

Volume 14, Issue 4 (2022), pp. 90-102 Journal of Comparative & International Higher Education DOI: 10.32674/jcihe.v14i4.4429| https://ojed.org/jcihe

The Impact of the COVID-19 Pandemic on International Students in a Public University in the United States: Academic and Non-academic Challenges

Nara M. Martirosyan^{a*}, Dana Van De Walker^b, and D. Patrick Saxon^a

^aSam Houston State University, USA ^bLone Star College, USA

*Corresponding author: Email: <u>nxm021@shsu.edu</u> Sam Houston State University, Texas, USA

ABSTRACT

The COVID-19 pandemic has substantially impacted higher education. The unexpected move to online learning and support services has created many challenges. International students, who often are unfamiliar with the culture and norms of American higher education, have been particularly disadvantaged. Analyzing data received through an online survey, researchers identified the top five academic and nonacademic challenges faced by international students during the pandemic, and their use of support services to overcome these challenges. The results inform college administrators, professors, and student services professionals on the experiences of international students during the pandemic and offer suggestions for reviving and expanding campus academic and social support services.

Keywords: academic challenges, COVID-19, international students, non-academic challenges

INTRODUCTION

According to the Institute of International Education (IIE, 2021), the 2019-2020 academic year marked the sixth consecutive year that international student enrollment at U.S. colleges and universities topped one million students. International students are defined as "students who undertake all or part of their higher education experience in a country other than their home country" (IIE, 2022, para. 1). The latest IIE enrollment figures show that there has been a decline in international student enrollment of 15% in Fall, 2020 (IIE, 2021). Although the United States remains a top host country for international students from around the world (IIE, 2021; Redden, 2020), new international student enrollment decreased by 45.6% in Fall, 2020. In the wake of a global pandemic, as some countries are still facing lockdowns and slow vaccine rollouts, higher education scholars are beginning to unveil the complex and multifaceted impact of COVID-19 on international students.

International students are uniquely positioned to be disproportionately affected by national and international crises (Bhojwani et al., 2020). Following the 9/11 terrorist attacks, some Muslim international students and perhaps their non-Muslim Middle Eastern and South Asian counterparts, became targets of racism and discrimination (Lee & Rice, 2007). The 2008 recession led to less research and scholarship funding availability for international students, prompting those from lower income backgrounds to forgo study in the United States (Choudaha, 2017), while the 2017 travel ban on some countries adversely impacted participation of international students from those areas (Van De Walker & Slate, 2019).

International students at U.S. institutions have long faced both academic (Karkar-Esperat, 2018; Martirosyan et al., 2019; Zhou et al., 2011) and non-academic challenges (Hegarty, 2014; Mori, 2000; Sherry et al., 2010) in the pursuit of their degrees. The ways in which COVID-19 has exacerbated these challenges is a topic of increasing importance to higher education as the United States, and the world, rebounds from the pandemic. The purpose of this study was to (a) explore academic and non-academic challenges faced by international students at one public university located in a rural community in the United States, (b) examine their use of available support services, and (c) solicit input on potential institutional support that might contribute to their success during times of crisis such as a pandemic. Data were collected through an online survey with quantitative and qualitative questions. Multiple choice and open-ended questions were used. The results of this study serve to educate university administrators, professors, and student services personnel on the experiences of international students during the COVID-19 pandemic, and the ways in which academic and non-academic support services can be revived and expanded for this student group.

LITERATURE REVIEW

Researchers and scholars tend to agree that international students bring intrinsic value to the colleges and universities they attend, promote campus diversity, offer opportunities for intercultural exchange, and present varied world viewpoints in the classroom (Hegarty, 2014; Macrander, 2017). However, these students also face a unique set of academic challenges. One primary challenge addressed in the literature is the overlap of academic achievement and English language proficiency (Andrade, 2006; Martirosyan et al., 2019). Notably, non-native English speakers can struggle when communication, particularly in the form of class participation or group work, is an integral part of the class (Lee, 2013). These students, too, can often miss or misunderstand linguistic or cultural cues that play a critical role in the classroom environment (Lee, 2013). Some particular groups, such as international graduate students, may see language proficiency as an even more significant barrier because they often have smaller, seminar-style classes, engage in research, and hold graduate assistantships (Zhou et al., 2011).

International students, including those who are native English speakers, can also struggle with other aspects of American education, such as academic conventions and standards, learning styles, and evaluation (Campbell & Li, 2007; Glass et al., 2015; Mesidor & Sly, 2016). Mesidor and Sly (2016) noted that international students from some countries may be more familiar with rote learning styles and high-pressure examinations, whereas in their U.S. classrooms, they may face long writing assignments, group presentations, or even creative or innovative projects. These differences in teaching and evaluation styles force international students to adapt within the classroom context (Mesidor & Sly, 2016). Roy (2013)

suggested, however, that professors are also responsible for helping international students in their classes adapt, and for adapting their teaching methods to those students.

