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Acculturation of International Graduate Students in U.S. Higher Education Institutions

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ABSTRACT

Every year, the U.S. witnesses an increase in the number of international students pursuing higher education. Researchers, who have focused primarily on international undergraduates, have suggested that international students often encounter various acculturative stressors while adapting to new academic and living environments. Moreover, there is expanding research on coping strategies adopted by most international undergraduates to manage acculturative stressors. Although the number of international graduate students (IGSs) has surpassed that of international undergraduates in the U.S. since 2020, their experiences in higher education contexts have still received relatively less attention than their undergraduate counterparts. This study employed Yakushko's (2010) theoretical model of stress and coping strategies to examine the acculturation experiences of ten IGSs from three U.S. higher education institutions. The findings revealed common acculturative stressors for IGSs, the factors in those stressors, and the coping strategies employed by IGSs and the corresponding consequences.

Keywords: Acculturative stressors, coping strategies, factors impacting IGSs experiences of acculturative stressors, international graduate students, U.S. higher education institutions

In recent years, the U.S. has solidified its position as a destination for higher education, drawing international students from around the globe. International students have been defined as those who have crossed a national border to study outside their country of origin and do not hold permanent residency in the host country (UNESCO Institute for Statistics, 2006). The Institute of International Education (IIE, 2023a) reported that, during the 2022–2023 academic year, approximately one million international students from over 200 countries enrolled in U.S. higher education institutions. Additionally, since the 2020–2021 academic year, the number of IGSs has significantly increased, surpassing the number of

international undergraduates (IIE, 2023b). Adjusting to university life might be stressful for all students, but research has shown that unique challenges exist for international students (Nilsson et al., 2008). One significant challenge that international students face is adapting to an environment that differs from their native culture, which often manifests as acculturative stressors (Rai et al., 2021).

Although research has explored the acculturation process among international students, much of it has concentrated on international undergraduates, or some studies have not distinguished between undergraduates and graduates. Thus, there is a need to further investigate the acculturation experiences of IGSs as a distinct group from undergraduate students. The current study was guided by Yakushko's (2010) theoretical model of stress and coping strategies to investigate the acculturation experiences of IGSs in the U.S. Through in-depth interviews with current IGSs, this study examined the types of acculturative stressors that they experienced, the factors in those stressors, and the coping strategies that IGSs used to address those stressors.

LITERATURE REVIEW

Acculturation and Yakushko's (2010) theoretical model

Acculturation is a transformative process involving changes in an individual's cultural practices, behaviors, values, and identities, due to direct, sustained intercultural interactions. Acculturation impacts an individual's psychological well-being and social functioning (Berry, 2003, 2005; Ward & Geeraert, 2016). The acculturation process has been found to bring both personal growth and challenges, as the process might be an exhilarating journey for some while being filled with stressors for others (Ma et al., 2020; Moores & Popadiuk, 2011).

Numerous acculturation models have been developed and debated to illustrate the key factors influencing the acculturation process. The current study employed Yakushko's (2010) theoretical model of stress and coping strategies. This model, initially designed to examine the acculturation of 20 immigrants in Lincoln, Nebraska, involves six domains. The first domain, causal conditions, refers to factors such as reasons for migrating, migration status, and preimmigration expectations. These factors lead to the second domain, the central phenomenon, which pertains to acculturative stressors during the acculturation process. These stressors trigger the third domain, coping patterns, which involve various strategies ranging from constructive to avoidance. The adoption of coping strategies is influenced by two domains: context and intervention conditions. The context includes five levels: individual (e.g., gender, age, social class, and country of origin), family, local ethnic community, local host community, and larger cultural levels. Intervention conditions connect to an individual's resources and values. Finally, coping patterns impact adaptation consequences, which refer to acculturation outcomes achieved through the utilization of coping strategies in areas of society, culture, health, and education.

