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International students' perceptions of challenges; pre to post matriculation in United States' professional psychology doctoral programs

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This study examines how perceptions of various challenges of international students in professional psychology, from different regions in the world, differed from pre to post enrolment. While previous studies have explored challenges for this population in isolation, this study explored multiple domains of challenges such as language and academics, culture, finances, mentoring and supervision, and career opportunities. The comprehensive survey was distributed to Directors of Clinical Training in APA accredited clinical, counseling, school, and combined psychology programs. Results from study indicated students experienced significant challenges in the financial domain from pre to post enrollment which continued to increase over time. Although not significant, challenges in career opportunities also increased overtime and remained to be the most challenging domain pre and post enrolment. Additional findings indicated that the greatest number of participants in clinical, counseling, and school psychology programs were from the Western Pacific region. Other questions are also examined in this study that generate critical implications to training programs to modify their recruitment strategies with hopes of increasing the representation of racial, ethnic, and linguistic diversity in training programs.

DEDICATION

To my beloved family for going above and beyond to instill in me the courage, confidence, and vision to embark and complete this chapter in my life. I owe an enormous debt of gratitude to my ammi and thaththi for the dedication and sacrifices they made and risks they took to provide me an extraordinary foundational education, without which I would have only dreamt of this advanced accomplishment. I am thankful for their invaluable encouragement and expectations to be extraordinary, aim higher, pursue ambition, and work harder. Thank you to my akki for taking on the pressure of an older sibling, for raising the bar, leading by example, and being a positive force in my life.

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Thank you to all the international students who completed my consuming dissertation survey. Being an international student is truly a unique challenge. Without doubt; we are truly resilient, persistent, and fearless (Lee, 2013). Our stressors are numerous and will be somewhat neglected and rarely heard (Koyama, 2010). But when times are rough and stakes are high, I hope you remember to take pride in and celebrate all the little accomplishments you have achieved thus far and complete this journey that you sacrificed so much to have gotten started.

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CHAPTER I

INTRODUCTION

The phenomenon of international students in the United States (U.S.) is no more a novelty. Every year, students globally travel to the U.S. to seek various educational opportunities thereby increasing the numbers of international students in the U.S., internationalizing higher education in the U.S., and further gathering the attention of various stakeholders, globally (Lough, 2009; Soon, 2010; Verbik & Lasanowski, 2007). The U.S. is by far known to be a popular, sought- after, destination for educational pursuits, largely due to the availability of various and abundant intellectual knowledge, resources, and advanced technology to offer (Sandhu, 1994).

The journey of international students to the U.S. initially originated through the Passenger Act enacted in 1855 solely to raise awareness among the immigrants who went back home to spread this information (Burks, 1984; Capen, 1915). However, much of the policies, acts, and organizations were created post World War II (WWII) with aims to encourage and attract foreign students to pursue educational prospects in the U.S. and support countries to rebuild their educational structures. In return, these opportunities also created mutual benefits to the U.S. by strengthening ties with foreign nations and also spreading the U.S. culture and education throughout these nations (Sarkodie-Mensah, 1998). Further, some guidelines also created opportunities for U.S. individuals to enter foreign countries for activities such as

education and volunteerism thereby again promoting the U.S. ways of education and culture in foreign countries (Banjong & Olson, 2016).

History continues as thousands of international students flee their home countries every year to seek U.S. education. Education in the U.S. is a mutual transaction between the students, their countries, U.S. universities, and the U.S. as a whole. Foreign students bring with them, a variety of benefits. Their presence contributes to diversity, internationalization, and boosts the economy of their university and the host country (Sheppard, 2004; Stromquist, 2007; Zhang & Goodson, 2011). The population of foreign students rose from approximately 1% in 1948/49 to approximately 5.5% in 2017/18 in comparison to the entire student population in the U.S; however, similar increments are not reflected across all majors and levels of study. For instance, rising trends are not shown in graduate programs in psychology.

The highest number of international doctoral student population pursuing professional psychology programs was last reported to be in 2007 and represented 5.35% of the entire doctoral student population pursuing professional psychology that year (American Psychological Association [APA], 2018b). Similar to the low rates of enrollment of international students into psychology doctoral programs, their graduation rates are also low (Christidis et al., 2018). Given the overall low rates of enrollment and graduation, these disproportionalities are rather vital to address for the purposes of retention and recruitment of ethnic diverse student populations in professional psychology. Consequences to experiencing a U.S. education in professional psychology are rewarding but simultaneously daunting to international students (Ward & Kennedy, 1996; 1999). For instance, there are several benefits to personal and professional growth and developments (Brown, 2009; Gill, 2007) primarily through the exposure to the U.S. education system, cultivation of leadership skills,

opportunities for clinical practice, development of financial gains, and advancements for language skills (Inman et al., 2008). In the meantime, there is also stress experienced by this population as a result of the challenges caused by the psychological and socio-cultural adjustments. For instance, the challenges to students' language (Mori, 2000), academic achievements (Zhang & Goodson, 2011), culture (Mendenhall & Wiley, 1994; Lee, 2013), finances (Harman, 2003; Rai, 2002), mentoring and supervision procedures (McClure, 2005), and career opportunities (Çiftçi & Williams-Nickelson, 2008; Lee, 2013; Raney et al., 2008) can be daunting and refined (Ward & Kennedy, 1996; 1999). The challenges encountered by international students in professional psychology programs are rather somewhat unacknowledged (Sato & Hodgo, 2009; Delgado-Romero & Wu, 2010; Koyama, 2010; Pope & Wedding, 2008). While understanding these challenges and their impacts are crucial for the internationalization of the field, they are equally important for the recruitment and retention of ethnically diverse professionals in the future (Rogers & Molina, 2006).

By the year 2060 ethnic minorities in the U.S. are projected to comprise half the entire population of the U.S. (Anderson, 2007) and according to Leong and Blustein (2000), professional psychology programs in the U.S. will also experience increasing numbers of international students in the future. Given this prediction, however, the most recent data documenting the numbers of international doctoral students indicate the population of international students pursuing professional psychology programs has remained nearly consistent for over a decade, since 2002 (APA, 2018a). Further, in comparison to students enrolling in doctoral programs, the numbers of students receiving their doctoral degrees are considerably low (Christidis et al., 2018). While these findings call for effective recruitment and retention strategies to enroll and retain professional psychology international students,

there is yet a general void in concrete research that will generate and supplement these strategies. For instance, one crucial step into addressing recruitment and retention concerns is to identify and cater to the different needs of individuals given their backgrounds. In such instances, knowing students' backgrounds such as country of birth, ethnic group, or region-of-origin is extremely beneficial and useful. Region-of-origin as defined by the World Health Organization (WHO) consists of countries in the world categorized into the following six regions: African Region, Region of the Americas, South-East Asia Region, European Region, Eastern Mediterranean Region, and Western Pacific Region (Health Statistics and Information, 2019). Given the absence of any similar information in the current literature (C. Cope, personal communication, August 21, 2018), any efforts to recruit and retain these students will be undirected, generalized, and ambiguous.

In addition to documenting crucial background and diversity related information of students in professional psychology, documenting their challenges is equally important. Given that challenges experienced by international students in professional psychology graduate programs are somewhat unrecognized (Delgado-Romero & Wu, 2010; Koyama, 2010; Pope & Wedding, 2008; Sato & Hodgo, 2009), any efforts to recruit and retain these students will similarly be undirected, generalized, and ambiguous. Given the existing literature on international students in various fields of graduate education in the U.S, their challenges are recognized across the following five areas: (a) language and academics, (b) finances, (c) culture, (d) mentoring/ supervising/ training and, (e) career opportunities.

Challenges to Recruitment and Retention

Language difficulties are closely related or contribute to academic difficulties (Zhang & Goodson, 2011). Given that difficulties in language are reported to be the most concerning

factor for most international students (Mori, 2000), language barriers contribute to difficulties in comprehending lectures, conveying ideas, reading and writing academic material, communicating orally (Angelova & Riatzantseva, 1999), and engaging in discussions (Zhang & Mi, 2010). Collectively, language barriers and academic difficulties hinder opportunities for academic accomplishments and communication in a social and academic setting (Andrade & Evan, 2009; Mallinckrodt & Leong, 1992; Olivas & Lee, 2006; Park et al., 2017; Ward & Kennedy, 1992). Further, given the demands of professional psychology, effective communication and comprehension skills are vital for client interaction (Ng, 2006; Nilsson & Anderson, 2004). Lacking in these skills, combined with accents in speech and associated biases will further impact relationships with clients (Fuertes et al., 2002). While language skills contribute to communication, culture too plays a role in communication. Culture impacts interpersonal relationships and values (Betancourt & Lopez, 1993; Sodowsky et al., 1991). Belonging to a culture significantly different to that of the U.S. impacts the delivery of various psychological services such as providing assessments and interventions for clients and being supervised (Nilsson & Anderson, 2004; Nilsson & Doddy, 2006). Further, understanding the U.S. culture and comprehending the racial categories are crucial to international students' understanding of APA's ethical code and multicultural guidelines that are crucial for practicing psychologists (Chung, 1993).

Similar to language, academics, and culture, financial concerns is another area causing stress to international students (Harman, 2003; Rai, 2002). While there are multiple factors to attribute this stress to, some notable stressors include paying high tuition rates (Hyun et al., 2007), receiving limited financial aid and loan opportunities from the U.S. (Lin & Yi, 1997), facing limited work hours, limiting work to only on-campus (Koh Chin & Bhandari, 2006), and

experiencing discrimination when seeking funding or job opportunities from faculty or on-campus administrators (Lee & Rice, 2007). Further, the lack of financial resources and support available or permitted for international students to access is a significant barrier to this population of students (Quarterman, 2008).

Often, these challenges act collectively to elevate the impact of stress caused to international students. For instance, culture (Leong & Wagner, 1994; McClure, 2005) and power differences in relation to race and ethnicity (Hird et al., 2001) can negatively impact the relationship between a supervisor/mentor and supervisee/mentee. Therefore, it is crucial for supervisors to understand the international supervisees' or students' cultural practices (Nilsson & Anderson, 2004) to eliminate barriers during supervision (Mittal & Wieling, 2006), provide culturally sensitive mentoring (Rodriguez, 1995), and initiate and maintain cultural and diversity issues during supervision (Hird et al., 2001; Tyler et al., 1991). However, there is still a need for research pertaining to multicultural supervision and mentoring (Hird et. al., 2001).

International students transcending their programs in professional psychology despite the multiple challenges in their graduate programs continue to experience difficulties beyond their time spent doing coursework and being trained. Challenges pertaining to securing internship placements and postdoctoral positions or permanent jobs as a result of language and cultural differences (Ginkel et al., 2010) or legal restrictions (Lee, 2013) can be stressful to international students. Additionally, while some students may want to pursue careers in the U.S. or obtain opportunities to do so, there may be uncertainties or changes over time based on personal or family interests (Park-Saltzman et al., 2012) that hinder these experiences.

The existing literature in almost unavailable to explicitly outline the various challenges experienced by international students in all professional psychology programs. Further, current

literature focusing on these students fails to generate qualitative or quantitative data identifying fundamental information such as country of birth or region- of-origin. The absence of these two broad areas of information creates a significant void in crucial information that is key to addressing and determining directed and clear recruitment and retention strategies.

Statement of the Problem

The population of international doctoral students in professional psychology has been consistent over a decade, since 2002 (APA, 2018a). Additionally, international students in these programs have demonstrated low rates of enrollment and graduation (Christidis et al., 2018). Given the multiple benefits such as exposure to the U.S. education system, cultivation of leadership skills, opportunities for clinical practice, development of financial gains, and advancements for language skills (Inman et al., 2008), challenges experienced by international students in professional psychology programs are somewhat unacknowledged (Delgado-Romero & Wu, 2010; Koyama, 2010; Pope & Wedding, 2008; Sato & Hodgo, 2009).

While the existing literature on this population focuses on their concerns in isolation for one of the three fields in professional psychology, it overlooks students' concerns encountered across all the three fields, collectively. Additionally, current studies on international students in professional psychology overlook reporting fundamental information such as students' country of birth, ethnic group, or region of origin that are useful for recruitment and retention strategies. While understanding challenges in the absence of contextual information may be short-lived, doing so in the presence of contextual information will yield a wealth of findings necessary for recruitment and retention strategies for international students in the long term.

Significance of the Study

The current study was an initiative to report the population and distribution of international students pursuing three different programs in professional psychology across students' regions- of-origin. Documenting the breakdown of international students in professional psychology based on the region- of- origin and program type is supplemental information to the primary aim of the study to address the challenges experienced by these students. Investigating multiple challenges of international students across the three professional psychology avenues addressed important research in international psychology that is currently unavailable. Additionally, understanding the differences in these challenges pre and post matriculation adds another unique layer of research that is again absent in the literature. While data yielded from this study is crucial to the sustenance of the three fields, locally and internationally, these findings are useful to training programs and professional organizations in their attempts to recruit and retain international students, shed light onto globalization and internationalization of professional psychology fields in the U.S., build global awareness of mental health from a westernized model, and increase the numbers of professionals, globally.

Research Questions

This study answered the following research questions:

1. Is the type of professional psychology program (clinical, counseling, school, and combined) selected by international students, related to their region- of- origin (Africa, Americas, South-East Asia, Europe, and Eastern Mediterranean, and Western Pacific).

2. Are there differences in professional psychology international students' perceptions of total ratings of challenge areas and their sub-categories (i.e. language and academics, finances, culture, mentoring/ supervising/ training career opportunities) pre and post matriculation?

3. Are the differences on total ratings of challenges pre and post matriculation dependent on region- of- origin (Africa, Americas, South-East Asia, Europe, and Eastern Mediterranean, and Western Pacific) and selected professional psychology program type (clinical, counseling, school, and combined)?

