). Sources of perceived social support, social-emotional experiences, and psychological well-being of international students. *The Journal of Experimental Education, 89*(1), 95-111. https://doi.org/10.1080/00220973.2019.1639598

Chang. (2008). Help-seeking for stressful events among Chinese college students in Taiwan: roles of gender, prior history of counseling, and help-seeking attitudes. *Journal of College Student Development, 49*(1), 41-51. https://doi.org/10.1353/csd.2008.0003

Chávez, A. F., & Longerbeam, S. D. (2016). Teaching across cultural strengths: A guide to balancing integrated and individuated cultural frameworks in college teaching.

Chen. (2011). Helping international students succeed academically through research process and plagiarism workshops. *College and Research Libraries, 72*(3), 209-235.

Cho, & Yu, H. (2015). Roles of university support for international students in the United States. *Journal of Studies in International Education*, *19*(1), 11-27. https://doi.org/10.1177/1028315314533606

Choudaha, R. (2016). Campus readiness for supporting international student success. *Journal of International Students, 6*(4), IV.

Culture Bump. (n.d.). Retrieved May 17, 2022, from http://culturebump.com./

Daily, F. S., & Kumar, G. (2010). Factors influencing the university selection of international students. *Academy of Educational Leadership Journal, 14*(3), 59.

Encyclopædia Britannica, inc. (n.d.). *One-child policy*. Encyclopædia Britannica. Retrieved June 6, 2022, from https://www.britannica.com/topic/one-child-policy

ETS. (n.d.). *ABOUT THE GRE® general test.* Retrieved June 6, 2022, from https://www.ets.org/gre/revised_general/about

Gmac.com. (n.d.). *About the GMAT™ exam*. Graduate Management Admission Council. Retrieved June 6, 2022, from https://www.gmac.com/gmat-other-assessments/about-the-gmat-exam

Heng, T. (2020). Chinese students themselves are changing. *Journal of International Students, 10*(2), 539-545.

Heng, T. T. (2018). Different is not deficient: Contradicting stereotypes around Chinese international students in U.S. higher education. *Studies in Higher Education, 43*(1), 22-36.

Heng. (2017). Voices of Chinese international students in USA colleges: 'I want to tell them that ... ' *Studies in Higher Education (Dorchester-on-Thames), 42*(5), 833-850. https://doi.org/10.1080/03075079.2017.1293873

Heng. (2019). Understanding the heterogeneity of international students' experiences: A case study of Chinese international students in U.S. universities. *Journal of Studies in International Education, 23*(5), 607-623. https://doi.org/10.1177/1028315319829880

Hoekje, & Stevens, S. G. (2018). *Understanding international students in US higher education. creating a culturally inclusive campus* (1st ed., Vol. 1, pp. 1-18). Routledge. https://doi.org/10.4324/9781315226729-1

Institute for International Education. (2016b). Open Doors 2016 fast facts. Retrieved from https://www.iie.org/Research-and-Insights/Open-Doors/Fact-Sheets-and-Infographics/Fast-Facts

Institute of International Education (2021). Open doors 2021 Fact Sheet: China. Retrieved from https://opendoorsdata.org/fact_sheets/china/

Institute of International Education. (2016). *Open doors 2016 "fast facts."* New York. Retrieved from www.iie.org./Why-IIE/Announcements/2016-11-14-Open-Doors-Data.

Kovtun. (2011). International student adaptation to a U.S. college: a mixed methods exploration of the impact of a specialized first-year course at a large midwestern institution. *Journal of Student Affairs Research and Practice, 48*(3), 349-366. https://doi.org/10.2202/1949-6605.6336

Le. (2017). *Building cultural bridges and supporting prospective Chinese international students at U.S. universities. In Understanding International Students from Asia in American Universities* (pp. 63-80). Springer International Publishing. https://doi.org/10.1007/978-3-319-60394-0_4

Li, Mitts, N. G., & Whiston, S. C. (2021). Chinese international students' expectations about career counseling. *Journal of Career Development*, 48(1), 73-88. https://doi.org/10.1177/0894845319832672