As a relatively recent theoretical framework, Yakushko's (2010) model has seen limited adoption among researchers. In particular, Ferguson's (2015) study

applied this model to examine the stressors faced by Iraqi refugees residing in southern California and the coping strategies they employed. The study identified common stressors, such as self- and family provisions, employment searches, financial needs, education and credential loss, experiences of discrimination, and longing for family in Iraq. The coping strategies revealed in Ferguson's (2015) study included the cultivation of social connections, altruistic behavior, the pursuit of assistance or self-determination, and the utilization of strategies centered around distraction. However, Kuo (2014) emphasized that Yakushko's (2010) model originated from a qualitative study focusing on migrants in a specific geographical area in the U.S. Due to its limited research scope, additional empirical validation is needed to determine the broader applicability of the model in understanding how individuals navigate and culturally adapt to diverse locations.

International students' acculturative stressors

In Yakushko's (2010) model, acculturative stressors have been identified as a central domain of the acculturation process. Many studies have examined the challenges that international students have encountered in foreign countries.

Language struggles

Researchers have shown that language struggles impede the academic adjustment process for international students, particularly international undergraduates (Misra et al., 2003). Specifically, language struggles, observed in spoken and written forms (Chen & Van Ullen, 2011; McLachlan & Justin, 2009), resulted in international students' difficulty comprehending course materials, participating in classroom discussions, and communicating with faculty and peers (Kwon, 2009; Lee, 2013). Moreover, in daily life, language struggles have led to miscommunication, potentially undermining international students' ability to form friendships (Leong, 2015). Thus, the growing body of evidence has highlighted the detrimental impact of language struggles on international students' academic success and everyday communication.

Financial burdens

Financial burdens have been shown to be a primary stressor for most international undergraduates in the U.S. (Perry et al., 2017). At UC Berkeley, 51.6% of international undergraduates cited finances as their top personal concern (UC Berkeley, 2011). According to the F-1 student employment regulations of the U.S. Citizenship and Immigration Services (2023), non-U.S. full-time students on F-1 visas are restricted from off-campus work in their first academic year. Research has shown that these employment regulations discourage international students from seeking job opportunities, leading to their increased dependence on savings or external funding and heightened financial stress (McFadden & Seedorff, 2017).

Other stressors

In addition to the two main acculturative stressors discussed above, research has illuminated additional stressors for international students, including loneliness, homesickness, unfamiliarity with local food, house arrangements, and healthcare systems, lack of social support, and experiences of discrimination (Erturk & Nguyen Luu, 2022; Forbes-Mewett & Sawyer, 2016; Nyland et al., 2013; Poyrazli & Devonish, 2020). While existing studies have identified various stressors for international students, especially a large portion of international undergraduates, research has noted that IGSs studying in the U.S. face unique challenges in adapting to American higher education and broader society, which requires further research (Click, 2018).

Factors influencing acculturative stressors and stress

In Yakushko's (2010) model, the domain of causal conditions explores factors that influence immigrants' experience of acculturative stressors. Some researchers have investigated this domain in the context of international students' acculturation and identified several factors. For example, studies by Bastien et al. (2018) and Luo et al. (2019) demonstrated that factors such as older age, longer residence in the U.S., and greater language competence were predictors of better psychological well-being and lower levels of stress among undergraduate international students in the US. Koo et al. (2021) reported that first-year international college students who were male or from low socioeconomic backgrounds experienced more acculturative stressors than their female counterparts and those from mid- to high-SES backgrounds did.

Additionally, a study conducted by Eustace (2007) revealed that students from collectivistic cultures, who were taught to be silent and passive in classrooms, faced stress when confronted with classrooms that expected active participation, which is common in individualistic cultures. A study by Yu and Moskal (2019) revealed that a lack of institutional diversity and interactional diversity may have led to potential inequalities in cross-cultural learning, hindering personal growth and increasing stress levels among Chinese international students. However, institutional support in areas such as financial assistance, academic learning, and social life has been found to increase the college-life satisfaction of international students and reduce their psychological stress (Cho & Yu, 2015; Glass et al., 2014). Thus, paying attention to factors that influence acculturative stressors and stress is crucial to understanding international students' acculturation experiences.