CHAPTER II

LITERATURE REVIEW

Origin of International Students in the United States

The origin of international students in the U.S. dates back to the 1800s with the passing of the Passenger Act in 1855. The Act was primarily put forward to provide information to temporary immigrants in the U.S. who supposedly conveyed this information back to assist in the development of their home countries (Burks, 1984; Capen, 1915). Later in the years, the Institute of International Education (IIE, 2006) and the National Association of Foreign Student Advisers (NAFSA, 2006) were established with further facilitate understanding between nations and provide information to foreign students who entered the U.S. universities post WWII.

Repercussions of WWII brought a major shift to foreign policies between U.S. and other countries with sole intentions to strengthen ties among them. These guidelines mandated the U.S. to tighten their relationships with these countries which mostly took place through education. Efforts were made to encourage education overseas, to support countries to rebuild their educational structure by providing technical assistance, and to share U.S. cultural and educational perspectives with the foreign countries (Sarkodie-Mensah, 1998). As a result, there was greater entry of international students into the U.S. (Banjong & Olson, 2016). Additionally, political acts such as The Fulbright–Hays/Mutual Educational and Cultural

Exchange Act, the Foreign Assistance Act, and the Peace Corps Act further promoted the attraction of international students into the U.S. (Banjong & Olson, 2016).

These policies have further facilitated and created opportunities for international students to seek an education in the U.S. For instance the Fulbright–Hays Act later enacted as the Mutual Educational and Cultural Exchange Act (1961) provided opportunities for American nationals to study abroad and simultaneously foreign nationals to gain education in U.S. (Fulbright, 1946). In 2006, the program had funded education for over 158,000 international students in the U.S. (Spilimbergo, 2006) and continues to do so, along with the IIE.

Similarly, The Foreign Assistance Act enacted in 1961, aimed to assist foreign students to obtain an education in their own countries or the U.S. through the United States Agency for International Development (USAID). Similar to the previous two Acts, the Peace Corps Act was also enacted in 1961. This Act involved raising awareness and spreading the U.S. culture in foreign countries by sending United States Peace Corp volunteers abroad. The presence of these individuals likely promoted interactions between volunteers and nationals in these foreign countries, which may have contributed to foreign students' presence in the U.S. (Banjong & Olson, 2016).

These acts and organizations allowed the U.S. to expand and spread its education practices to other countries and encouraged foreign nationals to pursue education stateside. Both approaches were a means to internationalize and diversify the U.S. education system, which also contributed to globalization. Education was now perceived as means to learn other cultures and develop relationships with other nations. These perceptions paved way to scholarship opportunities for foreign nationals from developing countries and greater federal

funding for education which thereby further increased scholarship opportunities for these individuals as well as promoted academic research (Banjong & Olson, 2016).

Currently, most educational institutions in the U.S. now include multicultural or intercultural components into their vision and mission statements (Sheppard, 2004; Stromquist, 2007), suggesting the continued value to expand international education in the U.S.

International Students in the United States

Foreign students seeking educational opportunities in the U.S. are often some of the most intelligent individuals in their country (Constantinides, 1992). Often, they contribute to diversity (Campbell, 2015), facilitate culturally relevant academic conversations and perspective taking in the classroom (Glass et al., 2013), enhance multicultural diversity within institutions, develop international partnerships and social interactions (Liang, 2015; Straffon, 2003), and maintain ties across countries to promote peace (Johnson, 2003).

Foreign students also have an immeasurable influence on the U.S. economy through their tuition and living costs with more than half the population paying for these expenses through personal, family, home government or university funds (Zhang & Goodson, 2011). In the year 2016-2017, the IIE (2017a) reported international students contributed approximately $40 billion to the U.S. economy and facilitated more than 4 million jobs in the U.S. (NAFSA, 2017). These funds allow universities to further recruit faculty, develop facilities, and purchase resources for the betterment of the institution (Anderson, 2013). The U.S. has a long history of recruiting students from various parts of the world into its universities and is considered by far one of the countries hosting the majority of international students (Ren & Hagedorn, 2012). The population of foreign students in the U.S. has demonstrated an overall increasing trend since the 1940s (Banjong & Olson, 2016). Per the IIE (2018a), approximately

25,000 total international students in the years 1948/1949 made up 1.1% of the total student population and approximately 900,000 international students in the year 2017/18 made up 5.5% of the total student population. Further, the population of these students in 2017/18 was recorded to be approximately 440,000 undergraduates, 380,000 graduate students, and 66,000 non–degree seeking students. While the numbers of undergraduates continued to increase from 2015/16 to 2017/18, the rate of growth significantly decreased over these years. For graduate students, these numbers increased from 2015/16 to 2016/17, but decreased for 2017/18. For non-degree seeking students, the number of international students continued to decrease since 2015/16.

However, given the overall increase in trend of all international students pursuing education in the U.S. across the years, a steady increase is not reflected. For instance, the highest increase of international students was noted at 16% during the years 1975/76 and 1977/78, the lowest increase was noted at 0.3% in the year 1995/96. The greatest decrease in trend was noted -3.2% in 1971/72, and the smallest was noted at -0.05% during the years 2005/06 (IIE, 2018b). For the past three years, the number of international students in the U.S. increased by 7.1% in 2015/16; 3.4% in 2016/17; and 1.5% in 2017/2018 (IIE, 2016; 2017b; 2018a).

In the years 2016/17 and 2017/18, the majority of these international students originated from China and India with South Korea and Saudi Arabia following in third and fourth places, respectively (IIE, 2017b; 2018a). The numbers have remained relatively high for China and India for the years 2014/15 and 2015/16, but with Saudi Arabia and South Korea following in third and fourth places, respectively (IIE, 2016). The majority of these students

for the past 3 years were hosted in California, with New York and Texas following closely in second and thrid places (IIE, 2018b).

For the past three consecutive years, international students have continued to commonly pursue majors in engineering, business and management, math and computer science, and social science following behind (IIE, 2018b). In 2017, more than half of all international graduate students were enrolled in science and engineering fields. The enrollment of graduate students in science and engineering fields has grown since 2008. In 2015, science and engineering graduate students represented 36% of the total graduate enrollment in the U.S. and earned more than 15,000 doctoral degrees in the same field demonstrating an increase from 30% to 34% since 2000 (National Science Foundation [NSF], 2018a). However, the same statistics do not apply to psychology majors that have significantly low numbers of graduate students enrolling in these programs and as a result have lower numbers graduating from these programs (NSF, 2018a).

International Students in Psychology in the United States

The U.S. is known for its well- established programs in psychology (Inman et al., 2008); however, the majority of international students coming into the U.S. tend to pursue education in engineering and business and management majors. This has been reflected over the years with these two majors taking high precedence over the psychology majors offered in the U.S. The total numbers of students pursuing psychology majors were approximately 14,200 in 2015/16, 14,900 in 2016/17, and 15,500 in 2017/18. Although an increase in population is evident, the rate of growth has dropped since 2015/16 (IIE, 2018c).

Of these numbers, the National Science Foundation (NSF; 2018b) indicated approximately 3,000 international graduate students studied psychology every year between

2010 and 2015. As reported by the APA (2018b), the greatest population of international doctoral students was reported in 2007 and made up only 5.35% or 1,402 students of the entire psychology doctoral student population across the U.S. for that year. The summary report titled "Student Demographics" (2016) released by the APA's Office of Graduate and Postgraduate Education and Training presents the most recent data on the race/ethnicity of graduate students in professional psychology every five years beginning from 2004-2005 (Cope et al., 2016). However, this does not include any data on international students and the presence of any data documenting the nationality is unknown (C. Cope, personal communication, August 21, 2018).

The latest study indicating the exact numbers of international students pursuing professional psychology programs in the U.S. was conducted approximately 35 years ago. Helms and Giorgis (1982) surveyed 85 directors of clinical training in APA accredited professional psychology programs. The results revealed 46% of clinical programs, 23% of counseling programs, and 66% of school psychology programs had no international students during the time of the study. Further, there were approximately one or two international students across the specialties. The most recent data on the international students in these fields of psychology is unknown (Fuller, 2005; Nilsson, 1999; Nilsson & Anderson, 2004); yet, documenting this information in the future will only yield benefits for promoting diversity within the field, increasing retention and recruitment of these students, and increasing international faculty in psychology.

The APA released several reports on the numbers of international students pursuing clinical, counseling, and school psychology doctoral programs in the U.S. between the years 2002-2013 in relation to the total student population pursuing doctoral studies in the same fields. In comparison to the total student population enrolled in the three health psychology

doctoral programs, the population of international students in all three specialties combined was 4.75% in the year 2013 (1,160 students; APA, 2018c) and 4.53% in the year 2002 (925 students; APA, 2018a). Although there were minor fluctuations reported in the rate of growth from 2002 to 2013, the overall number of international graduate students remained almost consistent over the decade.

Further, the data indicated a higher number of international students pursued clinical psychology doctoral programs, followed by counseling, and school psychology. However, in relation to the total number of students pursing each field, counseling psychology programs demonstrated higher proportions of international students from 2002 to 2013 (APA, 2018a, 2018c). Additionally, regardless of the field, more students pursued Ph.D. programs compared to Psy.D. programs (Christidis et al., 2018).

The amount of doctoral degrees earned by international students in psychology was 3.6% in 1997 (Christidis et al., 2018) but rose to approximately 6% for the year 2015 (NSF, 2018c) and to 7.8% in 2016 (Christidis et al., 2018). The total number of doctoral recipients in psychology from 1995-2015 were predominantly from Asia followed by Europe, Canada, Middle East, and South America (Brazil and Mexico combined; NSF, 2018d). However, these numbers were not reflected in the international doctoral enrollment rates for psychology programs. The numbers of international doctoral recipients were considerably low compared to the proportion of international students enrolled in doctoral psychology programs (Christidis et al., 2018). It is essential to address these disproportionalities in relation to retention and recruitment efforts of international graduate students in their programs.

Recruitment vs. Retention of International Graduate Students in Psychology

Given the projected growth that ethnic minorities will comprise half the entire population of the U.S. by 2060, it is of utmost importance to diversify the field of psychology (Anderson, 2007). Further, given the small population of ethnic minority students in the field, there is also a great need to recruit and support ethnic minority students (Munoz-Dunbar & Stanton, 1999). Having greater numbers of minority students in mental health fields generate positive impacts toward society such as contributing to research and knowledge, fulfilling the rising need for psychologists (Rogers & Molina, 2006), and the meeting the need to deliver quality mental health care (U.S. Department of Health and Human Services, 2001).

The need to recruit psychologists representing diverse racial, ethnic, and language backgrounds is evident and has been underscored in the research literature (Rogers & Molina, 2006; Vasquez & Jones, 2006). Much of the existing research and data explicitly target the recruitment and retention of minority students from Hispanic, African American, Asian American, American Indian, Pacific Islander, biracial, and mixed ethnic backgrounds (Rogers & Molina, 2006). Similarly, international students are also a heterogeneous group of individuals presenting diverse cultural and national backgrounds that are different to the dominant culture in the U.S. (Nilsson & Anderson, 2004). Their concerns are likely to map closely onto those of ethnic minority students and hence recruitment and retention strategies are relatable.

Recruitment

Often referred to as the graduate pipeline, the recruitment of minority students is best conceptualized through an ecological standpoint where one component impacts the next. For instance, increasing the number of minority students graduating with bachelor's degrees will in

return increase the pool of prospective minority graduate students. Having these minority graduate students enroll in psychology programs will as a result, potentially, influence and facilitate the recruitment of new minority students. This could overall increase the pool of minority graduates which as a result increases the pool of prospective minority faculty members. The greater the presence of actual minority faculty members will in turn enhance the recruitment and retention of future minority students and faculty (Maton et al., 2006). Further, Maton and colleagues (2006) outlined that although the population of degree recipients at each level of education has significantly increased from 1976 to 1993, there is considerably less doctoral recipients than those of bachelor degrees.

There are various committees and projects dedicated to the development of initiatives promoting the recruitment of diverse students into psychology graduate programs. Further, national organizations such as APA endorse the recruitment of diverse students and faculty into psychology programs in the U.S. as a means to encourage programs to expand their student diversity (APA, 2000). However, programs seem to encounter difficulties in the practice of these attempts (Hurtado et al., 1999; Munoz-Dunbar & Stanton, 1999). For instance, programs in universities housing mostly Caucasian students may struggle with their strategies on creating environments that deem friendly and forthcoming to students from minority groups (Rogers & Molina, 2006). Some strategies suggestive of minority recruitment include providing conditional admission requirements and financial packages, (Curtis & Hunley, 1994), implementing special application packets (Bernal et al., 1983; Bidell et al., 2002; Ponterotto et al., 1995), and establishing personal contacts with faculty (Hammond & Yung, 1993).

In a study conducted by Rogers and Molina (2006) using interviews on faculty and students from 11 psychology departments and programs known to utilize exemplary strategies

to recruit students of color, the participants listed the presence of minority faculty, financial support, contribution of current minority students and faculty in the recruitment process, personal connections with faculty established with future students, relationships with undergraduate institutions known to historically recruit students of color, sponsoring tours for prospective students to visit psychology graduate programs, and creating recruitment and promotional material targeted at minority students.

Previous studies on recruitment strategies of diverse students also indicate similar findings. For instance, a study with clinical psychology program coordinators conducted by Munoz-Dunbar and Stanton (1999) indicated providing financial support targeted at reducing costs for minority populations. Another study by Hammond and Yung (1993) indicated making personal connections between faculty and potential students, including current minority faculty and students at the forefront of the recruitment process, hosting open houses, and obtaining referrals for new minority students through alumni, current students, and practitioners. Zins and Halsell (1986) indicated conducting awareness programs at the high school and undergraduate level, distributing program advertising materials, building connections with future students, considering conditional admissions and flexible admission criteria, and providing support systems when recruiting diverse students into school programs.