In the last 20 years, one of the most notable academic challenges for international students has been the gradual shift to increased online coursework, both in regard to fully online courses and to increased online components in face-to-face courses. Karkar-Esperat (2018) asserted that online coursework, and notably asynchronous coursework, can be particularly challenging for international students due to language difficulties, feelings of isolation from their classmates, unpreparedness of the instructor, and motivation. Likewise, some international students reported that faculty interaction, both in synchronous and asynchronous online courses and in face-to-face courses, is critical to their success in the classroom (Glass et al., 2015).

Adapting to the U.S. classroom is only one part of the international student experience. Hegarty (2014) remarked, "the cultural differences of food, customs, financial constraints, homesickness, loss of social status, fear, and a sense of insignificance can all accumulate to make the international student truly feel overwhelmed in the U.S. collegiate system" (p. 228). Although Choudaha (2012) reminds us that "not all international students are the same" (p. 1), the reality is that non-academic challenges can manifest themselves in similar ways for many international students. For some, struggles with social adaptability and making new friends can lead to feelings of loneliness or isolation (Rose-Redwood & Rose-Redwood, 2013; Ryder et al., 2013). International students who come from cultures where mental health is seldom addressed may find difficulty in seeking out mental health resources or treatment (Forbes-Mewett & Sawyer, 2016; Mori, 2000). Untreated mental health issues, such as anxiety or depression, may further compromise international students' academic success and more importantly, their well-being (Mori, 2000).

Often intertwined with mental health are the financial challenges that international students also face. Many international students are self-supported, or have a financial or governmental sponsor, yet many others struggle to cope to financial instability, including food and housing insecurity (Choudaha et al., 2012; Sherry et al., 2010; Shi et al., 2021). Some financial issues that students may face include unexpected educational or living expenses, inability to work off-campus due to visa regulations, and fluctuating currency rates in their home country (Sherry et al., 2010). Lastly, international students can experience racism, xenophobia, discrimination, and perceived unequal treatment at U.S. universities (Lee, 2010; Lee & Rice, 2007). These non-academic challenges coexist alongside academic challenges that international students must balance and navigate over the course of their educational career in the United States.

Due to the recency of the COVID-19 outbreak and subsequent global pandemic, there has been a limited amount of literature published on the effects of the pandemic on international students in the United States. Chirikov and Soria (2020) described the ways in which international students navigated the quick and unprecedented move to fully online coursework in the Spring 2020 semester, noting that while most international students managed the transition well, they faced similar struggles as their non-international peers. Principally, they discussed students' challenges with motivation, understanding course content, and the lack of opportunities to interact with their classmates (Chirikov & Soria, 2020). Less than half of the undergraduate students they surveyed, and only 60% of the graduate students, remarked that they adapted "well" or "very well" to remote instruction. Unlike their non-international peers, however, some international students faced the additional hurdle of returning to their home country and attending synchronous online classes at odd hours (Chirikov & Soria, 2020).

The non-academic challenges that international students have faced during COVID-19 have been extensive. Some students faced immediate housing insecurity when their residence halls closed in March 2020, while others faced loss of on-campus jobs, loss of financial support from their families or sponsors, and general financial disarray (Bhojwani et al., 2020; Chen et al., 2020; Chirikov & Soria, 2020). International students faced not only increased stress, but also increased barriers to receiving needed mental health treatment (Chen et al., 2020). Additionally, students reported feeling concerned about their health insurance and the possibility of COVID-19 infection, maintaining their visa status, delays in Optional Practical Training (OPT) approval, and dire prospects for future jobs in the United States upon graduation (Bhojwani et al., 2020; Chirikov & Soria, 2020).

Fischer (2020), writing in the early days of the pandemic, describes its impact as "seismic" (p. i) for the world of international education. Many have called for more research into the impact of COVID-19 on international students and this study served to help fill that void. Specifically, we focused on international students enrolled at a public university in a rural community. Although rural communities offer many advantages for international students (Edgeworth & Eiseman, 2007), they also pose several challenges such as access to transportation (Lane, 2021), isolation (Olt & Tao, 2020) and limited off-campus housing opportunities (Lane, 2021). The findings of this study and practical implications offered are helpful for university administrators, faculty, and student services personnel as they direct their efforts towards providing necessary academic and non-academic support services for international students during times of crisis like the COVID-19 pandemic.

THEORETICAL FRAMEWORK

This research was grounded in Maslow's Theory of Human Motivation (Maslow, 1943). Maslow proposed a hierarchical progression of human needs, which can be broadly categorized (low to high) as basic needs, psychological needs, and self-fulfillment needs. As basic needs are met, motivation shifts toward meeting needs of a higher order. However, as disruption creates deficiencies in basic needs, motivation will direct back to the fulfillment of those lower order needs (McLeod, 2020). Maslow's theory applies to educational settings in the humanist sense that most individuals strive to live up to their highest potential. Maslow, in a later Hierarchy of Needs iteration, included a cognitive needs stage (McLeod, 2020). This was an acknowledgement that behaviors associated with education such as curiosity, learning, knowing, and meaning making are important to human growth and self-fulfillment.