Coping strategies for acculturative stressors

Yakushko's (2010) model highlights the importance of adopting coping strategies to mitigate acculturative stressors and stress, as these strategies act as mediators between the stressors and the consequences of acculturation. Importantly, scholars

have argued that there is no universal solution to mitigate acculturative stressors (Tiwari et al., 2017). Lazarus and Folkman (1984) categorized coping into two dimensions: problem-focused coping and emotion-focused coping. Specifically, problem-focused coping involves taking actions to address external threats and alter the source of stress; emotion-focused coping focuses on managing and expressing emotions in response to stressful situations.

Distinct coping strategies adopted by international students have been explored across different national contexts. For example, studies conducted in the United States, Canada, and Malaysia have indicated that most international undergraduates have adopted both emotion- and problem-focused coping strategies (e.g., seeking support from campus counselors, confiding with siblings, and engaging in constructive activities) to effectively manage acculturative stressors (De Moissac et al., 2020; Ra & Trusty, 2015; Saravanan et al., 2019). However, the well-documented emotion-focused coping strategy of avoidance (e.g. ignoring the problem) has shown more mixed results. While Sumer (2009) reported a positive relationship between avoidance and acculturative stressors for some international undergraduates in the U.S., others have suggested that such a mechanism was negatively associated with stressors for international undergraduates in Thailand (Vergara et al., 2010). Given these mixed findings, it is important to explore the various consequences of employing these coping strategies by IGSs.

The present study poses the following research questions: (1) How do international graduate students describe their acculturative stressors? (2) What factors influence acculturative stressors? (3) What types of coping strategies are available and prove helpful in managing acculturative stressors?

METHOD

The present study employed a multiple case study design (Merriam, 1998). The researchers identified overarching themes among the cases, aiming to gain deeper insights into participants' acculturative stressors and coping strategies based on their distinct experiences and backgrounds.

Context

The present study took place at three U.S. universities in the Northeast and Midwest. From 2022-2023, University A in Northeast hosted approximately 2,837 IGSs, whereas Universities B and C in Northeast and Midwest hosted approximately 1,085 and 1,043 IGSs, respectively. These universities offer support systems for international students, such as international student offices, counseling services, and orientation programs. The choice of these three universities aimed to capture multiple aspects of IGSs acculturation experiences, considering the potential variations in institutional culture, academic climates, and support systems.

Participants

After receiving approval from the Institutional Review Board (IRB) at the University of Iowa, AUTHOR1 used convenience sampling for participant recruitment in order to easily and efficiently access potential participants. The primary selection criterion was that participants had to have been an IGS in the U.S. for at least six months. AUTHOR1 reached out to IGS acquaintances from three universities via email. Out of those contacted, five agreed to participate in the study. Additionally, the international student support office and the College of Education at University C, AUTHOR1's home university, aided in disseminating information about the study campus-wide through emails. Another five participants were recruited. In total, ten participants participated in the study, and details about them can be found in Table 1.

Table 1
Participant Demographics and Academic Backgrounds

Participants	Country	Stay in the U.S.	Institution	Department	Academic Levels
Alex	China	5.5 yrs.	University A	Electrical and Computer Engineering (ECE)	Ph.D. candidate
Ethan	China	2 yrs.	University A	Information Science	Master
Susan	China	6.5 yrs.	University B	Curriculum and Instruction	Ph.D. student
Olivia	Indonesia	3.5 yrs.	University C	Teaching and Learning (T&L)	Ph.D. candidate
Lily	Brazil	1 yr.	University C	T&L	Ph.D. student
Chloe	Turkey	2 yrs.	University C	T&L	Ph.D. student
Emma	South Korea	2 yrs.	University C	Psychological and Quantitative Foundations	Ph.D. student
Ava	South Korea	6.5 yrs.	University C	Educational Policy and Leadership Studies	Ph.D. student
Zoe	China	4.5 yrs.	University C	Counselor Education	Ph.D. student
Leo	Bangladesh	2 yrs.	University C	Human Toxicology	Ph.D. student

This study consisted of semi-structured interviews with ten IGSs in the U.S. These participants were from a diverse range of nations, including China (n=4), South Korea (n=2), Bangladesh (n=1), Indonesia (n=1), Brazil (n=1), and Turkey (n=1). All participants had been residing in the U.S. for at least six months, with durations ranging from one year as the shortest to 6.5 years as the longest and an

average duration of 3.55 years. Among the ten participants, nine were pursuing doctoral degrees, whereas one was pursuing a master's degree.