More distinctly in the technological age, basic recruitment efforts to attract diverse students involve the internet. Bidell et al., (2007) attempted to identify the extent to which professional psychology programs explicitly displayed culturally relevant information to prospective minority students on valuable indicators such as financial aid, antidiscrimination policy, commitment to diversity training, recruitment of diverse students, and research on multicultural themes. Results revealed clinical and counseling programs display more

culturally relevant information on their programs webpages yielding high diversity indexes compared to school psychology and combined programs.

Taking these recruitment efforts into account, perhaps similar efforts are needed to support international students, although common barriers to entering graduate training in psychology have not been explored from an international perspective.

Retention

Similar to recruitment efforts, much work needs to be exerted into retaining ethnic minority graduate students in their psychology programs (Rogers & Molina, 2006) which to some programs may again appear to be a challenge (Hurtado et al., 1999; Munoz-Dunbar & Stanton, 1999). Institutions play an important role in creating environments that appear warm and welcoming to students of color which could facilitate retention. But this task may seem arduous to those predominantly White programs (Rogers & Molina, 2006). Further, according to the Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology (CEMRRAT; 1997) faculty can discourage these efforts to retain diverse students by conveying negative attitudes. Faculty contributions are vital for creating culturally relevant academic and social environments to students of color. For instance, faculty members have the ability to intervene on racial misunderstandings, create culturally relevant curriculum (Copperwood, 2006), set standards for attitudes and behaviors (Tori & Ducker, 2004), and establish culturally relevant training environments within the programs (Gelso, 1993; Hollingsworth & Fassinger, 2002; Mallinckrodt & Gelso, 2002).

In the same study conducted by Rogers and Molina (2006), the authors discovered several retention strategies used by the 11 psychology departments and programs. For instance, already having several minority students in the program supported retention, as well as offering

courses on multicultural issues, providing financial support, encouraging students to partake in diversity research, peer support groups, and students' interest groups are some strategies to retain students in their psychology programs. Faculty involvements through mentoring programs, professional development, trainings to improve their own cultural sensitivity and competence, and learning skills to manage challenges that arise with diversity in the classrooms while also integrating multicultural topics into their teaching were some crucial retention strategies suggested to promote ethnic diversity.

Cope and colleagues (2016) from the APA's Office of Graduate and Postgraduate Education and Training released the summary report titled *Student Demographics* indicating the most recent data on the race/ethnicity of graduate students in psychology every five years beginning from 2004-2005. With the exception of Hispanic/ Latino, Caucasian, and American Indian/Alaska Native population, the number of African American/Black, Asian/ Pacific Islander, and Multiethnic graduate students in psychology continued to increase across the decade. While the number of Caucasian/White, Hispanic/Latino, and American Indian/Alaska Native graduate students in psychology declined in the years 2009-2010, their trends for the next five years continued to decrease for the first, increase for the second and remained consistent for the last. Further, the highest number of minority graduate students in psychology from 2005-2015 were Hispanic/Latino and the lowest number reported were American Indian/Alaska Natives (Cope et al., 2016). These findings indicate that the student retention rates across ethnic groups are not growing consistently.

The attrition rates for graduate programs in psychology were released by the Office of Graduate and Postgraduate Education and Training. In that report, Michalski and colleagues (2016) used data from approximately 500 departments and programs offering psychology

programs at the masters and doctoral level in the U.S. Data for doctoral student attrition from 2011-2015 suggest an overall increased trend for clinical doctoral programs and decreased trend for counseling and school doctoral programs. Although data presented no consistent trends, the highest -mean attrition rate for clinical doctoral programs was reported to be 3.77% in 2015 and lowest to be 3% in 2011. Highest mean attrition rates for counseling programs were recorded to be 4.75% in 2011 and lowest to be 3.77% in 2014. Similarly, the highest mean attrition rate was recorded to be 5.01% in 2011 and lowest to be 3.86 % in 2015. The inconsistency reported in the trends of attrition of all three programs across the four years call for strategies to effectively and continuously decrease the current rates of attrition in professional psychology programs. Additionally, documenting similar data on international students will be useful to monitor attrition rates of this population and address the wide array of challenges (Kaczmarek et al., 1994; Smith & Khawaja, 2011) and benefits (Moores & Popadiuk, 2011) they as they encounter first-hand experiences with acculturation during the transition into the U.S. culture.

Acculturation of International Students in Psychology

The transformation of international students from their home country to host country is associated with various changes, adjustments, and adaptations. Referred to as acculturation, this form of novel contact with a new culture is associated with various behavioral and internal changes for individuals (Berry et al., 1987; Redfield et al., 1936). In accordance with Berry (2005), acculturation can result in individuals integrating (i.e. individuals accept the host culture and maintain their home culture), assimilating (i.e. individuals accept the host culture and drop their home culture), separating (i.e. individuals resist the host culture and maintain their home culture), or marginalizing (i.e. individuals resist both the home and host cultures).

According to Berry's bi-dimensional acculturation theory (2005), acculturation is a two-fold process that encompasses socio-cultural and psychological adjustments. These adjustments play a crucial role and often influence each other and also the individual's level of acculturation (Tsai, 2011). While the transition between two cultures allows for personal growth (Moores & Popadiuk, 2011), it also exposes individual to various challenges associated with these adjustments (Kaczmarek et al., 1994; Smith & Khawaja, 2011). Adjustment difficulties also arise when interacting with those people of a different culture for extended periods of time (Redfield et al., 1936), or the inability to identify and connect with individuals of the host country (Berry et al., 2006). Often these challenges arise from having to maintain a balance between the host and native culture which Kung (2007) described as "dancing on the edge of two worlds". This dance can create acculturative stress for the individual and hinder any attempts to adapt and adjust to the host culture (Berry, 1997), that in turn may impact retention of international students.

Prominent considerations have to be examined when addressing retention and recruitment of international students. While some of these considerations may seem somewhat similar to those of ethnic minority students originally from the U.S. or to those of more western countries, other concerns may seem novel and unique. Sodowsky and Plake (1992) identified acculturation of international students to be accompanied by three factors. They listed these as the extent to which international students (a) are receptive of the U.S. culture; (b) they feel received and welcome by the host citizens, and (c) international students use English.

Acculturation stress for international students is associated with difficulties or barriers they have to learn to cope with. While some of these stem from anxieties linked to language difficulties (Chen, 1999) and relationships with supervisors (McClure, 2007), others stem from

stressors related to the education system and socialization (Chen, 1999). Further, perceived differences in culture, academic demands and meticulousness (Nilsson et al., 2008; Rice et al., 2012; Wright & Schartner, 2013), interactions with university personnel, financial problems, securing job opportunities, relationships with persons off campus (Lee & Rice, 2007), and alienation and isolation (Erichsen & Bolliger, 2011) have the potential to further contribute to acculturative stress.

Given the underscored challenges associated with acculturation, concerns encountered by international students in psychology have received much less attention compared to those of international students in general (Delgado-Romero & Wu, 2010; Pope & Wedding, 2008; Koyama, 2010). If the goal is for these students to pursue psychology degrees in the U.S., it is crucial to pay more attention to their initial transition and ongoing acclimation in the host country. Further, there is comparatively less research conducted on the training needs and experiences of this population (Georgiadou, 2014) and barriers that could prevent students from finishing their degree requirements. Importantly, along with the range of challenges associated with an education in the U.S. (Kaczmarek et al., 1994; Moores & Popadiuk, 2011; Smith & Khawaja, 2011), international students also experience plenty of opportunities for personal and professional growth and development over time (Brown, 2009; Gill, 2007) and programs would likely wish to know what contributes to this overall growth to ensure programs and resources are allocated appropriately.

Benefits to an Education in the United States

International students studying abroad in the U.S. often receive multiple benefits. For instance, they are able to pursue their educational endeavors (Hull, 1978), achieve academic goals unavailable to one's country, possibly escape from unfavorable conditions in their

country (Woolston, 1995), and relish in the prestige of foreign education (Huntley, 1993). Specifically, students pursuing psychology in the U.S. may benefit from the educational system, leadership opportunities, clinical experiences, finances (i.e. assistantships or fellowships), and English language expansion that are generated through their graduate programs.

Educational System

Educational programs in psychology are accredited by APA, often ensuring quality programs in clinical, counseling, and school psychology that are intensive and comprehensive. Further, the educational system in the U.S. offers students personal responsibility over their learning, critical thinking skills, collaborative learning, diversity, and leadership skills (Inman et al., 2008). Unlike traditional educational systems, the U.S. also espouses a variety of learning methods such as observations, presentations, discussions, practicum, computer- based instruction, and experimental learning (Smithee et al., 2004).

Leadership Opportunities

Leadership opportunities are also available to international students pursuing psychology in the U.S. and theses are available in the U.S. and the students' host countries. Some of these prospects include participation in research, attendance at conferences, and professional development. Further, other opportunities include various positions to serve on committees of organizational and governance boards, such as APA, National Association of School Psychologists, American Psychological Society, and American Counseling Association. Building on experiences, such opportunities allow students to develop their confidence and critical thinking skills (Inman et al., 2008).

Clinical Experiences

Clinical experience is also a crucial aspect of psychology training programs. Students pursuing training in either clinical, counseling, or school psychology programs obtain these training opportunities often overseen by supervisors. These clinical opportunities also assist in the application of theoretical knowledge gathered in the classroom. Often carried out at least 20 hours a week for a minimum of two academic semesters, these placements are usually unpaid and considered as a course. However, exceptions (in the case of financial hardships) are made for international students to be paid from these placements since their visa restrictions limit their work opportunities (Inman et al., 2008).

Financial Gains

Being an international student can be challenging, but earning a degree from the U.S. can result in later financial paybacks. Students graduating with a degree in psychology are equipped with multiple skills designed to provide services at multiple sites in the U.S. or one's host country. If in the U.S., employment opportunities such as therapists, consultants, professors, and researchers in settings such as hospitals, clinics, and university counseling centers are only some of the opportunities available upon graduation. If in one's own country, new opportunities previously unknown or unavailable may open up as a result of one's competencies (Inman et al., 2008).

Language Advancements

Finally, as indicated by Inman and colleagues (2008), international students in psychology will acquire more language skills. This is attributed to the academic training that requires psychology graduate students to communicate with their clients and communities.

Additionally, being bilingual is considered a distinctive advantage in the job market, given the rate at which the U.S. is becoming increasingly culturally diverse.

As previously stated, there can be tremendous opportunities presented to international students seeking higher education in the U.S.; however, there are also likely to be challenges when pursuing educational endeavors away from one's own country. Often, these concerns can act as potential barriers to making the best of opportunities provided to them in the U.S.--while also impacting retention rates for the program. Therefore, it is crucial to understand these challenges to develop a holistic experience and to increase student retention and graduation rates.

Challenges to an Education in the United States

Life as a graduate student can be daunting (Gisler et al., 2018) and can demand higher academic and time management skills (Sullivan & Kashubeck-West, 2015). In comparison to their domestic counterparts, international students' concerns are similar (Wedding et al., 2009) but more intense (Lee, 2013), different, and unique (Gajdzik, 2005; Pedersen, 1991). They have tendencies to develop the "foreign student syndrome" characterized by high anxiety in the absence of physical symptoms (Ward, 1962), psychological adjustment problems with personality, coping styles, social support, and life changes, and socio-cultural adjustments problems with language and cultural differences, and identifying with the U.S. (Ward & Kennedy, 1996; 1999).

While these concerns, in isolation can be daunting, they can have multiplied impacts when combined, often referred to as 'double load' (Ren & Hegedorn, 2012; Weidman et al. 2001). For instance, expectations to be successful in school can be challenging with additional

demands to adapt to a new cultural environment in a foreign country (Russell et al., 2010). However, close proximity of one's cultural background to that of the host's culture may decrease the intensity of these challenges (Sheehan & Pearson, 1995). For instance, if one's country speaks the same language as the host country, shares similar educational structures and cultural practices, international students in psychology may be less likely to experience these challenges in their educational pursuits in the host country.

Challenges nevertheless become further refined for international students pursuing professional psychology. Despite the rising research surrounding the needs of certain populations of international students (Aguirre, 2004; Arthur, 2004; Rahman & Rollock, 2004; Seo, 2005; Tseng & Newton, 2002; Wang et al., 2007), concerns related to international students in psychology are somewhat unacknowledged (Delgado-Romero & Wu, 2010; Koyama, 2010; Pope & Wedding, 2008; Sato & Hodgo, 2009). Past research on foreign students indicate concerns with legal issues, (Collingridge, 1999) language, academic demands, cultural- adjustment, (Wedding et al., 2009), discrimination, navigating the educational system, difficulties within clinical settings and research (Inman et al., 2008), and racial micro-aggressions (Clark et al., 2012). It is likely these concerns are relatable to international students studying psychology. However, a review of literature conducted by Lee (2013) on international students pursuing professional psychology indicated challenges in language, career, finances, and culture. A similar review by Lee (2018) on counseling literature of international students also indicated concerns in the areas of language, culture including differences, perceptions of the profession, and multicultural discussions, and social interactions. Further, those pursuing psychology programs are also likely to experience other

distinct concerns such as the mentoring dynamic, professional development, and other concerns pertaining to career advancement (Park-Saltzman et al., 2012).

Given the repetition of findings in the research, concerns of international students in psychology can be broadly categorized into language and academics, culture, finances, mentoring, and career opportunities. Further, while these in isolation can hinder one's mental health and learning opportunities, these coupled together will only make the experience worse. For instance, while culture and language alone can also impact mentoring opportunities, they can also diminish international students' prospects for furthering their career in the field of psychology. Therefore, the next section of this paper will explain how these barriers act alone and together to challenge international students' educational journey in psychology in the U.S.

