INTERNATIONAL STUDENTS' PERCEIVED BARRIERS AND

UNDERUTILIZATION OF CAMPUS SERVICES

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INTERNATIONAL STUDENTS' PERCEIVED BARRIERS AND

UNDERUTILIZATION OF CAMPUS SERVICES

ANIL LALWANI

ABSTRACT

The study was aimed at investigating the relationships between international students' perceived barriers in seeking campus services offered by campus services providers and their reported underutilization of those services. The study assessed several potential barriers that impact international students' engagement and related student satisfaction, with a focus on underutilization of campus services. Drawing from concepts of acculturation (Berry, 2005) and diverse learning contexts (Hurtado et al., 2012), the study evaluated the potential role of international students' internal and external barriers. The researcher sampled 320 international student participants from institutions across the state of Ohio and a few from US institutions in other states, using the newly developed International Students Perceived Barriers and Service Utilization [ISPBSU] survey instrument. Factor analysis and multiple regression analyses were employed to determine factor structure and to examine the relationships between barrier variables and underutilization of campus services. Results of the factor analysis provided a six-factor solution, with internal barriers consisting of English communication difficulties (ECD), unawareness of services (UOS) and difficulties navigating intergroup relations (DIR). External barriers were comprised of experiences of campus exclusion (ECE), difficulties accessing services (DAS) and racialized experiences on campus (REC). Results of multiple regression analyses indicated that both groups of perceived barriers were significantly related to underutilization of campus services. Implications for building

theory, research and practice to explore intersectional subjective barriers of international students, promote greater levels of international student engagement and related service utilization have been discussed.

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CHAPTER I

INTRODUCTION

According to a recent Forbes report (Coudriet, 2019), international students are active stakeholders in the international exchange of education. International students also influence advancements pertaining to trends and policies in higher education, particularly as it relates to scholarship and practices in international and comparative education (Montgomery, 2010; Zhao & Wildemeersch, 2008). The emergence of international education can be related back to the late 18th century, when internationalization of higher education operated under the rationale of academic and cultural exchange (de Wit, 2002). Over the years, internationalization of higher education began to aim for more political and economic gains (Brandenburg & De Wit, 2011). With the shifting rationales and increasing salience of economic returns that are generated by international and visiting students and scholars, the enrollment of these students increased manifold. These increasing trends from an enrollment standpoint have significantly escalated in the last few decades. Just in the United States of America (USA) alone, the number of enrolled foreign students has more than doubled since 1980-81—from 311,882 in 1980-81 to 690,923 in the year 2009-10 (Institute of International Education [IIE], 2011). The

progress of international education world-wide also parallels this period (Montgomery, 2010), and can arguably be attributed to the increase in enrollment and retention of international students. Therefore, for international education to thrive, recruitment and maintenance of international student influx must be continually addressed.

The internationalization of higher education on a global scale can be described in multiple ways, but assimilation of intercultural and international perspectives in how an institution conducts student and staff recruitment, research and teaching is considered common practice in international education. In the last few decades, many global economies including the US (Lee, 2013) and a few countries in Europe (Zhao & Wildemeersch, 2008) have shown an increase in hosting international students and competing in the global markets for both post-secondary education as well as labor recruitment (Lee, 2013; Montgomery, 2010). More recently, though, US higher education institutions have seen a slow decline in the enrollment of international students, most noticeably in the last 3-4 years (Coudriet, 2019; Redden, 2018). That declining trend concerns the community of scholars and practitioners who are invested in the growth and proliferation of international education in the US, especially as it relates to increasing diversity and intercultural learning in US academic programs and campuses (Quilantan, 2018).

That being said, it is not only international students' enrollment that is salient for the future of international education, but also subsequent experiences affecting their satisfaction and psychosocial adaptation while attending their institution of choice (Brunsting, Zachry, & Takeuchi, 2018; Elliot & Healy, 2001; Hanassab & Tidwell, 2002; Lee, 2014). These subsequent experiences lead to students forming an opinion of their

experience attending an academic program at an institution (Elliot & Healy, 2001). Such opinions, both of student's own experience and of the institution-at-large have implications for recruitment and retention strategies that are employed in the higher education market. Furthermore, recruitment and retention are based on a variety of learning experiences spanning different services provided at colleges and universities (Choudaha & Schulmann, 2014). Typically, recruitment staff (for example, admissions office) focus on publicizing these services and retention programming is aimed at assessing the efficacy and student satisfaction vis-à-vis student attrition. The little research conducted in the US on international student attrition (Andrade & Evans, 2009; Mamiseishvili, 2012) has indicated institutional engagement (in the form of involvement in extra-curricular, for example) as a vital factor that positively influences international students' efforts to persist and succeed in their academic program. A lot of activities and programming that the institution offers to promote academic engagement, extracurricular participation, and student development are in the form of direct services and programs designed and delivered by student personnel or campus services providers (Kuh 2009). Therefore, research and scholarship that is aimed at elevating the quality of student satisfaction by use of student services has value for the advancement of international student recruitment, retention and attrition. This dissertation research is also aimed at investigating questions that will further advance student service utilization and related satisfaction.

In the US context (also the regional context of the study), in addition to analyzing the declining enrollment of international students (Fischer, 2017; Redden, 2018), and to halt that decline along with promoting student engagement and satisfaction, emerging

research related to internationalization of higher education has addressed a range of topics. This includes topics related to international students' engagement (Wekullo, 2019; Zhao, Kuh, & Carini, 2005), international students' satisfaction (Elliot & Healy, 2001, Elsharnouby, 2015; Paswan & Ganesh, 2005; Zimmermann, 1995), and international students' challenges of adjustment (McLachlan & Justice, 2009; Poyrazli & Grahame, 2007). Within challenges of adjustment, subjective experiences of international students vis-à-vis social discrimination that they encounter on US campuses have also been studied; particularly, in relation to their racial identity and country-of-origin (Lee, 2010; Poyrazli & Lopez, 2007). However, there is a lack of research in areas pertaining use of student services as a variable of student satisfaction – only recently, some new research has examined utilization of student services (Perry, Lausch, McKim & Weatherford, 2020) in the US. Researchers in other anglophone countries have conducted more research than the US (for example, in Australia – Roberts, Boldy & Dunworth, 2015; Roberts & Dunworth, 2012).

Recent research has highlighted the racialized experiences of students from Asian countries (Yeo, Mendenhall, Harwood, and Huntt, 2019). As per enrollment trends, students from China and India comprise a great majority of international students in the US (Institute of International Education, 2019). Furthermore, research has also recruited cross-sections of international students to test specific hypotheses that involve influences affecting a specific sub-group of international students as opposed to international students broadly. For example, recent research has examined first-year international students (Hirai, Frazier, & Syed, 2015), or first-generation (Glass, Gesing, Hales, & Cong, 2017), or music students from East Asia (Choi, 2012).

With regard to emerging research on student engagement and student satisfaction, the above cited literature unanimously highlights the unique challenges of international students and presents them as a vulnerable demographic (Perry, Lausch & Weatherford, 2018; Sherry, Thomas, & Wing, 2010). There is also research that has shown that with more time new adjustment challenges can emerge, for example cultural difficulties in the beginning and career concerns during later stages of education (Hanassab & Tidwell, 2002). Finally, literature highlights that the remedying effects of social support is also likely to increase over time (de Araujo, 2011).

Prior research demonstrates that international students need continuous support and engagement opportunities, but the question remains whether international students adequately utilize support resources and participate in educational activities that are indicative of student satisfaction and engagement (Korobova & Starobin, 2015; Perry et al., 2020). Recently, some scholarship (Siczek, 2015; Wekullo, 2019) has addressed this question and found that "international students are often marginalized on US college campuses, where language and cultural diversity is treated as deficit or difference rather than as an opportunity to promote global perspectives" (Siczek, 2015, p.7). Wekullo (2019), in her systematic review, posed the question, "How can colleges and universities enhance their students' engagement level?" (p. 321). Implications of this review point toward the role of international students' academic and social identities in shaping their experiences of engagement. The review (Wekullo, 2019) also indicates the need for a more research-driven model of assessing the effectiveness of programs that are designed for international students. These insights point toward a plausible inquiry in investigating whether international students' subjective experiences and challenges prevent them from

engaging fully with educational activities and utilizing their on-campus resources and services.

There is a need for research that is aimed at bridging curative concepts and institutional supports (for example, support programs offered by campus services' providers) with reported experiences of international students that warrant help-seeking. Moreover, the little research that has attempted to bridge needs with resources has identified that international students' unique socio-cultural backgrounds informs their help-seeking attitudes (Olivas & Li, 2006; Roberts et al., 2015), which may hinder utilization of services already being offered or influence the manner in which they approach their behavior as a service recipient (McLachlan & Justice, 2009; Roberts & Dunworth, 2012). Additionally, implications indicated in the above studies suggest future research to address the disconnect between international students' staggering adjustment challenges and their under-engagement on campus. The proposed study, therefore, will attempt to bridge the gap between international student engagement and adjustment literatures by investigating the relationship between international students' perceived barriers in seeking campus services offered by student personnel or campus services providers and their reported underutilization of those services. 'Student personnel' as a term does not have contemporary relevance, therefore the term 'campus services providers' will be employed in this study.

The following sections provide an overview of key information that sets the backdrop for understanding the problems the study aims to address. These sections examine the slow declining enrollment trends of international students in the US, a broad overview of international student engagement, student satisfaction, and their challenging

experiences (especially racial-ethnic identity related), and finally examines four sets of key variables – perceived barriers (internal, external and COVID-19 service-use) and under-engagement with campus services, that are supported by research on international students' challenges and adjustment issues.

International Student Enrollment Contexts

Enrollment itself in higher education speaks volumes to how programs and services are designed for the group in question (Cohen & Kisker, 2010). With regard to international students, US institutions have experienced a strong rise and then a slow decline in the enrollment of new international students in the last five decades, particularly in the last fifteen years (Gluckman, 2018; Quilantan, 2018). According to the Institute of International Education (IIE, 2019), in 2016-17, there were a total of 290,836 new international students enrolled in four-year institutions across the US, a 1-2% decline from the prior year (Quilantan, 2018). Some educators have attributed this decline to the influence of the changing trends in American politics (Fischer, 2017; Quilantan, 2018). Most recently, due to the novel coronavirus 2019 strain (popularly referred as COVID-19) and its impact on international travel and economy worldwide, rates of international student enrollment for the academic year 2020-2021 were projected to have further declined (Quinton, 2020).

Redden (2018) analyzed data provided by Open Doors survey (2018) gathered from 2,075 institutions and compared enrollment trends between academic years 2016-17 and 2017-18. Her analyses are indicative of a mild declining trend that is suggestive of a shift in how international enrollment has changed since the year 2016. She reported that "the total number of enrolled international students increased by 0.8 percent at the

undergraduate level and decreased by 2.1 percent at the graduate level"; further, "The number of non-degree students—a category that includes students in intensive English programs—fell for the third year in a row, by 10.1 percent" (Redden, 2018). She also examined international enrollments by region and more specifically by every state's political leaning in the election year 2016. She found that new enrollments were higher at institutions located in more-liberal states, such as California (3.2% increase) and Massachusetts (8.4% increase) (Redden, 2018). Furthermore, it is important to note that the same survey's data (Open Doors, 2019) shows a declining enrollment trend for new international students when compared to the incoming class of the year 2017. Results of the survey reported negative rates of 5.5 %, 6.3%, 9.7% for undergraduate, graduate, and non-degree students respectively when compared with enrollment numbers of the year 2017. The incoming class of the academic year 2018-19 also decreased by 0.9% compared with incoming class of preceding academic year.

Another trend in international enrollment pertains to international students' countries-of-origin. In the academic year 2018-19 (IIE, 2019), seven out of the top ten countries countries-of-origin were Asian, majority South-East Asian (China, Taiwan, and Vietnam) and East Asian (South Korea and Japan). India and Saudi Arabia as a South Asian and Gulf Asian country complete the list of seven Asian countries. Students from Canada formed a little over 26,000 of the total student pool in 2018-2019, marking it as the fifth most popular country-of-origin in the list. Two other countries also made it in the top 10 list. These include Mexico and Brazil at the ninth and 10th spots respectively in the list.

It is important to consider these trends in framing the aims of the study. For instance, while assessing international students' perceived barriers and underutilization of services, it is important to pay attention to their country of citizenship. One's country-of-origin or -citizenship is likely to inform an international student's racial-ethnic identity. If the racial-ethnic composition of an institution is not diverse, then some international students might report feeling marginalized. For example, if the institution is a predominantly white institution (PWI) or perceived as located in a conservative community, it may be less likely to attract international students. A review conducted by Inyama, Williams, & McCauley (2016) found that racial stereotyping and related discrimination were common experiences for African students studying health sciences at PWIs.

Such experiences have been attended in higher education research as well. Most recently, Hurtado, Alvarez, Guillermo-Wann, Cuellar, & Arellano (2012) proposed their "multi-contextual diverse learning environments" (p. 47) model in light of several key incidents that have shaped the conversations on race and sexual orientation in the US. Based on reports of individuals who self-identified memberships with those disenfranchised groups (for example, LGBTQ students), the model addresses how key incidents affect both the learning atmosphere at one's institution as well as one's individual sense of achievement. To apply such a model with international students would be to identify the dynamic interactions between student's intersecting social identities (Crenshaw, 1991) and an institution's diversity characteristics. Students' social identities can be identified on continuums of racial-ethnic heritage, gender, sexual orientation, age, academic major, socio-economic status, linguistic heritage, ESL status,

level of study – all of which can be argued to have been shaped by a student's formative experiences growing up in their respective country-of-citizenship. An institution's diversity characteristics can be depicted on continuums of their diversity compositions. It may be in the form of their enrollment rates of minority-identifying students, presence of a diverse group of staff, faculty and administrative leadership, their location on the continuum of urban, suburban and rural, and their policies on institutional equity, among others. It is important to include the role of such characteristics and also acknowledge the ways in which these characteristics interact, almost as concentric circles if one were to adopt a visual depiction.

To demonstrate this with the help of a personal example, the researcher was able to identify pivotal formative experiences as a student and how those came to shape his educational journey and the choices he made in terms of career and training, including the choice for the topic of this study. At the time of writing this dissertation, the researcher was an international student. He grew up in India, in a relatively smaller urban city located in the north-west part of the country. He attended elementary, middle and high school with a catholic missionary K-12 institution. During this period, he acquired proficiency in three Indian languages – Sindhi (spoken at home), Hindi (used in local surroundings) and English (medium of instruction throughout K-12). Early on, he was also exposed to the notion of cultural differences that stem from varying religious orientations, languages, ethnic beliefs and more. Being of Sindhi heritage – an ethnic group that is native to the province of Sindh in Pakistan, the researcher's early experiences involved learning about his family's heritage of grandparents migrating during the Indo-Pak partition of the 1940s in the midst of both countries acquiring

independence from imperial occupation of the British Raj. Those stories of post-colonial travel, starting life from scratch, reinventing one's cultural identity and of human resilience inspired the researcher to develop an interest in applied psychology, that he went on to pursue as an undergraduate student and as a master's-level international graduate student.

He first came to the US in the early part of 2010 decade to attend a master's program. This program was well regarded in the field of behavioral psychology, but the researcher felt a strong sense of identification with contemporary issues that impacted experiences of social identity development. Through the diversity classes he completed, he developed a scholarly interest in the discourses of cross-cultural psychology and social justice. He also became an active student advocate through his on-campus jobs and volunteer roles. Although, he remembered noticing often that the tenets of equity espoused by his institution did not reflect in the suburban communities that surrounded the campus. The surrounding city did not appear to be diverse. Both him and his fellow international student peers often discussed feeling misunderstood on an almost daily basis and occasionally patronized by residents of the local community as well as on campus. Those experiences factored into him deciding to attend an urban institution for his doctoral training in adult and higher education, where he could conduct research to better understand international students' lived experiences pursuing higher education in the US. During this period, he conducted research exploring novel topics related to international student development with regard to gender identity, racial/ethnic identity and sexual orientation. He also took on volunteer roles on campus as a peer educator and as a member of his college diversity council. He would often be asked by his colleagues to

speak on typical international students' concerns and how campus resources can be targeted to serve those students – and that led him to choose this topic for his dissertation. He personally felt that students like himself are uniquely ordinary in the sense that international students can indeed have different experiences than other student groups, but they are not special. Nonetheless, it was important for him to explore international students' subjective experiences in relation to their use of campus services.

International Student Engagement and Satisfaction

In addition to likely causes of disengagement that are implied by changing enrollment trends, research on international student engagement (Glass, Wongtrirat, & Buss, 2015) and student satisfaction (Elliot & Healy, 2001; Elsharnouby, 2015) provides further clues that might be worthy of investigation while addressing the gap between international students' engagement and their underutilization of campus services. As mentioned above, if compared to domestic student engagement discourse, research on international student engagement and related service utilization is scant (Korobova & Starobin, 2015; Perry et al., 2020). Wekullo (2019) conducted a systematic review of 48 studies between the years 2007 and 2018 that addressed undergraduate international student engagement. She cited research that has "found that international students were either less engaged or lagged behind their American counterparts (Korobova & Starobin, 2015; Van Horne, Lin, Anson, & Jacobson, 2018)" (p. 321). Data on service use was not recorded in these studies. Also, historically, given international students higher achievement indices (like grades and graduation rates), student engagement researchers have assumed that international students are very academics oriented (Korobova & Starobin, 2015). As a result, both researchers as well as practitioners have not shown

interest in studying or promoting campus engagement and related service utilization among international students (Lee & Rice, 2007).

Relatedly, international student attrition is an understudied topic in this context; although, some research (Andrade & Evans, 2009; Mamiseishvili, 2012) has examined factors that prevent student attrition. In the study by Mamiseishvili (2012), persistence trends were examined among first-year international students. The results showed that GPA, degree plans, and academic integration promoted persistence among the study's sample. Surprisingly, social integration was conversely associated with persistence outcome, which the researcher interpreted as aligned with previously conducted research (Zhao et al., 2005) that has indicated that first-year international students limit their involvement socially to succeed academically. The researcher, however, also pointed at the limitation of how social integration was assessed. It was measured by asking the participants what their participation in social clubs and sports was, to which the majority of the study sample reported that they did not participate in social activities (66.3% and 54.3%, respectively). The researcher concluded that perhaps future research can assess non-traditional forms of social activities (such as socialization with cultural groups) to better understand social integration that international students might desire more. The researcher also recommended institutions to promote inter-departmental collaborations where different resource centers can come together to support international students in all aspects of their development and relatedly prevent student attrition.

Similarly, student satisfaction and related service utilization among international students has received less attention over the years, with literature falling short in exploring how different aspects of university experience, especially educational services,

impact student satisfaction differently (Ng & Forbes, 2009; Perry et al., 2020). The few studies conducted in this area have divided educational services between core and supplementary (Elliot & Healy, 2001; Elsharnouby, 2015). Core services are comprised of primary educational experiences including faculty providing instruction and assessment. Supplementary services are comprised of services that augment a student's educational pursuits in the form of physical environment and social learning (Clemes, Ozanne & Tram, 2001) and campus climate (Elliot & Healy, 2001). A recent study showed that higher satisfaction from educational services can lead to increased student satisfaction (Elsharnouby, 2015). Given the overlapping role of supplementary services in how the concepts of student engagement and student satisfaction are defined, results of this study are likely to also inform ways in which student satisfaction can be better addressed.

Besides acknowledging the paucity of research and findings that are suggestive of inadequate engagement and student satisfaction in relation to service utilization, it is also important to attend to commonly used theories of student engagement and student satisfaction that can be used to articulate likely predictors of international students' perceived barriers in seeking campus services. Kuh's (2009) concept of student engagement is widely accepted in the discourse on student engagement. His concept is comprised of time and effort that students invest in educational activities and how the institution allocates resources to promote participation. Another increasingly known concept of student engagement is that of "belonging" (Strayhorn, 2012) that posits a student's sense of belonging in relation to their social identities (gender, ethnicity, and more). As noted above, Hurtado et al. (2012) addressed the impact intersecting

environmental contexts may have on students possessing disenfranchised social identities. Astin (1993) in his theory of student involvement described student satisfaction as "the students' subjective experience during the college years and perceptions of the value of educational experiences" (p. 273). The measures he employed included satisfaction with student life, individual support services, campus facilities, in addition to satisfaction in relationships with faculty along with curriculum and instruction. Some recent research (Korobova & Starobin, 2015) has compared student engagement between American and international students using Astin's theory of student involvement, that suggests conceptual overlap between topics of student engagement and student satisfaction. These concepts inform the predictive factors for this study to address the constructs of an institution's cultural climate (more popularly referred as "campus climate," Williams and Johnson, 2010) and international students' intersecting sociocultural identities, especially language and race or ethnicity.

Sociocultural underpinnings of international students' engagement also include the role of environmental influences that shape the perceptions of international students by creating critical incidents, both subjective and systemic, that signal to international students whether their campus environment is accessible and empathetic of their acculturation and transition toward finding a sense belonging (Houshmand, Spanierman, & Tafarodi, 2014; Lee, 2010). Two concepts are relevant in this line of discussion. The first is the emerging concept of "neo-racism." Neo-racism is a kind of discrimination that occurs as a result of cultural differences, including that of nationality and relationship between countries (Lee, 2007). Studies conducted with samples of international students have shown that effects of neo-racism constitute much of the bias and discrimination they

face (Lee, 2017; 2010). The second relevant concept involves racial microaggressions (Sue, Capodilupo, Torino, Bucceri, Holder, Nadal, & Esquilin, 2007) that account for everyday verbal, behavioral, and environmental insults that disregard and invalidate the lived experiences of people of color. A study adapting microaggressions theory to understand the experiences of international students in Canada (Houshmand et al., 2014) showed that participants experienced feeling excluded and ridiculed. Given student services are supportive in nature, it is important to also refer to research that has investigated different aspects of service provision and utilization among international students (Perry et al. 2020; Roberts et al., 2015; Roberts & Dunworth, 2012). In addition to perceived utility, the inclusion of access to services is important in this context.