When the COVID-19 pandemic was declared in early 2020, institutions of higher education (and society in general) faced a variety of unprecedented challenges. Around mid-semester in Spring 2020, many campuses were forced to shift from face-to-face to fully remote operations for instruction and support services. Operations at all levels were impacted. Social interactions were restricted and campuses had limited their recreation, learning support, and dining services. The uncertainty and fear caused by the pandemic created a crisis for many, if not all students. Maslow's Hierarchy of Needs became a "reality" (e.g., Matthews et al., 2020, p. 1). Scholars and educators advocated the use of Maslow's theory as a framework to address the impact of COVID-19 on students (Banaszak, 2020; Fayazpour, 2021). Fayazpour (2021) stated that "considering Maslow's hierarchy of needs and the impact of COVID-19 on students' needs have been essential in multicultural education and innovating teaching during the pandemic" (para. 2). Matthews and colleagues (2020) described how Maslow's theory was applied in an individualized response to student needs at Notre Dame College during the pandemic. Also, when developing pandemic support resources for international students, educators at Franklin University acknowledged the impact of COVID-19 at multiple levels of Maslow's Hierarchy and developed their support priorities accordingly (Banaszak, 2020).

Maslow's Theory of Human Motivation was an appropriate framework to apply in this study because the challenges faced by international students during the crisis were academic and nonacademic. These challenges can also be characterized as fundamental to human survival, development, and motivation. For example, international students who were self-supported and lost work due to the pandemic may have struggled with food and housing insecurity, or basic physiological needs described by Maslow. Government imposed lockdowns also likely contributed to isolation, or a deficiency of what Maslow described as interpersonal, social, and belonging needs. With regard to academics, students were compelled to navigate a move to fully online coursework. This drastically changed instruction and learning, perhaps adversely for some. The online learning process dampened class group interaction and the exchange of information and ideas (Chirikov & Soria, 2020), which are fundamental to the cognitive development needs depicted in Maslow's hierarchy (McLeod, 2020). Generally, it seems likely that students and in particular, international students (who are more vulnerable to limited resources and less social interaction) were motivated to revert toward fulfilling more basic needs during the pandemic at the expense of higher needs of self-fulfillment.

RESEARCH METHOD

Research Site

Participants of this study were full-time, degree-seeking international students enrolled at a university in a rural southwest Texas community in the United States. This university is a public institution that offers a wide range of undergraduate and graduate programs, and currently enrolls over 20,000 students (U.S. News, 2021) of which 231 were continuing international students at the time of the study. Face-to-face, hybrid and online modalities were all part of instruction at this institution prior to the COVID-19 pandemic. Although a traditional university in terms of a majority of programs and courses being delivered in face-to-face settings, this institution also has fully online degree programs, and the number of online course offerings has been increasing in the past decade or so.

The university offers a number of academic and support programs for its students. It has a health clinic and a department of public safety services which offers a number of safety initiatives to students (e.g., escorting students during the evening and night hours, and awareness programs). During their orientations, international students are made aware of the available institutional support services and are encouraged to take advantage of them in order to be successful during their transition to a new environment. Being in a rural community, international students experience additional challenges compared to their domestic counterparts. For example, the lack of public transportation is an issue. Integrating into the community other than the university is challenging as well due to the lack of public events and facilities that are available. This has become an even bigger issue during the COVID-19 induced government mandated lockdowns.

Population and Sample

In Spring of 2021, an invitation to participate in the study was sent to all 231 continuing international students enrolled at the research site. Although some of them might have taken online or hybrid courses before the pandemic (no more than one course per semester according to pre-pandemic rules), the primary modality of their degree programs were face-to-face before the pandemic started. At the close of the data collection period, there were 41 responses, resulting in a 17.75% response rate. Four participants did not consent to participate and therefore, the final sample consisted of 37 participants. Even though the final sample was relatively small, quantitative and qualitative data collected from the participants offered valuable information to be considered. Also, low survey response rates have been cited as an issue during COVID-19 pandemic due to "a surge in research activity" (de Koning et al., 2021, p. 1).

Instrument and Data Collection

A survey research design (Creswell & Creswell, 2018) was used to conduct this study. It was descriptive and exploratory in nature, and researchers were interested in collecting timely and useful information on the impact of COVID-19 on international students. Therefore, the survey method was the best approach. "Rapid turnaround in data collection" (Creswell & Creswell, 2018, p. 211) is one of the benefits of survey research design. Surveys or questionnaires are commonly used to collect self-reported data about participants' thoughts and perceptions (Johnson & Christensen, 2014).

After reviewing surveys developed by other researchers to collect data on international students (e.g., Martirosyan et al., 2015) or on the impact of COVID-19 in higher education (Aristovnik et al., 2020), a 17-item online survey was developed. Guidelines provided by Creswell and Creswell (2018) and Johnson and Christensen (2014) were applied. The survey consisted of demographics questions and questions related to various academic and non-academic challenges that international students might have encountered due to the pandemic. There were also questions related to the use of campus support services. Participants were also asked for input on the type of institutional support that should be provided during times of crisis such as the pandemic. The survey included multiple choice and open-ended questions all of which were aligned with the purpose of the study.