Positionality

In this study, AUTHOR 1 leveraged her six-year experience as an international graduate student in the U.S., providing an insider's perspective. This firsthand insight helped establish rapport with participants, formulate meaningful interview questions, elicit authentic responses, and lead to a deeper understanding of participants' acculturative stressors and coping strategies. AUTHOR 2, a professor in multilingual education and associate dean, provided valuable insights into graduate student experiences in this study. Her job required her to offer support to all graduate students at the collegiate level, and she had served as the advisor of many international students. She contributed a unique viewpoint on the acculturation experiences among IGSs from institutional, professor, and advisor perspectives.

Data collection

Data collection took place in spring 2023. The interview protocol, adapted from the study by Bertram et al. (2014), consisted of ten questions. These questions were designed to probe participants' preconceptions about life and education in the U.S. before their arrival; elicit reflections on their initial experiences and emotions upon setting foot in the U.S.; understand the acculturative stressors that they have experienced in both their daily lives and academic pursuits due to cross-cultural adjustments; gauge their emotional responses to various acculturative stressors; explore the specific coping strategies they utilized to manage or mitigate acculturative stressors; determine the efficacy of these coping strategies; and ascertain their aspirations for additional institutional and professional support. All semi-structured interviews were conducted over Zoom, with each interview lasting approximately one hour. All the interviews were audio-recorded and subsequently transcribed verbatim.

Data analysis

Yakushko's (2010) acculturation model served as the foundation for exploring acculturative stressors and coping strategies among IGSs. The analysis was conducted in two phases and was structured around all the domains of Yakushko's model. In the first phase of data analysis, the researchers utilized a within-case analysis (Merriam & Tisdell, 2016). This involved a thorough analysis of all ten participants' responses, grouping the data on the basis of some domains of Yakushko's (2010) model. In the second phase, a cross-case analysis (Merriam & Tisdell, 2016) was employed to analyze frequent mentions from participants to identify recurrent themes. However, the participants' unique insights, which provided new viewpoints, were also valuable. This phase highlighted both the shared and unique experiences of the participants, illuminating the nuances of

their acculturation experiences. Throughout the findings, participants' quotes were labeled with pseudonyms, as outlined in Table 1.

RESULTS

International graduate students' acculturative stressors

Following the central phenomenon of Yakushko's (2010) model, we analyzed participants' experiences with various acculturative stressors and explored their adverse impacts on academic pursuits and daily life.

Struggles with language in academic discourse

Linguistic struggles emerged as the most salient acculturative stressor for participants, manifesting in their use of English for conversations and meeting the rigorous language requirements of graduate students. Specifically, two participants from China, Alex and Ethan, reported difficulties in using English for conversations because of differences from what they had learned in Chinese classrooms. Alex and Ethan encountered difficulties in understanding and articulating ideas clearly, as well as engaging in conversations in English during presentation Q&A sessions, seminars, collaborative research, and conferences. These challenges often led to misunderstandings and embarrassment, and sometimes impeded networking.

Furthermore, the participants reported that the heightened English proficiency expectations in graduate studies increased their language difficulties. Five participants, including Emma, Leo, Lily, Olivia, and Susan, expressed stress in "engaging in in depth, fast-paced discussions and debates" and "reading lengthy, complex academic materials." Additionally, Zoe shared her experience in content-rich graduate seminars: "[American students] spoke superfast... The professor talked a lot about local topics such as movies and jokes. He loves using metaphors. It's hard to understand them without context." Zoe sometimes felt isolated due to the differences between her language and cultural background and those of her professors and fellow students. Moreover, the participants cited here had been in the U.S. for varying lengths of time; it was evident that that language difficulties were prevalent regardless of how long the IGSs had been in the U.S.