Language Barriers and Academic Difficulties

Language difficulties are reported to be the most and extremely challenging concern for a bulk of international students (Mori, 2000). While having to acquaint oneself to a completely different education structure, having language difficulties will only multiply the challenge for international students (Brown & Perkins, 1992; Kashima & Loh, 2006; Misra et al., 2003). To pursue an education in the U.S., a good command of English language is necessary (Ferris, 1998; Less, 2003) and a passing score on standardized language tests, such as Test of English as a Foreign Language and International English Language Testing System, cannot demonstrate language competencies (Pederson, 1991).

Language difficulties also contribute to academic difficulties (Zhang & Goodson, 2011). Students experience hardships comprehending lectures, conveying ideas, reading and writing academic material, communicating orally (Angelova & Riatzantseva, 1999), and engaging in discussions despite obtaining content knowledge (Zhang & Mi, 2010). As a result,

opportunities for academic accomplishments and communication in a social and academic setting are hindered (Andrade & Evan, 2009; Mallinckrodt & Leong, 1992; Olivas & Lee, 2006; Park et al., 2017; Ward & Kennedy, 1992). International students also encounter academic adjustment difficulties due to their inexperience with the American education system (Thomas & Althen, 1989) in the areas of teaching and studying styles, critical thinking, and grading (Boyer & Sedlacek, 1986; Mori, 2000; Zhou et al., 2011). For instance, students familiar with rote learning will often be challenged by critical thinking practices (Aubrey, 1991) and expected to engage in more class participation, provide constructive criticism on other's work, be expressive, and defend one's opinions (Tavakoli et al., 2009). In the failure to do so, portrays international students to appear less intelligent than they really are (Singaravelu & Pope, 2007).

Professional psychology training programs demand effective communication with clients (Nilsson & Anderson, 2004; Ng, 2006). If lacking comprehension and communication skills in English, international students will be challenged when providing services such as therapy to clients and engaging with or conducting supervision (Garrett et al., 2001). The English language contains minor refinements and is filled with hidden meanings which often contain details that maybe of importance to understanding comments made by clients (Wedding et al., 2009). The inability to understand these inferences may result in significant challenges to interacting with clients in a professional manner. For students in professional psychology in the U.S. whose primary language is not English, these potential language barriers can be added negative impacts for the student (Gutierrez, 1982).

On understanding Chinese international students' experiences in the United States, Yuan (2011) conducted in depth semi- structured interviews on their academic, social, and

cultural experiences. While interviews were conducted in Chinese and later translated into English, some interviews were conducted individually and sometimes in groups of two or three. Of the 10 participants recruited via network sampling, most interviewees indicated having minimal interactions with individuals from the host culture. Although this can be explained using cultural differences, it can also be attributed to the language differences which tend to heighten their uncertainty and anxiety. Further, those pursuing majors related to science and technology reported more levels of satisfaction with cultural assimilation compared to social science majors. This can be explained by the level of English and awareness of the American culture demanded by the field. But the participants also indicated the opportunity to study in the U.S. benefitted their English language skills.

Further, accents in speech can also impact clinical practice and academic tasks (Lee, 2013). Accents that are unfamiliar are attributed to poverty, low education, and intelligence. Consequently, these perceptions can result in the listeners being biased and judged negatively against the speaker (Fuertes et al., 2002); this also applies to those having both traditional English accents and untraditional English accents (Gill, 1994). To the listener who is the client, accents of the speaker can determine resemblances with the listener as well as personality, social status, and social attractiveness (Giles, 1970; Giles & Sassoon, 1983; Stewart et al., 1985). Therefore, those with native U.S. accents tend to experience more confidence in social interactions with their clients (Dovidio et al., 2010).

Accents can also create biases at interviews resulting in less approval from interviewers (Fuertes et al., 2002). All graduate students in psychology, at some point, will complete a graduate internship. Often to obtain these positions, graduate students are required to sit through one or more interviews. These interviews will be challenging for international

students whose native language is not English. While speaking a second language can negatively impact the interviewee's confidence (Swalger & Ellis, 2003) and professionalism (Lee, 2013) it can also lead to higher levels of anxiety (Brown, 2008).

A study was conducted by Rodolfa and colleagues (1999) on 249 training directors in psychology to investigate the various inclusion and exclusion criteria for selecting interns for placements. The survey was completed by those members in hospitals, university counseling centers, Veterans Affairs, medical centers, county mental health clinics, and consortia. The survey contained 38 items which the training participants had to rank as an exclusion or inclusion criteria. While exclusion criteria was defined as aspects used to eliminate candidates, inclusion criteria was defined as those used to retain the candidates. Results indicated that fluency in a language other than English was ranked 37 in the inclusion criteria, but was not considered an exclusion criterion. However, the interview component was ranked fourth in the inclusion criteria and eighth in the exclusion criteria.

A similar study was conducted by Ginkel and colleagues (2010) using responses of 118 training directors at psychology internship sites in the U.S. The survey administered was similar to Rodolfa et al., (1999) as it also instructed participants to rank the 36 criteria when selecting an intern. To determine inclusion criteria, participants ranked each item from *unimportant* (1) to *important* (7) and to determine exclusion criteria, participants had to rank each item either yes or no. Descriptive statistics indicated the interview was ranked as second highest important, and professional demeanor was ranked third highest in the inclusion criteria. Interestingly, the interview was also mostly ranked as an exclusion criterion in this study while other frequently ranked criteria were professional demeanor of the applicant, personality characteristics of the applicant, and personal reactions to the applicant. Fluency in a second

language was not ranked an exclusion criterion. Although the response rate was low compared to that of Rodolfa et al., (1999), this study continued to demonstrate some level of similarity with the previous study, suggesting that both studies valuing the importance of the interview during the internship application process. In other words, the interview is a valuable component that provides internship sites with the means to identify applicant personality, fit with the site, opportunities, and culture (Lopez et al., 1996; Mellot et al., 1997).

Given the overall importance of language fluency in psychology training programs, educators can often help alleviate these international students' concerns by having conversations and teaching moments with international students about false biases held against using nonnative accents (Skow & Stephen, 1999). Further, providing more opportunities for these students to interact with others holding various accents, understanding communication styles and patterns of international students and modeling proper communication to use with clients at therapy sessions are some other helpful strategies (Lee, 2013).

Cultural Barriers

International students represent various cultural backgrounds and nationalities (Davis, 1999). Cultural practices in the U.S. can vary in different ways and intensities compared to international students' own cultures, yet they are expected to navigate these differences independently (Nilsson & Anderson, 2004). Often students from Africa, Asia, and South/Central America are reported to encounter more cultural concerns than those students from other regions such as Europe, North America, Africa, and Australia (Nilsson & Doddy, 2006; Sheehan & Pearson, 1995; Sodowsky & Plake, 1992).

Culture determines characteristics such as communication, interpersonal relationships, and values (Betancourt & Lopez, 1993; Sodowsky et al., 1991). As a result, cultural

differences can impact learning and living styles essential to be successful with academic endeavors in a foreign country (Mendenhall & Wiley, 1994), professionalism and self-confidence (Lee, 2013). For international students in professional psychology whose clients and supervisors are culturally different from their own, this can impact providing assessments and interventions for clients as well as obtaining supervision, respectively (Nilsson & Anderson, 2004; Nilsson & Doddy, 2006). Therefore it is crucial for international students in the field to be aware, knowledgeable, and familiar with the U.S. culture (Garrett et al., 2001).

Given the short amount of time international students spend in the U.S. navigating through the North American culture and comprehending the differences between races can be challenging (Gutierrez, 1982). These challenges may further hinder international students' understanding of APA's ethical code and multicultural guidelines (Chung, 1993). This may lead to difficulties with interactions between diverse individuals in the U.S. (Mori et al., 2009) and relating to their concerns (Redmond & Bunyi, 1993). When it comes to the application of skills, Pope and Wedding (2008) indicated having different cultural values from those of the clients may pave ways for disagreements with the clients' beliefs. For instance, common client concerns on topics related to sex, drugs, and alcohol can be challenging and be considered taboo for international students to understand and provide services.

Other common practices in the U.S. in the field of psychology concerning to this population are theoretical orientations and self-disclosure (Wedding et al., 2009). International students belonging to various cultures may find it challenging to identify themselves with the various theoretical orientations practiced in psychology. For instance, international students originating from backgrounds that conform to social status and the caste system may encounter difficulties with certain psychological theories such as the Rogerian approaches to treating

clients as equals. Further, a student from a conservative or collectivistic culture where the norm is to respect elders may find it uneasy to practice Gestalt therapy that involves confrontation (Wedding et al., 2009).

Psychology programs in the U.S. also focus on independent learning and self-growth essential for one's personal and professional development. Certain cultures in Asia are more focused on social relationships with others and others well-being than oneself. For individuals belonging to such backgrounds, adhering to more individualistic practices focusing on the self may be viewed as unfamiliar and uncomfortable (Brewer et al., 1980). Often during times like this, it is helpful for international students to be explained of these expectations to avoid confusion (Rhinesmith, 1985; Story, 1982).

Another similar cultural value of international students that may hinder the practice of psychology is saving face. In Asia, saving face intends to maintain positive impressions of oneself in the public eye (Yeh & Huang, 1996). International students in psychology could attempt to save face by scanning the environment to identify factors that may elicit loss of face, withholding comments made in public settings to prevent the embarrassment of making errors, not asking for help to avoid seeming helpless or unintelligent, and overworking oneself to be perfect or look competent. Often these techniques can occur in the classroom where students prevent commenting or providing opinions during class discussions, in clinic settings where international students are expected to provide therapy in an influent language or understand a client's cultural background, and in a supervision setting when the supervisor scrutinizes the quality of a student's work (Park-Saltzman et al., 2012).

Financial Concerns

Financial concerns are reported to be one the most potent factors causing stress to international students (Harman, 2003; Rai, 2002). There are multiple reasons behind international students experiencing this form of stress beyond paying high tuition rates (Hyun et al., 2007), such as having to maintain fulltime student status that further increases tuition, receiving limited financial aid and loan opportunities from the U.S. (Lin & Yi, 1997), regulations permitting these students to work only for 20 hours a week in approved positions on campus (Koh et al., 2006), and discrimination when seeking funding or job opportunities from faculty or on-campus administrators (Lee & Rice, 2007). Multiple scholars have argued countless international students encounter such constraints largely due to the unique immigration laws imposed on them (Cadieux & Wehrly, 1986; Huntley; 1993; Khoo et al., 2002; Lin & Yi, 1997; Sarkodie-Mensah, 1998; Svarney, 1991; Thomas & Althen, 1989). Managing one's expenses and making important daily financial decisions can thus turn into financial crises that often lead to the discontinuation of their education (Koyama, 2010) and returning to their home country (Rice et.al, 2009).

A study conducted by Rice et al. (2009) examining international graduate student perspectives on relationships with their advisors indicated financial support was a major theme that impacted these relationships. The participants were 367 international graduate students from sixty-six different countries representing various programs of study, including psychology. Findings from this study indicated a shortage of financial support was associated with stress and threats to students' financial security, which resulted in anxiety. Further, limited financial support was perceived as an unfair treatment by the participants. Amongst the several implications of financial issues are the students' relationships with their advisors.

Students whose advisors provided them financial support experienced more positive advisor-advisee relationships compared with students whose advisors did not. Receiving financial support is an important aspect for these students' relationships with their advisors and has also been outlined by several other studies (Zhao et al., 2007).

In a narrative case study conducted by Chen (2004), international counselor trainees from non-western cultures indicated trainees with financial struggles experienced greater difficulty with their initial adjustments to a new culture and a new place. The fewer financial resources and support a trainee had negatively impacted their physical and psychological well-being. This study also revealed international trainees were more likely to experience financial concerns halfway through their training.

Similarly, another qualitative study was conducted on international counseling and clinical psychology and other mental health field graduates who had completed their studies in the U.S. All participants indicated experiencing high costs associated with studying abroad. Although some participants received some form of financial support through scholarships from their home governments, the others had to utilize their finances to cover their educational costs. The latter expressed the levels of stress and anxiety associated with having to timely complete their programs of study to avoid extended expenses, although they wished to stay back in the U.S. to obtain more extensive and relevant training (Lau & Ng, 2012).

Although plenty of studies outline the importance of providing financial support to students with less representation in the field, the lack of financial aid to support these students is still identified as a barrier for students wanting to pursue professional psychology programs (Quarterman, 2008).

Mentoring/ Supervising/ Training

While international students' understanding of U.S. cultural practices is important for effective supervision (Nilsson & Anderson, 2004) and discussion of concerns (Killian, 2001), the supervisors' understanding of their international supervisees' cultural practices is equally important (Nilsson & Anderson, 2004). Students often look up to their supervisors to initiate discussions related to culture, (Fong & Lease, 1997; Garrett et al., 2001; Hird et al., 2001) which in return has the potential to improve the supervisees cultural knowledge and skills (Toporek et al., 2004), the supervision working relationship (Gatmon et al., 2011), and supervision satisfaction (Duan & Roehlke, 2001).

According to Vygotsky (1978, 1981a, 1981b) cultural knowledge and social relationships are essential for the construction of human thinking and development. Often this theory can be understood in the context of international students and their challenges. For international students, having cultural knowledge acts as cues to mediate or modify interactions between the individual and the sociocultural setting to obtain higher levels of mental functioning (Vygotsky, 1981a; 1981b). This perspective on the development of mental functioning was also outlined in Vygotsky's general genetic law of cultural development which claimed psychological functions or resources first occur socially and then psychologically.