Upon receiving an IRB approval from the research site, we piloted the survey among two international students. Piloting was necessary to ensure that questions were clear and understandable to research participants (Johnson & Christensen, 2014). This was quite crucial to the study because of the

participants being international students whose native language might not be English. Based on the feedback received through the pilot survey, minor revisions were made for clarity to two of the items. The survey was then e-mailed to all international students enrolled at the research site. After an initial e-mail, two reminders were sent, each a week apart. Data collection closed at the end of the third week.

Data Analysis

Descriptive statistics were computed for demographic and multiple-choice questions. Qualitative responses received through open-ended questions were analyzed through a content analysis approach (Krippendorff, 2013). Most of the participants were very specific when sharing their opinions on the type of institutional support that would be necessary for international students during times of crisis like the COVID-19 pandemic. They listed suggestions for various types of support that would contribute to international student academic success and success outside of the classroom. There was a total of 47 data points. Themes emerged as a result of the first coding cycle (Saldaña, 2016). Themes were then sorted out for frequency. The top four occurring themes are presented below.

RESULTS

As seen in Table 1 below, 57% of the participants were female, 39.47% were male, and 2.63% identified as non-binary/third gender. Both undergraduate (54%) and graduate students (46%) completed the survey. The majority of participants (73%) self-reported a GPA of 3.5-4.00. In addition, the participants reported their country of origin. The represented countries were Algeria, Argentina, Belize, Brazil, Canada, China, Hong Kong, Iran, Japan, Nepal, Nigeria, Pakistan, Romania, Saudi Arabia, Sri Lanka, Sweden, Taiwan, Thailand, Turkey, Venezuela, and Vietnam.,

Demographic Variable	e	п
Gender	Male	15
	Female	21
	Non-binary/third	1
	gender	
Classification	Freshman	2
	Sophomore	4
	Junior	5
	Senior	9
	Masters	4
	Doctoral	13
Self-reported GPA	3.50-4.00	27
	3:00-3.49	5
	2.50-2.99	5

Table 1: Student Sample Demographics

Before responding to survey items related to academic and non-academic challenges, participants were asked to self-report on several items related to their English proficiency level. As expected, the majority of the participants (81%) were non-native English speakers. Only 19% listed English as their native language. For self-reported English proficiency, participants were given the following options: Intermediate; Advanced, Near-native, and Native. Slightly over half of the sample (57%) chose Intermediate (19%) or Advanced (38%) while the rest chose Near-native (24%) or Native (19%). Academic and Non-academic Challenges

One of the survey items asked participants to identify some of the academic challenges they faced when taking remote/online classes, and another item focused on non-academic challenges experienced due to the COVID-19 pandemic. For both items, there were a number of challenges listed in the survey along with an option of "other" and "none". Participants were asked to "check all that apply". Table 2 displays the top five academic and non-academic challenges faced by the participants:

	Challenges	%
Academic challenges		
-	Difficulty to engage with classmates, have group discussions, or completing group work	46%
	Difficulty to reach out to instructors, ask questions, or receive clarification/guidance when needed	32%
	Difficulty to understand course expectations and complete course assignments	16%
	It was/is challenging to learn in a fully online environment due to English language barriers	16%
	It was difficult to understand hybrid/blended course schedule or requirements	16%
Non-academic challenges		
0	General financial hardship	73%
	Mental health issues	59%
	Travel related issues	49%
	Difficulty paying tuition	38%
	Food insecurity	32%

Table 2: Academic and Non-Academic Challenges Experienced by Participants

It is important to note, that of the 37 participants, 15 (41%) stated that they did not experience any academic challenges while only two (5%) participants indicated that they did not face any non-academic challenges. As seen in Table 2, international students experienced more non-academic challenges than academic ones.

Participants of the study were also asked to indicate which support programs and services on campus were helpful in overcoming both academic and non-academic challenges. Table 3 displays the top five services used. Nine participants did not use any of the services listed while 10 students reported not using support services for non-academic challenges.

Table 3: Support Services Reported as Helpful

	Support Services	%
Support for Academic challenges		
C C	Library Services	27%
	Writing Center	14%
	The Graduate School	11%
	IT help desk	8%
	Math Center	5%
Support for Non- academic challenges		

Support Services	%
Office of International Students	14
Food Pantry	12
Emergency Student Fund	8
Financial Aid	7
Health Center	5

Finally, the participants were asked to offer feedback (through an open-ended question) on potential institutional support that might contribute to their academic success and success outside of the classroom during times of crisis such as a pandemic. Four distinct themes emerged from their responses. Financial support was the most frequent theme in the data. Participants suggested the provision of general financial aid, such as scholarships and tuition support were important during times of crisis. Academic and technical support was the second theme. Library services, writing center support, and the provision of technology equipment (e.g., headsets, microphones) for virtual classes were recommendations offered by participants to improve academic and technical support. The third theme identified for support was the provision of food pantry and dining services. A fourth theme was health support. Within the health support theme, some cited a need for mental help as well.