These concepts can be utilized to identify likely barriers that are understudied in the context of international student engagement. These concepts also inform predictors for the study. For clarity of construct being targeted and citing of supporting research evidence, barriers will be classified as internal and external. It must be noted that all different perceived barriers are treated as cognitions that prevent international students from seeking or utilizing campus services. However, for the ease of semantic understanding, a few perceived barriers are named using terms that connote popular usage in the context of campus services. For example, the barrier named "English Language Fluency" refers to one's perceptions of their English language fluency. Similarly, the barriers titled "unawareness of services", "campus climate", "foreign relations" and "experiences of racism" refer to one's self-perceptions of their unawareness of campus services, their campus' climate, relations between their country-of-origin and the US, and race relations on their campus, respectively. Furthermore, the

barrier named "ethnocentric attitudes toward help-seeking" refers to one's perceptions of trust in campus-services providers who belong to racial-ethnic groups other than one's own. A couple barriers carry the term "perceived" in their titles as well. For example, barriers named "perceived utility" and "perceived access". Finally, the labels for these groupings might change as a result of instrument validation process.

Internal Barriers to Engagement

Internal barriers are operationally conceptualized as perceived challenges that the international student participant would report as inherent and subjective. The study considered one's English language fluency, unawareness of services offered, perceived utility, and lastly, ethnocentric attitudes toward help-seeking as probable predictors in this category. It must be noted that the study uses the term student personnel interchangeably to refer to campus services providers affiliated with "student affairs" units, such as staff at Campus Life, or professional affiliates of a school (staff or faculty) who are primary contact for international students and tend to provide a range of student services, like advising, instructional support and more. These providers include professional staff in the offices of international students, residence halls, career services, academic programs, along with direct service providers at the health center, such as medical providers and counselors. The following section provides a brief description of each of these barriers.

English Language Fluency

Given English is the most widely spoken language on US campuses in addition to being the predominant medium of instruction, international students, in general, experience heightened anxiety and nervousness while speaking it (Andrade, 2006),

especially in formal environments (Lee, 2016). Furthermore, participation in intercultural programming that involves native speakers of English can also be subjected to "American Bias" (p. 555) where American speakers are perceived to be causing "communication concerns" and are likely to reinforce avoidance of such interpersonal contact (Wang, Ahn, Kim, & Lin-Siegler, 2017). Based on the results obtained in this study (Wang et al., 2017), most common communication concerns are described as difficulties (for example, feeling nervous and having confusion) in speaking English that stem from finding one's English proficiency as inferior, not knowing cultural idioms embedded in American English and having difficulty in expressing oneself in the English language.

Unawareness of Services

In addition to citing reasons for one's lack of fluency in the English language, many international students are likely to also cite sheer ignorance of the range of services offered at their campus (Perry et al., 2020), which can again be attributed to their unfamiliarity with local norms of help-seeking. International students might find some campus support centers' names novel and have misinformed notions of how service provision is structured. For example, never having heard of the Ombudsman or assuming that services are paid when they might be not (Lee, 2013).

Perceived Utility

Perceived utility of services refers to the extent of usefulness endorsed by service-users in the form of attitudes. It can be positive or negative if services are perceived useful or not useful, respectively. If campus services are perceived as useful and desirable among students, it is likely that those services will be utilized after students are officially enrolled. Scholars have argued that university support services are an educational

imperative that can benefit students if they choose to utilize those services (Dhillon, McGowan & Wang, 2008). Although it implies that students and service providers have a reciprocal understanding of what is comprised of support services. Students' perception of what is comprised of support, how that informs their needs as students, and the extent to which support services match with those needs are additional factors that are shown to impact student engagement and satisfaction (Jou & Fukuda, 1995; Roberts et al., 2015; Roberts & Dunworth, 2012).

Ethnocentric Attitudes toward Help-Seeking

Attitudes and norms for help-seeking might vary from person to person and are likely to be informed by what has been culturally sanctioned in international students' country-of-origin (Olivas & Li, 2013; Ritter, 2012). Some research has shown that international students continue to seek help from familiar sources like family and friends back in their home country (Komiya & Eells, 2001; Zahi, 2002) despite being far away, as they find seeking professional help a doubtful pursuit, assuming a stranger might not be able to help them. Acculturation and perceived prejudice might also influence subjective attitudes toward help-seeking and help resource utilization, as demonstrated in a study by Frey & Roysircar (2006). In the study, the average frequency of help utilization was significantly higher for international students identifying as South Asian when compared to East Asian students. Although mostly studied in the context of seeking help for psychological concerns, general attitudes toward help-seeking among internationals (Chen & Lewis, 2011) are also important to examine. These attitudes are likely to be informed by international students' country-of-origin and predominant cultural norms about help-seeking that one learns from a young age. Furthermore, these

attitudes determine what resources international students deem worthy of utilization and what resources they choose to look past.

External Barriers to Engagement

External barriers are operationally conceptualized as challenges perceived as posed by external entities and individuals. The study considered campus climate, foreign relations (perceived relationships between the US and one's country of citizenship in the current socio-political landscape), perceived access, and lastly, one's experiences of racism (general) and neo-racism (targeted). The following section provides a brief description of each of these barriers.

Campus Climate

How international students perceive the environmental culture and climate of their campus can significantly add to their perceptions of safety, community, and henceforth serve as a precursor to their willingness to engage on campus (Glass, Wongtrirat, & Buss, 2015). Research clearly indicates the positive role institutional values and norms exemplifying a fair and inclusive environment play in encouraging greater participation and engagement among international students (Glass, 2012; Glass, Wongtrirat, & Buss, 2015; Williams & Johnson, 2010). Conversely, absence of a visible international-supportive and welcoming campus climate can hinder international student engagement.

Foreign Relations

Closely aligned with aspects of campus climate is the factor of foreign relations. Foreign relations are an international student's perceptions of whether and to what degree the larger American political culture holds favorable attitudes toward their country-of-citizenship. This factor is not as formally studied as much as other factors due to the

nature of foreign relations falling outside the traditional scope of higher education. Although, the factor carries contemporary salience as demonstrated by increasing attention being paid to the influence the changing landscape of American politics and its influence on the declining trends of international student enrolment (Fischer, 2017; Quilantan, 2018), or varying trends across different regions of the US depending on their political affiliations (Redden, 2018). Similar to campus climate, positive diplomatic ties and attitudes of the host nation can lead to greater engagement (Williams and Johnson, 2010), and the opposite of which also holds true.

Perceived Access

As noted above, whether or not services are perceived useful is likely to facilitate or hinder access of those services. However, services recognized as valuable might still not be used as needed if provision of those services does not fit with student's scope of reach and perceived access. Some research (Roberts et al., 2015; Roberts & Dunworth, 2012) has indicated international students having expressed concern about services not being available when needed and logistics of service centers preventing timely utilization. Also, given international students' challenges of navigating a novel educational system, it is likely that not knowing how services can be used is perceived as an issue of access (Perry et al., 2020); for example, location and timings (Roberts & Dunworth, 2012). Such issues are likely to add to students' perceived barriers and must be included in factors worth assessing.

Experiences of Racism

It is clearly evidenced in the literature (Lee, 2017; Lee, 2010; Lee, 2006; Lee & Rice, 2007; Poyrazli & Lopez, 2007) that subjective experiences of racism based on

phenotype and country-of-origin (called Neo-racism) can mar international students'

morale and negatively impact their motivation to look for help, thereby causing

hopelessness. A recent study employed a comparative design between Asian international

students and Asian American students in assessing experiences of racial

microaggressions between the two groups (Yeo et al., 2019), along with experiences of

racial microaggressions among international students in Canada (Houshmand et al.,

2014). Regardless of the racial-ethnic group in target or the host nation, being on the

receiving end of racist comments, acts, and events, is likely to reduce an international

student's willingness to engage with the perpetrator of those behaviors and can lead to

feelings of social withdrawal and homesickness (Poyrazli & Lopez, 2007), mistrust, and

avoidance of similar situations on campus (Lee, 2010).

Underutilization of Campus Services

Research shows (Korobova & Starobin, 2015; Lee, 2013; McLachlan & Justice,

2009; Van Horne, Lin, Anson, & Jacobson, 2018; Wekullo, 2019) that international

students do not engage at the same level as their American counterparts. As a practical

manifestation of student engagement and student satisfaction (Astin 1993, Kuh, 2009),

utilization of and participation in educational services and activities offered at one's

institution is employed as an outcome in the study. Given the variety of different services

and activities that are offered at most four-year colleges and universities, the assessment

of this factor will entail using conceptualization of student support services and student

engagement that are outlined by the Council for the Advancement of Standards [CAS]

(2012) and the NSSE (Kuh, 2001).

As per CAS (2012), student support services range from academic support services like advising and tutoring to judicial services, campus activities, international student affairs, and more. The National Survey of Student Engagement [NSSE] uses one of its core themes named "Campus Environment" (Kuh, 2001) to include questions in their survey that asks about the ways in which students at an institution evaluate how their campus offers engagement opportunities. Further, their survey also asks students to report their participation in campus engagement opportunities. The survey asks individual items for "support services staff" and "other administrative staff". Support services staff are comprised of direct services providers such as career services and housing, whereas other administrative services providers include financial aid and the registrar. Given the scope of this study and its broad interest in engagement of international students in services and activities offered by all different campus services providers, assessment of this factor will be based in the nature of services and activities being provided. The category labels of "student services", "social engagement services" and "enrollment services" will be utilized. Student services will be comprised of service providers that typically offer their services to individual students with the aim of offering assistance to remedy a student's subjective problems, for example, advising and tutoring. Social engagement services are aimed at facilitating students' social development by offering programs and group activities, for example office of multicultural engagement and Greek life. The category of enrollment services will be comprised of providers who assist students with maintenance of their enrollment status and enforcing campus policies, for example, financial services and the registrar's office.

For the purpose of the study, the following list will be used for each of the three categories. Student services will include academic advising, immigration advising, tutoring, supplemental instruction, career services, library services, counseling services, disability services, judicial services, campus security, recreation services and health services. Social engagement services will include campus life events, Greek life, housing and residential services, cultural programs and activities offered by office of international students, multicultural engagement or ethnic centers, such as Asian Students Center, LGBT services, veteran affairs and women's resource center. Lastly, enrollment services will include financial services, registrar office, student conduct and office of institutional equity.

Impact of COVID-19

The study was proposed to be conducted around early part of 2020 calendar year, when COVID-19 pandemic increasingly started to spread around the world and by September, it was reported to have spread in over 180 countries across the globe (Centers for Disease Control and Prevention-CDC, 2020). Such a contagious viral disease clearly impacted delivery of postsecondary education and related campus services provision (Lederman, 2020; Quinton, 2020). The vast majority of colleges and universities in the US, including that of the researcher and all institutions that were proposed to be contacted for participant recruitment announced immediate closure of campuses during mid-March. Furthermore, there was a change in conducting all university operations from in-person to virtual mode. From classes to all student services started to be delivered virtually. Therefore, the researcher determined it would be best to ask targeted questions regarding the impact COVID-19 may have had on perceived barriers and related services

utilization of international students who participated in this study. These questions may well be treated as barriers that might be impacted by other potential barriers proposed earlier in this chapter. However, given the purpose of this study which to investigate the relationships between international students' perceived barriers in seeking campus services offered by campus services providers and their reported underutilization of those services, experiences exemplifying challenges of international students due to COVID-19 campus closure would be treated as stand-alone barriers.

In order to develop items specifically assessing the impact on perceived barriers among this study's sample, relevant sources (Lederman, 2020; Quinton, 2020; Zhai & Du, 2020) were consulted. It must be noted that given the recency of COVID-19's global spread, there were only a handful publications that could be sourced. Although, additional 10 items, namely "COVID-19 Service-use" specifically addressing COVID-19 related barriers were added into the survey. Relatedly, an additional research question was added under research question 3. A brief description of these items is provided in the next chapter.

Statement of the Problem

Much of the prior research has addressed the unique challenges experienced by international students and their social adjustment (Poyrazli & Lopez, 2007; Sherry, Thomas, & Wing, 2010). There is also literature that shows the remedying effects of social support (de Araujo, 2011); however, the question whether international students adequately utilize support resources and participate in educational activities that are indicative of student engagement and related satisfaction has not been addressed adequately in research. Effects of acculturation, identity development, and related socio-

cultural adjustment are shown to somewhat reduce as international students spend more time in the US (Hechanova-Alampay et al., 2002; Hirai et al.,2015; Ward et al.,1998), thereby adapting to the challenges of their academic program. However, no research indicates that international students are all fully adapted after initial years of attendance. Challenges can be acute in the beginning, but reliance on mere passing of time is not a probable solution. Prompt solution of initial challenges is important, in order to set the stage for increased engagement and utilization of resources and opportunities by international students. Prior to the study, no research has sought empirical evidence and specifically asked targeted questions regarding perceived barriers that could account for international students' low engagement and related underutilization of campus services. In order to better understand whether international students' subjective experiences and challenges prevent them from engaging fully with educational activities and utilizing their on-campus resources, we need to ask their perceived barriers and reported underutilization of relevant services.

Purpose of the Study

The purpose of the study was to investigate the relationships between international students' perceived barriers in seeking campus services offered by campus services providers and their reported underutilization of those services. The study compared different influences on international students' engagement, student satisfaction with a focus on students' perceived barriers in seeking campus services. Based on international student engagement, student persistence and student satisfaction literatures, and discussions about their unique challenges and adjustment issues (Hirai et al., 2015; Korobova & Starobin, 2015; Lee, 2010; Mamiseishvili, 2012; McLachlan & Justice,

2009; Olivas & Li, 2006; Poyrazli & Lopez, 2007; Roberts et al., 2015; Wekullo, 2019; Zhao et al., 2005), this study focused on eight different kinds of perceived barriers distributed among internal and external barriers. Internal barriers were comprised of student's English language fluency, unawareness of resources, perceived utility, and ethnocentric attitudes toward help-seeking. External barriers were comprised of campus climate, foreign relations, perceived access, and experiences of racism.

This study was driven by the following four research questions:

1. To what extent are international students' perceived internal barriers (English language fluency, unawareness of resources, perceived utility and ethnocentric attitudes toward help-seeking) related to their utilization of campus services?

2. To what extent are international students' perceived external barriers (campus climate, foreign relations, perceived access, and experiences of racism) related to their underutilization of campus services?

3. To what extent is there a difference in predicting international students' underutilization of campus services between students' internal and external perceived barriers predictors?

3.1 To what extent is there a difference in predicting international students' underutilization of campus services between students' internal and external perceived barriers and COVID-19 service-use predictors?

4. What are the relationships among these variables for subgroups of international students endorsing different racial-ethnic group memberships?

4.1 Does race/ethnicity have an interaction effect with internal and external barriers in predicting international students' underutilization of campus services?

4.2 What are the relationships among these variables for international students of color?

4.3 What are the relationships among these variables for international students who identify as Caucasian or White?

Significance of the Study

The results of this study would have implications for development in the areas of theory, research, and practice. In the area of theory, the results of the study could be used to inform concepts pertaining international student development. The findings could lead to insights on what assumptions about international students' perceived barriers are related to their engagement, satisfaction and adequate utilization of campus services. In the area of research, as mentioned above, the study is aimed at bridging the gap between literatures on international student adjustment, engagement and their satisfaction. The findings could point to future directions in raising questions regarding international student engagement and service satisfaction that can be further explored in future research. And finally, in the area of practice, the study would not only have direct implications among the community of higher education practitioners, it would also lead to insights on how to remedy international students' challenging experiences during their studies in the U.S. Campus services providers could benefit from the study by learning about international students' perceived barriers and utilizing that knowledge in creating more inclusive services and climates on their campuses.

Summary of Chapter I

This chapter introduced the topic of proposed dissertation research against the backdrop of current research trends in the areas of international education, international student engagement, student satisfaction and related perceived barriers. Over a million

international students are currently enrolled in various U.S. higher education institutions (IIE, 2019). International students encounter unique sojourner and transitional challenges while completing higher education (McLachlan & Justice, 2009). Many institutions may offer specialized campus services for these students, but international students present with lower levels of engagement when compared with their domestic counterparts (Wekullo, 2019). Furthermore, international students in general are likely to be unaware of campus services (Perry et al., 2020). The proposed study is aimed at addressing these trends by investigating the relationships between international students' perceived barriers in seeking campus services offered by campus services providers and their reported underutilization of those services.

Key Terms and Definitions

International Students: International students are students who are attending a four-year college or university in the US on the basis of a student visa (F-1 or J-1). For this study, the sample would be comprised of those international students who are enrolled at their institution at the time of participating in the study.

Perceived Barriers: For this study, perceived barriers refer to cognitions that prevent international students from seeking or utilizing campus services.

Campus Services: Campus services refer to direct services (for example, advising and medical prescription) and educational programming (for example, workshop on resume writing) offered by campus staff, who are employed as an administrator or student specialist or health provider. For example, programming staff many include professional staff in the offices of international students, residence halls, career services, academic

programs, along with direct service providers at the health center, such as medical providers and counselors.

Service Utilization: Service utilization for this study refers to a student's willingness to utilize a service or set of services offered on campus, based on personal need and benefit.

Student Engagement: For this study Kuh's (2009) concept of student engagement is used. It is the time and effort that students invest in educational activities and how the institution allocates resources to promote student participation.

Student Satisfaction: For this study, Astin's (1993) concept is used, which is described as "the students' subjective experience during the college years and perceptions of the value of educational experiences" (p. 273).

CHAPTER II

REVIEW OF LITERATURE

The study investigates the relationships between international students' perceived barriers in seeking campus services offered by campus services providers and their reported underutilization of those services. This chapter provides an overview of the study's key constructs and relevant research that has been conducted in the field. Furthermore, the structure of this chapter is aimed at discussing key concepts and relevant research in light of evidence that strengthens the need for addressing research gaps indicated in the first chapter and research questions that follow.

The first section provides a historical overview of student engagement in relation to student affairs professionals—focusing on the pursuit of student learning in the form of out-of-classroom experiences. A popular assessment tool that is widely employed to measure student engagement is also described in this section. The next section describes theoretical frameworks that are shown in research to explain adjustment challenges faced by international students, the role of environmental contexts that impact student success, and learner variability in help-seeking behaviors. Moreover, this section offers an overarching conceptual framework that explains why and how independent and dependent variables of this study were identified and articulated.

The next three sections extend literature-based arguments indicated in chapter 1—

sections on internal and external barriers of engagement and underutilization of campus

services. The section on internal barriers provide an overview of previously conducted

studies and the evidence they obtained regarding adjustment difficulties faced by

international students and role of international students' attitudes and behaviors. Sub-

sections include the four internal barriers that have been identified—English language

fluency, unawareness of resources, perceived utility, and ethnocentric attitudes toward

help-seeking. The section on external barriers provide an overview of previously

conducted studies and the evidence they obtained regarding difficulties faced by

international students in relation to social contexts that adversely impact student

engagement and satisfaction. Sub-sections include the four external barriers that have

been identified—campus climate, foreign relations, perceived access, and experiences of

racism. The last section on underutilization of campus services provide an overview of

previously conducted studies and the evidence they obtained regarding underutilization of

different kinds of campus services. Sub-sections include the three kinds of services that

have been identified—student services, social engagement services and enrollment

services.

Student Engagement and Role of Campus Services Providers

Student engagement as a construct has been and continues to remain a concept

that is amenable to multiple interpretations and meanings. Partly, that can be attributed to

the broad scope of the construct (Kuh, 2009), which also makes it overlap with other

constructs that attempt to conceptualize student learning and development. It is important

to capture some historical points in the evolution of the term 'student engagement' with

regard to iterations of the construct that are relevant to campus services providers, including student affairs professionals and higher education administrators. Some of these points also parallel events in the history of student affairs when the professional field redefined its scope and mission, thereby adopting student engagement as an important mission goal.

According to Pomerantz (2006), student affairs as a profession changed from one paradigm to another between 1985 and 2005. Earlier during the 80s, the dominant paradigm was centered on student services, which later advanced to student development and further to student learning. This sequence can be seen as student affairs professional organizations responding to the cues of researchers and theoreticians who challenged the role and identity of student affairs in the ever-changing landscape of American higher education. Up until early 1980s, student affairs was seen to be a set of service providers who offer specialized support services. Peter Garland (1985) challenged that purview and argued that student affairs needed to expand their expertise and start playing an active role in partnering with faculty and institutional leadership. He stated (1985, pp. 6-7) that "The term 'Integrator' is appropriate for the student affairs professional who integrates student development and institutional development."

In addition to how student affairs professionals can foster student development by partnering with faculty, another line of intellectual argument can be attributed to the nature of student learning as implied in the concept of student engagement (Pomerantz, 2006). The topic of student learning was heavily discussed among academic circles two decades ago (Baxter Magolda, 1999). Arnold and Kuh (1999) at the time explained the differing perspectives on student learning by comparing how faculty and student affairs

professionals view student learning. From the standpoint of faculty, instruction and scholarship would be at the core of student learning. Student affairs professionals would place co-curricular activities at the core. In situations of differing perspectives, seasoned practitioners such as Norleen Kester Pomerantz (2006), suggested student affairs professionals to merge their paradigm with that of faculty and work toward a commonly shared set of assumptions that are aimed at making the learning environment more effective for students. An effective learning environment assumes learning as an active process that has the learner actively engaged in the pursuit of learning. In such a learning environment, "student affairs professionals need to plan and design out-of-classroom experiences that directly relate to identified learning outcomes" (2006, p.181).

Out-of-classroom experiences have been indicated as an important measure of student engagement. They are also included in the structure of the National Survey of Student Engagement (NSSE, Kuh, 2009). The survey was developed by Kuh and associates in the years between late 90s and early 2000s (Kuh, 2009). The survey now is used as a primary assessment of student engagement by over 200 institutions in the US. Kuh (2009) has discussed how conceptualization of the term student engagement evolved and sub-scales were added as a result. Currently, the NSSE instrument has five categories of survey questions.

Figure 1

The NSSE Categories
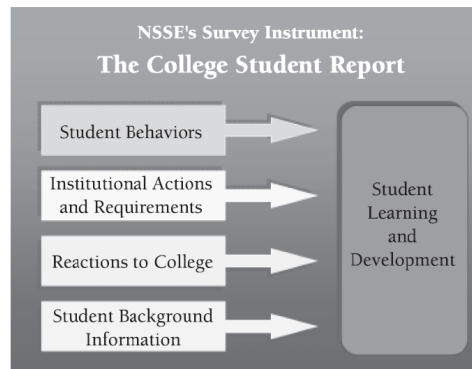
As shown in figure 1., student behaviors, institutional actions, reactions to college, and student demographics are different categories. Student behaviors category in the survey is comprised of two sets of questions. The first set of questions asks students about their time spent in studying and participating in extra-curricular activities. The second set of questions asks about institution's expectations of academic work. Institutional actions, as a category, refers to students' perceptions of their institution's environment that enables achievement, satisfaction, and persistence. This category also asks questions about students' perceptions of the extent to which their institution offers them support for academic success and forming quality relations with faculty and students. The category of student demographics asks questions about students' educational and social background.