Receiving the support and collaboration of faculty, and supervisors is essential for international students to obtain higher skills and knowledge. Often, supports in English language or American cultural practices can be delivered through scaffolding where individuals generate new knowledge and skills by utilizing their current knowledge, skills, and support to navigate novel or challenging situations. With time, individuals learn to build

relationships with previously known and newly learned knowledge and become skilled to navigating the challenges independently (Peer & McClendon, 2002).

The relationship between a supervisor/mentor and supervisee/mentee can be negatively impacted by cultural barriers (McClure, 2005) and power differences in relation to race and ethnicity (Hird et al., 2001). The unawareness of one's supervisee's culture will further make these barriers more challenging (Mittal & Wieling, 2006). Knowing the international supervisees culture enables mentors or supervisors to provide culturally sensitive mentoring rather than conforming international students into the majority culture (Rodriguez, 1995).

In an attempt to identify supervision and training needs of international students in professional psychology programs, Nilsson and Anderson (2004) obtained initial data sets on international students' relationships among acculturation, counseling self-efficacy, role ambiguity, and supervision relationships. Participants from clinical, counseling, and school psychology programs were required to complete the Counseling Self-Estimate Inventory (COSE; Larson et al., 1992), the Role Conflict and Role Ambiguity Inventory (RCRAI; Olk & Friedlander, 1992), the American–International Relations Scale (AIRS; Sodowsky & Plake, 1991, 1992), the Supervisory Working Alliance Inventory–Trainee Form (SWAI–Trainee Form; Efstation et al., 1990), and the International Student Supervision Scale (ISSS; Nilsson & Dodds, 2004). Although responses from 299 participants were obtained, the 42 responses from international students were chosen to be reported. In relation to students' levels of acculturation, hierarchical regression analyses of these responses indicated supervisees with low levels of acculturation engaged in more conversations on cultural difficulties at supervision, had poor working relationships with their supervisors, were confused with their roles, and exhibited low levels of counseling efficacy.

Nilsson and Dodds (2006) conducted a study on 115 international students in counseling and psychology graduate students to develop a scale to identify issues in supervision encountered by international students. Participants represented a total of 39 different countries in Asia/Middle East, Europe, Central/ South America/ Caribbean, North America, Africa, and Australia. The study involved the administration of two Likert-type scales; the ISSS (Nilsson & Dodds, 2004) and the AIRS (Sodowsky & Plake, 1991, 1992). Despite the small sample size and low rate responses, this study presented some interesting findings. First, students who engaged in more culturally related discussions with their supervisors were not only more satisfied with supervision, but also rated their supervisors as being mindful and concerned about diversity issues. Second, those students who felt they had more cultural awareness than their supervisors indicated being less satisfied with supervision and perceived their supervisor to be less mindful and concerned about diversity issues. According to Hird et al., (2001), this can only hurt the supervision relationship and further lead to the supervisee doubting the supervisor's interest in working with them (Killian, 2001).

To further examine supervision relationships of international students, Mori and colleagues (2009) conducted a study on 104 international students in psychology programs with experiences in clinical supervision. The study aimed to identify students' supervision satisfaction based on levels of levels of acculturation, amount of cultural discussions, and supervisor multicultural competencies. Participants completed the International Student Supervision Scale- Multicultural Discussion (ISSS-MD; Nilsson & Dodds, 2006), the AIRS (Sodowsky & Plake, 1991), the Supervisor Multicultural Competency Inventory (SMCI; Inman, 2006), the Supervision Satisfactory Questionnaire (SSQ; Ladany et al., 1996), and a

demographics questionnaire. Multiple regression analysis on the responses revealed several interesting findings.

First, greater amounts of cultural discussions and lower levels of acculturation both resulted in higher levels of supervision satisfaction. Students with high levels of acculturation believed their supervisors were culturally unequipped and unprepared to have cultural discussions. Students with low levels of acculturation still connected with their home culture may be more alert to the nuances of their host culture and more susceptible to cultural discussions with their supervisor. In such situations, it is important for supervisors to be vigilant, identify the acculturation levels of their students, and initiate cultural discussions during supervision (Leong & Wagner, 1994). Second, supervision satisfaction of international students was shown to be positively impacted by the supervisor's multicultural skills. This finding is consistent with that stated by Inman (2006) where multicultural competencies of the supervisor impacted the methods and results of supervision. In fact, students engaged in more cultural conversations and were satisfied with supervision when the supervisor was perceived to be receptive, culturally skilled, and aware.

International supervisees will continue to have diverse origins and similarly will bring diverse knowledge and possess diverse skills (Nilsson & Dodds, 2006). Therefore, a supervisor's role in providing culturally competent supervision and promoting culturally related conversations with international students is highly recommended. Supervisors must also make attempts to understand supervisees' acculturation within a personal and psychological context (Roysircar, 2004), evaluate their own current beliefs about their supervisees/ mentees cultural backgrounds, learn about the contextual factors such as

immigration issues, financial concerns, and work restrictions of their mentees or supervisees (Park-Saltzman et al., 2012).

According to Wedding and colleagues (2009) good supervisors will always value international students' concerns and requests and be responsible for initiating and maintaining cultural and diversity issues during supervision (Tyler et al., 1991; Hird et al., 2001). Research indicates the presence of several barriers encountered by international students and their U.S. mentors during supervision. However, there is still a need for more research exploring multicultural supervision and mentoring (Hird et. al., 2001).

Career Opportunities

The pre-doctoral internship is a crucial component in the training of graduate psychology students (Ginkel et al., 2010; Williams- Nickelson & Keilin, 2005). While cultural and language difficulties impact international students' opportunities for internship placements (Ginkel, et al., 2010), other barriers such as legal restrictions (Lee, 2013), visa regulations, and work restrictions also determine some of these opportunities for internship and postdoctoral career (Çiftçi & Williams-Nickelson, 2008; Raney et al., 2008).

The Association of Psychology Postdoctoral and Internship Centers (APPIC) process is already challenging for students, it can only get worse for international students due to the added regulations imposed on them (Çiftçi & Williams-Nickelson, 2008). For instance, international students' on an F-1 visa which is what most international students enter the U.S. with (U.S. Department of State, 2010) poses many restrictions to maintaining the visa status to remain in the U.S. (U.S. Immigration & Customs Enforcement, 2011). Thus, the foreign citizenship status limits them from applying to pre-doctoral and post-doctoral sites of their

choice (Çiftçi & Williams- Nickelson, 2008) and completing their tasks to obtain licensure (Lee, 2013).

To be eligible for a full-time internship placement, international students must first obtain approval for Optional Practical Training (OPT) which is a status endorsed by the international student's office of the university (Abels & Reese-Smith, 2008). However, once international students complete their placement on an OPT status, their visa no longer allows them to complete a postdoctoral internship and should prepare to head back to their home country. As an alternative to this selection, international students can use their Curricular Practical training (CPT) to pursue their internship. However, since CPT is designed for part-time placements, international students require special authorization from the international student's office permitting them to be fulltime employees. On a CPT status, international students have to limit their training to no more than 364 days to avoid losing OPT opportunities upon graduation (Abels & Reese-Smith, 2008). Given this, it will still not promise international students an OPT opportunity (Illfelder-Kaye, 2006) and as a result hinder international students from obtaining post-doctoral training opportunities and obtaining their state licensure (Raney et al., 2008).

Due to multiple regulations and restrictions associated with international student's career considerations, it is helpful for their mentors to have career-related conversations with their mentees sooner than later. Although some students may have an idea of their career path, some may demonstrate uncertainties or changes over time based on personal or family interests (Park-Saltzman et al., 2012). Further, some students will decide to stay back in the U.S. some might return home, while others may seek opportunities elsewhere in the world (He & Heppner, 2008; Wang et al., 2008). Regardless of the international students' career interests in

the future, it is important for international students' mentors to initiate early conversations and begin planning about various trainings the students can seek (He & Heppner, 2008) and other resources that can be obtained independently or integrated into the program (Wang et al., 2008).

Similar to language and cultural barriers, regulations pertaining to international students can be complex and confusing. If not comprehended and followed regularly, these can limit potential opportunities otherwise available to them in the future. Thus, students seeking internship, practicum, and work opportunities must be willing to collaborate (Lee, 2013). Further, it is crucial for international students' training directors to closely work with each other in understanding each student's immigration policies and regulations to better determine future placements and design effective career plans (Abels & Reese-Smith, 2008). Further, a study conducted on 674 clinical graduate students in psychology indicated faculty or programs can better prepare their students by having on going conversations about internship in school, providing useful sources that yield information about internship, and advising on the application process and essay writing for internship (Adams et al., 2008). Further, international students will also benefit from more assistance in writing techniques to prepare their application materials and mock internship interviews to practice English, reduce levels of stress, and increase confidence in self (Lee, 2013).

Linking Theory to Retention and Recruitment

The experiences of international students in the U.S. have been understood within various theoretical frameworks. One framework with most relevance to international doctoral students in psychology is Tinto's (1993) longitudinal model of doctoral persistence This theory

address the unique challenges experienced by this population and provides sheds light on how to retain these students in psychology doctoral programs.

Tinto's (1993) Longitudinal Model of Doctoral Persistence

Tinto's (1993) longitudinal model of doctoral persistence was developed from Tinto's (1975) theory of individual departure primarily aimed at understanding college students' persistence. In his theory of departure, Tinto stated individuals beginning undergraduate studies are bound to complete their program given they assimilate into the college environment. He further stated students assimilate into a new environment following a three stage- process that includes detaching from the previous community, transitioning between the previous and new communities, and blending into the new community. Moreover, characteristics students bring at the start of the program also influence the rate at which they complete their degrees.

In his theory, Tinto primarily (1975) emphasized academic and social integration into the university is fundamental to the successful completion of undergraduate programs. Both these aspects are critical for optimum academic experiences and assimilation into one's program of study. He further elaborated that these two aspects accompanied each other to determine students' persistence through their program of study. Further, if students were unsatisfied with these aspects, they were more than likely to leave their program.

In the longitudinal model, Tinto (1993) emphasized doctoral students advance themselves in their program of study through several stages. Understanding this is crucial to student retention in psychology programs. For instance, academic and social integration are two important components in Tinto's theory of doctoral persistence (Tinto, 1975). Both these concepts are made difficult for international students since they struggle to familiarize with the

academic and social culture (Tinto, 1975). In such situations, faculty support is essential if international students are to persist in their educational goals (Andrade, 2005).

Although not explored with extensive research, the longitudinal model emphasize graduate students' entry characteristics such as prior school history, family background, initial and subsequent personal and academic goals, peer and faculty relationships can determine persistence and program completion (Mamiseishvili, 2012). The model consists of phases referred to (a) attributes, (b) entry orientation, (c) institutional experiences, (d) integration, (e) research experiences, and (f) outcomes. These phases, built on each other, further comprise of several sub stages that essentially need to be fully met prior to successfully progressing through to the next phase.

Constituents of the 'attributes' phase are student attributes, educational experiences, student backgrounds, and financial resources. Those constituents of the 'entry orientation' are goals, commitments, and financial assistance. The third phase, 'institutional experiences' include the academic system consisting of classroom relationships and graduate positions, and the social system comprises of peer and faculty relations, respectively. The fourth phase, 'integration' aims to generate academic and social integration to obtain one's doctoral candidacy and enter the 'research experience' phase. This phase includes research opportunities, faculty- advisor relationships, and financial support which in turn determine doctoral completion which is the last phase, 'outcome' in Tinto's longitudinal model of doctoral persistence.

Although the longitudinal model for doctoral students was developed from Tinto's (1993) persistence model for undergraduates, Tinto indicated challenges when devising the longitudinal model in relation to doctoral students largely due to disparities presented in

various majors of doctoral studies (George et al., 2018). Further, it also lacks a solid cultural foundation which makes it challenging to relate the theory to culturally diverse individuals (Guiffrida, 2005; Hurtado, 1997; Kuh & Love, 2000; Moore & Upcraft, 1990; Rendom et al., 2000; Tierney, 1999). Yet, this is the only available longitudinal model that helps explain persistence of doctoral students (George et al., 2018) and suggests our need to continue to explore factors that impact student retention.

The same explanation can be applied to international students in in psychology. International students demonstrate high levels of persistence to complete their programs and pursue their academic goals (Rabia, 2017). However, along their journey toward attaining their doctoral degree, international students encounter several factors that can either encourage or discourage persistence (Berger & Lyon, 2005). The impacts of these factors need further exploration for international graduate students in professional psychology.

While Tinto's theory is the only longitudinal model available to explain persistence of doctoral students (George et al., 2018), there are definitive challenges associated when relating some phases of the theory to international doctoral students. As a result, this calls for more research and theoretical perspectives in exclusively understanding international students' persistence and retention of international doctoral students.

Conclusion

There is an enormous pool of research conducted on international students in the U.S. and these studies demonstrate interesting variations. For instance, some studies include international students in the U.S. pursuing all forms of higher education (Banjong & Olson, 2016; Bista & Foster, 2011; Chavajay, 2014), some include students in U.S. pursuing only graduate programs (Campbell, 2015; Cardona et al., 2013; Kuo, 2011; Lau & Ng, 2012;

Mallinckrodt & Leong, 1992; Park et al., 2017), some include international students limited to a specific field of study (Kim, 2006; Lau & Ng, 2012;Srivastava et al., 2010), while some include those limited to a specific nationality (Crede & Borrego, 2014; Li et al., 2017; Park et al., 2017). Given all these studies, there seems to be a general hindrance in research that captures international students in doctoral programs pursuing professional psychology in the U.S.