DISCUSSION AND IMPLICATIONS FOR PRACTICE

Academic Challenges

Interestingly, 41% of the participants in this study indicated that they did not face any academic challenges during the pandemic. One explanation behind this result could be associated with sample representation. The majority of participants (70%) were senior (24%), and graduate students (46%). It is reasonable to assume that they were established as self-directed learners, and could have been exposed to online coursework prior to the pandemic when they were allowed to take a limited number of online courses (maximum one per semester) in their face-to-face degree program. Therefore, the unexpected shift to distance learning did not cause academic challenges for them.

As seen in Table 2, the top five academic challenges reported by those international students who experienced them were (a) difficulties in engaging with classmates, having group discussions, or completing group work, (b) difficulties in reaching out to instructors, asking questions, or receiving clarification/guidance when needed, (c) difficulties understanding course expectations and completing course assignments, (d) challenges to learning in a fully online environment due to English language barriers, and (e) difficulties in understanding hybrid/blended course schedules and requirements. Perhaps some of these challenges were not new due to the differences in educational systems of their home and host countries. For example, it has been documented in the literature that international students often have difficulties in communicating and participating in group work (Lee, 2013). Generally, adapting to the American learning environment is challenging for many (c.f., Glass et al., 2015; Mesidor & Sly, 2016). However, these challenges became magnified by the characteristics of fully online coursework. As Karkar-Esperat noted (2018), online coursework can be particularly challenging for international students due to language difficulties and feelings of isolation from their classmates. Also, it is important to note that participants of the study were continuing international students enrolled in face-to-face programs, and 95% of them held a classification of sophomore or higher. This means that they had already completed at least a year of coursework and somehow adjusted to the American educational system. Thus, it is reasonable to assume that the online coursework heavily contributed to the challenges faced.

There are several practical implications to be considered by institutions when seeking to mitigate academic challenges encountered by international students during times of crisis. Offering institutional and faculty support for the virtual learning environment is crucial for student success. Faculty are encouraged to use some of the best practices of online teaching identified in the research in order to address common challenges presented in online learning environments. For example, Martirosyan et al. (2021) recommended

that online courses be structured and organized in weekly modules. Providing explicit guidelines on course and assignment requirements, communicating with students frequently, and offering synchronous and asynchronous spaces where students can ask questions are additional best practices to be considered in online instruction. In addition, making sure that international students are aware of, and encouraged to make use of virtual and in-person campus support resources is extremely important. Participants of this study utilized campus support from library services, the writing center, campus graduate school resources, the instructional technology help desk, and a math academic support center to assist in their online learning.

Finally, academic and technical support was one of the themes that emerged from participant responses regarding potential institutional support that might contribute to their success. Participants highlighted the importance of library services, writing center support, and the need for technology equipment such as headsets and microphones necessary for the delivery of online instruction. It is therefore recommended that institutions have the necessary technology equipment for online instruction available for students to borrow.

Non-academic Challenges

Participants of the study were asked to identify non-academic challenges that they faced due to COVID-19 pandemic. Results showed that the majority of them (95%) experienced non-academic challenges during the pandemic. The top five non-academic challenges reported were (a) general financial hardship, (b) mental health issues, (c) travel related issues, (d) difficulty paying tuition, and (e) food insecurity (See Table 2). Financial support, provision of food pantry and dining services, and health/mental support were three out of the four themes that emerged from qualitative data on potential institutional support that might contribute to international students' success. The magnitude and frequency of non-academic challenges were much higher compared to academic challenges. For example, 73% of participants experienced general financial hardship while more than half of the participants faced mental health issues. Slightly more than a quarter of participants had food insecurity which is consistent with the results of a current survey reporting that nearly one-third of all students had food insecurity during the pandemic (Anderson, 2020).

Not surprisingly, the findings of this study confirmed the need for considering Maslow's (1943) Theory of Human Motivation when responding to students' needs during times of crisis. Food insecurity and financial hardship fit into the "basic needs" category of Maslow's hierarchy while the rest of non-academic challenges reported are in line with the "safety" category. Both "basic needs" and "safety" are at the bottom of the hierarchy which means that they take precedence, and therefore, the importance of non-academic challenges experienced by these students cannot be underestimated.

There are a number of steps institutions can take to alleviate some of the non-academic challenges faced by international students during times of crisis. Because international students are not eligible for Federal Student Aid or other funds available to their American peers, it is recommended to allocate an emergency fund to support them during times of crisis. There are a number of institutions [e.g., The University of Texas at Dallas (n.d.), University at Buffalo (2022), The University of Oklahoma (2021)] that have already established international student emergency funds to provide financial assistance to international students during times of crisis and emergency. Supporting students with emergency funding, and therefore, retaining them is likely a better option for the institution than losing them.