Appendix A. includes a list of specific items covered in each of these five categories. It can be seen that many items across the first four categories involve use of services and interactions with campus services providers, thereby making this study relevant to studying behavioral areas of student engagement assessment that are

supported by previous research on student development and learning as an implicit goal of student engagement.

Theoretical Frameworks

Given the scope of this study and the gaps in research and practice that it is aimed at addressing, the choice of theories is based on the extent to which conceptual frameworks address adjustment difficulties that typify international students' transitional challenges. It is important to employ conceptual frameworks that offer a dual purpose—not only explain the cause of the challenge, but also the manner in which that particular challenge is likely to hamper coping and possibly becomes a barrier. Further, the choice of theories is also based on the extent to which conceptual frameworks account for the role of self and environment in relation to perceiving the need for adaptation and engaging in relevant behaviors. Based on this criterion and the extent to which conceptual frameworks have been previously employed in studies conducted with students (international students included), the following theories are selected: Berry's (1980; 2005) theory of acculturation and Hurtado et al.'s (2012) diverse learning environment model.

Berry's theory of acculturation is based in his conceptual model of inter-group relations. He theorized that when two different cultural groups or individual members come in contact, it involves acculturation that can be characterized as changes in cultural practices and behaviors between groups and individual members, respectively. Furthermore, change in behaviors at an individual level is likely to either lead to a behavioral shift or acculturative stress (Berry, 2005). In contrast to a behavioral shift, acculturative stress is a response when level of cultural conflict faced by the individual is

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comparatively higher. It is akin to a double-edged sword where in some outcomes are as detrimental as causes of stress. Among international students, acculturative stress is shown to be caused by English language difficulties, cultural problems, lack of social supports and perceived discrimination among other difficulties (Constantine, Okazaki & Utsey, 2004; Tung 2011; Yeh & Inose, 2003).

From the standpoint of outcomes, acculturative stress entails the sub-processes of "cultural shedding, culture learning, and cultural conflict" (Berry, 2005, p.707). The first two are positive, but cultural conflict is likely to cause hindrance in developing a set of healthy adaptation strategies, in the form of individuals adopting strategies causing separation or marginalization vis-à-vis other cultural groups or individual members (Berry, 2005). It can be argued that international students who separate themselves or experience marginalization in their campus communities can start to perceive local support systems in a negative light. In the context of this study, such negative perceptions can be held toward the trustworthiness of campus community, utility of student services, and students' willingness to engage. Furthermore, if acculturative stress is unaddressed, then the causes of stress can also further manifest. In the context of this study, such causes can advance to increased English language difficulties, race-relation difficulties, and overreliance on one's pre-existing support systems.

Similar to theory of acculturation, Sylvia Hurtado's model of diverse learning environment (2012) attempts to study the exchange of influence when different groups come into contact. Using Bronfenbrenner's theory (1979) of environmental influences, Hurtado and colleagues developed their model for the specific purpose of explaining what influences different contexts that surround students in institutions of higher

education have on those students' success and development. Based on a thorough review of relevant studies, the model argues that both individual (life-long learning and retention) and institutional (social equity) outcomes are related to different kinds of contexts—namely, socio-historical, policy, institutional, and community contexts. These contexts influence each other in a dynamic manner and inform an institution's "climate of diversity" (p. 48). An equitable and fair climate for diversity can prove to be an asset for an institution's ability to inspire life-long learning and promoting academic achievement among its students. An earlier version of the model was employed in a mixed-method assessment of institutional climate on a large US campus that included international students among other student groups (Hurtado & Wathington Cade, 2001; Hurtado, Maestas, Hill, Inkelas, Wathington & Waterson, 1998).

In the context of this study, an institution's climate of diversity can either facilitate or hinder students' willingness to utilize the range of learning opportunities available at their campus and aspire for a greater sense of academic achievement. A negative climate of diversity can cause students to limit their involvement with campus partners, pay less attention to academic commitments, and overall develop perceptions of one's institution as a place that does not foster safety and equity. Such negative behaviors and perceptions can manifest as perceived barriers in the form of harboring negative attitudes toward one's campus' racial-ethnic climate, broader political relations, and observing differential treatment provided to students with different socio-cultural identities.

Internal Barriers to Engagement

This study aims to investigate relationships between international students'
perceived barriers in seeking campus services and their reported underutilization of those
services. As discussed in chapter 1, perceived barriers are classified as internal and
external. Internal barriers can be operationally defined as perceived challenges that
international student participants will report as inherent and subjective. By definition,
internal challenges pertain student participants' subjective values and behaviors, as
opposed to environmental influences that inform the definition of external barriers. In this
study, the list of internal barriers include English language fluency, unawareness of
services offered, perceived utility of services, and lastly, ethnocentric attitudes toward
help-seeking.

English Language Fluency

Extensive research has shown that fluency and ease in using English in formal
and informal settings is a significant challenge for international students (Andrade, 2006;
Kaczmarek, Matlock, Merta, Ames, & Ross, 1994; Lee, 2016). Results of a study showed
that English language fluency was a key barrier for overseas students to adapt well into
their new education systems (Mori, 2000). There is a gap, however, in extant literature to
rule out if English language fluency also poses a barrier in seeking services that may
ameliorate adaptation. A considerable amount of literature has also addressed the impact
of English language fluency in international students' willingness to engage in spoken
conversations—be it as a student in the classroom or in group events outside the
classroom (Earnest, Joyce, de Mori, & Silvagni, 2010; Eldaba, 2016). Results of this
research highlight a strong trend among international students to inhibit their

participation, especially in the classroom and with authority figures, like with faculty, as international students reported feeling embarrassed when unable to answer a question in class (Earnest et al., 2010). It can be questioned whether English language fluency also inhibits participation outside the classroom.

The manner in which English language use is conceptualized on US campuses is noteworthy. It is expected of international students to use English for their academic work, although extent of English language use outside of classroom and how that may affect learning beyond the classroom are questions that have not been attended in the literature. Many studies have treated English language fluency as an aspect of sociocultural adjustment (Andrade & Evans, 2009; Mori, 2005), rather than a stand-alone factor that can possibly enrich the curriculum and learning process (Cultures and Languages Across the Curriculum-CLAC, 2019). CLAC is a writing across the curriculum program that involves different academic and extra-curricular sub-programs universities can utilize in promoting global competence and cross-cultural learning on their campuses. Learning programs such as CLAC argue that instead of discounting international students' knowledge of other languages, it should be treated as an opportunity for incorporating international elements into the curricula and diversifying campus conversations. However, language fluency is mostly treated from a deficit standpoint in that international students are expected to acquire learning that improves their fluency and pragmatic use of the language. It is important to distinguish between use of language for academic and non-academic purposes. As mentioned above, it is expected that international students would use English for their academic work but use of English outside the classroom may be perceived differently by international students if

compared with perceptions of campus services providers. Future research can investigate such questions.

With Teaching English as a Second Language (TESoL) having been established as a teaching profession, second language acquisition research among international students is mostly conducted with international students who are enrolled in an ESL program (Zhao & Ng, 2016). Research is scarce in exploring the role of English language fluency in US educational contexts among non-ESL international students. These students constitute the majority of international students at four-year colleges and universities in the US (IIE, 2019). As students who have met the English fluency requirements of the institutions they are admitted to and are therefore not required to take ESL classes, it is important to study ways in which English language fluency causes challenges among this group, if any. There is also paucity of research that delves into the experiences international students have while using informal English. Recently, one study examined international and American students' perceptions of structured but informal English conversations with each other (Lee, 2016). The researcher used a mixed- method design with a survey followed by interviews. Results indicated that international students reported an increase in cultural and linguistic competence, whereas domestic students reported use of informal English as serving a means of cultural exchange. The researcher concluded that informal English programs and friendships with domestic students can help international students with sociocultural adaptation and developing familiarity with cultural norms.

Unawareness of Services

As mentioned in Chapter 1, not being aware of the range of services offered at their campus, especially during times of adjustment difficulties can be a deterrent for any student and exert pressure on one's personal resources. Although, in the case of international students, there might be very few to no personal resources (Andrade, 2006). It is, therefore, more important that international students are well aware of student services and resource centers that their campus is offering. In a US-only context, there has been a dearth of empirical research on assessing whether sheer unawareness of services can inhibit help-seeking process and serve as an unseen barrier (Perry et al., 2020). Cody Perry and colleagues (2020) in the same study collected empirical evidence that showed that unawareness of programs is likely to correlate with students underutilizing programs and perceiving them as less useful. A few studies have been conducted in Australia that can be used for reference (Roberts et al., 2015; Roberts & Dunworth, 2012), given English is also the medium of instruction. Despite the region, unawareness of services and programs has conclusively been shown in these studies as a factor that is likely to affect inadequate utilization. It is, therefore, important for the current study to include this factor among the list of perceived barriers and collect empirical data.

In previous research, it has been suggested by several practitioners that spreading awareness about campus services providers must be included as a stand-alone programming goal (Lee, 2013; Stürzl-Forrest, 2012). They believe that many international students, might be coming from countries where student affairs is not a known profession. Undergraduate international students, particularly, are more likely to

be unaware of or prone to not know when and how to use campus services, given their lack of experience living on campus and attending school. Practical issues stemming from unawareness of services may include making assumptions about unfamiliar names, such as Office of Institutional Equity. This can also result in international students going to their campus' international office for concerns that are best dealt by another functional unit.

Adequate awareness of all support resources can go a long way in also preventing international offices from feeling overwhelmed by having to make referrals can also be determined by student alone. In sum, given the lack of research and the conclusive direction indicated in the little research that has been conducted in the US and Australia, it can be argued that unawareness of services can be related to international students underutilizing the services available to them. Therefore, this factor must be further investigated in the context of this study.

Perceived Utility

This is another under-researched area in the context of international students' use of student services (Perry et al., 2020, Roberts et al., 2015; Roberts & Dunworth, 2012). Also, in the context of domestic students in other English-speaking countries, this is an under-researched topic (for example in Canada, Dietsche, 2012). Similar to unawareness of services, having a poor perception of the extent to which services are considered useful is likely to correlate with those services being utilized or underutilized (Perry et al. 2020).

A case study by Roberts and Dunworth (2012) conducted individual semi-structured interviews along with multiple focus groups to explore themes in perceptions among students and service providers vis-à-vis support services. One of the themes that

emerged had participants identifying the role of utility of services in shaping their attitudes of providing and utilizing support services, as staff and as a student respectively. In the study, "over half the students in the focus groups identified one or more other services which were not useful, or which had not been of assistance" (2012, p. 523). An extended version of this study was conducted later and published in the year 2015 (Roberts et al.) that also showed evidence for usefulness as a salient theme among perceptions of both international students and university staff.

As cited above, the study by Perry et al. (2020) is the only study that has addressed the role of perceived use in a US context. All these studies provide compelling evidence for the current study to include the potential role of perceived utility of services in informing service utilization attitudes of international students. Additionally, data collected on this sub-variable can be used to further inform the emerging topical discourse of perceived use in a US American international education context.

Ethnocentric Attitudes toward Help-Seeking

This is yet another factor that has not been adequately studied, particularly in the context of international students in higher education (Arasaratnam, 2005). Ethnocentric attitudes stem from ethnocentrism that can be characterized as a person's tendency to treat one's ethnic group and its values as the guiding standard while dealing with members of other ethnic groups (LeVine & Campbell, 1972). Ethnocentrism must not be equated with ethnic pride, as the latter does not imply a disregard for other ethnic groups on basis of intergroup differences. Previous research in the area of ethnocentrism has shown evidence for ethnocentric attitudes weakening an individual's motivation to interact with people from other groups and develop cross-ethnic friendships (Arasaratnam

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& Banerjee, 2007; Lin & Rancer, 2003). Furthermore, ethnocentric attitudes and behaviors are also likely to cause intercultural communication apprehension among college students as evidenced in the study by Lin and Rancer (2003). As a result, authors of this study stated the development of a "vicious cycle" (p. 69). In this cycle, as increasing incidents cause more intercultural communication apprehension, they reinforce a student's unwillingness to engage and consequently fuel more intolerance and contempt for members of other ethnic groups. Additionally, as noted in Chapter 1, ethnocentrism can also give rise to attitudes of internalized racism. Race is frequently equated with ethnicity, but regardless of the influence, either ism might serve as a deterrent for students to engage outside their racial-ethnic group. How such manifestations of ethnocentrism and internalized racism may potentially affect international students' service utilization behavior is a question yet to be investigated in educational research.

Another argument to include role of ethnocentric attitudes in the context of current study can be attributed to the theory of acculturation (Berry, 2005). The theory is chosen as one of the overarching theoretical frameworks for this dissertation study. In Berry's theory, it is indicated that individuals who deal with acculturation by separating themselves from intergroup relations contexts are likely to develop overreliance on one's ethnic group. In the absence of any continued engagement with ethnic others, it is likely that individuals overlook supports that might still be available outside their ethnic group. Although, the impact of within-group differences on service utilization remains an understudied area of research (Arasaratnam, 2005). The study by Frey & Roysircar (2006) is one of the rare studies in an US context. The study examined relationships of

perceived prejudice and acculturation with frequency of help resource utilization among two distinct groups of South Asian and East Asian international students. Researchers found significant relationships between perceived prejudice and acculturation with frequency of help resource utilization that varied for individual groups. The mean frequency of help resource utilization was significantly higher for South Asians international students in comparison. The study also assessed for membership to respective Asian groups and found it to be negatively correlated with frequency of help resource utilization among South Asians in the sample. This indicates the importance of studying within-group differences among this population and their impact on help-seeking.

Lastly, ethnocentrism can also mask preference for supports and solutions that are sanctioned by one's racial-ethnic group, even if there are better supports available on campus. The extant literature in student affairs and higher education has not attended to this factor by which international students' engagement and use of services is likely to be influenced by their subjective preferences or culturally informed conceptualization of problems they encounter during their student experience. Some practitioners (Olivas & Li, 2013; Perry et al., 2020; Zahi, 2002) have indicated in their review that international students are hesitant to utilize on-campus services, particularly for personal problems as they prefer using help of family and friends back in their home country. This preference for members of one's own ethnic culture can give rise to international students developing strong racial preferences (possibly, discriminatory attitudes as well) toward groups that are different (Chow, 2013). The paucity of empirical evidence makes an examination of this topic in the current study timelier and more relevant.

External Barriers to Engagement

This study aims to investigate relationships between international students'

perceived barriers in seeking student campus services and their reported underutilization

of those services. As discussed in chapter 1, perceived barriers are classified as internal

and external. External barriers can be operationally defined as perceived challenges that

international student participants will report as facing in response to environmental

factors. By definition, external challenges pertain aspects of international students'

environment in the form of campus-specific environment (institutional policies, campus

climate, critical campus incidents) and local environment (broader political climate that

surrounds the campus). In this study, list of external barriers include campus climate,

foreign relations (perceived relationships between the US and one's country of

citizenship in the current socio-political landscape), perceived access, and lastly, one's

experiences of racism (general) and neo-racism (targeted).

Campus Climate

As clearly implied in the model of diverse learning environments by Hurtado et

al. (2012), an institution's climate for diversity is likely to play an instrumental role in

students' willingness and ability to utilize the range of learning opportunities available at

their campus and aspire for higher levels of academic achievement. The role of campus

climate vis-à-vis international students has been directly addressed in previous research

(Glass, 2012; Glass et al., 2015); also, indirectly by assessing related constructs—for

example, effects of belongingness (Glass & Westmont, 2014). A review by Clements

(2000) provided an overview of a program implemented at a community college targeting

aspects of campus climate to enhance diversity on campus. A question remains

unaddressed, however – the question if campus climate shapes perceptions of international students in ways that might impact adequately utilization of campus services. The inclusion of campus climate as an environmental factor in the current study can provide insight in determining the potential impact of campus climate.

The few studies that have been conducted with international students also support the inclusion of campus climate as a potential barrier. A study by Glass (2012) was conducted with 437 undergraduate international students assessing relationships between perceptions of campus climate and other learning indices (for example, participation in leadership, community service, etc). Results of the study showed that international students who reported more positive perceptions of campus climate also participated in more intergroup dialogues in the classroom. Furthermore, international students who participated in more intergroup dialogues in the classroom reported greater interaction with people from diverse cultural backgrounds, taking courses with materials on race and ethnicity, and overall, reported greater levels of learning and development. Such outcomes are likely to instill among students a sense of engagement and campus belongingness (Glass & Westmont, 2014; Glass et al., 2015). This was evidenced in another study by Glass and Westmont (2014) in which participants' sense of belongingness served as a buffer against the effects of racism.

In the context of the current study, campus climate can be operationally defined as the manner in which an institution is perceived as inclusive of international students and student body diversity. As indicated above, there is paucity of educational research that has directly assessed the relationships of such climate-oriented factors with utilization of campus services among international students. The current study can be considered

innovative in that it is including assessment of campus climate in a novel research context.

Foreign Relations

In the context of this study, this sub-category of proposed barrier is operationally defined as perceptions international students have of their institution based on political relations shared between the US and student's country-of-origin. One might question the nomenclature of such a factor, given perceptions about the institution have been mentioned in the previous factor of Campus Climate. Perceptions based on foreign relations can be argued to be treated as stand-alone factor because the scope of political relations are outside the control of any higher education institution. Institutions and students are certainly stakeholders in how higher education is managed, but they have very little influence on a country's foreign policy (Wong, 2019). As a result, when federal policies affecting international travel are announced, for example, institutions and students are expected to follow.

It can be further argued that international students are likely to be affected by developments in the US politics vis-à-vis international travel, immigration, and domestic issues involving relations between racial, national and ethnic groups. Such an argument is also implied in Hurtado et al.'s (2012) model that includes the influence of socio-cultural and policy contexts. There is dearth of empirical research in this area, although a few educational analysts have written on the subject (Fischer, 2017; Quilantan, 2018; Redden, 2018). Recently an article in The Atlantic (Wong, 2019) reported the increasing number of student visa applications being delayed or denied, making institutions either spend more resources in completing additional paperwork to have students start their program

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on time or forego admitted students if they are denied a visa. The data for this article was sourced from an Open Doors report published by the IIE in the year 2017. Based on these trends, it can be suggested that international students are facing additional barriers in seeking campus services because of perceptions based on foreign relations between the US and their respective country-of-origin. Collecting data on this proposed factor will make for the first-ever empirical investigation to assess any influence of students' perceptions of US foreign relations and their educational experience.

Perceived Access

Similar to the aforementioned subjective factor of perceived utility, this environmental barrier is another under-researched area of research in the context of international students' use of student services (Roberts et al., 2015; Roberts & Dunworth, 2012). It appears that the influence of access has not yet been studied in the context of service utilization among international students in the US. Also, in the context of domestic students in other English-speaking countries, this is an under-researched topic (for example in Canada, Dietsche, 2012). Similar to perceived utility, having a poor perception of the extent to which services are considered accessible is likely to correlate with those services being utilized or underutilized (Roberts et al., 2015; Roberts & Dunworth, 2012).

A case study by Roberts, Boldy and Dunworth (2015) conducted interviews along with key service providers, multiple focus groups with students, and a large scale survey to explore support needs of international students at a university in Australia. One of the themes that emerged had participants identifying the role of students' access issues in shaping their attitudes of providing and utilizing support services. The authors in their

study defined access as "knowledge of how to go about using a particular service" as well as having that service being made available "at a time and in a location that suited students' perceived needs" (2015, p. 127). The same team of researchers also conducted a version of this study that was published three years ago—Roberts and Dunworth (2012), in which access issues were also indicated by staff and students as a significant set of issues that influence service provision and utilization.

Albeit few, these studies provide compelling evidence for the current study to include the potential role of perceived access of services in informing service utilization attitudes of international students. Additionally, data collected on this sub-variable can be used toward introducing the topic of service-access in international students' service utilization discourse.

Experiences of Racism

Incidents of racism and its effect on international students' perception of discrimination have received considerable attention among researchers in the last 10-15 years (Houshmand et al., 2014; Lee, 2013; Lee, 2010; Lee & Rice, 2007; Poyrazli & Lopez, 2007; Roberts et al., 2015; Yeo et al., 2019). All these studies suggest that incidents of racism (racism based on phenotype and country-of-origin—the latter called neo-racism, Lee, 2007) constitute much of the bias and discrimination international students face. A couple studies that have addressed the experience of service utilization by international students (Roberts et al., 2015; Roberts & Dunworth, 2012) also had participants reporting incidents of perceived discrimination. These researchers in their analyses interpreted such experiences as barriers international student participants faced while using campus services. Furthermore, the two theoretical frameworks being

employed for the current study also indicate the harmful effects racial tensions might cause for members of the outgroup (Berry, 2005) and students as a vulnerable demographic in an institutional setting (Hurtado et al., 2012). The researcher of this study did not find any published research in a US context, which has yet assessed the influence of perceived racist incidents in the context of service utilization among international students. Moreover, given the strong evidence of harmful effects racial-ethnic minority students (Harper, 2012; Harper & Quaye, 2014; Houshmand et al., 2014; Hurtado et al., 2012; Lee, 2013; Roberts et al., 2015) face across campus settings, inclusion of this potential barrier in the context of current study is imperative. This salience also reflects in the results that were obtained by other researchers who addressed international students' experiences of racism.

A study by Lee (2013) examined international students' experiences at a US university and how these might influence them to form an opinion on whether they would recommend or not recommend their university to other potential students from their home country. Data were collected using a survey method at a large US university located in the Southwest region. Results indicated that students hailing from non-European countries (for example, India and China) had more negative experiences. Findings suggest that perceptions of unequal treatment among students of color are a major factor influencing those international students' attitudes. This finding is directly utilized in development of a research question for the current study that compares the extent of perceived barriers between international students of color and White students. In another study, Houshmand and colleagues (2014) employed a qualitative design to explore 12 East and South Asian international students' experiences with racial microaggressions at

one Canadian university. Their data led to identification of microaggressions themes that comprised of feelings of exclusion, being ridiculed for accent, "rendered invisible, disregarded international values and needs, ascription of intelligence, and environmental microaggressions (structural barriers on campus)." (p. 377). Their results also showed that international students coped with these experiences by "engaging with own racial and cultural groups, withdrawing from academic spheres, and seeking comfort in the surrounding multicultural milieu" (p. 377, 2014). Results of these and other similar studies bolster the inclusion of this potential environmental barrier. Data obtained in this research will initiate the discourse on the influence (if any) of perceived racism and its repercussions on service utilization among international students across university campuses in the US.