Additionally, there are plenty of studies exploring challenges of international students in the U.S. (Özturgut & Murphy, 2009; Park et al., 2017; Sullivan & Kashubeck-West, 2015; Xiong & Zhou, 2018; Yeh & Inose, 2003), however the same cannot be iterated with those international students pursing professional psychology programs in the U.S. Current research on the challenges of this population are either absent or limited to one of the professional psychology fields or higher education levels (Ng & Smith, 2012; Park- Saltzman, et al., 2012). Given the recent data reported by APA, the number of international students pursuing professional psychology programs in the U.S. has remained nearly consistent since 2002 (APA, 2018a). Additionally, (Christidis et al., 2018) also reported in comparison to enrollment rates, these students' graduation rates are low.

Purpose of the Study

The purpose of this study is to compare the challenges or concerns expected prior to beginning graduate school with those experienced once international students began graduate school in professional psychology doctoral programs in the U.S. Primarily it aims to identify any differences in concerns students expected prior to beginning graduate school and those they experience now that they are in their graduate programs. As a subsequent purpose, the

study also aims to identify the distribution of the region-of-origin in each professional psychology field.

CHAPTER III

METHODOLOGY

This study sought to identify the perceptions of challenges of international students in professional psychology pre-matriculation and compare them with those experienced post-matriculation. Several sections in this chapter are helpful in answering the research questions and include: (a) purpose of the study; (b) research questions; (c) research design; (d) study sample (e) measure; (e) procedures and data collection, and (f) data analysis.

Research Questions

The research questions examined in this study are as follows:

1. Is the type of professional psychology program (clinical, counseling, school, and combined) selected by international students, related to their region-of-origin (Africa, Americas, South-East Asia, Europe, and Eastern Mediterranean, and Western Pacific)?
2. Are there differences in professional psychology international students' perceptions of total ratings of challenge areas and their sub-categories (i.e., language and academics, finances, culture, mentoring/ supervising/ training career opportunities) pre- and post-matriculation?
3. Are the differences on total ratings of challenges pre- and post-matriculation dependent on region-of-origin (Africa, Americas, South-East Asia, Europe, and Eastern Mediterranean, and Western Pacific) and selected professional psychology program type (clinical, counseling, school, and combined)?

Research Design

This study used a quantitative design carried out using a survey. The survey consisted of questions pertaining to various challenges experienced by international students and other resources. In this study, the independent variables (IV) included the type of professional psychology field (clinical, counseling, school, and combined psychology) and region-of-origin of international students. The dependent variables (DV) included the challenges pre- and post-matriculation. Thus, for each category of challenge, the following five concerns are inclusive: language, academics, funding, career options, and supervision.

Study Sample

The study used a non-probability convenience sampling procedure. Given the small population of international students pursuing professional psychology doctoral programs in the U.S., a non-probability convenience sampling method was utilized compared to a random sampling method. Further, such a sample process offers the advantage of gathering plenty of data efficiently and effectively (McDermott & Sarvela, 1999).

Participants included international students and non-U.S. citizens enrolled in APA accredited professional psychology doctoral programs and internships (clinical, counseling, school, and combined programs such as clinical- counseling, clinical-school, counseling-school, and school- clinical) as indicated on the APA Office of Program Consultation and Accreditation webpage for 2018 (APA, 2018).

The APA is the official and national organization for psychology in the U.S. of America and is composed of members who are researchers, students, clinicians, consultants, and educators. The roles of the APA span from quality control, advocacy, and research in psychology with aims to promote the creation, communication, and application of knowledge

in psychology to benefit people. Further, APA aims to promote psychology as a science and represents different interest groups in psychology through a total of 54 divisions. These divisions include the various disciplines and topical areas pertinent to the field of psychology, including counseling, clinical, and school psychology. The participants were a targeted population obtained from the pool of total graduate students pursuing APA accredited professional psychology graduate programs in the U.S.

Measure

The measure used in this study was a modification of a survey adapted by Srivastava et al., (2010) but modified to include the target population and answer the research questions of the current study. The survey developed by Srivastava and colleagues was aimed at identifying challenges encountered by international students in U.S. universities as well as influential factors prior to pursuing graduate education. The primary purpose of the study was to increase recruitment and retention of international students in Science, Technology, Engineering, and Mathematics fields. Srivastava and colleagues (2010) designed the survey and administered it to 1,180 current students or alumni of U.S. universities. Results from 558 participants with engineering backgrounds were used to analyze results. The survey was divided into sections that represented various phases of student life during graduate training: background, admission process, graduate study, pre-graduation, and post-graduation. The survey consisted of questions with variable response options such as yes/no, rank-order, multiple-choice, and an open-ended question toward the latter part allowing participants to indicate areas not expressed in the survey.

Responses to the survey were analyzed using Microsoft Excel software and results were expressed as frequencies. The results included a qualitative and quantitative analysis, visually

expressed through various graphs and charts. Results indicated concerns for prospective students include funding, acceptance of admission, finding a good advisor, obtaining visa, and employment after graduation. Factors that determined a student's decision to finalize on a school included funding provided, rank of the school, quality of faculty members, employment opportunities upon graduation, overall expenses, and correspondence with one's professor(s) prior to arrival on campus. The international organization's service to students was viewed to be helpful by the majority of the students as well as funding through research assistantships. Most students indicated feeling safe and secure on campus property and ranked it as the seventh most influential factor that determined a student's decision on a school. Further, half the responses indicated participants found their advisor helpful, with others closely indicating their advisors were very helpful. The goal of the current study is to fill the gap noted in professional psychology as it relates to these factors for international students.

Survey Modification

The survey measure used in this investigation was composed by the first author and adapted from the original survey by Srivastava and colleagues (2010) as a guide. Similar to the original survey, the modified survey was divided into various sections and contained varying numbers of questions and responses per section with an approximate response time to completion of 25-30 minutes. Given the literature, the survey contained a total of five sections including (a) demographics and background; (b) funding supports (Lin & Yi, 1997; Munoz-Dunbar and Stanton, 1999; Rogers & Molina, 2006); and (c) graduate program challenges. All three sections contained one or more of the following response options: yes/no/I do not know, indicate a count, ranking, and Likert scale.

Further, section (c) was divided into: challenges pre- matriculation and challenges post-matriculation. Each was then further classified into five sub-categories of challenge areas for international students as cited in the literature. These challenge sub-categories included (a) language and academics, (b) cultural demands, (c) financial demands, (d) mentoring/supervision/training, and (e) career opportunities. Each concern contained a list of eight to ten questions with additional follow-up questions as necessary, given the responses of the participant. While those sub-category challenges areas under pre-matriculation questioned participants' perceptions prior to enrollment, those under post-matriculation focused on the same content, but questioned participants' perceptions post-enrollment. In essence, the questions for pre-matriculation required participants to reflect back on their challenges prior to enrollment in their program of study, while questions for post-matriculation required participants to reflect on their challenges post-enrollment or once they began their program of study. Responses were designed on a Likert scale format with response options ranging from *not challenging* (0), *least challenging* (1), *somewhat challenging* (2), *often challenging* (3), and *most challenging* (4). The responses also included a 'not applicable' option ideally indicating certain questions did not apply to them given their standing in the program.

The five broad types of challenges were determined through the literature outlining struggles such as (a) language which affects academics, clinical work, research, and interpersonal relationships (Lee, 2013; 2018); (b) acculturative stress that affects students' academic and clinical work and social wellbeing (Campbell, 2015); (c) finances tied to maintaining immigration status, paying tuition, and managing living costs (Lee, 2013); (d) career options associated with opportunities and immigration rules (Wedding et al., 2009); and (e) quality supervision and mentoring that can be negatively impacted by cultural barriers

(McClure, 2005), power differences in relation to race and ethnicity (Hirs et al., 2001), and the supervisor's lack of understanding of the supervisee's culture (Mittal & Wieling, 2006).

Procedures and Data Collection

Upon designing the survey, the final product was administered on a panel of 10 individuals using a paper-and –pencil format. The panel consisted of 5 international students from various departments and 5 domestic students in the school psychology department to obtain feedback on overall structure, ease of understanding and responding, sentence wording, language confusions, overall format of the survey, and monitor timing on the complete administration of the survey. Modifications to the survey were conducted to obtain the final measure.

Upon obtaining approval of the study by the Institutional Review Board (IRB) from Mississippi State University, recruitment emails and postings were disseminated. Data collection commenced early September 2019 (and concluded in mid-February 2020) and included multiple modes to maximize response rates (Groves et al., 2009). Recruitment included disseminating a general recruitment email to all the Directors of Clinical Training (DCT) from APA-accredited psychology programs and those programs accredited on contingency in the U.S. Contacts of all the DCT's were obtained through the APA website listing all APA accredited graduate in clinical, school, counseling, and combined psychology programs. A total of approximately 395 DCTs were requested to forward the recruitment email to all international students in the program, if any. Two weeks after the initial email, the first follow-up email was sent to the DCTs as a reminder to email any students if they had not. Another two weeks from the first follow-up, the second follow-up email was sent to the directors as a final reminder. Given the total responses gathered at the time of the final call,

the researchers decided to continue the data collection. As a result of this decision, an extension email was sent to the DCTs as means to gather one final round of responses in hopes to increase the total number of responses. Meanwhile, participants were also recruited via other means and some of these included postings to social media pages, student groups, listservs, and psychology associations (e.g., the Trainers of School Psychology- TSP and International School Psychology Association; ISPA). Additionally, to obtain greater responses rates and 100% completion rates, participants were offered the opportunity to enter their contact information to a raffle draw to win one of ten $15 Amazon electronic gift cards at the end of the survey. A separate survey link was provided at the end of the primary survey to allow participants to enter their contact information for the raffle to remove the risk that their contact information would be connected with their results. The raffle was conducted the week after data collection ended.

Data Analysis

Data Screening

The data were collected via Qualtrics and downloaded to an Excel spreadsheet and imported into SPSS Statistics for Windows (Version 26.0). The first step to the analysis was screen the data for missing cases and outliers. A total of 100 participants consented to participate in the study. Of these 100 participants, fourteen participants were eliminated from the study because their responses were only limited to consenting to participate in the study and nothing beyond this portion of the survey. As a result, the final data set consisted of 86 participants' responses. These responses were imported into the Statistical Package for the Social Science (SPSS®) version 26.0 for analysis. The final data set was initially screened to identify invalid data, and outliers for items used to compute the dependent variables and

independent variables of the study. Invalid, for this study, was defined as a question that a participant left unanswered or responded with 'Not Applicable' provided as a part of the response options but was excluded from the Likert scale response option list. Of the final data set essential to retrieve the dependent variables, at least 16 and at most 28 participants' responses to the Likert portion of the survey were considered invalid. Of the remaining, at least 58 and at most 70 participants responded to all Likert scale items in its entirety. Of the final data set essential to retrieve the independent variables, 84 participants responded with their region-of-origin and all 86 participants responded with their program type.

Descriptive Data

Following the screening of the data, descriptive statistics were computed for the following variables: type of program (Clinical, Counseling, School, or Combined), region of origin (African Region, Americas, South-East Asian Region, Europe, and Eastern Mediterranean Region, and Western Pacific Region), age, gender, and year in program (first, second, third, fourth year and above, or Internship). The descriptive statistics computed for these variables included measures of frequency (frequency and percent). Additionally, measures of central tendency (mean) and measures of dispersion or variance (standard deviation) were computed where applicable.

Statistical Assumptions

Upon the cleaning, the data were assessed for its compliance with statistical assumptions. Assumptions are certain characteristics about a data set that need to be met to avoid inappropriate or misinterpretations of the results. Each research question was assigned a unique set of assumptions given the nature of the statistical analysis. Collectively, some

assumptions that were assessed for this study included (a) normality, (b) homogeneity of variance, (c) homogeneity of covariance matrices; (d) no perfect multicollinearity, (e) linearity, (f) sphericity, and (g) independence. In the presence of violations to one or more assumptions, necessary corrective steps were taken to mitigate the respective violation

CHAPTER IV

RESULTS

The overall purpose of this study was to understand challenges experienced by international students enrolled in APA accredited psychology graduate program before and after matriculation. Results are presented in the following fashion: 1) descriptions of the participants via descriptive data and 2) findings related to the main research questions via inferential statistics.

Descriptive Statistics

The final data set used for this study included 86 health psychology graduate students in APA accredited doctoral programs. The descriptive data for demographic characteristics of these participants are included below in Table 1 and Table 2. Overall, majority of the participants were graduate students in clinical psychology programs and, similarly, the majority identified as originating from the Western Pacific region. More than half of the participants also identified as females. While the mean age of participants was approximately 27 years, most participants in this study were 30 years or older. Similarly, on average graduate students who participated in this study were in their second year of training, although the majority had obtained four or more years of training. On the contrary, the least number of participants originated from the African regions and similarly the least number of participants were enrolled in combined psychology programs.

Table 1

Frequencies of Demographic Information of Participants

Characteristic	*n*	%
Regions of the world where participants were born		
Western Pacific	34	39.5
South- East Asia	14	16.3
Americas	12	14.0
Europe	10	11.6
Eastern Mediterranean	8	9.3
Africa	6	7.0
Current programs students are enrolled in		
Clinical Psychology	34	39.5
School Psychology	28	32.6
Counseling Psychology	18	20.9
Combined Psychology	6	7.0
Self-identified gender		
Female	70	81.4
Male	16	18.6
Age of participants		
21	2	2.3
22	2	2.3
23	1	1.2
24	7	8.1
25	10	11.6
26	7	8.1
27	11	12.8
28	5	5.8
29	14	16.3
30+	27	31.4
Current year in their program		
1st	22	25.6
2nd	11	12.8
3rd	12	14.0
4th and above	41	47.7

Note: n= Number of participants

Table 2

Means and Standard Deviations of Participant Age and Current Year in their Program

Variable	M	SD
Age	27.47	2.51
Year in program	2.84	1.27

Note: As these variables' responses included actual numeric data, their means and standard deviations were computed
M=Mean; SD= Standard Deviation

Descriptive statistics for the predictor variables are indicated in Table 3 below. Overall, participants perceived concerns related to language and academics, culture, and mentoring and supervision to be least challenging across pre- and post-matriculation. Additionally, participants perceived career opportunities to be somewhat challenging, although on average there were more concerns reported post-matriculation. However, on average language and academics matriculation (*M*= 2.85, *SD*= .86) and mentoring and supervision matriculation (*M*= 2.19, *SD*= .92), were perceived slightly more challenging during pre-matriculation, while culture was perceived more challenging during post matriculation (*M*= 2.54, *SD*= 64). While participants' ratings pre and post on average across most areas indicated the same level of challenge on the Likert scale, the same cannot be said about finances. On average, although participants perceived financial concerns to be least challenging pre-matriculation, participants perceived this same area as somewhat challenging post matriculation, thereby advancing a level on the Likert scale.