Similar to a recent study among international students in Australian universities where declining mental health was one of the issues reported among students due to the pandemic (Humphrey & Forbes-Mewett, 2021), mental health was the second top non-academic challenge identified in this study. Increasing awareness about counseling and health services available through campus and community organizations is recommended. Many international students come from countries where counseling services either do not exist or are not common and are stigmatized. Moreover, lack of awareness and underutilization of services in general have long been highlighted as issues for international students (e.g., Harrybam et al., 2012; Martirosyan et al., 2019; Roberts et al., 2015). Therefore, implementing awareness initiatives aimed at utilizing available support services in general, and normalizing the use of counseling services in particular, seems a necessity.

Finally, strengthening collaboration between the administrative unit responsible for international students and other entities on campus is recommended. Such collaboration would make it easier to direct international students to the appropriate support unit that meets their needs. For example, food insecurity was among the non-academic challenges reported by participants of the study. Similar to counseling services, food pantry or food bank services are not common in foreign countries. Moreover, students might not feel comfortable taking "free food". Therefore, students should be made aware of these services and encouraged to access them during times of need.

LIMITATIONS AND RECCOMENDATIONS FOR FUTURE RESEARCH

As in any given research, this study had limitations. First, it was limited to international students at one public institution located in a rural community in the United States. Although rural communities have advantages and are often ideal places for international students due to low living costs and the proximity of the campus and community, rural living also has challenges such as lower access to mass transit and government support services. These challenges are different from those of urban campuses and may be exacerbated during times of crisis. Therefore, similar but larger comparative studies are recommended. It would be helpful to identify challenges faced by international students living in urban campus communities versus those that reside in rural campus communities.

This study was conducted using a survey instrument consisting of multiple choice and open-ended questions. Although open-ended questions generated some qualitative feedback, more studies offering indepth qualitative data are recommended. Obtaining qualitative feedback through interviews and focus groups would provide a deeper investigation into the lived experiences of international students during the pandemic.

Finally, participants of this study were both undergraduate and graduate students; almost evenly split. For future research, scholars might focus on each group separately as there are likely challenges that are unique to each group. Thorough examination of these unique challenges would allow for more targeted interventions and support service strategies for each group.

CONCLUSION

The COVID-19 pandemic has affected all aspects of higher education. The unexpected and abrupt shift to online learning and the need to provide support remotely has created many challenges for college students and staff. International students in this study reported experiencing a number of academic and non-academic challenges and provided information on the support services they used in attempt to overcome those challenges. Based on the findings, a number of implications for practice were offered, as well as suggestions for future research. As COVID-19 uncertainty remains an issue, administrators and educators could benefit from these findings when planning to support their international students. International students have unique resilience skills and as Siczek (2020) noted, they can "even thrive—during this global crisis because they themselves had crossed cultural, linguistic, geographical, and even epistemological boundaries to pursue higher education in the United States" (p. viii).

REFERENCES

- Anderson, G. (2020, December 10). Food insecurity among students continues during pandemic. *InsideHigherEd*. <u>https://www.insidehighered.com/quicktakes/2020/12/10/food-insecurity-among-students-continues-during-pandemic</u>
- Andrade, M. S. (2006). International students in English-speaking universities: Adjustment factors. *Journal of Research in International Education*, 5(2), 131-154.
- Aristovnik, A., Kerzic, D., Ravselj, D., Tomazevic, N., & Umek, L. (2020). A global student survey "Impacts of the COVID-19 Pandemic on Life of Higher Education Students": Methodological framework. <u>http://www.covidsoclab.org/wp-content/uploads/2020/06/Covid19-Methodological-Framework-17062020.pdf</u>