Underutilization of Campus Services

This study aims to investigate relationships between international students' perceived barriers in seeking campus services and their reported underutilization of those services. As discussed in chapter 1, as a marker of practical manifestation of student engagement and student satisfaction (Astin 1993, Kuh, 2009)—underutilization of campus services is employed as the dependent variable in the current study. As per the conceptualization suggested by CAS (2012) and NSSE (Kuh, 2001), campus services will be distributed across three types of services. These types are comprised of student services, social engagement services and enrollment services. These categories are further discussed in the following sections.

Student Services

As discussed in chapter 1, student services as a category refers to service providers that typically offer their services to individual students with the aim of offering assistance to remedy a student's subjective problems. In the context of this study, the list of student services is comprised of academic advising, immigration advising, tutoring, supplemental instruction, career services, library services, counseling services, disability services, judicial services, campus security, recreation services, and health services. Each of these 12 service units will inform individual items in the assessment survey of this study.

Social Engagement Services

Social engagement as a category refers to services that are aimed at facilitating students' social and interpersonal development. In the context of this study, the list of social engagement services is comprised of events and programs offered by campus life, Greek life, housing and residential services, office of international students, multicultural or ethnic centers, LGBTQ+ services, veteran affairs, and women's resource center. Each of these eight service units will inform individual items in the assessment survey of this study.

Enrollment Services

As discussed in chapter 1, enrollment services as a category refers to services that provide assistance to students with maintenance of their enrollment status and enforce campus policies. In the context of this study, the list of enrollment services is comprised of financial services, registrar's office, student conduct, and office of institutional equity.

Each of these four service units will inform individual items in the assessment survey of this study.

It is important to highlight the reasons provided in published research that directly inform the identification of these categories against the backdrop of the current study. Since the current study is aimed at assessing the relationships between various internal and external barriers and international students' extent of services utilization, the selection of services must be comprehensive and reflect the typical range of campus services that are offered in US campuses nationwide (Kuh, 2001). The current study has referred to list of services discussed in the reports of Council for the Advancement of Standards (CAS, 2012) and the National Survey of Student Engagement (Kuh, 2001).

Additionally, the few studies that have treated service utilization as a key variable have also referred to relevant service units offered on campuses in Canada (Dietche, 2012) and Australia (Roberts & Dunworth, 2012; Roberts et al., 2015). Almost all the service units used in these studies are included in the current study, with slight variations in the nomenclature that is specific to education system in the US. For example, a study by Dietche (2012) investigated how campus support services are used by students in Ontario colleges in Canada. A questionnaire was developed in this study that listed "disability services, math skills centre, language/writing centre, learning skills centre, personal counselling, peer tutoring, career counselling, academic advising, and the career resource centre" (p. 70). Results obtained by the researcher showed that despite relatively high student reported need, the majority of Ontario college students did not utilize most campus services. Age, gender and ethnicity, receptivity to support, negative college experiences, faculty referral, studying with peers, and poor grades were associated with

use of services. The author suggested improving the delivery model using web-based resources to minimize location-based barriers and to more effectively promote services dedicated to student success.

COVID-19 Service-Use Barriers

As mentioned in the above chapter, in order to assess the unique impact of COVID-19 related service-use barriers, 10 items were added to the survey and relatedly an additional research question. The 10 items were based on relevant publications (Lederman, 2020; Quinton, 2020; Zhai & Du, 2020). These comprised of items that assessed for participants' uncertainty about how their institution will manage its campus operations in an online-only mode; difficulties accessing services and campus services providers remotely; feeling isolated; experiencing COVID-19 racism that stemmed from portrayal in the media of some countries seeing early infections and those being alleged to have caused the viral disease; difficulty navigating international travel in the midst of travel bans and country-specific quarantine policies; unavailability of relevant health services on campus; and, finally, participants' willingness to continue and complete their program of study in the US if they had gone home during the spring or summer semesters during which COVID-19 started to rampantly spread around the world and in the US.

Summary of Chapter II

In this chapter, key constructs mentioned and briefly discussed in chapter 1 were discussed in more detail. Published research on patterns of sociocultural adjustment and related adaptation suggests heightened adjustment difficulties being faced by international students that makes them a relevant group to focus on in new research. In the next section, pertinent research regarding student engagement was discussed.

Previous research has approached student engagement from a behavioral standpoint; therefore, a behavioral assessment of service use is an appropriate benchmark to employ as the dependent variable. The section on theoretical frameworks in discussed next, in which theoretical models of acculturation (Berry, 2005) and diverse learning environments (Hurtado et al., 2012) are described in relation to how independent variables for the current study must be conceptualized and articulated. The next section is comprised of the first set of independent variables namely, internal barriers. It is followed by the section on the second set of independent variables namely, external barriers. The next topical section of chapter 2 is a brief description of this study dependent variable—namely, underutilization of campus services. The last section briefly outlines the specific COVID-19 service-use barrier variables that were employed as additional items in the survey.

There is variability in research evidence that favors the choice of certain proposed barriers. Although, despite the strength of research evidence, none of the proposed barriers have been studied in previous research in the same context as the one proposed in the current study. In sum, this study is innovative and relevant for the discourse on international education in the US and other similar educational milieus. It is aimed at addressing questions regarding the role of perceived barriers in use of campus services among international students attending various higher education in the US. Data collected through this proposed study would offer evidence that can be used in informing emerging questions in areas of international education policy, research and practice.

CHAPTER III

METHODOLOGY

The proposed research methodology is outlined in this chapter. As stated in
Chapter 1, the purpose of the study was to investigate the relationships between
international students' perceived barriers in seeking campus services offered by campus
services providers and their reported underutilization of those services. The study
measured eight different kinds of perceived barriers distributed between internal and
external barriers. Internal barriers were comprised of student's English language fluency,
unawareness of resources, perceived utility, and ethnocentric attitudes toward help-
seeking. External barriers were comprised of campus climate, foreign relations, perceived
access, and experiences of racism. After proposal defense, COVID-19 service-use
barriers were added as another set of independent variables. The study was driven by the
following four research questions. Given the quantitative nature of the research
design, the research hypotheses accompany research questions below.

1. To what extent are international students' perceived internal barriers (English language
fluency, unawareness of resources, perceived utility and ethnocentric attitudes toward
help-seeking) related to their underutilization of campus services?

$H1_r$ International students' perceived internal barriers are related to their underutilization
of campus services.

2. To what extent are international students' perceived external barriers (campus climate, foreign relations, perceived access, and experiences of racism) related to their underutilization of campus services?

H2$_r$ International students' perceived external barriers are related to their underutilization of campus services.

3. To what extent is there a difference in predicting international students' underutilization of campus services between students' internal and external perceived barriers predictors?

H3$_r$ There is a statistically significant difference in predicting international students' underutilization of campus services between students' internal and external perceived barriers.

3.1 To what extent is there a difference in predicting international students' underutilization of campus services between students' internal and external perceived barriers and COVID-19 service-use predictors?

H3.1$_r$ There is a statistically significant difference in predicting international students' underutilization of campus services between students' internal and external perceived barriers and COVID-19 service-use predictors.

4. What are the relationships among these variables for subgroups of international students endorsing different racial-ethnic group memberships?

4.1 Does race/ethnicity have an interaction effect with internal and external barriers in predicting international students' underutilization of campus services?

H4.1$_r$ Race/ethnicity has a statistically significant interaction effect with internal and external barriers in predicting international students' underutilization of campus services.

4.2 What are the relationships among these variables for international students of color?

H4.2$_r$ There is a statistically significant relationship between internal and/or external perceived barriers and underutilization of campus services among international students of color.

4.3 What are the relationships among these variables for international students who identify as Caucasian or White?

H4.3ᵣ There is a statistically significant relationship between internal and/or external perceived barriers and underutilization of campus services among students who identify as White.

This chapter provided an overview of the conceptual framework, research design, targeted participants, description of instrumentation and proposed statistical procedures. It also discussed the proposed steps for validation of a new instrument called the International Students' Perceived Barriers and Service Utilization Survey [ISPBSU].

Conceptual Framework

The study sought to investigate the relationships between international students' perceived barriers in seeking campus services and their underutilization of those services. Much of the prior research has addressed the unique challenges of international students and their social adjustment (Poyrazli & Lopez, 2007; Sherry, Thomas, & Wing, 2010), along with literature that showed the remedying effects of social support (de Araujo, 2011), the question whether international students adequately utilize support resources and participate in educational activities that are indicative of student engagement and student satisfaction has not been addressed adequately in research. Prior to the study, no research has sought empirical evidence and specifically asked targeted questions regarding perceived barriers that could account for lack of international student engagement and related underutilization of student campus services.

The conceptual frameworks for the study directly speak to the choice of perceived barriers (both internal as well as external) that can be construed as predictive variables for

international students' reported underutilization of campus services. For barriers that could predict lack of participation, Berry's (2005) and Hurtado et al.'s, (2012) theoretical frameworks were utilized. Berry's (2005) concepts on acculturation and its various aspects are widely accepted in the discourse on international student adjustment. His theory of acculturation is based in his conceptual model of inter-group relations. It posits that when two cultural groups come into contact, change in behaviors of non-dominant group members is likely to either lead to a behavioral shift or acculturative stress (Berry, 2005). Among international students, acculturative stress has been shown to be caused by English language difficulties, cultural problems, lack of social supports and perceived discrimination among other difficulties (Constantine, Okazaki & Utsey, 2004; Tung 2011). These concepts provided explanations for the study to address the following perceived barriers: English language fluency, unawareness of resources, perceived utility, and ethnocentric attitudes toward help-seeking.

Relatedly, for additional barriers than can hinder participation, the concepts from Hurtado et al.'s (2012) diverse learning environment were employed. Using Bronfenbrenner's theory (1979) of environmental influences, Hurtado and colleagues developed their model for the specific purpose of explaining what influences different contexts that surround students in institutions of higher education have on those students' success and development. The model argues that socio-historical, policy, institutional and community contexts considerably impact both individual (life-long learning and retention) and institutional (social equity) outcomes. Further, these contexts influence each other in a dynamic manner and inform an institution's "climate of diversity" (p. 48). In the context of this study, an institution's climate of diversity can either facilitate or

hinder students' willingness to utilize the range of learning opportunities available at their campus and aspire for a greater sense of academic achievement. These concepts provided explanations for the study to address the following perceived barriers: campus climate, foreign relations, perceived access, and experiences of racism.

There is also some degree of conceptual overlap between the two theoretical frameworks on the influence of race relations. That overlap along with other proposed relationships are depicted below in figure 2.

Figure 2

Conceptual Model and Research Design of the Study
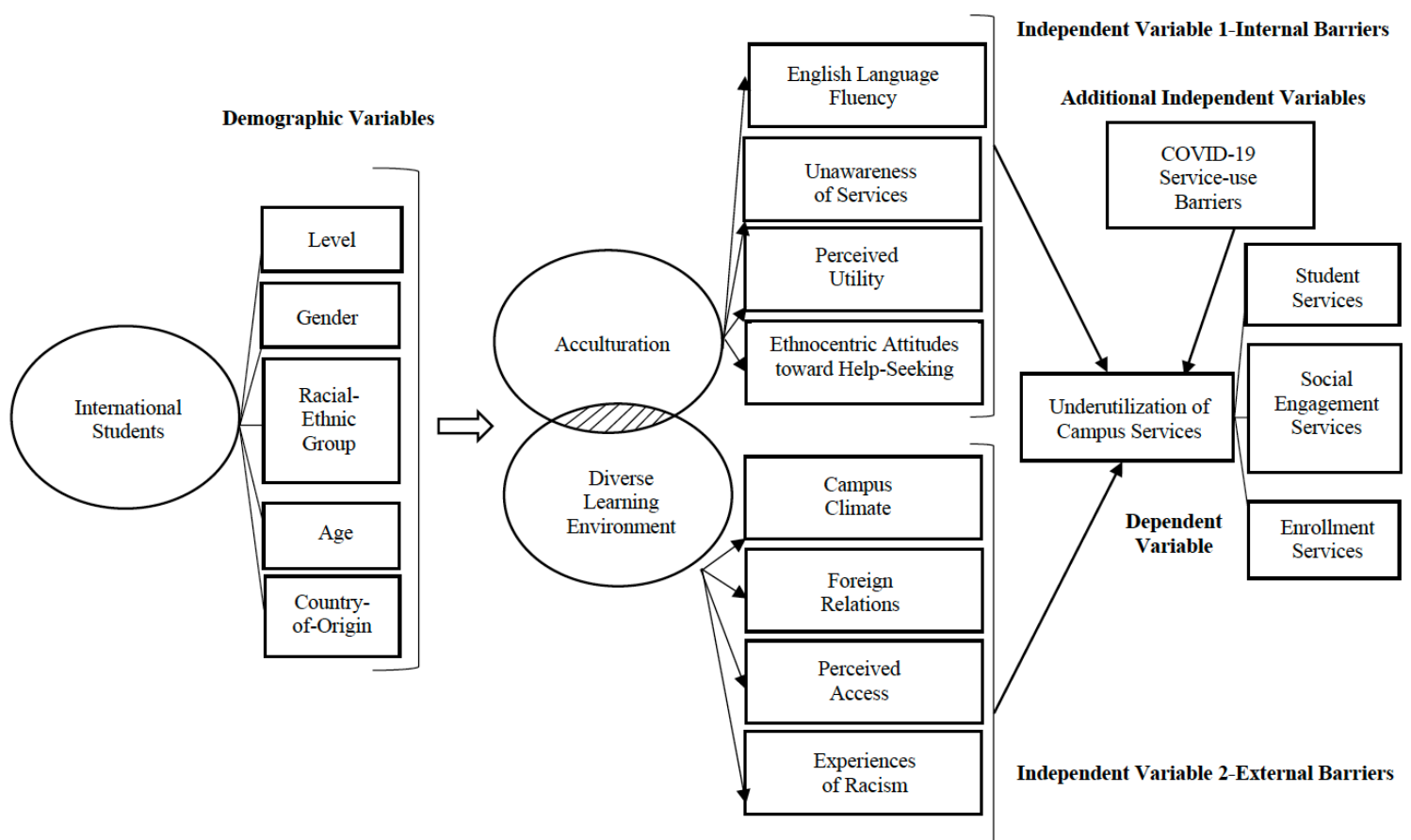
Research Design

The quantitative study employed a correlational design with survey method to answer each of the research questions. A correlational design was the most appropriate method to determine the relationships among variables in this study, because the researcher was interested in simply examining existing relationships between independent and dependent variables, without manipulating or controlling any variable. This design assists in data collection and provides numeric description of trends, perspectives or opinions of the population under study (Hair, Black, Babin, & Anderson, 2014). This approach is consistent with previous international student adjustment and service utilization research. The instrument in this study was first be reviewed by an expert focus group to account for face and content validity. Next it would be assessed for reliability with international students, and it will be administered online to capture a representative sample. The dependent variable was international students' underutilization of campus services. The independent variables were comprised of internal and external barriers. Internal barriers were comprised of student's English language fluency, unawareness of resources, perceived utility, and ethnocentric attitudes toward help-seeking. External barriers were comprised of campus climate, foreign relations, perceived access, and experiences of racism. After proposal defense, COVID-19 service-use barriers were added as another set of independent variables.

Targeted Participants

The context of this study related to higher education services marketed to all international students, both undergraduate and graduate, who are currently enrolled in US higher education institutions. The study aimed to collect participant data that varied by

racial-ethnic membership, length of study in the US, gender, type of institution and level of perceived English proficiency. According to IIE (2019) data, there were a total of 269,383 international students currently studying in the US in the academic year 2019-2020. These students started their program in fall semester of the year 2019. Specifically, 39.6% of the population were undergraduate students who plan to receive a bachelor's degree; 44.4% were graduate students who plan to receive either a master's or doctoral degree; and, 15.8% were non-degree students. Additionally, it should be noted that the top three places of origin in the U.S. are China (33.7%), India (18.4%), and South Korea (4.8%). Based on the recommended variable-case ratio as employed in exploratory factor analysis, the estimated ideal sample size is $N = 350$. That would provide the ratio of 1:14 (recommended minimum is 1:10, Hair et al., 2014).

Data Collection

A questionnaire, the International Students' Perceived Barriers and Service Utilization Survey (see Appendix B.) was developed following an extensive review of the literature and used in this study. The respondents were guided through the survey questions, which also addressed demographic information. In order to reach out to the target respondents located at institutions that were nearby researcher's location, institutions located in the state of Ohio were contacted first, followed by institutions whose representatives could be members of international educators' listservs. An online mode of data collection was employed in this study, which was also appropriate for collecting survey data during outbreak of a pandemic, as the vast majority of students switched to remote learning mode (Quinton, 2020).

The researcher reached out to his home institution – Cleveland State University (CSU) first and then other institutions in Ohio, such as Youngstown State University, University of Cincinnati, and eleven other universities situated in Ohio. Thirteen of these institutions were listed as participating institutions of the Ohio International Consortium (OIC). Out of these 14 institutions, seven agreed to send out the survey to their enrolled international students, and five out of the seven sent the survey to their enrolled international students. After 3-4 weeks of active recruitment through OIC institutions, the researcher sent the Call for Participants on three professional listservs that are comprised of higher education and student affairs' professionals: ACPA's CSPTalk, ACPA's Commission for Global Dimensions of Student Development-CSGI and NAFSA's Research and Scholarship Network.

Recruitment for participants was proposed to be made in steps in order to have total sample approximate current enrollment trends. This would also contribute to the diversity of the sample and external generalizability of the findings. Despite these attempts, there were some sub-groups that were underrepresented in the total sample. The table below provided a comparison of projected and actual breakdown of samples by region-of-origin. It must be noted that 12 participants either skipped or entered an invalid response for the item asking for their country-of-origin. As a result, data from only 308 participants is being used instead of 320 participants that completed other sections of the survey.

Table 1

Sample Breakdown by Region-of-Origin

Region-of-Origin	Projected Sample Size (N = 350)	Actual Sample Size (N = 308)	Difference

Africa	5%	6%	+1%
East Asia	10%	9%	-1%
Europe and Oceania	10%	9.7%	-0.3%
North America	10%	8.5%	-1.5%
South Asia	20%	36%	+16%
South-East Asia	25%	18.5%	-6.5%
South-West and Central Asia	10%	7.8%	-2.2%
South America	10%	4.5%	-5.5%
Total %	100%	100%	

Measurement

In order to test the research questions, a newly developed, Likert-type scale questionnaire, the International Students' Perceived Barriers and Service Utilization Survey (see Appendix B.), was employed in this study as the main instrument of data collection. It extended previous research by surveying international students' perceived barriers in seeking campus services. The measure also assessed international students' underutilization of campus services. The measurement scales were designed to measure international students' perceived barriers in seeking of- and underutilization of those campus services that are provided by their university or college by using a five-point scale (1 for "Strongly Disagree" to 5 for "Strongly Agree"). Tests for reliability were conducted later as part of the procedure for data collection, specifically in the form of computing coefficient alpha reliability estimates (Hair et al., 2014). After assessment of sample adequacy using KMO and Bartlett's Test of Sphericity, an exploratory factor analysis-EFA was conducted with all items combined together from internal and external barriers. This was proposed with the aim of assessing whether factors group as expected—internal barrier items as one group and external barrier items as the other group. If factors did not load as expected, depending on results of EFA, conceptual themes would be drawn and accordingly, factors might be relabeled. Some items may be

omitted as needed. Also, it must be noted that factor analysis would be conducted for only variable items of independent variables, that is internal and external barrier items, as other items are either inventory of different campus services units or demographic characteristics, both of which were not supported by any conceptual grouping or theoretical factor per say (Hair et al., 2014).

Additionally, a focus group would be employed with 4-5 staff members who provide direct services with Cleveland State University's Centre for International Students and Programs (CISP). This focus group would serve as a forum to receive experts' feedback on topical areas that the survey is aimed at assessing. The feedback received would be utilized to provide evidence for face and content validity of the proposed survey instrument (Hair et al., 2014).

Instrument

The ISPBSU survey consisted of 73 items divided into four sections: demographic items (23 items), internal barriers (13), external barriers (13), and underutilization of campus services (24 items). Two non-factor items were included to assess for inattentive responding; for example, asking the participant to choose a certain response from the Likert-type scale (Hair et al., 2014). After proposal defense that was conducted on March 20, 2020, 10 additional variable items were added to assess the impact of COVID-19 pandemic on service utilization behavior, thereby bringing the total number of survey items to 83. It must be noted though that 12 demographic items were made optional as per the feedback of CSU's Institutional Review Board-IRB, so any participant would have been able to complete the survey by answering 71 out of 83 items.

The criteria for participation clearly specified that potential participants need to be at least 18 years of age and enrolled at a US institution at the time of taking the survey. Furthermore, the items assessing perceived barriers were adapted from key studies that have either published the validated scale or survey for the theoretical construct (items from the original scale) that explained the barrier item, or study that is the primary source to theorize (key conceptual statements) and explain the barrier item. For example, Sandhu & Asrabadi's (1994) acculturative stress scale was used to articulate items assessing the different internal barriers, given acculturation is used as the theoretical construct to account for internal barriers. Appendix C. provides an item-by-item list of references used as adapted sources. Variable items were put first in the survey and demographic items second, to ensure that the participants could respond to variable items anonymously without having to be concerned about how their demographic information may be viewed by the researcher. The informed consent form clearly mentioned that completing the survey is voluntary and that participants' responses are recorded anonymously.

Demographic items

The survey consisted of 23 demographic items examining basic demographic qualities related to the respondent's institution, level of study, gender, race/ethnicity and nationality. In addition, the demographic questions also gathered specific information on the participant's length of stay in the U.S., visa type, academic major, GPA, identification as first-generation and English reading and speaking abilities.