Lack of familiarity with new pedagogical approaches

Adapting to distinct U.S. pedagogical approaches was a notable source of stress, as those approaches often differed from participants' previous learning experiences. This challenge was highlighted by doctoral participants who had pursued bachelor's and master's degrees in Asian countries, potentially because they had invested more time in adhering to their home countries' pedagogical approaches. Two participants, Leo and Olivia, shared their U.S. classroom experiences. Specifically, Leo noted the contrast between dynamic classroom discussions in the U.S. and linear lectures in his home country. He expressed:

> In the U.S. ... When a topic is introduced, it is a starting point. It changes as everyone talks about it and shares their different views, allowing the discussion to expand into [sic] various directions. But in my home country, the teacher delivers a 45-minute lecture and then leaves.

Leo characterized U.S. classrooms as "wide discussion classes" and noted the difficulty of predicting exam content due to the dynamic nature of discussions. Therefore, Leo, who was accustomed to a more passive learning experience for an extended period, found the new pedagogical approach overwhelming.

Given the dynamic discussions in U.S. classrooms, Olivia struggled with the emphasis on critical thinking, as it was not emphasized in her home country's educational system. She stated:

> I had to think critically to answer questions [in American classes], but I never did that in my country. Being critical is not an easy thing because I tried to be critical, but I can't be as critical as the other American students.

Olivia's frustration stemmed from both the need for critical thinking and the realization that developing this skill was not an instant achievement. Acculturative stress was thus something that IGSs experienced in their graduate classrooms as well as in other, more personal areas.

Familial burdens and financial burdens

One such personal, non-work-related area for IGSs was their need to manage family expectations and maintain long-distance family relationships. These responsibilities added a layer of pressure to their lives. Chloe shared:

> I came [to the U.S.] with some goals. If I fail, it appears to be leaving my family and country was meaningless. There are pressures to do better. I need to succeed; otherwise, coming to this place has led to a loss of meaning.

Chloe expressed anxiety about failing to meet her goals, such as failing to meet academic standards and not finding a good job after graduation. She believed these failures would diminish the value of her sacrifices for overseas education and family expectations.

Additionally, IGSs felt stress because their commitments to academic responsibilities consumed time and energy, leaving limited energy for maintaining family relationships. Lily described this challenge as follows "Sometimes I get home so exhausted with a mountain of tasks still waiting, but I need to make time to chat with my family and partner... If I failed to balance this commitment, it made my stress even worse." Some IGSs managed family responsibilities as children, spouses, or parents to maintain long-distance relationships. This obligation required them to invest more time and energy than some American graduate students and other international undergraduate students did.

In addition to familial responsibilities, financial burdens were a significant challenge for participants pursuing a Ph.D., regardless of their majors. Specifically, Alex, from STEM, always had a backup plan during his doctoral studies. He took many courses in the first two years in case his advisor faced funding issues. Lily, from humanities and social sciences, also had backup plans owing to the scholarship restrictions. She said, "My main concern is funding. Many funding opportunities are only available for U.S. citizens… If I don't get funding, I'll have to return to my home country, or I'll have to take out a student loan." Financial uncertainty and the implementation of backup plans increased the stress for participants in terms of both emotions and finances.

The factors impacting students' experiences with acculturative stressors

The data analysis, which is based on Yakushko's (2010) causal conditions, has revealed three levels of factors that influenced participants' experiences of acculturative stressors, out of the five in Yakushko's model: the cultural level, the host community/institutional level, and the individual level. The influencing factors differ from acculturative stressors in that the influencing factors are objective facts and therefore described neutrally, whereas acculturative stressors are described negatively owing to their negative impacts on individuals.

Different cultural norms and practices within sociocultural contexts

Cultural norms are the established standards guiding the thoughts and behaviors of individuals within a society, whereas cultural practices refer to prevalent routine behaviors in a culture. Chloe shared her personal struggle in transitioning from her collectivist home country to the U.S. individualistic society. She highlighted the shift from relying on family support to the emphasis on doing things alone. Chloe said, "I can't live without my family, and I can't always find someone who can solve my problems here [in the U.S.]." Playing different roles in collectivist and individualistic societies' contrasting cultural norms has contributed to Chloe's stress.

Alex found it challenging to connect with American students due to the differing communication styles that stemmed from their different cultural practices. He felt that Americans were "straightforward" in expressing their thoughts, but Alex often "remained silent" because he feared that his ideas might not be accepted by others or could lead to unnecessary arguments. Both Olivia and Emma expressed difficulties in quickly adapting to the conversational styles in the U.S. Sometimes, they felt confused about the warm greetings and found it hard to respond immediately, as such greetings were unusual in their home countries.