- Banaszak, B. (2020, April 2). International students and COVID-19 needs. *Franklin University*. https://www.franklin.edu/current-students/blog/international-students-covid-19-needs
- Bhojwani, J., Joy, E., Hoxsey, A., & Case, A. (2020). Being an international student in the age of COVID-19. Susan Bulkeley Butler Center for Leadership Excellence and ADVANCE Working Paper Series, 3(2), 47-60.
- Campbell, J., & Li, M. (2007). Asian students' voices: An empirical study of Asian students' learning experiences at a New Zealand University. *Journal of Studies in International Education*, *12*(4), 375-396. https://www.doi.org/10.1177/1028315307299422
- Chen, J. H., Li, Y., Wu, A. M. S., & Tong, K. K. (2020). The overlooked minority: Mental health of international students worldwide under the COVID-19 pandemic and beyond. *Asian Journal of Psychiatry*, 54, 102333. <u>https://www.doi.org/10.1016/j.ajp.2020.102333</u>
- Chirikov, I., & Soria, K. M. (2020). International students' experiences and concerns during the pandemic. SERU Consortium, University of California-Berkeley and University of Minnesota. https://cshe.berkeley.edu/seru/about-seru/seru-surveys/seru-covid-survey-reports
- Choudaha, R. (2017). Three waves of international student mobility (1999-2020). *Studies in Higher Education*, 42(5), 825-832. <u>https://www.doi.org/10.1080/03075079.2017.1293872</u>
- Choudaha, R., Orosz, K., & Chang, L. (2012). Not all international students are the same: Understanding segments, mapping behavior. World Education News & Reviews. WES.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.
- de Koning, R, Egiz, A, Kotecha, J, Ciuculete, A.C., Ooi, S.Z.Y., Bankole, N.D.A., Erhabor, J., Higginbotham, G., Khan, M., Dalle, D.U., Sichimba, D., Bandyopadhyay, S., & Kanmounye, U.S. (2021). Survey fatigue during the COVID-19 Pandemic: An analysis of neurosurgery survey response rates. https://doi.org/10.3389/fsurg.2021.690680
- Edgeworth, K., & Eiseman, J. (2007). Going bush: International student perspectives on living and studying at an Australian rural university campus. *Journal of Research in rural education*, 22(9), 1-13. https://jrre.psu.edu/sites/default/files/2019-08/22-9.pdf
- Fayazpour, S. (2021). COVID-19, distance education, and students needs. UNLV Best Teaching Practices Expo. https://digitalscholarship.unlv.edu/btp_expo/153
- Fischer, K. (2020). Confronting the seismic impact of COVID-19: The need for research. *Journal of International Students*, *10*(2), i-ii. https://www.doi.org/10.32674/jis.v10i2.2134
- Forbes-Mewett, H., & Sawyer, A. M. (2016). International students and mental health. *Journal of International Students*, 6(3), 661-677. <u>https://www.doi.org/10.32674/jis.v6i3.348</u>
- Glass, C. R., Kociolek, E., Wongtrirat, R., Lynch, R. J., & Cong, S. (2015). Uneven experiences: The impact of student-faculty interactions on international students' sense of belonging. *Journal of International Students*, 5(4), 353-367. <u>https://www.doi.org/10.32674/jis.v5i4.400</u>
- Harrybam, S. A., Guilfoyle, M. A., & Knight, S. (2012). Understanding the challenges of accessing university support services: The perspectives of staff member and international students. *The International Journal of Learning*, 18(6), 263-290.
- Humphrey, A., & Forbes-Mewett, H. (2021). Social value systems and the mental health of international students during the COVID-19 pandemic. *Journal of International Students*, 11(S2), 1-20.
- Hegarty, N. (2014). Where we are now—The presence and importance of international students to universities in the United States. *Journal of International Students*, *4*(3), 223-235.
- Institute of International Education [IIE]. (2021). International student enrollment trends, 1948/49-2019/2020. *Open Doors Report on International Educational Exchange*. <u>http://www.iie.org/opendoors</u>
- Institute of International Education [IIE]. (2022). Terminology. <u>https://www.iie.org/Research-and-Insights/Project-Atlas/Terminology</u>
- Johnson, R. B., & Christensen, L. (2014). *Educational research: Quantitative, qualitative, and mixed approaches* (5th ed.). Sage.
- Karkar-Esperat, T. M. (2018). International graduate students' challenges and learning experiences in online classes. *Journal of International Students*, 8(4), 1722-1735. <u>https://www.doi.org/10.5281/zenodo.1468076</u>
- Krippendorff, K. (2013). Content analysis: An introduction to its methodology (3rd ed.). Sage.
- Lane. C. (2021, March 17). Study in the US: Should I attend a rural, suburban or urban university? <u>https://www.topuniversities.com/student-info/choosing-university/study-us-should-i-attend-rural-suburban-or-urban-university</u>