Internal Barriers

International students' internal perceived barriers consisted of 12 items. This assessment was divided into four sections—namely, English language fluency, unawareness of resources, perceived utility, and ethnocentric attitudes toward help-seeking. All questions required participants to respond on a five-point Likert-type scale from 1 - "Strongly Disagree" to 5 - "Strongly Agree". A Likert-type scale was used as it has been shown to create adequate variance necessary for examining relationships among items and to establishing internal consistency using coefficient alpha reliability estimates (Hair et al., 2014).

External Barriers

International students' external perceived barriers consisted of 12 items. This assessment was also divided into four sections—namely, campus climate, foreign relations, perceived access and experiences of racism. All questions required participants to respond on a five-point Likert-type scale from 1- "Strongly Disagree" to 5- "Strongly Agree". A Likert-type scale was used as it has been shown to create adequate variance necessary for examining relationships among items and to establishing internal consistency using coefficient alpha reliability estimates (Hair et al., 2014).

Underutilization of Campus Services

International students' reported underutilization of campus services consisted of 24 items. This assessment asked about a student's self-reported frequency of using campus services, across three major service units: student services, social engagement services and enrollment services. An item was dedicated to each service unit. Student services as a category comprised of 12 different services, social engagement comprised

of eight different services, and enrollment services included four different services. All

questions required participants to respond on a five-point Likert-type scale from 1 -

"Never" to 5 - "Very Frequently". A Likert-type scale was be used as it has been shown

to create adequate variance necessary for examining relationships among items and to

establishing internal consistency using coefficient alpha reliability estimates (Hair et al.,

2014).

COVID-19 Service-Use Barriers

COVID-19 service-use barriers to underutilization of campus services consisted

of 10 items. This assessment asked about a student's self-reported challenges and

difficulties in accessing campus services remotely, challenges of international travel,

experiences of isolation and COVID-19-related racism, and unavailability of health

services. Majority questions required participants to respond on a five-point Likert-type

scale from 1- "Strongly Disagree" to 5- "Strongly Agree". The last question had a binary

scale with 1 – "Yes" and 2 – "No". A Likert-type scale was be used as it has been shown

to create adequate variance necessary for examining relationships among items and to

establishing internal consistency using coefficient alpha reliability estimates (Hair et al.,

2014); although, data from this scale would not be part of the survey that was originally

proposed and was not included in the instrumentation process.

Table 2

Measures: Questionnaires, Item numbers and Item example

Variable and Scale	Item Number	Item Example	Research Question
Demographic Items			
Institution	61	Your current institution	
Length of Attendance	62	Your length of attendance	

Gender	76	Your current gender identity	
Level of Study	66	Your current level of study	
Country-of-Origin	72	Your country-of-origin	
Racial-Ethnic Group	74	Your race/ethnicity	4
Age	79	Your age	

Independent Variable 1 – Internal Barriers

English Language Fluency	1	Due to language difficulties, I feel unable to express myself fully in English.	1,3,4
Unawareness of Services	4	I understand what campus services are available to me (to be reverse coded).	1,3,4
Perceived Utility	8	I find campus services available to me useful (to be reverse coded).	1,3,4
Ethnocentric Attitudes toward Help-seeking	11	I prefer to go to other students from my home country for help instead of campus-services providers.	1,3,4

Independent Variable 2 – External Barriers

Campus Climate	15	My campus feels welcoming of me as an international student (to be reverse coded).	2,3,4
Foreign Relations	19	I feel uncomfortable about the manner in which political relations between my home country and the U.S.A. are addressed on my campus.	2,3,4
Perceived Access	20	I find it difficult to access the different services that are available on my campus.	2,3,4
Experiences of Racism	24	I am treated different because of my race/ethnicity.	2,3,4

Dependent Variable – Underutilization of Campus Services

Student Services	27	I use student visa status advising (Never, Rarely, Sometimes, Frequently, Very Frequently)	1,2,3,4
Social Engagement Services	39	I participate in Campus Life Events and Programs (Never, Rarely, Sometimes, Frequently, Very Frequently)	1,2,3,4
Enrollment Services	47	I use Financial Services (Never, Rarely, Sometimes, Frequently, Very Frequently)	1,2,3,4

Additional Independent Variable – COVID-19 Service-Use Barriers

Difficulty in Accessing Campus Services Providers	53	I am facing problems having campus services providers respond to my requests for any services during this time of campus closure.	3.1
Unavailability of COVID-19 related Health Services on Campus	58	Health services related to staying healthy during the pandemic are available on my campus (to be reverse coded).	3.1

Pilot Instrument

After receiving approval from the Institutional Review Board, a pilot instrument was conducted with 16 enrolled international students attending CSU. Considering that most of the target sample would use English as a second language, this procedure helped the researcher to clarify any confusion in the reading the survey and assess the length of time participants might require on average to complete the survey. Based on the pilot study feedback, the survey was not modified from the original version. In the feedback majority participants rated all items as clear to follow. Additionally, when asked for participants' interpretation of "Neither Disagree nor Agree" response, most participants indicated that it meant that they should choose the response if they partly endorse the item in neither direction. A score of 3 in the range of 1-5 was therefore maintained for this response anchor.

Data Analysis

This step addressed the hypotheses testing of the conceptual framework. The data was first checked for missing responses and those missing responses were eliminated. Next, responses to the two items of attentive responding (items 10. And 23.) were checked and any responses that did not endorse a score of 3 or 1 respectively were also eliminated from the dataset.

The dataset was then used to conduct an exploratory factor analysis first, that helped in determining which items can be eliminated based on their poor factor loadings or less than .70 coefficient alpha reliability estimate value. Descriptive statistics were then computed to check the normality of score distribution for resulting items. Based on the descriptive statistics, valid responses were identified. Histograms and box plots were

employed to identify outliers in the data distribution. Items with a skewness and kurtosis of less than an absolute value of one were considered normally distributed for statistical analyses (Hair et al., 2014).

Regarding research question 1, the independent variables were student's English language fluency, unawareness of resources, perceived utility, and ethnocentric attitudes toward help-seeking. The dependent variable was international students' reported underutilization of campus services.

Regarding research question 2, the independent variables were students' perception of campus climate, foreign relations, perceived access, and experiences of racism. The dependent variable was international students' reported underutilization of campus services.

Regarding research question 3, the independent variables were both internal and external barriers; and, the dependent variable was international students' reported underutilization of campus services. Regarding research question 3.1, the independent variables were both internal and external barriers and COVID-19 service-use barriers; and the dependent variable was international students' reported underutilization of campus services.

In order to answer research questions 1, 2, and 3, three multiple regression analyses were conducted to investigate the relationship among these variables. This analytic strategy was employed to determine whether international students' perceived barriers accounts for significant variance in international students' reported underutilization of campus services. For research question 3.1, a multiple regression was

conducted to assess any added contributions of COVID-19 service use barriers in international students' reported underutilization of campus services.

Regarding research question 4, two new interaction variables were computed by creating a dummy variable of the race/ethnicity variable and multiplying that with average scores of all internal and external barriers, respectively. Multiple regression analyses were conducted with all these variables to test if there are any interaction effects. For research questions 4.2 and 4.3, the same model of multiple regression analysis was used with students who identify as "White or Caucasian" and the rest as "Students of Color", in order to determine the difference of this relationship based on race/ethnicity.

CHAPTER IV

RESULTS

The purpose of the study was to investigate the relationships between international students' perceived barriers in seeking campus services offered by campus services providers and their reported underutilization of those services. The study compared different influences on international students' engagement, student satisfaction with a focus on students' perceived barriers in seeking campus services. Based on international student engagement, student persistence and student satisfaction literatures, and discussions about their unique challenges and adjustment issues (Hirai et al., 2015; Korobova & Starobin, 2015; Lee, 2010; Mamiseishvili, 2012; McLachlan & Justice, 2009; Olivas & Li, 2006; Poyrazli & Lopez, 2007; Roberts et al., 2015; Wekullo, 2019; Zhao et al., 2005), this study focused on eight different kinds of perceived barriers distributed between internal and external barriers. Internal barriers were comprised of student's English language fluency, unawareness of resources, perceived utility, and ethnocentric attitudes toward help-seeking. External barriers were comprised of campus climate, foreign relations, perceived access, and experiences of racism. Factor analysis and multiple regression analyses were conducted to explore the factor structure of the newly proposed survey and to determine if such relationships exist, respectively. This

chapter presents results of descriptive statistical analyses and specific results of factor and regression analyses.

Pilot Study

The newly developed survey – the International Student Perceived Barriers and Service Utilization [ISPBSU] survey was employed in this study. A pilot study was conducted at CSU prior to implementing the instrument in this study in order to collect feedback on clarity of items and record the average time for completion. There were 16 international students who participated the pilot study. 95% of the participants rated all items as clear to follow and the average time of completion was recorded as 15 minutes, with 13-17 minutes as the range.

Instrumentation and Factor Analysis

Given the ISPBSU survey was introduced for the first time in this study, appropriate instrumentation processes were conducted to determine if the survey shows evidence for face and content validity, and can provide reliable results to be used in answering specific research questions. To provide evidence for validity, a focus group was conducted with five international education professionals. Specifically, the focus group process assessed for face and content validity of the items (Hair et al., 2014). It must be noted that this evidence for validity is not the most robust and is limited in its scope and application. An exploratory factor analysis with principal axis factoring was employed to determine whether the items group onto factors representing constructs, followed by conducting reliability tests of factor groups with the highest loadings (Hair et al., 2014). Below are the results of the focus group and other analyses.

Focus Group

As indicated above, a focus group was conducted at first (even before the pilot study) to provide evidence for face and content validity. Through the Director of CISP at CSU, four other international education professionals were identified. On average, more than 15 years of experience was reported among five participants (M = 17 years) and three of them listed their current role as Director or Manager. The other two participants listed their role as Advisor to international students. All five were asked to take an online survey before attending an hour-long focus group meeting over Zoom.us interface. In the online survey, each focus group participant was asked to rate whether or not the item was "a valid barrier faced by international students"? Additionally, they were asked to list "problems and barriers international students might be facing that adversely impacts their willingness and ability to engage on their campuses" and "problems that prevent international students making full use of services available on their campuses". All 24 but three barrier items received an endorsement of "yes" for the validity question by three or all five participants. The remaining three items that did not receive an endorsement of "yes" from at least three participants were then discussed during the online Zoom meeting. Some follow-up questions were also discussed based on participants' responses to qualitative questions, but the majority responses listed or discussed were covered by one or more items already provided in the survey. One participant mentioned the factor of "interest on the part of the student" as a potential problem that may prevent students from engaging. This factor was not considered in the study, however, as interest is a highly subjective and complex characteristic that is likely to vary across situations and time. Furthermore, interest on the part of a student is too vague as a behavioral characteristic to

be assessed within the scope of the present study. Based on the discussion of three items that did not receive an approval rating by the majority of focus group participants, two items were rephrased. The following table lists those changes.

Table 3

Changes from Focus Group

Original Item	Reason(s) for Editing	Rephrased Item
My campus does not feel safe enough for me to fully engage and get involved.	"Safe enough" and "fully" were indicated as open to subjective interpretation. Therefore, item was rephrased for clarity and to eliminate subjective interpretation.	My campus does not feel inclusive for me to engage and get involved.
Political or foreign relations between my home country and the U.S.A. make me feel uncomfortable when using campus services.	All participants agreed that this would be a valid barrier but only for students from countries that have had ongoing political tensions or lately – specifically Iran. Therefore, item was rephrased for clarity and to eliminate specific application and usage.	I feel uncomfortable about the manner in which foreign relations between my country-of-origin and the U.S.A. are addressed on my campus.
The location of campus service centers is not convenient for me.	Four participants indicated that this would be valid barrier, albeit uncommon. Thus, no change was made.	Same as original.

Factor Analysis

As mentioned above, the newly developed survey, namely the ISPBSU survey, was employed as the main instrument of data collection. An exploratory factor analysis with principal axis factoring was employed to determine whether the items group onto factors representing constructs, followed by conducting reliability tests of factor groups with the highest loadings (Hair et al., 2014). Data of the 24 items—12 items of internal barriers and 12 items of external barrier—were entered in the data reduction program of

SPSS. Six out of the 24 items were reverse coded first – indicated as such in Appendix B. The range was unform in that all scores were in the range of 1 – 5. The rating of 1 = "Strong Disagree" meant the lowest endorsement possible of a perceived barrier and 5 = "Strongly Agree" as the highest endorsement possible of a given perceived barrier. Data for this analysis was collected with the main sample, that comprised of 320 international students. Sixteen students that participated in the pilot study were included in this total. The results of KMO (.832) and Bartlett's Test of Sphericity (χ^2 (276) = 3479.95, p<.000) indicated adequacy in sample size (N = 320) and correlations existing among variables for a factor analysis to be interpreted (Hair et al., 2014). Further, data from the communalities (Table 4 below) suggested that the majority of items had an extraction correlation of more than .50, which is the recommended acceptable cut-off (Hair et al., 2014). Next, results of the variance chart showed a six-factor solution in which the first six factors had an eigenvalue of more than 1 and explained 63.4% of variance when combined. Therefore, a six-factor solution was chosen, and the analysis was run with Varimax rotation. Varimax is a popularly used orthogonal rotation and a rotation solution is recommended over non-rotated solutions as the former provides a simpler factor structure that is less ambiguous to interpret (Hair et al., 2014). While setting up the rotation, factor loadings were set up at a cut-off correlation of .35, as per recommended minimum for sample sizes greater than 250 – current study's sample size is 320 (Hair et al., 2014). The result from the rotated factor matrix are provided in table 5 below.

Table 4

Communalities Table Results

Item Code	Initial	Extraction
IB_ELF1	.554	.611

Item Code		
IB_ELF2	.738	.835
IB_ELF3	.699	.715
IB_AoS1	.498	.553
IB_AoS2	.528	.648
IB_AoS3	.188	.169
IB_PU1	.502	.588
IB_PU2	.570	.626
IB_PU3	.255	.171
IB_EHS1	.422	.409
IB_EHS2	.412	.380
IB_EHS3	.407	.476
EB_CC1	.524	.581
EB_CC2	.517	.440
EB_CC3	.564	.491
EB_FR1	.288	.250
EB_FR2	.399	.454
EB_FR3	.402	.394
EB_PA1	.451	.431
EB_PA2	.501	.656
EB_PA3	.464	.533
EB_EOR1	.773	.774
EB_EOR2	.806	.901
EB_EOR3	.531	.533

N = 320

Table 5

Results of the Rotated Factor Matrix

Item Code	1	2	3	4	5	6
IB_ELF1		.772				
IB_ELF2		.892				
IB_ELF3		.838				
IB_AoS1						.629
IB_AoS2				.403		.682
IB_AoS3						
IB_PU1				.718		
IB_PU2				.648		
IB_PU3						
IB_EHS1	.492	.363				
IB_EHS2	.426					
IB_EHS3	.569					
EB_CC1	.539			.370		
EB_CC2	.358			.381		

EB_CC3				.398
EB_FR1	.455			
EB_FR2	.591			
EB_FR3	.540			
EB_PA1				.481
EB_PA2				.769
EB_PA3				.657
EB_EOR1			.829	
EB_EOR2			.894	
EB_EOR3			.556	

N = 320; Principal Axis Factoring Extraction Method

As can be seen in Table 5 above, some items (for example, IS_AoS2 and

EB_CC2) loaded on more than one factor. The proposed conceptual framework discussed

at length in chapters 1 and 2 was used to make decisions about factoring for such cross-

loadings. Two items' loadings had a value below the .35 cut-off (Hair et al., 2014), so

those two items were eliminated for assessment of reliability, which was the next step.

These were items IB_AoS3 – "Even if I knew the name of a certain campus services unit,

I would not know what services are offered by that unit.", and, IB_PU3 – "I think campus

services offered to me are not relevant to the problems I might encounter". The total of

22 items remained after removing these two items. Results of the factor analysis

suggested six instead of the eight originally proposed factors among these 22 items. The

originally proposed factor distribution had three items per factor for eight factors. As a

result, based on their factor loadings and proximity to the conceptual model that was

proposed, some items originally proposed as an individual factor were combined with

items from another factor. Specifically, five items were combined with items of other

factors. All three items of the Foreign Relations scale (EB_FR1, EB_FR2 and EB_FR3)

were combined with the items of Ethnocentric Attitudes toward Help-Seeking scale. This

new combined scale was labeled 'Difficulties Navigating Intergroup Relations'-DIR.

Likewise, two items of Perceived Utility scale (IB_PU1 and IB_PU2) were combined with items of Campus Climate scale. This new combined scale was labeled 'Experiences of Campus Exclusion'-ECE.

In the proposed conceptual model, all potential barrier items were distributed between internal and external barriers. Therefore, while regrouping items based on results of the factor analysis, an attempt was made to retain items within the categories of internal and external barriers. As mentioned above, new labels were assigned to these two new scales that included more items than were originally proposed. The table below (Table 6) also lists the new labels that were assigned. The remaining four scales were relabeled for semantic accuracy of the items they are aimed at assessing. Formerly labeled English Language Fluency-ELF was relabeled to English Communication Difficulties-ECD; Awareness of Services was relabeled to Unawareness of Services-UOS; Perceived Access was relabeled to Difficulties Accessing Services-DAS; and Experiences of Racism was relabeled to Racialized Experiences on Campus-REC.

After establishing and relabeling new modified scales, all 22 items were assessed for reliability using Cronbach's alpha (Hair et al., 2014) twice – first as an item of their respective scale and then as an item that was grouped as internal or external barrier. The results of these reliability tests have been provided in Table 6 below. As mentioned in Chapter 3, the cut-off value of Cronbach's alpha was determined as .70 (Hair et al., 2014). All scales met this threshold. The final instrument had six factors and 22 items instead of the proposed eight factors and 24 items, respectively. The group of internal barriers comprised of 11 items. These 11 items were distributed among ECD (3 items), UOS (2 items) and DIR (6 items). Likewise, the group of external barriers comprised of

the remaining 11 items, that were distributed among ECE (5 items), DAS (3 items) and

REC (3 items).

Table 6

Results of Scale Modifications and Reliability Testing

Factor – Proposed Label Before Factor Analysis	Proposed Items Before Factor Analysis	Resulting Items After Factor Analysis	Relabeling of Factor/ Grouping Variable (if any)	Cronbach's Alpha
English Language Fluency	ELF_1, ELF2, ELF_3	No change	English Communication Difficulties-ECD	.88
Awareness of Services	AoS_1, AoS_2, AoS_3	AoS_1, AoS_2	Unawareness of Services-UOS	.77
Ethnocentric Attitudes toward Help-Seeking	EHS_1, EHS_2, EHS_3	Items combined- EHS_1, EHS_2, EHS_3, FR_1, FR_2 and FR_3	Factors combined as Difficulties Navigating Intergroup Relations- DIR	.72
Foreign Relations	FR_1, FR_2 and FR_3			
All Internal Barriers- post Relabeling	ELF_1, ELF_2, ELF_3, AoS_1, AoS_2, AoS_3, PU_1, PU_2, PU_3, EHS_1, EHS_2, EHS_3 – 12 items	ECD_1, ECD_2, ECD_3, UOS_1, UOS_2, DIR_1, DIR_2, DIR_3, DIR_4, DIR_5, DIR_6 – 11 items	No change	.76
Campus Climate Perceived Utility	CC_1, CC_2, CC_3 PU_1, PU_2	Items combined- CC_1, CC_2, CC_3, PU_1, PU_2	Factors combined as Experiences of Campus Exclusion- ECE	.86
Perceived Access	PA_1, PA_2, PA_3	No change	Difficulties Accessing Services- DAS	.75
Experiences of Racism	EOR_1, EOR_2, EOR_3	No change	Racialized Experiences on Campus-REC	.76

All External Barriers- post Relabeling	CC_1, CC_2, CC_3, EOR_1, EOR_2, EOR_3, PA_1, PA_2, PA_3, FR_1, FR_2, FR_3 – 12 items	ECE_1, ECE_2, ECE_3, ECE_4, ECE_5, DAS_1, DAS_2, DAS_3, REC_1, REC_2, REC_3 – 11 items	No change	.86

N = 320

Descriptive Statistics

With the newly modified survey that was supported by the results of exploratory factor analysis and reliability testing, data was sourced among participants who met the criteria for participation and whose responses qualified the two items that assessed for attentive testing. Items that assessed for attentiveness among respondents is a fairly recommended testing practice in survey design (Hair et al., 2014). In ISPBSU survey, there were two items that asked the respondent to select a certain response option and these were introduced in both the first and second parts of the survey – as items 10. and 23. In total, 383 international students attempted the survey of which 87.3% completed the survey (49 respondents left the survey at the informed consent page). Of the remaining 334 respondents, 4.1% responded incorrectly to either one or both of the two attentive responding checks. Resultingly, the final sample comprised of 320 international students. Not every respondent completed every item of the demographic form, that was presented as the last section of the survey. All but 1.6% (five respondents) completed all items of the demographic form. The breakdown of key demographic variables has been presented in the table below.

Table 7

International Student Participants' Key Demographic Information

Demographic Category	Sub-groups	Frequency	Percentage
Level-of-Study	4-yr-Undergraduate	103	32.2%
	Graduate/Master's	102	31.9%
	Doctoral	76	23.8%
	Specialist or Certificate	28	8.8%
	Other (Non-Degree, ESL, etc)	6	1.9%
	Missing	5	1.6%
Gender	Male (Cisgender)	175	54.7%
	Female (Cisgender)	131	40.9%
	Non-Binary	5	1.6%
	Transgender Woman	2	0.6%
	Self-Defined	2	0.6%
	Missing	5	1.6%
Race/Ethnicity	Asian	201	62.8%
	African/Black	16	5%
	Caucasian/White	42	13.1%
	First Nations	0	-
	Latinx	21	6.6%
	North African/Middle Eastern	30	9.4%
	Pacific Islander	1	0.3%
	Multiracial/Self-Defined	4	1.3%
	Missing	5	1.6%
Top 3 Country-of-Origin	India	83	25.9%
	China	21	6.6%
	Japan	16	5%
Age	18-21	61	19.1%
	22-29	180	56.3%
	30-33	44	13.8%
	34 and Above	30	9.4%
	Missing	5	1.6%

N = 320

Additionally, respondents endorsed a wide variety of majors by listing disciplines from the humanities, sciences, engineering, business and education. Computer science and mechanical engineering were the top two reported majors by 23 and 16 international students, respectively. Average GPA was reported as above 3.0 and average self-reported ratings on questions asking English speaking and reading ability were 4.1 and 4.3, respectively. For these items, range was provided as 1 = "Very Poor" to 5 = "Very

Good". Lastly, the vast majority of participants (almost 96%) reported their student visa category as F1.