Diverse power dynamics within institutions and classrooms

Power dynamics within institutions and classrooms emerged as a second-level important factor. Universities have diverse populations of students from different

countries and cultural backgrounds, all seeking opportunities and services. However, Leo noted, "We don't have power even though we bring [the university] money." This statement suggested that universities might prioritize the needs of international students, owing to their financial contributions, but this was not the case. Additionally, Lily mentioned that, as an international student, she had a problem with her visa. However, she became upset because "the university did not provide much assistance, they did not know much about my situation." While universities had the authority to allocate opportunities and provide services, participants felt that their needs were not being met, leading to dissatisfaction and anxiety.

As mentioned above, moving from the university level to the classroom setting, the participants experienced stress in adapting from teacher-centered, lecture-based classrooms in their home countries to U.S. classrooms that emphasized active student involvement. As Olivia shared "The education in my home country is heavily reliant on teachers, but here, we need to be independent... We're seeking and expanding knowledge through our own reading and research, and that was hard for me." The U.S. classrooms challenged participants' beliefs regarding teacher authority in classrooms, fostering students' greater independence in knowledge acquisition while leading to increased stress.

Individuals' varied responsibilities assigned in society

Exploring the third level of factor, participants' experiences of some acculturative stressors were influenced by the responsibilities assigned to individuals within the society. First, as international students in the U.S., participants were mandated to meet essential language proficiency requirements to comprehend lectures, engage in class discussions, and engage in conversations. Second, Alex noted that the academic pressure required that graduate students possess an ability to "handle intensity and difficulty of coursework mostly on their own and meet graduation requirements." Third, when dealing with family responsibilities, Alex and Lily experienced financial burdens, possibly due to their perceived obligation to earn money without putting financial pressures on their families. Additionally, Lily stressed not maintaining regular contact with her family members, feeling that it was her duty to maintain those connections. Thus, the responsibilities assigned by society to IGSs constitute a factor influencing participants' experiences of stressors.

Coping strategies for stressors and outcomes

Guided by the four domains in Yakushko's (2010) model, including coping patterns, context, intervention conditions, and consequences, we explored how participants managed acculturative stressors and the corresponding outcomes. Some participants employed problem-focused coping strategies. Among these participants, those from Asian countries tended to rely on self-help and external resources for managing stressors rather than seeking assistance from professors. Specifically, five Asian participants (i.e., Alex, Ethan, Leo, Olivia, Zoe)

addressed linguistic challenges in academics by using TED Talks, translation tools, native language textbooks, and lecture recordings. For example, Alex shared that he once watched a TED talk three times until he understood. His commitment led to improvements in listening and comprehension skills. Additionally, Ethan improved his understanding of course material by buying Chinese-translated textbooks that matched his English textbooks. He cross-referenced both languages, benefiting his comprehension and developing his English reading and vocabulary skills. The tendency for some of these IGSs to use external resources rather than consulting professors directly was related to cultural practice. For instance, Ava and Susan mentioned that they hesitated to reach out to professors, and they were uncertain if seeking help for emotional struggles was appropriate. This hesitation stemmed from the hierarchical teacher–student relationship in Asian cultures where approaching professors directly in that way would not be encouraged.

The participants expressed a variety of attitudes about using resources provided by the university to help with coping strategies. Two participants at University A, Alex and Ethan, actively engaged in university and department-provided activities tailored for international students. These activities, such as global community connections, Experience America, and happy hour events, helped them "become familiar with campus life, connect with local students and professors, explore local history and culture, such as American sports, food culture, and festivals." Two participants from Universities B and C, however, expressed dissatisfaction and skepticism about the school's cross-cultural adjustment services. Susan shared, "It is very difficult to contact the international student office to get support." Ava said, "I'm not sure if the services the school offers will be helpful. I tend to rely on my friends, my social circuits will route me up, and they've been helpful." Four participants, including Lily, Leo, Olivia, and Susan, at Universities B and C, primarily adopted an emotion-focused strategy to seek advice and emotional support by sharing their challenges with family and friends from their home countries and fellow international students. Leo, for instance, said that "reaching out to senior Bangladesh students alleviated feelings of isolation... I realized that I was not alone in facing challenges... obtained valuable advice on overcoming challenges." Olivia shared, "When I felt down because of my [course] project, I talked to my family and friends for support. We chatted in our native language, and it made me feel better; then, I was able to focus on my writing again." Thus, the participants had different preferences for managing stressors. Those at Universities B and C placed less emphasis on university-provided resources than did those at University A. This difference might be attributed to two reasons. First, Universities B and C had fewer international students, leading to smaller-scale and less frequent organized activities, and reduced promotion and outreach for tailored resources. Additionally, owing to the limited number of international students at Universities B and C, students might have found it difficult to find companions to attend activities, leading to lower participation rates.