- Lee, J. J. (2010). International students' experiences and attitudes at a US host institution: Self-reports and future recommendations. *Journal of Research in International Education*, 9(1), 66-84. <u>https://www.doi.org/10.1177/1475240909356382</u>
- Lee, J. J. (2013). Find on-campus support for international students. US News and World Report. https://www.usnews.com/
- Lee, J. J., & Rice, C. (2007). Welcome to America? International student perceptions of discrimination. *Higher Education*, 53, 381-409.
- Macrander, A. (2017). An international solution to a national crisis: Trends in student mobility to the United States post 2008. *International Journal of Educational Research*, *82*, 1-20. https://www.doi.org/10.1016/j.ijer.2016.12.003
- Martirosyan, N. M., Hwang, E., & Wanjohi, R. (2015). Impact of language proficiency on academic performance of international students. *Journal of International Students*, 5(1), 72-86. <u>https://doi.org/10.32674/jis.v5i1.443</u>
- Martirosyan, N. M., Bustamante, R. M., & Saxon, D. P. (2019). Academic and social support services for international students: Current practices. *Journal of International Students*, 9(1), 172-191. <u>https://www.doi.org/10.32674/jis.v9i1.275</u>
- Martirosyan, N. M., Saxon, D. P., & Skidmore, S. T. (2021). Online developmental education instruction: Challenges and instructional practices according to the practitioners. *Journal of College Academic Support Program, 4*(1), 12-23. <u>https://doi.org/10.36896/4.1fa1</u>
- Maslow, A. H. (1943). A theory of human motivation. Psychological Review, 50, 370-396.
- Matthews, R. E., Moore, G., & Cronin, K. (2020). Testing Maslow's theory of hierarchy in a COVID-19 pandemic climate: The experience of a small, private liberal arts college. *Journal of Security, Intelligence, and Resilience Education, 10*(12), 1-6. <u>https://jsire.org/wp-content/uploads/sites/661/2020/12/v10-12-</u> matthews-et-al.pdf
- McLeod, S. (2020). Maslow's Hierarchy of Needs. *Simply Psychology*. <u>https://www.simplypsychology.org/maslow.html#needs7</u>
- Mesidor, J. K., & Sly, K. F. (2016). Factors that contribute to the adjustment of international students. *Journal of international students*, 6(1), 262-282.
- Mori, S. (2000). Addressing the mental health concerns of international students. *Journal of Counseling & Development*, 78, 137-144.
- Olt, A. P., & Tao, B. (2020). International students' transition to a rural state comprehensive university. Teacherscholar: *The Journal of the State Comprehensive University*, *9*, 1-16. <u>https://scholars.fhsu.edu/cgi/viewcontent.cgi?article=1067&context=ts</u>
- Redden, E. (2020). International student numbers decline. *Inside Higher Ed.* <u>https://www.insidehighered.com/news/2020/11/16/survey-new-international-enrollments-drop-43-percent-fall</u>
- Roberts, P., Boldy, D., & Dunworth, K. (2015). The views of international students regarding university support services in Australia: A case study. *The International Education Journal: Comparative Perspectives*, 14(3), 122-137.
- Rose-Redwood, C. R., & Rose-Redwood, R. S. (2013). Self-segregation or global mixing? Social interactions and the international student experience. *Journal of College Student Development*, 54(4), 413-429. <u>https://www.doi.org/10.1353/csd.2013.0062</u>
- Roy, S. R. (2013). Educating Chinese, Japanese, and Korean international students: Recommendations to American professors. *Journal of International Students*, 3(1), 10-16. <u>https://www.doi.org/10.32674/jis.v3i1.514</u>
- Ryder, A. G., Alden, L. E., Paulhus, D. L., & Dere, J. (2013). Does acculturation predict interpersonal adjustment? It depends on who you talk to. *International Journal of Intercultural Relations*, 37(4), 502-506. <u>https://www.doi.org/10.1016/j.jintrel.2013.02.002</u>
- Saldaña, J. (2016). The coding manual for qualitative researchers (3rd ed.). Sage.
- Sherry, M., Thomas, P., & Chui, W. H. (2010). International students: A vulnerable student population. *Higher Education*, 60(1), 33-46. <u>https://www.doi.org/10.1007/s10734-009-9284-z</u>
- Shi, Y., Lukomskyj, N., & Allman-Farinelli, M. (2021). Food access, dietary acculturation, and food insecurity among international tertiary education students: A scoping review. *Nutrition*, 85, 1-22. <u>https://www.doi.org/10.1016/j.nut.2020.111100</u>
- Siczek, M. (2020). International student agency in the face of global health crisis. *Journal of International Students,* 10(4), vii-ix.
- The University of Oklahoma. (2021). International student emergency relief scholarship. https://ou.edu/cis/scholarships/international-students/international-student-emergency-relief

The University of Texas at Dallas. (n.d.). *International student emergency fund*. <u>https://isso.utdallas.edu/isef/</u> University at Buffalo. (2022). *International student emergency fund*. <u>http://www.buffalo.edu/international-student-services/life-in-buffalo/international-student-emergency-fund.html</u>

U.S. News. (2021). U.S. News best colleges. <u>https://www.usnews.com/best-colleges?int=top_nav_Colleges</u>

- Van De Walker, D., & Slate, J. R. (2019). The 2017 Trump Administration travel ban and international graduate applications at two Texas public universities. *Higher Education Politics & Economics*, 5(1), 1-14. <u>https://www.doi.org/10.32674/hepe.v5il.1173</u>
- Zhou, Y., Frey, C., & Bang, H. (2011). Understanding of international graduate students' academic adaption to a U.S. graduate school. *International Education*, *41*(1), 76-94.

NARA M. MARTIROSYAN, Ed.D., is an Associate Professor of Educational Leadership at Sam Houston State University. Her research interests include best practices in developmental education, international students and programs, student satisfaction and program evaluation in higher education. Email: <u>nxm021@shsu.edu</u>

DANA VAN DE WALKER, Ed.D., is the Director of Global Scholars at Lone Star College. Her research interests include international student mobility, student support and retention, and immigration policy. Email: <u>dana.vandewalker@lonestar.edu</u>

D. PATRICK SAXON, Ed.D., is a Professor of Educational Leadership at Sam Houston State University. His research interests include developmental education and student support services. Email: <u>dps006@shsu.edu</u>