Multiple Regression Analyses

As indicated in Chapter 3, multiple regression analyses were proposed to answer the four research questions. Before conducting regression analyses in SPSS, descriptive statistics were carried out on survey data (N = 320) to assess whether the data were appropriate for multiple regression testing. Particularly, to also assess for any marked deviations on measures of central tendency, specifically skewness and kurtosis (Hair et al., 2014). Table 8 below presents those results. It must be noted that data of all the survey items were averaged, so the range for all scales was 1-Minimum and 5-Maximum. As indicated in the table, all (except four) of the indices of skewness and kurtosis fell within the acceptable range of +1 and -1. The scales of ECD, REC, PAND 3 and PAND 4 had kurtosis values of -1.32, -1.07, -1.03 and -1.08, respectively, which were plotted as histograms and resembled mild platykurtic trends (Hair et al., 2014). According to Hair et al. (2014), any nonnormative results of kurtosis must be interpreted and remedied, if needed, in the context of other metrics – one of which is sample size. A sample size of more than 200 makes effect of kurtosis deviations negligible (Hair et al., 2014). Therefore, -1.32 for the ECP scale, -1.07 for the REC scale, -1.03 for PAND 3 item and -1.08 for PAND 4 item were accepted and regression analyses were conducted. Table 9 below presents results of Pearson's correlations among all key independent and dependent variables employed in the study.

Table 8

Descriptive Statistics of ISPBSU and COVID-19 Service-Use Barrier Scales

Grouping Category	Scale	Number of Items	M	SD	Skewness	Kurtosis
Internal Barriers	ECD – English Communication Difficulties	3	2.56	1.25	.20	-1.32
	UOS – Unawareness of Services	2	2.04	.94	.90	.25
	DIR – Difficulties Navigating Intergroup Relations	6	3.14	.80	-.30	-.14
	Total – Internal Barriers	11	2.51	.71	.18	-.82
External Barriers	ECE – Experiences of Campus Exclusion	5	2.16	.79	.61	-.43
	DAS – Difficulties Accessing Services	3	2.42	.95	.29	-.53
	REC – Racialized Experiences on Campus	3	2.26	1.07	.31	-1.07
	Total – External Barriers	11	2.34	.76	.37	-.67
UCS – Underutilization of Campus Services	SS – Student Services	12	3.44	.67	-.40	-.54
	SES – Social Engagement Services	8	3.92	.80	-.47	-.95
	ES – Enrollment Services	4	3.79	.86	-.53	-.38
	Total UCS	24	3.66	.68	-.47	-.74
PAND - COVID-19 Service-Use Barriers	PAND 1 – Uncertainty about Campus Operations	1	3.11	1.18	-.22	-.90
	PAND 2 – Difficulty in Accessing Services Remotely	1	2.42	1.03	.44	-.50
	PAND 3 – Difficulty in	1	2.67	1.14	.04	-1.03

Accessing Campus Services Providers					
PAND 4 – Feelings of Isolation	1	3.03	1.29	-.06	-1.08
PAND 5 – Experiencing COVID-19 Racism	1	2.56	1.24	.29	-.90
PAND 6 – Difficulty in Traveling to Home Country	1	3.12	1.22	-.14	-.85
PAND 7 – Difficulty in Traveling back to the US	1	3.06	1.25	-.06	-.98
PAND 8 – Unavailability of COVID-19 related Health Services on Campus	1	2.46	1.11	.58	-.30

N = 320

Table 9

Pearson's Correlations

Scale	ECD	UOS	DIR	ECE	DAS	REC
ECD - English Communication Difficulties						
UOS - Unawareness of Services	.17**					
DIR - Difficulties Navigating Intergroup Relations	.28***	.14**				
ECE - Experiences of Campus Exclusion	.16**	.52 ***	.37***			
DAS - Difficulties Accessing Services	.16**	.38***	.31***	.55***		
REC - Racialized Experiences on Campus	.11*	.19***	.51***	.51***	.43***	
UCS – Underutilization of Campus Services	.06	.22***	.02	.24***	.18***	.03

N = 320; *** p < .001, ** p < .01, * p <.05

Research Question 1

The first standard multiple linear regression analysis was conducted to determine the extent to which international students' perceived internal barriers (ECD - English Communication Difficulties, UOS - Unawareness of Services and DIR - Difficulties Navigating Intergroup Relations) were related to their Underutilization of Campus Services - UCS. Relatedly, the research hypothesis was that international students' perceived internal barriers are related to their underutilization of campus services. After running the standard multiple linear regression test in SPSS, the output was assessed first for assumptions of regression testing – namely, linearity between independent and dependent variables, constant variance, independence and normality of the variance terms as suggested by Hair et al., (2014). Various metrics including residual plots, normal probability plots and standard residuals were employed in order to test if the data met the assumptions. Results indicated that all assumptions were met. Therefore, the model summary, ANOVA table and the coefficients table were interpreted.

In the model, a regression of the three internal barrier predictors on underutilization of campus services explained a statistically significant 4.2% (R^2 = .051; Adjusted R^2 = .042; p = .001) of the variance in international students' underutilization of campus services; $F (3, 316)$ = 5.62, p < .01. Consequently, the research hypothesis was accepted and the coefficients table was interpreted to identify significant contributions of specific group of internal barriers. In this model, unawareness of services (β = .22, p < .001) was a statistically significant predictor of international students' underutilization of campus services. Specifically, every SD increase in unawareness of services was associated with a .22 SD increase in international students' underutilization of campus

services. Furthermore, English communication difficulties (β = .03, p = .58) and

difficulties navigating intergroup relations (β = -.01, p = .76) were not statistically

significant predictors of international students' underutilization of campus services.

Detailed regression analysis results are presented in Table 10 below.

Table 10

Relationships between Perceived Internal Barriers and Underutilization of Campus

Services

Scale	B	SE	β	t	p	Tolerance	VIF
ECD - English Communication Difficulties	.01	.03	.03	.54	.587	.899	1.11
UOS - Unawareness of Services	.15	.04	.22	3.92	.000***	.958	1.04
DIR - Difficulties Navigating Intergroup Relations	-.01	.04	-.01	-.30	.764	.908	1.10

N = 320; *** p < .001, ** p < .01, * p <.05

Research Question 2

The second standard multiple regression analysis was conducted to determine the

extent to which international students' perceived external barriers (ECE - Experiences of

Campus Exclusion, DAS - Difficulties Accessing Services and REC - Racialized

Experiences on Campus) were related to their Underutilization of Campus Services-

UCS. Relatedly, the research hypothesis was that international students' perceived

external barriers are related to their underutilization of campus services. After running the

standard linear multiple regression test in SPSS, the output was assessed first for

assumptions of regression testing – namely, linearity between independent and dependent

variables, constant variance, independence and normality of the variance terms as

suggested by Hair et al., (2014). Various metrics including residual plots, normal

probability plots and standard residuals were employed in order to test if the data met the

assumptions. Results indicated that all assumptions were met. Therefore, the model summary, ANOVA table and the coefficients table were interpreted.

In the model, a regression of the three external barrier predictors on underutilization of campus services explained a statistically significant 7% (R^2 = .079; Adjusted R^2 = .070; p = .000) of the variance in international students' underutilization of campus services; $F (3, 316)$ = 9.05, p < .001. Consequently, the research hypothesis was accepted and the coefficients table was interpreted to identify significant contributions of specific group of external barriers. In this model, experiences of campus exclusion (β = .26, p < .001) and racialized experiences on campus (β = -.14, p < .05) were statistically significant predictors of international students' underutilization of campus services. Specifically, every SD increase in experiences of campus exclusion and racialized experiences on campus are associated with a .26 SD increase and .14 SD decrease in international students' underutilization of campus services, respectively. Furthermore, difficulties accessing services (β = .10, p = .13) was not statistically significant predictor among this sample of international students with respect to their reported underutilization of campus services. Detailed regression analysis results are presented in Table 11 below.

Table 11

Relationships between Perceived External Barriers and Underutilization of Campus Services

Scale	B	SE	β	t	p	Tolerance	VIF
ECE - Experiences of Campus Exclusion	.22	.06	.26	3.82	.000***	.600	1.66
DAS - Difficulties Accessing Services	.07	.04	.10	1.51	.131	.665	1.50
REC - Racialized Experiences on Campus	-.09	.04	-.14	-2.30	.022*	.702	1.42

N = 320; *** p < .001, ** p < .01, * p <.05

Research Question 3

The third standard multiple regression analysis was conducted to determine the extent to which there was a difference in predicting international students' underutilization of campus services between students' internal and external perceived barriers predictors. Relatedly, the research hypothesis was that there is a statistically significant difference in predicting international students' underutilization of campus services between students' internal and external perceived barriers. After running the standard linear multiple regression test in SPSS, the output was assessed first for assumptions of regression testing – namely, linearity between independent and dependent variables, constant variance, independence and normality of the variance terms as suggested by Hair et al., (2014). Results indicated that all assumptions were met. Therefore, the model summary, ANOVA table and the coefficients table were interpreted.

In the model, a regression of the six barrier predictors—three internal and three external barrier predictors—on underutilization of campus services explained a statistically significant 7.1% ($R^2 = .088$; Adjusted $R^2 = .071$; p = .000) of the variance in international students' underutilization of campus services; F (6, 313) = 5.06, p < .001. Even though the difference was marginal, that is .029 and .001 increase in R^2 if compared with the models of just internal ($R^2 = .042$) and external ($R^2 = .070$) barriers, respectively – this model explained a statistically significant amount more than the other models. External barriers predicted variance in the dependent variable to a greater extent. Consequently, the research hypothesis was accepted and the coefficients table was interpreted to identify significant contributions of specific group of internal and external barriers. In this model, experiences of campus exclusion ($\beta = .22$, p < .010) was a

statistically significant predictor of international students' underutilization of campus

services. Specifically, every SD increase in experiences of campus exclusion was

associated with a .22 SD increase in international students' underutilization of campus

services. None of the other internal or external variables were shown to be statistically

significant predictors among this sample of international students with respect to their

reported underutilization of campus services. Detailed regression analysis results are

presented in Table 12 below.

Table 12

Relationships between Perceived Internal and External Barriers and Underutilization of Campus Services

Scale	B	SE	β	t	p	Tolerance	VIF
All Internal and External Barriers							
ECD - English Communication Difficulties	.01	.03	.02	.42	.668	.893	1.12
UOS - Unawareness of Services	.07	.04	.09	1.52	.128	.687	1.45
DIR - Difficulties Navigating Intergroup Relations	-.04	.05	-.04	-.74	.457	.672	.148
ECE - Experiences of Campus Exclusion	.18	.06	.22	2.84	.005**	.484	2.06
DAS - Difficulties Accessing Services	.06	.04	.08	1.25	.211	.643	1.55
REC - Racialized Experiences on Campus	-.07	.04	-.11	-1.62	.105	.589	1.69

$N = 320$; *** $p < .001$, ** $p < .01$, * $p < .05$

Research Question 3.1

An extended version of the third standard multiple regression analysis was

conducted to determine the extent to which there was a difference in predicting

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international students' underutilization of campus services between students' internal and external perceived barriers and COVID-19 service-use predictors. Relatedly, the research hypothesis was that there is a statistically significant difference in predicting international students' underutilization of campus services between students' internal and external perceived barriers and COVID-19 service-use predictors. After running the standard linear multiple regression test in SPSS, the output was assessed first for assumptions of regression testing – namely, linearity between independent and dependent variables, constant variance, independence and normality of the variance terms as suggested by Hair et al., (2014). Results indicated that all assumptions were met. Therefore, the model summary, ANOVA table and coefficients table were interpreted.

In the model, a regression of the 14 barrier predictors—three internal, three external barrier predictors, and eight COVID-19 service-use barrier predictors—on underutilization of campus services explained a statistically significant 7.2% (R^2 = .113; Adjusted R^2 = .072; p = .001) of the variance in international students' underutilization of campus services; $F(14, 302)$ = 2.75, p < .010. Consequently, the research hypothesis was accepted and the coefficients table was interpreted to identify significant contributions of specific group of internal, external and COVID-19 service-use barriers. In this model, experiences of campus exclusion (β = .17, p < .05) was a statistically significant predictor of international students' underutilization of campus services. Also, unavailability of COVID-19 related health services on campus (β = .13, p < .05) was another statistically significant predictor of international students' underutilization of campus services. Specifically, every SD increase in problems of services' awareness and appraisal was associated with a .17 SD increase, and every SD increase in unavailability of COVID-19

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related health services on campus was associated with a .13 SD increase in international students' underutilization of campus services. None of the other internal, external or COVID-19 service-use variables were shown to be statistically significant predictors among this sample of international students with respect to their reported underutilization of campus services. Detailed regression analysis results are presented in Table 13 below.

Table 13

Relationships between Perceived Internal, External Barriers, COVID-19 Service-Use Barriers and Underutilization of Campus Services

Scale	B	SE	β	t	p	Tolerance	VIF
All Internal and External Barriers							
ECD - English Communication Difficulties	.02	.03	.03	.65	.515	.849	1.17
UOS - Unawareness of Services	.06	.04	.09	1.43	.154	.678	1.47
DIR - Difficulties Navigating Intergroup Relations	-.04	.05	-.05	-.75	.453	.642	1.55
ECE - Experiences of Campus Exclusion	.15	.06	.17	2.16	.031*	.447	2.23
DAS - Difficulties Accessing Services	.06	.05	.08	1.23	.220	.590	1.69
REC - Racialized Experiences on Campus	-.04	.04	-.07	-.91	.362	.492	2.03
All Pandemic-specific Barriers							
PAND 1 – Uncertainty about Campus Operations	-.00	.03	-.00	-.03	.976	.711	1.40
PAND 2 – Difficulty in Accessing Services Remotely	-.00	.04	-.01	-.21	.829	.735	1.36
PAND 3 – Difficulty in Accessing Campus Services Providers	-.02	.03	-.04	-.69	.491	.700	1.42
PAND 4 – Feelings of Isolation	.02	.03	.04	.71	.476	.736	1.35
PAND 5 – Experiencing COVID-19 Racism	-.06	.03	-.10	-1.6	.102	.666	1.50
PAND 6 – Difficulty in Traveling to Home Country	-.00	.04	-.00	-.09	.929	.380	2.62
PAND 7 – Difficulty in Traveling back to the US	.02	.04	.03	.41	.679	.374	2.67
PAND 8 – Unavailability of COVID-19 related Health Services on Campus	.08	.03	.13	2.22	.027*	.814	1.22

N = 317; * p <.05

Research Question 4

As indicated in chapter 1 and further discussed in chapter 2, it was important to explore differences based on race/ethnicity, given findings in the extant literature (Harper, 2012; Harper & Quaye, 2014; Houshmand et al., 2014; Hurtado et al., 2012; Lee, 2013; Roberts et al., 2015) that suggested that international students who belong to racial-ethnicity minority groups tend to be less engaged and experience greater adjustment experiences. Therefore, the fourth standard multiple regression analysis was conducted to determine the extent to which internal and external barriers are related to underutilization of campus services among subgroups of international students endorsing different racial-ethnic group memberships.

There were three separate regression analyses that were conducted. First, a set of regression analyses were conducted to see if race/ethnicity interacts with internal and external barriers in predicting underutilization of campus services. Next, two additional regression analyses were proposed – one for students who reported their race/ethnicity in the demographic form as Caucasian/White and other for students who reported their race/ethnicity in the demographic form as Asian, African, Latinx, North African/Middle Eastern and Pacific Islander. These two regression analyses (research questions 4.2 and 4.3) were not conducted, however, as neither of the perceived barrier interaction variables showed a statistically significant interaction effect.

Research Question 4.1

The first part of the fourth standard multiple regression analysis was conducted to determine if race/ethnicity had an interaction effect with internal and external barriers in

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predicting international students' underutilization of campus services. Relatedly, the research hypothesis was that race/ethnicity has a statistically significant interaction effect with internal and external barriers in predicting international students' underutilization of campus services. Two new interaction variables were computed by creating a dummy variable of the race/ethnicity variable and multiplying that with average scores of all internal and external barriers, respectively. Both sets of data were surveyed first in the context of responses to other variables that also referred to racial-ethnic membership, for example, the item asking for country-of-origin and another item asking if the respondent identifies as a person of color. The data from the item asking for race/ethnicity was determined to be appropriate for use to answer this research question, as there was a strong overlap between participants' response to country-of-origin and race/ethnicity, but not with their response to the question asking for their identification as a 'person of color'-POC. That discrepancy is suggestive of several interpretation issues that makes the item asking for self-reported identification as a POC unsuitable for use in answering any research questions. Those issues have been discussed in Chapter 5, under the limitations section.

After running the standard linear multiple regression tests in SPSS, the outputs were assessed first for assumptions of regression testing – namely, linearity between independent and dependent variables, constant variance, independence and normality of the variance terms as suggested by Hair et al., (2014). Results indicated that all assumptions were met. Therefore, the model summary, ANOVA table and the coefficients table were interpreted. In the first part of the model, a regression of three predictor variables—race/ethnicity dummy variable, internal barriers predictor and an

interaction variable of race/ethnicity and internal barriers predictor—on underutilization

of campus services did not indicate a statistically significant relationship. The results

were R^2 = .022; Adjusted R^2 = .013; p = .067; F (3, 316) = 2.41, p >.05. Consequently,

the research hypothesis was rejected in that there is no statistically significant interaction

effect with internal barriers in predicting international students' underutilization of

campus services. The coefficients table was not interpreted as a result. Detailed

regression analysis results are presented in Table 14 below.

Table 14

*Relationships between Race/Ethnicity, Perceived Internal Barriers, Interaction Variable
and Underutilization of Campus Services*

Scale	B	SE	β	t	p	Tolerance	VIF
Race/Ethnicity	-.49	.44	-.24	-1.12	.262	.065	15.49
Internal Barriers	-.11	.15	-.11	-.73	.462	.135	7.38
Race/ethnicity*Internal Barriers	.24	.16	.40	1.48	.138	.042	23.92

N = 320; *** p < .001, ** p < .01, * p <.05

In the second part of the model, a regression of three predictor variables—

race/ethnicity dummy variable, external barriers predictor and an interaction variable of

race/ethnicity and external barriers predictor—on underutilization of campus services

indicated a statistically significant relationship. The results were R^2 = .042; Adjusted R^2 =

.033; p = .004; F (3, 316) = 4.58, p <.01. Consequently, the research hypothesis was

accepted and the coefficients table was interpreted to see if the interaction variable

significantly contributed as a predictor variable. As can be seen in the results of

coefficients table below (Table 15), the interaction variable did not show as a significant

predictor.

Table 15

*Relationships between Race/Ethnicity, Perceived External Barriers, Interaction Variable
and Underutilization of Campus Services*

Scale	B	SE	β	t	p	Tolerance	VIF

Race/Ethnicity	.19	.36	.09	.53	.597	.093	10.80
External Barriers	.20	.15	.22	1.28	.200	.101	9.94
Race/ethnicity*External Barriers	-.03	.16	-.05	-.20	.836	.046	21.58

$N = 320$; *** $p < .001$, ** $p < .01$, * $p < .05$

Summary of Chapter IV

This chapter presented the results of the quantitative study that is aimed at determining the relationships between international students' internal and external barriers and their underutilization of campus services. This chapter included results of the instrumentation process that entailed sourcing evidence for face and content validity and factor analyzing the newly proposed ISPBSU survey. This chapter also included the demographic analysis of the survey participants and the standard multiple regression analyses of all research questions. The next chapter focuses on the implications and recommendations based on these findings.

CHAPTER V

DISCUSSION

The purpose of the study was to investigate the relationships between international students' perceived barriers in seeking campus services offered by campus services providers and their reported underutilization of those services. The study compared different influences on international students' engagement, student satisfaction with a focus on students' perceived barriers in seeking campus services. Based on international student engagement, student persistence and student satisfaction literatures and discussions about their unique challenges and adjustment issues (Hirai et al., 2015; Korobova & Starobin, 2015; Lee, 2010; Mamiseishvili, 2012; McLachlan & Justice, 2009; Olivas & Li, 2006; Poyrazli & Lopez, 2007; Roberts et al., 2015; Wekullo, 2019; Zhao et al., 2005), this study focused on eight different kinds of perceived barriers distributed among internal and external barriers.

Survey data was collected with 320 international students from over 50 countries and varied racial-ethnic identities attending four-year colleges and universities in the US. Exploratory factor analysis was conducted as part of the instrumentation process and standard multiple regression analyses were conducted to assess the relationships indicated in research questions. Results of the instrumentation process suggested six instead of

eight perceived barriers. As discussed in Chapter 4 above, internal barriers comprised of English communication difficulties (ECD), unawareness of services (UOS), and difficulties navigating intergroup relations (DIR). External barriers were comprised of experiences of campus exclusion (ECE), difficulties accessing services (DAS) and racialized experiences on campus (REC). Results of multiple regression analyses indicated that both groups of perceived barriers were significantly related to underutilization of campus services. This chapter discusses the findings vis-à-vis individual categories of perceived barriers. Implications for theory, research and practice are also discussed.

Perceived Internal Barriers

As mentioned above, internal barriers in this study were comprised of English communication difficulties (ECD), unawareness of services (UOS) and difficulties navigating intergroup relations (DIR). Internal barriers were conceptualized as perceived challenges that international student participants would report as inherent and subjective. These are likely to stem from acculturative stress (Berry, 2005) and impact behaviors that sojourners learn as a result of adaptation into a novel cultural environment. The present study was aimed at behaviors that relate to use of English during interactions on campus (ECD), lack of awareness of campus services (UOS) and challenges in navigating cross-national inter-group relations (DIR).