However, several participants used avoidance, an emotion-focused strategy. Specifically, three participants (i.e., Ava, Chloe, and Leo) engaged in recreational

activities, such as watching Japanese Anime and American sitcoms and playing video games, to manage linguistic challenges and academic pressures. Despite providing instant relief, Ava emphasized the temporary nature of using the avoidance strategy and stated, "It's instant... I may not be as stressed as I used to be, but the stressors [linguistic challenges] always come back when I moved to a new university in the U.S." Importantly, Ava recognized that relying solely on recreational activities for distraction might not offer a long-term solution to academic adaptation challenges.

Furthermore, regardless of the strategies that students chose to manage stressors, some issues, such as financial burdens, were simply beyond their control. Institutions and faculty could play important roles in this context. As Chloe emphasized, "It would be helpful if advisors and professors gain a better understanding of international students' issues, understand our behaviors, and help us solve problems together." According to Yakushko's (2010) model, IGSs are seen as the primary decision makers in selecting coping strategies, with their choices influenced by the resources provided by institutions (i.e., intervention conditions). However, this study suggests that institutions and faculty could take on roles beyond mere intervention, and they could act as primary agents in collaboration with IGSs to manage stressors together. This idea will be explored in the next section.

DISCUSSION

Guided by Yakushko's (2010) model, we identified common acculturative stressors among ten IGSs, analyzed the factors influencing their experiences of stressors, and explored their coping strategies and corresponding consequences. This study revealed that some participants encountered linguistic challenges and financial burdens. These stressors negatively impact their academic learning and living experiences, corroborating previous research that highlighted the prevalence and adverse effects of these stressors among international student populations (Kuo & Roysircar, 2004; Misra et al., 2003; Perry et al., 2017). Furthermore, this study identified two stressors among participants which have been less emphasized in existing research: a lack of familiarity with new pedagogical approaches and familial burdens. We found that participants from Asian countries who earned bachelor's and master's degrees in their home countries faced challenges in adjusting to new pedagogical approaches in the U.S. This challenge might have stemmed from their prolonged exposure to passive learning approaches, resulting in feelings of being overwhelmed in U.S. classes. Additionally, several participants experienced familial burdens as they managed family expectations regarding their pursuit of academic studies overseas and fulfilled roles as children, spouses, or parents to maintain long-distance family relationships.

Guided by the causal conditions in Yakushko's (2010) model, this study explored the three levels of factors impacting IGSs' experiences of stressors, including variations in cultural norms and practices within sociocultural contexts

(cultural level), diverse power dynamics within institutions and classrooms (host community level), and responsibilities assigned to individuals in society (individual level). Some previous studies (Eustace, 2007; Jon, 2012) have focused on the first two levels. For example, Eustace (2007) reported that international students from collectivistic cultures experienced stress while adapting to classrooms, with expectations of active participation common in individualistic cultures. The current study further suggested that the participants' challenge of transitioning from a collectivist to an individualistic society was impacted by distinct cultural norms. Additionally, Jon's (2012) study highlighted power imbalances between domestic and international undergraduates, with the latter often perceiving themselves as having lower status and experiencing discrimination. The current study delved deeper into power dynamics within institutions and classrooms, focusing on the lack of funding for IGSs and the transition from teacher-led to student-centered learning. These power dynamics led to the stress of participants, who found their needs unmet despite their financial contributions to universities and who were accustomed to a teacher-authoritative educational approach. Furthermore, this study revealed the third level of factors as a new discovery. We found that international graduate students in the U.S. navigated various responsibilities, including achieving language proficiency, managing demanding academic workloads, and balancing family obligations. These sets of responsibilities assigned by society collectively constitute a third level of factors influencing participants' stressors.