Table 3

Participants' Perceptions of Challenges across Time

	Pre- Matriculation		Post-Matriculation	
Challenge Area	M	SE	M	SE
Language and academics	2.94	.11	2.80	.10
Culture	2.54	.09	2.58	.08
Financial	2.69	.12	3.09	.10
Mentoring and supervision	2.25	.12	2.20	.14
Career opportunities	3.04	.11	3.30	.12

**Note:* M=Mean; SE= Standard Error

Inferential Statistics

Inferential statistics were comprised of answering the three research questions subsequent to carrying out necessary steps to identify if the data used for analysis met essential statistical assumptions. Additionally, prior to running inferential statistics, data were assessed for outliers and compliance with essential statistical assumptions. Collectively, data were assessed for the following assumption: (a) normality, (b) homogeneity of variance, (c) homogeneity of covariance matrices; (d) no perfect multicollinearity, (e) linearity, (f) sphericity, and (g) independence. Steps to mitigate and correct the violations of assumptions were taken when deemed necessary.

Program Selection (Research Question One)

The first research question identified if the type of professional psychology program (clinical, counseling, school, & combined) selected by international students related to their region of origin (Africa, Americas, South-East Asia, Europe, and Eastern Mediterranean, and Western Pacific). A two-way contingency or a Chi- squared analysis was used to evaluate

whether the graduate students' current program (e.g., clinical, school, counseling, and combined) depended on their region of origin, as defined by WHO (South-east Asia, Western Pacific, Europe, Eastern Mediterranean, Africa, and Americas). The question aimed at understanding whether there was a statistically significant relationship between where students originated and the program they pursued.

Results from the Chi-squared test indicated the two variables (i.e., type of program and region of origin) were significantly related to each other. In that, there is a relationship between graduate students' region of origin and the program type, $\chi^2(15, N = 84) = 29.49$, $p < .01$, Cramer's $V = .342$. A further analysis to the Chi-squared test revealed significant differences between the expected and observed numbers of participants between selected programs and regions of origin. In that, more students from certain regions were enrolled in certain types of programs than expected. The data indicate that students from the Western Pacific Region were enrolled in more counseling programs, the Americas were enrolled in more school psychology programs, and those from Europe were enrolled in more combined programs than expected.

Figure 1 below illustrates the distribution of participants from the four different graduate programs across their region of origin. Overall, participants in school and clinical psychology programs represented all regions and greatest number of participants in these programs was from the Western Pacific Region followed by South-East Asian region. The lowest number of students enrolled in school psychology programs were from the African and Eastern Mediterranean region, the lowest enrolled in clinical psychology programs were from Americas and Africa regions. On the contrary, participants in counseling and combined psychology graduate programs only represented four of the six regions. While counseling psychology programs did not have any students from Europe and the Eastern Mediterranean

regions, combined psychology programs did not have any students from the Americas and African regions. Similar to the highest number of participants enrolled in school and clinical programs were from the Western Pacific region, the highest number of participants in counseling psychology was also from the same region. However, the highest number of participants enrolled in combined programs was from the Europe region.

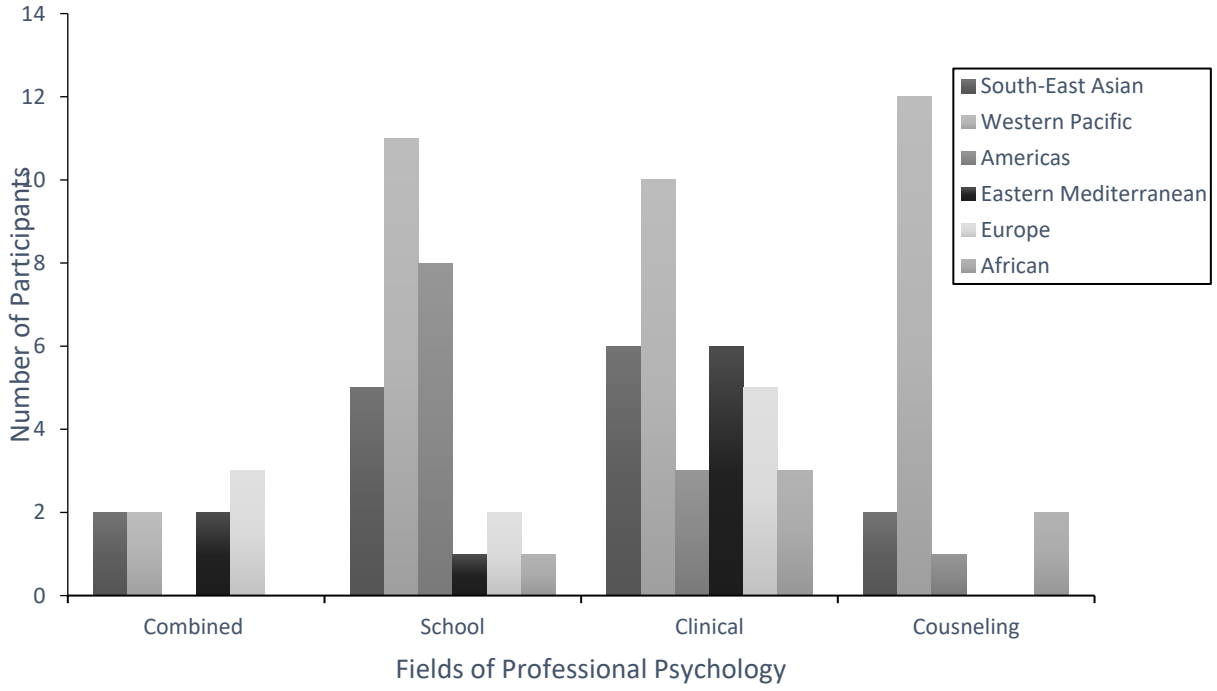

Figure 1. *Distribution of Participants across Regions of Origin and Types of Programs*

Note: Missing graphs for some categories in this figure are attributed to no responses in those respective categories.

Challenges for International Students (Research Question Two)

The second research question identified if there are any differences in professional psychology international students' perceptions of challenges in the five areas (i.e. language and

academics, finances, culture, mentoring/ supervising/ training career opportunities) across time (pre and post). For this, a 2 (time: pre vs. post) x 5 (type of challenges: language and academics vs. culture vs. finances vs. mentoring/supervision/ training vs. career opportunities) within-subjects/ repeated measures analysis of variance (ANOVA) was conducted to examine and compare international students' perceived challenges in the foresaid five domains across time.

The 2x5 within-subjects/ repeated measures ANOVA would yield two main effects and one interaction effect. The main effect of time compared the effect of time on the overall perceptions of challenges; the main effect of challenges compared how overall challenges were perceived. Further, the interaction effect compared how time interacted with the challenge areas to impact the overall perceptions. In the presence of a significant interaction, a series of paired sample T-tests were conducted to identify the levels of significance for each variable across time.

Prior to running the ANOVA, additional analyses were conducted to check assumptions for (a) normality, (b) independence, and (c) sphericity. All combinations of the independent variables (e.g., time and type of challenge) across the dependent variable (i.e. mean ratings) with exceptions to the mean post-mentoring variable met the assumption of normality. While the data for the mean post-mentoring variable was slightly positively skewed, it did not warrant any transformation to attempt to normalize the data. The data across all variables were independent of each other. The Mauchly's Test of Sphericity violated the assumption for all variables and as a result, the Greenhouse-Geisser values were used to correct violations to assumption of sphericity.

The 2 (time: pre vs. post) x 5 (type of challenges: language and academics vs. culture vs. finances vs. mentoring/supervision/ training vs. career opportunities) within-subjects/

repeated measures ANOVA indicated that there was a significant main effect for the areas of challenges, Greenhouse-Geisser $F(2.70, 153.71) = 24.93$, $p < .001$, $\eta_p^2 = .30$; significant interaction effect between challenges and time, Greenhouse-Geisser $F(2.75, 156.73) = 7.87$, $p < .001$, $\eta_p^2 = .12$; and a non-significant main effect for time, $F(1, 57) = 1.49$, $p = .23$, $\eta_p^2 = .03$. A visual analysis of the significant interaction effect illustrated in Figure 2 below and later supplemented by marginal means in Table 4, indicates that the three greatest challenges to students across time include career opportunities, financial, and language and academics.

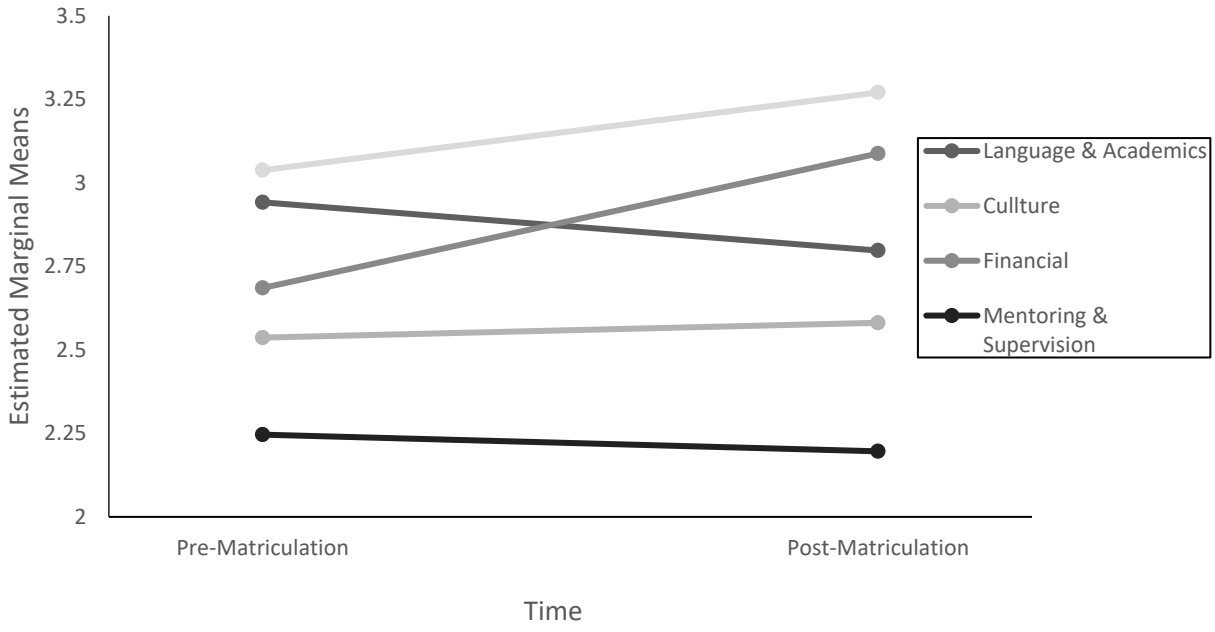

Figure 2. *Estimated Marginal Means of Challenges across Time*

Table 4

Estimated Marginal Means for Overall Challenges

	Pre- Matriculation		Post-Matriculation	
Challenge Area	M	SE	M	SE
Language and academics	2.94	.11	2.80	.10
Culture	2.54	.09	2.58	.08
Financial	2.69	.12	3.09	.10
Mentoring and supervision	2.25	.12	2.20	.14
Career opportunities	3.04	.11	3.30	.12

*Note: M=Mean; SD= Standard Error

Overall, perceived challenges in areas of financial and career opportunities increase over time while challenges in the area of language and academics decrease. The biggest challenge to students' pre-matriculation is career opportunities and this continues to remain true into post-matriculation. Language and academics is the second biggest challenge to students before enrollment, followed by challenges in the financial area. However, this trend interchanges into post-matriculation. In that, financial area becomes the second biggest challenge to students after enrollment, followed by language and academics. While the perceptions for the three greatest challenges display drastic changes across time, the same is untrue for challenges in the areas of mentoring and supervision and culture. Mentoring and supervision is the least perceived challenge of all areas assessed for and this remains true across time. Additionally, similar trajectories are observed for challenges in culture.

A further analysis to understand how time interacts with perceptions for each challenge, a repeated / paired sample T-test was conducted. Results indicate that although the perception of the five challenges differed from pre to post-matriculation, these differences were only significant for financial concerns. On average, as indicated in Table 5, participants' perceptions of financial challenges at pre-matriculation were lower ($M = 2.66$, $SD = .89$), than post-

matriculation (M = 3.1, SD = .78). This difference, 0.45, 95% CI [-.64, -.27], was significant $t(60) = -4.87$, $p < .05$ ($p < .001$), it represents a moderate-sized effect $r = .53$. The changes in other challenges across time were not significantly different.