As per results of the multiple regression analysis, there was a statistically significant positive relationship between internal barriers and underutilization of campus services. The findings of this study suggested that these barriers impacted the degree to which international student participants utilized campus services. More specifically, this

result is aligned with previous research that has shown evidence in suggesting that communication in English as a second language (Andrade, 2006; Earnest, Joyce, de Mori, & Silvagni, 2010; Eldaba, 2016), lack of services' awareness (Lee, 2013; Perry et al., 2020; Roberts et al., 2015; Roberts & Dunworth, 2012; Stürzl-Forrest, 2012), and having biased intergroup preferences and interactions (Olivas & Li, 2013; Perry et al., 2020; Zahi, 2002), impact international students' participation in the classroom, engagement on campus and help-seeking behaviors. The results of this study showed that these factors also negatively impact international students' use of campus services and participation in campus programming. It must be noted that with the exception of unawareness of services-UOS, the other two factors did not show as significant predictors, but nonetheless they contributed to the model that significantly predicted a little over 4% of variance in international student participants' underutilization of campus services. It also must be noted that 4% of variance, albeit small holds explanatory value provided that the outcome variable (underutilization of campus services) comprised of 16 different services and eight kinds of social engagement programming centers. The explanatory value is likely to increase while assessing the relationship of internal barriers with individual service types and social engagement programming. However, such specific analyses are beyond the scope of the current study.

As mentioned above, the results of multiple regression analysis showed that unawareness of services effectively predicted international students' underutilization of campus services. The items employed as the assessment tool for this study asked if participants understood what campus services and student organizations are available to them. Given the results, it appeared that participants who exhibited a poor understanding

of campus services and student organizations reported little to no use of campus services available to them. Awareness of services has been identified as an inhibiting factor in international students' help-seeking process and several studies have shown results that ascertain that (Lee, 2013; Perry et al., 2020; Roberts et al., 2015; Roberts & Dunworth, 2012; Stürzl-Forrest, 2012). In previous research, it has been suggested that spreading awareness about campus services is vital to educational programming among international students because international students might come from countries where student affairs is not a known profession (Lee, 2013; Stürzl-Forrest, 2012). In the US, the most recent study by Cody Perry et al. (2020) collected empirical evidence that showed that unawareness of programs is likely to correlate with students underutilizing programs and perceiving them as less useful. Also, a couple studies conducted in Australia (Roberts et al., 2015; Roberts & Dunworth, 2012) provided further evidence for unawareness of services and programs affecting inadequate utilization of campus services.

Furthermore, a professional international educator who served as a participant on the experts focus group pointed out that typically the only opportunity for international students to learn about campus services and organizations is at the very beginning of them starting their program during orientation event, and that early exposure is likely to be forgotten by the end of first semester, let alone serve its purpose later when it would be needed more. In sum, the current study's results aligned with that of previous research and extended the influence of services awareness vis-à-vis engagement on campus, as the results showed that unawareness of campus services directly informed international students' utilization of student and enrollment services and participation in social engagement programming.

Perceived External Barriers

External barriers in this study were comprised of experiences of campus exclusion (ECE), difficulties accessing services (DAS) and racialized experiences on campus (REC). External barriers were conceptualized as perceived challenges that international student participants would report as facing in response to environmental factors. By definition, external challenges pertain to social and interpersonal aspects of international students' environment in the form of campus-specific environment (institutional policies, campus climate, critical campus incidents) and local environment (broader political climate that surrounds the campus). These are likely to stem from diversity in learning contexts present on campus and surrounding community, or the lack of it (Hurtado, et al., 2012). The present study was aimed at behaviors that relate to exclusionary experiences on campus (ECE), difficulties in accessing campus services (DAS) and experiences of racism on campus (REC).

As per results of the multiple regression analysis, there was a statistically significant relationship between external barriers and underutilization of campus services. The findings of this study suggested that these barriers impacted the degree and manner in which international student participants utilized campus services. Furthermore, this relationship was greater when compared with the statistical relationship assessed between internal barriers and underutilization of campus services. More specifically, this result is aligned with previous research that has shown evidence in suggesting that experiences of exclusion as a student – both in terms of interpersonal experiences (Glass, 2012; Glass et al., 2015) as well as finding relevant resources (Perry et al., 2020, Roberts et al., 2015; Roberts & Dunworth, 2012), having difficulty in accessing services (Dietsche, 2012;

Roberts et al., 2015; Roberts & Dunworth, 2012); and, experiences of racism on campus (Houshmand et al., 2014; Lee, 2013; Lee, 2010; Lee & Rice, 2007; Poyrazli & Lopez, 2007; Roberts et al., 2015; Yeo et al., 2019) tend to negatively impact international students' participation in the classroom, engagement on campus, and help-seeking behaviors. The results of this study showed that those factors also negatively impact international students' use of campus services and participation in campus programming.

Besides the factors of experiences of campus exclusion (ECE) and racialized experiences on campus (REC), the remaining factor of difficulties in accessing services (DAS) did not show as a significant predictor, but nonetheless all three contributed to the model that significantly predicted 7% of variance in international student participants' underutilization of campus services. Similar to interpretation of variance associated with internal barriers, it must be noted that 7% of variance, albeit small holds explanatory value provided that the outcome variable (underutilization of campus services) is multifaceted and is comprised of 16 different services and eight kinds of social engagement programming centers. The explanatory value is likely to change for specific types of campus services.

As mentioned above, the results of multiple regression analysis showed that the two factors of experiences of campus exclusion (ECE) and racialized experiences on campus (REC) effectively predicted international students' underutilization of campus services. For the factor of experiences of campus exclusion (ECE), three items employed for assessment asked if participants felt welcomed and supported on campus. Further, two additional items asked if participants found campus services and student organizations on campus useful. Given the results, it appeared that participants who reported feeling

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unwelcomed, unsupported and appraised services and social engagement resources as not useful also reported little to no use of campus services. Experiencing inclusion on campus and being able to find services that are relevant to one's unique experiences and problems as an international student have been shown to facilitate engagement and participation among those students (Glass, 2012; Glass et al., 2015; Perry et al., 2020, Roberts et al., 2015; Roberts & Dunworth, 2012). In an earlier study, Glass (2012) showed that international students who reported more positive perceptions of campus climate reported greater interaction with people from diverse cultural backgrounds, taking courses with materials on race and ethnicity, and reported greater levels of learning and development. Findings of the present study provided an extended understanding of how an inclusive campus climate can aid in utilization of campus services and participation in social engagement programming.

For the factor of racialized experiences on campus (REC), three items employed for assessment asked if participants felt that they received differential treatment on the basis of differences in race, cultural identity and ethnicity. The results showed a significant negative relationship between this factor and underutilization of campus services. Given the results, it appeared that participants who reported experiences of racism on campus also reported more use of campus services. Also, results provided in Tables 14 and 15 showed that race/ethnicity was an ineffective predictor in the research sample. It was also evidenced by high VIF values (15.49 and 10.80 in Tables 14 and 15, respectively). VIF values greater than 3 are indicative of multicollinearity (Hair et al., 2014).

In sum, the current study's results aligned with that of previous research to a great degree and extended the influences of an exclusionary campus climate vis-à-vis engagement on campus. The results showed that exclusionary experiences on campus and racialized experiences on campus directly informed the sample's underutilization of student and enrollment services and participation in social engagement programming.

COVID-19 Service-Use Barriers

COVID-19 related service-use barriers (Lederman, 2020; Quinton, 2020; Zhai & Du, 2020) were comprised of items that assessed for participants' uncertainty about how their institution would manage its campus operations in an online-only mode; difficulties accessing services and campus services providers remotely; feelings of isolation; experiencing COVID-19 racism that stemmed from portrayal in the media of some countries seeing early infections and those being alleged to have caused the viral disease; difficulty navigating international travel in the midst of travel bans and country-specific quarantine policies; and, unavailability of relevant health services on campus.

As per results of the multiple regression analysis, there was a statistically significant relationship between the combination of all barrier variables (internal barrier variables, external barrier variables and COVID-19 service-use barrier variables) and underutilization of campus services. Specifically, there was one pandemic-specific item that showed statistical significance and this item was regarding availability of COVID-19 specific health services ("Health services related to staying healthy during the pandemic are not available on my campus"). Findings of this study suggested that health concerns during the pandemic and lack of available health care was a barrier to utilizing services. Previous research has shown that COVID-19 led to untimely campus closures across the

US and greatly impacted the management of everyday operations in higher education (Lederman, 2020; Quinton, 2020). The current study's results shed some light on the impact of COVID-19 pandemic on utilization of campus services.

Limitations

The present study had several limitations. Firstly, there were limitations in the sample size and data collection processes. The proposed sample size was 350 and the resulting sample size was 320. A larger sample may have added to the strength of results, particularly with respect to increasing the observations to variable ratio, both in factor analysis as well as multiple linear regression analyses (Hair et al., 2014). Also, the data were collected at the time of campus closure due to COVID-19 pandemic, which may have altered use of services that are traditionally offered in person, such as library services or multicultural programs. Additionally, in the results of exploratory factor analysis, EB_CC2 was an ambiguous item which could have been eliminated and EB_CC1 had a higher loading value (.53) in factor 1 (compared to .37 in factor 4) and could have been retained in Factor 1. Such changes would have impacted the results of regression analyses and as a consequence, limits the results obtained of regression analyses.

Secondly, as indicated in chapter 4 above, even though the demographic section of the survey had an item asking if the participant identified as a 'person of color', there were significant differences in participants' responses when matched with their country-of-origin. On the other hand, there was more consistent overlap between participants' responses to items asking for country-of-origin and race/ethnicity. It implies that for this study's sample, identification as a person of color likely involved subjective judgment.

The assessment of race/ethnicity in this study was limited in that it did not allow a respondent to choose more than one identifier. Even though an open-ended response option was provided for respondents who wanted to self-define their race/ethnicity, the different options provided (for example, Asian and Latinx) can be argued as too US-centric and not representative of specific intersectional ethnic heritages that are more familiar to the international student participants. For instance, the term 'Latinx' which is a contemporary cultural term to provide a gender-neutral option for a person of Latin heritage (Salinas & Lozano, 2019), has not yet gained widespread acceptance even in higher education in the US. Also, all individuals of Latin heritage may not identify as White or Caucasian. This becomes more complex when taking into account the popular US-centric nomenclature of assessing ethnicity on the basis of identification as Hispanic or Non-Hispanic. These terms refer to someone from a Spanish speaking country or region, but not every student from one of the Latin American countries would interpret the term in the same way. For some international students, the term Hispanic may imply them speaking Spanish and for others it may imply that their country-of-origin is a Spanish-speaking nation. Latin America is hugely diverse - for example, a Portuguese-speaking student from Brazil may identify as White but not Hispanic, another student from Argentina may identify as both White and Hispanic and yet another student from Bolivia may identify as Latinx and Hispanic.

Therefore, it can be argued that the nomenclature of race/ethnicity, or rather treatment of two different identifiers as one, as followed in the US may differ from what is contextually more appropriate and popular in other countries (Morning, 2008). For example, ancestry, indigenous tribe and caste are generally used as markers of ethnicity

and lineage in other countries, such as the Philippines, Mexico and India. Beyond the nomenclature, there is an increasing sense of acknowledgment across humanities scholarship that legacies of oppression can be transnational. As illustrated by Isabel Wilkerson (2020) most recently in her book titled *Caste: The Origins of Our Discontents,* in which she draws parallels between racial minorities in the US and caste oppressed individuals in India (called Dalits) by pointing at the ways in which, historically, oppressive hegemonic groups in both countries relegated some citizen groups causing disenfranchisement of those groups. Labels adopted for racial-ethnic identification, therefore, may carry a connotation of inclusion or exclusion for some participants. Thus, instead of permitting choice of one identifier, choice of multiple identifiers should be provided. Also, instead of providing a binary yes or no response, future research must provide a layperson's description of who is a person of color in the context of the study or present the response as a rating scale. Such a rating scale was used in this study for items assessing for English speaking and reading abilities. Participants can then select the extent to which they identify as a person of color, if at all.

Thirdly, as indicated in this chapter above, assessment of outcome variable-underutilization of campus services could be simplified. In the current form, scores of this variable assess for 16 different types of student services and eight different types of social engagement programming centers. Many of the programming centers are specific to certain student demographic groups. For example, centers of disability services or veteran affairs cater to very few international students, if any. Also, different groups of international students are likely to engage with different sources of campus socialization. Graduate students are likely to socially engage with programming offered at their

academic departments than undergraduate students. Such indicators make data of the present study too varied for specific conclusions to be drawn. Lastly, although this study sought to maximize services utilization and participation of international students, the sample consists of international students attending select institutions in the US – majority being public institutions located in urban city areas. International students at different kind of institutions (for example, community colleges or private four-year institutions) may face factors that are unique to those institutions.

Implications

Following implications can be drawn in the areas of theory, research and practice. In the realm of theory, conceptual models of international student development must take into consideration the role of acculturation (Berry, 2005) in explaining how international students seek engagement and help on college campuses. Furthermore, concepts of inclusion and exclusion (Hurtado et al., 2012) must be integrated in studying international student adjustment and engagement.

In the realm of research, future research must further investigate the role of perceived barriers among intersecting demographic groups of international students. Also, there is a need for student engagement discourse that specifically addresses unique challenges and needs of international students. Lastly, in terms of implications for practice, firstly, campus service centers must be provided education on perceived barriers that hinder international students underutilizing campus services. Secondly, orientation to services and student organizations must be offered on an ongoing basis. Faculty and staff can also benefit from learning what services are available on campus and how they can refer those services to their international students. Lastly, forums on diversity training

must include specific topics on ethnocentrism and neo-racism and offer international-only programs to international students (Althen, 2009).

Future Directions

As indicated in the limitations section, the results of this study were not conclusive and further research must address questions that remain unanswered. Firstly, like much of psychological and educational research when a behavioral phenomenon is being studied, statistically significant relationships carry explanatory power despite low measures of determinacy (Hair et al., 2014). Low determinacy or prediction value could be due to a variety of factors (Hair et al., 2014). It may be that the phenomenon being studied is likely to be impacted by individual differences and temporal variables (Hair et al., 2014). The data were collected during a period of campus closure and that may have impacted participants' responses to prompts that they likely did not experience while attending classes remotely. As for individual differences, the sample for this study can be argued to be very diverse and rather rich with intersectional subjective experiences, given participants were from over 50 different countries. There is an inexplicable amount of linguistic, racial, ethnic, gender and intellectual diversity among the participants of this study, and future research must attend to the role of such individual differences. In can be in the form of qualitative research (Creswell, 2013) or non-parametric statistical analyses (Hair et al., 2014) that are more conducive for smaller samples.

In addition to exploring individual and temporal influences, it must be noted that the provision of campus services, by its very nature, is meant to be availed as per volition of a student. Regardless of a student being domestic or international, they will not be using all the services all the time. For the average international student, except a couple

student services (for example, student visa advising), the remainder services are optional. Participation in routine programming events is also optional. There is no consequence for an international student to deny a counseling referral or not attend a social event in their dorm, as opposed to them denying completing a final exam and receiving a failing grade or risking traveling internationally without a travel signature in their I-20. Hence, the voluntary nature of how campus services are used makes utilization of campus services somewhat untenable to assessment that may well be aimed at predicting full use of all services. Additionally, there may also be differences among varying groups of students in terms of what services they are more likely to use as a variable of their level of study. For instance, an undergraduate international student may be more involved with campus life as a service unit offering social engagement services, whereas a graduate student may be more involved with their academic department's professional clubs and department-specific student organizations. Such intersectional analyses are beyond the scope of the current study, but future research can be aimed at some of these nuanced questions.

Given the findings that showed significant relationships between the sample's endorsements of exclusionary experiences on campus and their campus services' utilization, policymaking must attend to experiences of exclusion among international students. As shown in previous research (Lee, 2010), many new international students tend to consult alumni as they make decisions about where to apply for admission. They may also be surveying the diversity composition of an institution and the surrounding community. They may well be surveying the policies of government institutions (such as the Department of Homeland Security in the US) that are tasked to regulate international travel and student visa programs (USCIS). That makes policymaking critical at the not

just one's institution but the country-at-large. In campus contexts, experiences of international students must be woven into policy statements that are delivered by offices of institutional equity as well as offices of diversity and inclusion. International educators employed at institutions of post-secondary education must also engage in advocacy work at the federal level and voice concerns of their stakeholders.

Conclusion

The results indicated that all six perceived barriers have the potential to explain international students' underutilization of campus services. The barrier factor of exclusionary experiences on campus, singularly offers insights on how to make international education and programming more inclusive and reciprocal. The majority of US universities continue to recruit a large percentage of international students. Such recruitment has implications for institutions' revenue, student diversity and scholarly merit. In order to retain international students on campus, universities should focus on international students' engagement and attend to their unique psychosocial barriers and needs. Higher education and international education professionals must learn about the challenges many international students face while seeking help on campus in the form of availing campus services. Enabling international students in becoming active agents of their education and development requires colleges and universities to be proactive in demonstrating their commitment to international education.

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APPENDICES

Appendix A – NSSE Survey

The College Student Report

This is a facsimile of the NSSE survey (available at nsse.iub.edu/links/surveys). The survey itself is administered online.

1.   During the current school year, about how often have you done the following?
Response options: Very often, Often, Sometimes, Never
a.   Asked questions or contributed to course discussions in other ways
b.   Prepared two or more drafts of a paper or assignment before turning it in
c.   Come to class without completing readings or assignments
d.   Attended an art exhibit, play, or other arts performance (dance, music, etc.)
e.   Asked another student to help you understand course material
f.   Explained course material to one or more students
g.   Prepared for exams by discussing or working through course material with other students
h.   Worked with other students on course projects or assignments
i.   Given a course presentation

2.   During the current school year, about how often have you done the following?
Response options: Very often, Often, Sometimes, Never
a.   Combined ideas from different courses when completing assignments
b.   Connected your learning to societal problems or issues
c.   Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments
d.   Examined the strengths and weaknesses of your own views on a topic or issue
e.   Tried to better understand someone else's views by imagining how an issue looks from their perspective
f.   Learned something that changed the way you understand an issue or concept
g.   Connected ideas from your courses to your prior experiences and knowledge

3.   During the current school year, about how often have you done the following?
Response options: Very often, Often, Sometimes, Never
a.   Talked about career plans with a faculty member
b.   Worked with a faculty member on activities other than coursework (committees, student groups, etc.)
c.   Discussed course topics, ideas, or concepts with a faculty member outside of class
d.   Discussed your academic performance with a faculty member

4.   During the current school year, how much has your coursework emphasized the following?
Response options: Very much, Quite a bit, Some, Very little
a.   Memorizing course material
b.   Applying facts, theories, or methods to practical problems or new situations

c.   Analyzing an idea, experience, or line of reasoning in depth by examining its parts
d.   Evaluating a point of view, decision, or information source
e.   Forming a new idea or understanding from various pieces of information

5.   During the current school year, to what extent have your instructors done the following?
Response options: Very much, Quite a bit, Some, Very little
a.   Clearly explained course goals and requirements
b.   Taught course sessions in an organized way
c.   Used examples or illustrations to explain difficult points
d.   Provided feedback on a draft or work in progress
e.   Provided prompt and detailed feedback on tests or completed assignments

6.   During the current school year, about how often have you done the following?
Response options: Very often, Often, Sometimes, Never
a.   Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)
b.   Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)
c.   Evaluated what others have concluded from numerical information

7.   During the current school year, about how many papers, reports, or other writing tasks of the following lengths have you been assigned? (Include those not yet completed.)
Response options: None, 1-2, 3-5, 6-10, 11-15, 16-20, More than 20 papers
a.   Up to 5 pages
b.   Between 6 and 10 pages
c.   11 pages or more

8.   During the current school year, about how often have you had discussions with people from the following groups?
Response options: Very often, Often, Sometimes, Never
a.   People of a race or ethnicity other than your own
b.   People from an economic background other than your own
c.   People with religious beliefs other than your own
d.   People with political views other than your own

9.   During the current school year, about how often have you done the following?
Response options: Very often, Often, Sometimes, Never
a.   Identified key information from reading assignments
b.   Reviewed your notes after class
c.   Summarized what you learned in class or from course materials

10.   During the current school year, to what extent have your courses challenged you to do your best work?
Response options: 1=Not at all to 7=Very much

11.	Which of the following have you done or do you plan to do before you graduate?
Response options: Done or in progress, Plan to do, Do not plan to do, Have not decided
a.	Participate in an internship, co-op, field experience, student teaching, or clinical placement
b.	Hold a formal leadership role in a student organization or group
c.	Participate in a learning community or some other formal program where groups of students take two or more classes together
d.	Participate in a study abroad program
e.	Work with a faculty member on a research project
f.	Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)

12.	About how many of your courses at this institution have included a community-based project (service-learning)?
Response options: All, Most, Some, None

13.	Indicate the quality of your interactions with the following people at your institution.
Response options: 1=Poor to 7=Excellent, Not Applicable
a.	Students
b.	Academic advisors
c.	Faculty
d.	Student services staff (career services, student activities, housing, etc.)
e.	Other administrative staff and offices (registrar, financial aid, etc.)

14.	How much does your institution emphasize the following?
Response options: Very much, Quite a bit, Some, Very little
a.	Spending significant amounts of time studying and on academic work
b.	Providing support to help students succeed academically
c.	Using learning support services (tutoring services, writing center, etc.)
d.	Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)
e.	Providing opportunities to be involved socially
f.	Providing support for your overall well-being (recreation, health care, counseling, etc.)
g.	Helping you manage your non-academic responsibilities (work, family, etc.)
h.	Attending campus activities and events (performing arts, athletic events, etc.)
i.	Attending events that address important social, economic, or political issues

15.	About how many hours do you spend in a typical 7-day week doing the following?
Response options: 0, 1-5, 6-10, 11-15, 16-20, 21-25, 26-30, More than 30 (Hours per week)
a.	Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)

b. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)
c. Working for pay on campus
d. Working for pay off campus
e. Doing community service or volunteer work
f. Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)
g. Providing care for dependents (children, parents, etc.)
h. Commuting to campus (driving, walking, etc.)