On the basis of the four domains of Yakushko's (2010) model, including coping patterns, context, intervention conditions, and adaptation consequences, this study examined the coping strategies employed by participants and their corresponding consequences. We found that most participants employed problem-focused and emotion-focused coping strategies to manage their stressors effectively, consistent with previous research on their effectiveness (De Moissac et al., 2020; Ra & Trusty, 2015; Saravanan et al., 2019). Problem-focused coping included using external support, such as TED Talks and translation tools, as well as gaining community and belonging via institution-organized events. Emotion-focused coping focused on emotional support from family and friends. The findings suggested that participants' preferences for managing stressors might have been influenced by differences among institutions in the number of international students, investment in resources, and extent of promotional efforts. Moreover, several participants employed avoidance as a mechanism of emotion-focused coping, such as watching TV shows and playing video games. While these activities provided short-term relief, they were not long-term solutions to stressors. This finding corroborated previous research that linked avoidance with increased acculturative stressors (Sumer, 2009). Overall, the strategies for coping with acculturative stressors varied in effectiveness, with no universal solution (Tiwari et al., 2017).

LIMITATIONS

This study had several limitations. First, the small sample size (n=10) and uneven distribution of participants, with seven from University C and eight from Asian countries, might limit our understanding of acculturation experiences among the diverse demographics of IGSs. However, this study is a qualitative investigation designed to identify themes and trends in a robust way for a small number of people, and the goal is not generalizability to all IGSs. Our findings can serve as a starting point for other researchers to increase the sample size and recruit more participants from different countries and institutions to be more representative of the geographical and cultural diversity of all international students.

Second, for participants who spoke English as a second or foreign language, using English to conduct interviews might have hindered their ability or willingness to express themselves during interviews. We felt this was a minor factor given that all of the students were studying at a high level at English-medium universities, but future researchers might also consider allowing participants to respond or elaborate in their native language, which could facilitate a deeper expression of their thoughts. Finally, this study, like many studies on similar social psychological constructs, relied on self-report data, and so the findings can only be considered as being through the lens of the participants' understandings and experiences.

CONCLUSION

In this study, guided by Yakushko's (2010) model, we examined the common acculturative stressors faced by IGSs in three U.S. higher education institutions, the factors influencing these students' experiences of these stressors, and the coping strategies employed by these students and the corresponding consequences. Some findings of this study corroborate previous research examining the acculturation of international students. For example, we identified that common acculturative stressors, such as linguistic challenges and financial burdens, negatively impacted IGSs' academic learning and living experiences. We also analyzed the primary adoption of problem-focused and emotion-focused coping strategies by IGSs, which led to distinct consequences.

This study also contributes to the understanding of acculturation among IGSs in U.S. institutions. We found that unfamiliar pedagogical approaches and familial burdens stressed these students. The increased stress levels might have stemmed from their prolonged exposure to more passive learning experiences in their home countries and their ability to manage family responsibilities while maintaining long-distance relationships. We also further analyzed the factors that impacted IGSs' experiences of acculturative stressors, including distinct cultural norms and practices within sociocultural contexts, diverse power dynamics within institutions and classrooms, and individuals' varied responsibilities assigned to society.

In considering Yakushko's (2010) model, we suggest connecting the causal conditions to coping strategies more directly. This suggestion stems from the fact that causal factors like the culturally-inscribed experience of the participants in their teacher–student relationships clearly influenced their adoption of coping

strategies. That is, the Asian participants' reluctance to seek help from professors might have originated from the predominance of hierarchical teacher–student relationships in Asian cultures, which then led them to find other coping strategies. Additionally, we believe that institutions and faculty could be included in the coping patterns domain to act as primary agents that collaborate directly with IGSs to manage stressors rather than solely intervening during the coping process.

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☐ *Some sections, with minimal or no editing*

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