Liu. (2016). Strategies to promote Chinese international students' school performance: resolving the challenges in American higher education. *Asian-Pacific Journal of Second and Foreign Language Education, 1*(1). https://doi.org/10.1186/s40862-016-0012-9

Longerbeam, S. D., DeStefano, T. J., & Yu, L.-X. (2013). We cannot reach them": Chinese undergraduate student perceptions of the U.S. campus climate. *Journal of Student Affairs Research and Practice*, *50*(3), 326-344. https://doi.org/10.1515/jsarp-2013-0023

Ma, & Garcia-Murillo, M. A. (2017). *Understanding international students from Asia in American universities.* Springer International Publishing AG. https://doi.org/10.1007/978-3-319-60394-0

Ma. (2020). *What American higher education needs to know about Chinese undergraduates. An Ambitious and Anxious*. Columbia University Press. https://doi.org/10.7312/ma--18458.13

Martirosyan, B., R., & Saxon, D. P. (2019). Academic and social support services for international students. *Journal of International Students, 9*(1), 172-191. https://doi.org/10.32674/jis.v9i1.275

Miki Koyama, M., & Thiagarajan, M. (2003). A women's support group for Asian international students. *Journal of American College Health, 52*(3), 13Carr, 1-134. https://doi.org/10.1080/07448480309595735

Montgomery, K. A. (2017). Supporting Chinese undergraduate students in transition at U.S. colleges and universities. *Journal of International Students, 7*(4), 963. Retrieved from https://link.gale.com/apps/doc/A516448879/AONE?u=wash_main&sid=bookmark-AONE&xid=31527b5b

Museus, S. D. (2014). The culturally engaging campus environments (CECE) model: A new theory of success among racially diverse college student populations. In *Higher Education: Handbook of Theory and Research*

(pp. 189-227). Springer Netherlands. https://doi.org/10.1007/978-94-017-8005-6_5

Pang. (2006). *International student college experience scale: development and preliminary findings*. ProQuest Dissertations Publishing.

Rod-Welch. (2019). Improving library services in support of international students and English as second language learners. Association of College and Research Libraries.

Schlossberg, N. K., Waters, E. B., & Goodman, J. (1995). *Counseling adults in transition: Linking practice with theory* (2nd ed.).

Soria, & Brazelton, G. B. (2018). International students' experiences with campus climate at large, public research universities. In *Evaluating Campus Climate at US Research Universities* (pp. 251-275). Springer International Publishing. https://doi.org/10.1007/978-3-319-94836-2_12

Whatley, & Fischer, H. (2022). International Student Experience at US Community Colleges at the Onset of the COVID-19 Pandemic. *Journal of International Students, 12*(1), 42-60. https://doi.org/10.32674/jis.v12i1.3359

Wikimedia Foundation. (2022, April 28). Gaokao. Wikipedia. Retrieved from https://en.wikipedia.org/wiki/Gaokao

Yan, & Berliner, D. C. (2010). Chinese international students in the United States: demographic trends, motivations, acculturation features, and adjustment challenges. *Asia Pacific Education Review, 12*(2), 173-184. Retrieved from https://link.springer.com/article/10.1007/s12564-010-9117-x

Appendix 1. International Student Enrollment Top 20 Universities in the U.S. in 2016

University name	International student enrollment
New York University	15,543
University of Southern California	13,340
Arizona State University - Tempe	12,751
Columbia University	12,740
University of Illinois–Urbana-Champaign	12,085
Northeastern University–Boston	11,702
University of California–Los Angeles	11,513
Purdue University	10,563
Boston University	8,455
University of Washington	8,259
Michigan State University	8,256
University of Texas–Dallas	8,145
Penn State University–University Park	8,084
University of Michigan–Ann Arbor	7,630
University of California–San Diego	7,556
University of California–Berkeley	7,313
Indiana University–Bloomington	7,159
Ohio State University–Columbus	7,117
Carnegie Mellon University	7,051
University of Minnesota–Twin Cities	7,037

Note. From "2016 Fast Facts," by the Institute for International Education, 2016 (https://www.iie.org/Research-and-Insights/Open-Doors/Fact-Sheets-and-Infographics/Fast-Facts). In the public domain.

Copyrights