16. Of the time you spend preparing for class in a typical 7-day week, about how much is on assigned reading?
Response options: Very little, Some, About half, Most, Almost all

17. How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?
Response options: Very much, Quite a bit, Some, Very little
a. Writing clearly and effectively
b. Speaking clearly and effectively
c. Thinking critically and analytically
d. Analyzing numerical and statistical information
e. Acquiring job- or work-related knowledge and skills
f. Working effectively with others
g. Developing or clarifying a personal code of values and ethics
h. Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)
i. Solving complex real-world problems
j. Being an informed and active citizen

18. How would you evaluate your entire educational experience at this institution?
Response options: Excellent, Good, Fair, Poor

19. If you could start over again, would you go to the same institution you are now attending?
Response options: Definitely yes, Probably yes, Probably no, Definitely no

20. Do you intend to return to this institution next year? [Only non-seniors receive this question]
Response options: Yes, No, Not sure

21a. How many majors do you plan to complete? (Do not count minors.)
Response options: One, More than one

21b. [If answered "One"] Please enter your major or expected major: [Text box]

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21c. [If answered "More than one"] Please enter up to two majors or expected majors (do not enter minors): [Text box]

22. What is your class level?
Response options: Freshman/first-year, Sophomore, Junior, Senior, Unclassified

23. Thinking about this current academic term, are you a full-time student?
Response options: Yes, No

24a. How many courses are you taking for credit this current academic term?
Response options: 0, 1, 2, 3, 4, 5, 6, 7 or more

24b. Of these, how many are entirely online?
Response options: 0, 1, 2, 3, 4, 5, 6, 7 or more

25. What have most of your grades been up to now at this institution?
Response options: A, A-, B+, B, B-, C+, C, C- or lower

26. Did you begin college at this institution or elsewhere?
Response options: Started here, Started elsewhere

27. Since graduating from high school, which of the following types of schools have you attended other than the one you are now attending? (Select all that apply.)
Response options: Vocational or technical school, Community or junior college, 4-year college or university other than this one, None, Other

28. What is the highest level of education you ever expect to complete?
Response options: Some college but less than a bachelor's degree, Bachelor's degree (B.A., B.S., etc.), Master's degree (M.A., M.S., etc.), Doctoral or professional degree (Ph.D., J.D., M.D., etc.)

29. What is the highest level of education completed by either of your parents (or those who raised you)?
Response options: Did not finish high school, High school diploma or G.E.D., Attended college but did not complete degree, Associate's degree (A.A., A.S., etc.), Bachelor's degree (B.A., B.S., etc.), Master's degree (M.A., M.S., etc.), Doctoral or professional degree (Ph.D., J.D., M.D., etc.)

30. What is your gender identity?
Response options: Man; Woman; Another gender identity, please specify: ; I prefer not to respond

31. Enter your year of birth (e.g., 1994):

32a. Are you an international student?
Response options: Yes, No

32b. [If answered "yes"] What is your country of citizenship?

33. What is your racial or ethnic identification? (Select all that apply.)
Response options: American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, White, Other, I prefer not to respond

34. Are you a member of a social fraternity or sorority?
Response options: Yes, No

35. Which of the following best describes where you are living while attending college?
Response options: Campus housing (other than a fraternity or sorority house), Fraternity or sorority house, House, apartment, or other residence within walking distance to campus, House, apartment, or other residence farther than walking distance to campus, Not applicable: No campus, entirely online program, etc., Not applicable: Homeless or in transition

36a. Are you a student-athlete on a team sponsored by your institution's athletics department?
Response options: Yes, No

36b. [If answered "yes"] On what team(s) sponsored by your institution's athletics department are you an athlete? (Select all that apply.)

37.Are you a current or former member of the U.S. Armed Forces, Reserves, or National Guard?
Response options: Yes, No

38a. Have you been diagnosed with any disability or impairment?
Response options: Yes, No, I prefer not to respond

38b. [If answered "yes"] Which of the following has been diagnosed? (Select all that apply.)
Response options: A sensory impairment (vision or hearing), A mobility impairment, A learning disability (e.g., ADHD, dyslexia), A mental health disorder, A disability or impairment not listed above

39. Which of the following best describes your sexual orientation?
Response options: Straight (heterosexual); Bisexual; Gay; Lesbian; Queer; Questioning or unsure; Another sexual orientation, please specify: ; I prefer not to respond

40. Prompt for Open-Ended Comments (Institutions select one of four questions for the end of the NSSE questionnaire.)
•   If you have any additional comments or feedback that you'd like to share on the quality of your educational experience, please enter them below.

•	What has been most satisfying about your experience so far at this institution, and what has been most disappointing?
•	Please describe the most significant learning experience you have had so far at this institution.
•	What one change would you most like to see implemented that would improve the educational experience at this institution, and what one thing should not be changed?

International Students Perceived Barriers and Service Utilization Survey

Informed Consent Form

Dear fellow International Student: Thanks for your interest in my study. My name is Anil Lalwani. I am an international student at Cleveland State University (CSU). I am requesting your participation in this research study. Please read this consent document carefully before you decide to participate in this study.

Participation: In order to participate, you must fulfil two requirements. The first is that you are 18 years of age or older. The second is that you are a currently enrolled international student. Your participation in this study is completely voluntary. There is no penalty for not participating. You may withdraw from this study at any time without any consequence whatsoever.

About the Study & Survey: The study aims to understand perceived barriers. International students may have such barriers while using services provided by campus services providers. If you consent to participate in this study, you will be directed to the next section which will contain some surveys. Please answer the surveys as honestly as possible. There is no right or wrong answer. It is required for you to answer questions which are appear with an * sign. On average, it takes 13 - 17 minutes to complete the entire survey.

Risks: You may experience some discomfort while completing the surveys. This will not be greater than the discomfort you feel on a daily basis. If you wish to discuss it further, please contact these service centers. You can contact CSU's Office of Inclusion and Multicultural Engagement at 216-687-9234. You can also contact CSU's Counseling Services at 216-687-2277.

Benefits: As appreciation for your time spent in completing the survey, we would like to offer you a $5 e-gift card. Please read the next paragraph for more information.

Compensation: If interested, you will be asked to complete a Gift Card Sign-up Form to receive a $5 Starbucks e-gift card. Please note that these e-gift cards will be given away to only the first 350 participants. Participants who qualify the criteria of the survey and who answer every required question can only access the Gift Card Sign-up Form. As a participant, you have the right to not respond to every survey item and you can click on the "Exit the Survey" link provided at the top-right side corner of your screen to end the survey at any time. If you exit the survey without completing, that submission may not be included in the study and thus compensation would not be allocated.

About 550 students will be contacted, so your odds of winning are 1 in 1.5. Please enter your school e-mail address at the end of the study when asked. Your school e-mail address will not be used to identify you in any way and signing up to receive an e-gift

card is voluntary.

Anonymity: Only summary results may be published or used for instruction. No personal identifiers are included in this data. Your identity will not be recorded. Your identity will not be connected with your responses in any way. All research documents will be secured in computers and locked cabinets of the research team.

The Cleveland State University's Institutional Review Board has approved this study. Approval number is FY-2020-221. You may print a copy of this form for your record.

Internal Barriers

Instructions: The following statements refer to problems international students might be facing while using campus services. Please respond to each statement by selecting the response that best fits how you feel about the statement in relation to your individual situation and your campus.

There are no right or wrong responses. Often the first answer that comes to mind is the best response. Please be sure to respond to each statement.

Here are definitions of key terms:
- *Campus Services* - Student services and educational programming offered by Campus Services Providers (also referred as CSPs)
- *Campus Service Providers* (CSPs) - Providers that may be employed by your institution as an educator or administrator or student specialist or health provider. For example, programming staff may include professional staff in the offices of international students, residence halls, career services, along with providers at the health center, such as medical providers and counselors.

English Language Fluency
    1.   Due to language difficulties, I feel unable to express myself fully in English.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

    2.   I feel intimidated to participate in social activities due to my English.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

    3.   I feel nervous to communicate in English.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

Unawareness of Services
    4.   I understand what campus services are available to me. (*To be reverse scored*)

Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

5. I am aware of student organizations available to me. (*To be reverse scored*)
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

6. Even if I knew the name of a certain campus services unit, I would not know what services are offered by that unit.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

Perceived Utility
7. I find the organizations, clubs and activities available to me useful. (*To be reverse scored*)
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

8. I find campus services available to me useful (*To be reverse scored*)
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

9. I think campus services offered are not relevant to the problems I might encounter.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

Attention Testing Item 1

10. Please select Neither Agree nor Disagree for this item. (*Not to be scored*)
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

Ethnocentric Attitudes toward Help-seeking
11. I prefer to go to other students from my home country for help instead of campus-services providers (CSPs).
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

12. I think CSPs cannot help me because of our cultural differences.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

13. I prefer discussing personal problems with someone who is from the same racial/ethnic group as me.

Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

External Barriers
Campus Climate
    14. My campus does not feel inclusive for me to engage and get involved.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

    15. My campus feels welcoming of me as an international student. (*To be reverse scored)*
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

    16. I think international students are well supported on my campus. (*To be reverse scored*)
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

Foreign Relations
    17. I get angry when people use racial slurs and jokes about my culture.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

    18. I feel that I am judged on the basis of how my culture and people are portrayed in American politics and media.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

    19. I feel uncomfortable about the manner in which foreign relations between my country-of-origin and the USA are addressed on my campus.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

Perceived Access
    20. I find it difficult to access the different services offered on campus.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

    21. The locations of campus service centers are not convenient for me.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

    22. The time schedules of campus service centers do not fit my needs.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

23. Please select Strongly Agree for this item. (Not to be scored)
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3),
Somewhat Agree (4), Strongly Agree (5)

Experiences of Racism
24. I am treated differently because of my skin color.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3),
Somewhat Agree (4), Strongly Agree (5)

25. I am treated differently because of my race/ethnicity.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3),
Somewhat Agree (4), Strongly Agree (5)

26. Campus-services providers (CSPs) treat me differently because of my cultural
background/identity.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3),
Somewhat Agree (4), Strongly Agree (5)

**Underutilization of Campus Services (To be presented as one-prompt checklist – All
to be reverse scored)**

Instructions: The following statements refer to service departments or service units that
offer different kinds of services to international students. Please respond to each
statement by selecting the response that best answers the question of how frequently you
use a particular set of services and/or participate in programs offered by a service unit.

There are no right or wrong responses. Often the first answer that comes to mind is the
best response.

Again, definitions of key terms are provided here:
- *Campus Services* - Student services and educational programming offered by Campus
Services Providers (also referred as CSPs)
- *Campus Service Providers (CSPs)* - Providers that may be employed by your institution
as an educator or administrator or student specialist or health provider. For example,
programming staff may include professional staff in the offices of international students,
residence halls, career services, along with providers at the health center, such as medical
providers and counselors.

Thanks for completing this section of the survey.

Student Services - I use the following campus service:
 (All to be reverse coded)

27. Academic Advising	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
28. Student Visa Status Advising	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
29. Tutoring	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
30. Supplemental Instruction	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
31. Career Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
32. Library Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
33. Counseling Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
34. Disability Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
35. Judicial Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
36. Campus Security Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
37. Recreation Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
38. Health Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)

Social Engagement Services - I participate in the following:

39. Campus Life Events and Programs	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
40. Greek Life Events and Programs	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)

41. Residence Life and Housing Events and Programs	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
42. Office of International Students' Events and Programs	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
43. Office of Multicultural Engagement/Ethnic Center-of-Choice (for example, Confucius Institute) Events and Programs	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
44. LGBTQ+ and Allies Events and Programs	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
45. Veteran Affairs Events and Programs	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
46. Women's Resource Center Events and Programs	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)

Enrollment Services - I use the following campus service:

47. Financial Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
48. Registrar's Office	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
49. Student Conduct Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)
50. Institutional Equity Services	Never (1), Rarely (2), Sometimes (3), Frequently (4), Very Frequently (5)

COVID-19 Service-use Barriers

Instructions: As you may know, the vast majority of colleges, universities and other postsecondary institutions in the USA closed their campuses after COVID was declared a pandemic. Many institutions since then have been running all campus operations online, including offering campus services online or "remotely".

The following statements refer to problems international students might be facing using campus services online or remotely, while trying to complete their studies.

There are no right or wrong responses. Often the first answer that comes to mind is the best response. Please be sure to respond to each statement.

Thanks for completing this section of the survey.

51. I feel uncertain about how my institution will manage its routine campus operations during the pandemic.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

52. I am able to easily access campus services that are offered remotely. (*To be reverse coded*)
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

53. I am facing problems having campus services providers respond to my requests for any services during this time of campus closure.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

54. Not having access to in-person help makes me feel isolated.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

55. The alleged region of where COVID infection started and of particular outbreaks as suggested in the media makes me more of a target of racism.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

56. There is lack of information on how my institution will help me get to my home country in the midst of travel restrictions enforced by various countries during the pandemic.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

57. There is lack of information on how my institution will help me return to the USA to continue my studies and complete my academic program.
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

58. Health services related to staying healthy during the pandemic are available on my campus. (To be reverse coded)
Strongly Disagree (1), Somewhat Disagree (2), Neither Disagree nor Agree (3), Somewhat Agree (4), Strongly Agree (5)

59. Where are you living right now?
On-campus, Off-campus but in the same city as my institution, Elsewhere in the USA, In my home country, In a country other than USA or my home country

60. Do you plan to return to/stay in the USA to finish your degree?

Yes, No

Demographic Section

Instructions: This section asks you information about your student status. <u>Please type your responses where indicated or select one of the available options.</u> There are no right or wrong responses. Often the first answer that comes to mind is the best response. Please be sure to respond to every question.

Thanks for completing this section of the survey.

61. Your current institution: Drop-down menu or Text box

62. Your length of attendance in the current academic program: Less than 5 months or 1 semester, 6-9 months or 2 semesters, 10-12 months or 3 semesters, More than 1 year but less than 2 years, More than 2 years but less than 3 years, More than 3 years but less than 4 years, More than 4 years but less than 5 years, More than 5 years

63. Is this your first time attending an academic program in the US? Yes or No

64. Additional info. on previous question: if you answered "no", please list the approximate months you spent attending other academic program(s) previously.

65. List the country where you are located at the time of taking this survey: Text box

66. Your current level of study: Associate, Undergraduate, Graduate/Master's, Doctoral, Specialist or Certificate, Non-Degree, ESL Program, Other, please specify_____

67. Your current academic standing: Associate – Year 1, Associate – Year 1, UG-Freshman, UG-Sophomore, UG-Junior, UG-Senior, UG-Beyond Senior Year, Graduate/Master's/Doctoral/Non-degree/Certificate/ESL – Year 1, Graduate/Master's/Doctoral/Non-degree/Certificate/ESL – Year 2, Graduate/Master's/Doctoral/Non-degree/Certificate/ESL – Year 3, Graduate/Master's/Doctoral/Non-degree/Certificate/ESL – Year 4, Graduate/Master's/Doctoral/Non-degree/Certificate/ESL – Year 5 and beyond, Other, please specify _____

68. Your academic major: Text box

69. Your current GPA: Above 3.8, 3.0-3.79, 2.5-2.99, 2.0-2.49, Below 1.99, Other, please specify_____

70. What visa do you hold? F1, J1, M1, Other, please specify _____

71. Are you currently on Optional Practical Training?

72. Your country of origin: Drop-down menu listing all countries

73. Your country-of-citizenship: Same as above, List your response(s) here_____

74. Your race/ethnicity: Asian, African, Caucasian/White, First Nations, Latinx, North African/Middle Eastern, Pacific Islander, If two or More Races or Self-defined, please specify_____

75. Do you identify as a person of color? Yes, No

76. Your current gender identity: Female (cisgender), Non-Binary Gender (e.g. Genderqueer, Gender non-conforming), Male (cisgender), Transgender Woman, Transgender Man, Self-defined, please specify _____

77. Your sexual orientation: Bisexual, Gay, Lesbian, Straight, Self-defined, please specify _____

78. Do you identify as a first-generation student? Yes, No

79. Your age: 18-21, 22-25, 26-29, 30-33, 34-37, 38-41, 42-45, 46-49, 50-59, 60-69, 70-79, 80-89, 90 and above

80. How many months have you lived in the US? Text box

81. Please list your first language: Text box

82. How would you rate your English speaking ability? 1 – Very poor – 5 – Very good

83. How would you rate your English reading ability? 1 – Very poor – 5 – Very good

Appendix C – Item-by-Item Reference to Adapted Source

Item Sr. No in Survey	Item	Adapted from Item/Statement	Study
1.	"Due to language difficulties, I feel unable to express myself fully in English."	"Due to language difficulties, I feel unable to express myself fully."	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
2.	"I feel intimidated to participate in social activities due to my English."	"I feel intimidated to participate in social activities."	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
3.	"I feel nervous to communicate in English."	"I feel nervous to communicate in English."	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
4.	"I understand what campus services are available to me.	"Multiple pressures are placed on me after migration."	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
		"I understand what services are available to me."	Perry, C. J., Lausch, D., McKim, C. A., & Weatherford, J. (2020). Knowledge, use, and perceived value of university student services. *Journal of*

			International Students, 10(3), 301-318.
5.	"I am aware of student organizations available to me".	"Multiple pressures are placed on me after migration."	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
		"I understand what services are available to me."	Perry, C. J., Lausch, D., McKim, C. A., & Weatherford, J. (2020). Knowledge, use, and perceived value of university student services. *Journal of International Students, 10(3)*, 301-318.
6.	"Even if I knew the name of a certain campus services unit, I would not know what services are offered by that unit."	"Multiple pressures are placed on me after migration."	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
		"I understand what services are available to me."	Perry, C. J., Lausch, D., McKim, C. A., & Weatherford, J. (2020). Knowledge, use, and perceived value of university student services. *Journal of International Students, 10(3)*, 301-318.
7.	"I find the organizations, clubs and activities available to me useful."	"Many opportunities are denied to me."	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international

		"I find the organizations or clubs useful to me."	students: Preliminary findings. *Psychological Reports, 75*, 435-448. Perry, C. J., Lausch, D., McKim, C. A., & Weatherford, J. (2020). Knowledge, use, and perceived value of university student services. *Journal of International Students, 10(3)*, 301-318.
8.	"I find campus services available to me useful."	"I find the organizations or clubs useful to me."	Perry, C. J., Lausch, D., McKim, C. A., & Weatherford, J. (2020). Knowledge, use, and perceived value of university student services. *Journal of International Students, 10(3)*, 301-318.
9.	"I think different campus services offered are not relevant to the problems I might encounter."	"Many opportunities are denied to me."	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
		"I find the organizations or clubs useful to me."	Perry, C. J., Lausch, D., McKim, C. A., & Weatherford, J. (2020). Knowledge, use, and perceived value of university student services. *Journal of International Students, 10(3)*, 301-318.
11.	"I prefer to go to students from my home country for	"I miss the people and country of my origin."	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an

	help instead of campus services providers.”		acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
12.	“I think campus services providers cannot help me because of our cultural differences.”	“I feel some people don't associate with me because of my ethnicity.”	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
13.	“I prefer discussing personal problems with someone who is from the same racial/ethnic group as me.”	“I cannot trust somebody to discuss my personal problems.”	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
14.	“My campus does not feel inclusive for me to engage and get involved.”	“Changes in sense of belonging can be indicators of climate change, or more importantly, as features of campus subenvironments or ‘safe spaces’ that foster community” (p. 86)	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122.
		“I fear for my personal safety because of my different cultural background.”	Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
15.	“My campus feels welcoming of me as	“The organizational dimension of the campus	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C.,

an international student."	climate identifies structures and processes that embed group-based privilege and oppression or confer resources" (p. 60)	Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122.
16.	"I think international students are well supported on my campus."	"LGBT students often worry about being in an unsupportive institution and stress about facing discrimination and harassment" (p.71)	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122.
17.	"I get angry when people use racial slurs and jokes about my culture."	"Students' home communities or other communities they may be connected to 'outside' of college, (i.e., religious, cultural, social, political, etc.), are also part of the web of relationships." (p. 88) "I get angry when people use racial slurs and jokes about my culture."	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122. Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress

			scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
18.	"I feel judged on the basis of how my culture and people are portrayed in American politics and media."	"Students' home communities or other communities they may be connected to 'outside' of college, (i.e., religious, cultural, social, political, etc.), are also part of the web of relationships." (p. 88)	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122.
		"It makes me angry when I hear negative stereotypes about my culture and people."	
			Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
19.	"I feel uncomfortable about the manner in which foreign relations between my country-of-origin and the USA are addressed on my campus."	"Students' home communities or other communities they may be connected to 'outside' of college, (i.e., religious, cultural, social, political, etc.), are also part of the web of relationships." (p. 88)	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122.
20.	"I find it difficult to access the different services that are	"Broad access institutions understand intuitively that their success and efficacy as institutions is largely	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for

	available on my campus."	dependent on the success of their diverse students." (p. 42)	diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122.
21.	"Location of campus service centers are not convenient for me."	"Broad access institutions understand intuitively that their success and efficacy as institutions is largely dependent on the success of their diverse students." (p. 42)	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122.
		"With regard to the theme of 'access', staff tended to believe that the physical location of some services created issues of accessibility." (p. 523)	Roberts, P., & Dunworth, K. (2012). Staff and student perceptions of support services for international students in higher education: A case study. *Journal of Higher Education Policy and Management, 34(5),* 517–528.
22.	"The time schedules of campus service centers do not fit my needs."	"Broad access institutions understand intuitively that their success and efficacy as institutions is largely dependent on the success of their diverse students." (p. 42)	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J.

		"The students believed that the major issues for access were that information about services was not available at the time of need, and the services themselves were not necessarily available at the times when they were most needed, for example during out-of-office hours and weekends." (p. 523)	C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27,* 41-122. Roberts, P., & Dunworth, K. (2012). Staff and student perceptions of support services for international students in higher education: A case study. *Journal of Higher Education Policy and Management, 34(5),* 517–528.
24.	"I am treated differently because of my skin color."	"Although race is socially constructed, racism and additional group-based oppression is real based on these group ascriptions" (p. 73)	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27,* 41-122.
		"I am treated differently because of my color."	
			Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
25.	"I am treated differently because of my race/ethnicity."	"Although race is socially constructed, racism and additional group-based oppression is real based on	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for

		these group ascriptions" (p. 73)	diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122.
		"I am treated differently because of my race."	
			Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.
26.	"Campus services providers might treat me differently because of my cultural background/identity."	"Although race is socially constructed, racism and additional group-based oppression is real based on these group ascriptions" (p. 73)	Hurtado, S., Alvarez, C. L., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments: The scholarship on creating and assessing conditions for student success. In J. C. Smart & M. B. Paulsen (Eds.), *Higher education: Handbook of theory and research, 27*, 41-122.
		"I fear for my personal safety because of my different cultural background."	
			Sandhu, D. S., & Asrabadi, B. R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports, 75*, 435-448.