Table 5

Estimated Marginal Means for Time

Time	M	SE
Pre-matriculation	2.69	.09
Post-matriculation	2.79	.08

**Note:* M=Mean; SE= Standard Error

International Student Challenges by Region (Research Question Three)

The third research question addressed if the differences on total ratings of challenges pre to post matriculation were dependent on region- of- origin (Africa, Americas, South-East Asia, Europe, and Eastern Mediterranean, and Western Pacific) and type of selected professional psychology program (clinical, counseling, school, and combined). A multivariate analysis of variance (MANOVA) was used and it analyzed any interactions between the dependent and independent variables; and which of the two dependent variables (pre or post matriculation total challenge) is the most and least challenging, given the participant region-of-origin and professional psychology program type. Given the G- power analysis, an estimate of ninety-nine participants were required to obtain the minimum statistical power and a medium effect size for this analysis. Given the nature of the study, the researchers obtained 86 participants to include in the study post data screening. While the initial data set essential to answer this question included eighty six cases, the missing data accounted for 16 cases which resulted in only 68 cases available for analysis (i.e. some cases missed responses to one of two independent variable data or one or two dependent variables).

Prior to conducting the MANOVA, the research conducted several analyses to check assumptions for (a) univariate and multivariate normality, (b) homogeneity of covariance of matrices, (c) linearity, and (d) absence of multicollinearity. Data for all combinations of the independent variables (e.g., region of origin and type of program) across all the dependent variables (i.e. mean ratings for pre and post matriculation) were normally distributed with exceptions to the mean post-matriculation ratings for the Western Pacific region and school psychology program type. While the data for these were slightly negatively skewed, they did not warrant any transformation to attempt normalize the data. Additionally, there were few to no outliers for this data set. The results from Box's Test of Equality of Covariance Matrices indicated a non-significant *p* value, thereby rejecting the null hypothesis and upholding the assumption that the variance and covariance matrices are statistically equal across all dependent variables.

Linearity assessed through a scatter plot for all independent variables across all dependent variables indicated mostly a diagonal/sloping line on the observed versus predicted values graphs. All combinations of variables but those for combined psychology programs and South- East Asia across the mean pre and post challenges appeared to deviate from linearity. Multicollinearity ensures the level of correlation between the variables under analysis and was assessed via the Variance Inflation Factor (VIF). For this study, the VIF for each independent variable across both dependent variables exhibited a value of 3, thereby meeting the assumption of multicollinearity. A test for MANOVA was performed using responses of the seventy participants to evaluate the effect of participants' region of origin and type of program on their overall perceived challenges pre and post-matriculation. It was found that there was no significant effect of region of origin and type of program on challenges pre and post

matriculation, Wilk's lambda = .82, F(6, 96) = 1.64, p = .15. Given there was no association between these variables, there were no follow-up conducted.

Additional analyses via descriptive data in Tables 6 and 7 below indicate that most challenges pre- and post-matriculation were experienced by participants from the South-East Asian region, for those enrolled in school psychology programs pre-matriculation (*M*=16.95; *SE*= 2.14) and those enrolled combined psychology programs for post- matriculation (*M*=19.60; *SE*= 4.40). On the contrary, the least challenges during pre-matriculation were experienced by participants from the African region enrolled in clinical psychology programs (*M*=8.44; *SE*= 2.76) and during post-matriculation by participants from the Europe region in clinical psychology programs (*M*=7.40; *SE*= 2.54).

Table 6

Mean Challenges across Region of Origin and Program Type during Pre-Matriculation

Regions of Origin	Combined		School		Clinical		Counseling	
	M	SE	M	SE	M	SE	M	SE
South-East Asia	19.60	4.40	17.21	2.00	11.73	2.00	18.56	4.40
Western Pacific	15.88	4.40	11.78	1.66	13.44	1.56	11.61	1.39
Americas	*	*	10.75	1.66	13.93	3.12	8.18	4.40
Eastern-Mediterranean	18.78	4.40	8.61	4.40	13.11	1.80	*	*
Europe	15.37	4.40	13.44	3.11	7.32	2.20	*	*
Africa	*		*	*	7.40	2.54	12.33	3.11

**Note:* This level combination of factors is not observed, thus the corresponding population marginal mean is not estimable.
M=Mean; SD= Standard Deviation

Table 7

Mean Challenges across Region of Origin and Program Type during Post-Matriculation

Regions of Origin	Combined		School		Clinical		Counseling	
	M	SE	M	SE	M	SE	M	SE
South-East Asia	9.93	4.78	16.95	2.14	10.50	2.14	15.70	4.78
Western Pacific	16.51	4.78	10.26	1.81	13.59	1.70	11.28	1.51
Americas	*	*	11.42	1.81	11.16	3.38	9.15	4.78
Eastern-Mediterranean	15.23	4.78	9.15	4.78	12.04	1.95	*	*
Europe	15.16	4.78	14.75	3.38	8.60	2.39	*	*
Africa	*	*	*	*	8.44	2.76	11.63	3.38

**Note:* This level combination of factors is not observed, thus the corresponding population marginal mean is not estimable.
M=Mean; SE= Standard Error

CHAPTER V

DISCUSSION

Overview of the Study

The purpose of this study was to identify challenges of international students enrolled in APA accredited health psychology programs in the U.S. In that, the study was designed to understand how these challenges differed pre- to- post matriculation. To do so, the researcher looked at how challenges prior to enrolling in their programs differed once students enrolled and progressed in their programs. In addition to understanding these differences, the researcher also investigated for (a) any associations between challenges across the different health psychology programs and students' regions of origin and (b) the distribution of students' origin across the health psychology programs in the U.S.

This study has multiple benefits. It encompasses many important variables such as all the health psychology programs, international students from all regions in the world, and multiple challenges encountered by this population as cited in the literature. Together, these variables can enhance the existing research on the challenges of the international population that are either absent or limited to one of the professional psychology fields, a single country or region, or higher education level (Ng & Smith, 2012; Park- Saltzman et al., 2012;). Additionally, results of this study can be utilized to understand and generate more careful and intentional strategies to recruit and retain international students into health psychology doctoral

programs thereby reversing the low enrollment rates and graduation rates (Christidis et al., 2018).

The results of this study are also important to heighten ethnic and cultural diversity representation in the field of psychology. Luona et al., (2018) indicated the 2015 U.S. Census Bureau reported approximately 40% of the population identified as racial and/ or ethnic minority. In contrast, the most recent data indicate that, although increased from 9% in 2007, psychologists identifying as racial/ethnic minority comprised of only 16% of the active psychology workforce in 2016. The existing population of ethnic minority students in the field is small and there is an immense need to recruit new, and support current, ethnic and racial minority students (Munoz- Dunbar & Stanton, 1999). Given that the ethnic minority population is projected to comprise half the entire population of the U.S. by 2060, diversifying the field is pertinent (Anderson, 2007). Additionally, having more ethnic and racial minority individuals representing the field of psychology are beneficial to generate research, create positive messages and icons around mental health (Rogers & Molina, 2006), and deliver quality mental health care (U.S. Department of Health and Human Services, 2001).

To understand and generate effective strategies, it is critical to understand the present ethnic and racial diversity of doctoral students across the health psychology fields in the U.S. While prior research by APA reflects international students in these fields from the years 2002 until 2013, data documenting students' nationalities or origins are absent (C Cope, personal communication, August 21, 2018). It will be beneficial to identify and address the justifications for the absence of this information. Additionally, there is upcoming research addressing unique needs of certain groups and populations of international students (Aguirre, 2004; Arthur, 2004; Rahman & Rollock, 2004; Seo, 2005; Tseng & Newton, 2002; Wang et

al., 2007); and without information that truly define the origins and the needs of these participants, information on what supports are available to them are ambiguous. Therefore, this study addressed this gap in the current literature and reveals critical findings that are pertinent to uphold the field's aims and efforts to recruit and retain students from diverse ethnic backgrounds.

Results from this study indicate that the highest numbers of participants are enrolled in clinical psychology programs followed by school and counseling psychology. While some of these data are inconsistent with the findings by Christidis et al., (2018) and APA (2018a; 2018c), the finding that most international students in health psychology are enrolled in clinical psychology programs continues to remain true. The pattern of distribution of students across these fields of psychology can be attributed to their historical origins of these very fields. For instance, clinical psychology was the first of the three fields to come to life in the 1890s. During this period, individuals in mental asylums were being studied and the first psychology clinic was founded by Lightner Witmer (Benjamin, 2005). While the founding of the clinic was also a marked milestone in the emergence of school psychology, the declaration of the World Wars I and II called for psychologists to create tests to assess the mental stability of soldiers going into war and treating psychiatric cases returning from war. While school psychology also emerged with the founding of the first clinic, the periods between 1890 and 1920 consisted of events that lead to the development of school psychology (Fagan, 1992). In comparison to the sequential development of clinical and school psychology, counseling psychology emerged in the 1950's and was mainly supplemented via the developments to clinical psychology in the 1940's (Super, 1955 The successive developments of these various field are also reflected by the numbers students who have continued to enroll in these programs. For instance, clinical

psychology has continued to display the highest rate of graduate student enrolment since 2002, in comparison to school and counseling that indicate significantly lesser. However, these two fields display somewhat similar patterns of enrolment with counseling program having more enrolments that school. This entire trend is similar to those international students in these fields. (APA, 2018a, 2018c).

In combination, the results from this study indicate most participants enrolled in school psychology and combined programs have origins in the Western Pacific region. These findings align with prior research by Oakland and Jimerson (2007, 2014) that countries with greater Gross Domestic Product (GDP) have better established school psychological services due to better revenue allocated towards educational institutions and the recruitment of more service providers. According to a 2018 report by the WHO, the Western Pacific region had the highest health Gross domestic Expenditure on Research and Development (GERD) as a percentage of the GDP.

The least number of participants across all program types together were from the African region closely followed by the Eastern Mediterranean region. The low numbers of psychology participants representing these two regions can partly be accounted for the perceptions held against and towards mental health in countries of these regions. For instance, in a report released by WHO describing mental health in Africa, the author indicated not only are mental health services poorly developed, it is also not considered an important priority by policy makers. As a result, there are no policies, action plans, or funding to support mental health needs despite the fact that a large portion of the global health burden is attributed to mental disorders (Okasha, 2002). Similarly, the Mental Health Atlas report released by WHO (2017) indicated minimal budgetary allocations to implement mental health plans in the

Eastern Mediterranean region. However, data indicate some revisions to their mental health plans and policies and a growing workforce in the mental health field since 2013. Although this is a promising direction there is much to be achieved to spread mental health promotion and prevention. Thus, the current status assigned to mental health can be accounted for low numbers of students from these respective regions enrolled in psychology programs in the U.S.

Overall, there is a void in research focusing on international students' challenges in professional psychology doctoral programs. Current research on the challenges of international students in health psychology fields are either absent, focused on a single field of psychology or education level such as masters or doctoral (Ng & Smith, 2012; Park- Saltzman et al., 2012), or includes international students collectively in multiple fields or students across a single region or country. Thereby, generation of hypotheses for this investigation was hindered by the lack of previous research.

To fill this gap in the literature, the primary goal was to identify challenges of students across all the three health psychology fields in doctoral programs across all regions in the world. Additionally, this study compared how these very challenges differed across time. While there were no significant differences in challenges despite where students originated and what programs they were enrolled in, individuals from South- East Asia enrolled in school psychology programs perceived the most challenges pre-matriculation while those from the African region enrolled in clinical psychology programs experienced the least challenges pre-matriculation. These findings that isolate the challenges across country and type of program are useful to training programs and professional organizations that aim to increase their recruitment and retention of students from across the globe. Additionally, results identifying

the intensity of various challenges in isolation across time continue to add valuable findings to the limited pool of research on this population.

Results also indicate that career opportunities is the most challenging of all concerns across time and this endorses the difficulties associated with regulations (Çiftçi & Williams-Nickelson, 2008), legal restrictions (Lee, 2013), immigration laws (Cadieux & Wehrly, 1986; Huntley, 1993; Khoo et al., 2002; Lin & Yi, 1997; Sarkodie-Mensah, 1998; Svarney, 1991; Thomas & Althen, 1989), restrictions to maintaining the visa status to remain in the U.S. (U.S. Immigration & Customs Enforcement, 2011), foreign citizenship status limiting access to pre-doctoral and post-doctoral opportunities (Çiftçi & Williams- Nickelson, 2008), and completion of tasks to obtain licensure (Lee, 2013). Additionally, financial challenges continued to closely follow those challenges in career opportunities. However, financial challenges significantly increased over time. Seeking career opportunities in psychology is an expensive process and can be attributed to the costs associated with application fees, traveling to interviews, and seeking accommodations during the interview process to secure pre and post-doctoral opportunities. Further, additional costs associated with graduate school such as significantly high tuition fees compared to those domestic students (Hyun et al., 2007), expenses associated with buying books, paying rent and utilities, traveling to practicum sites, and purchasing study material can be extremely challenging to international students. These challenges are accentuated by inadequate to no financial support that some students receive (Quarterman, 2008).

These financial inadequacies are evident in the additional data collected as a part of this study. Of the 59 participants who responded to questions on the Funding section of the survey, 34 participants who receive 91-100% tuition exemptions, but 2 also get stipends. These

stipends greatly vary with some participants receiving less than $500 a month and two participants receiving more than $2000 a month. Majority of these financial packages of the thirty three participants are funded by graduate assistantships while a handful is funded by a concoction of fellowships and other scholarships.

Additionally of the 56 participants, 14 were reported to receive no stipend at all. While all these 14 participants are funded through scholarships, fellowships, or other financial aid packages only three participants were funded by a graduate assistantships. Further, only 2 of these 14 participants received 91-100% tuition remissions. This means that, not only did these students experience the burden of high tuition costs, they also had to find means to attend to daily living costs.

Challenges associated with financial concerns for all international students have been continuously cited in the literature. Financial concerns are reported to be one of the most potent factors causing stress to international students (Harman, 2003; Rai, 2002). Research also suggests that financial concerns lead to stress and anxiety associated with having to timely complete their programs of study to avoid extended expenses, regardless of their desire to stay in the U.S. to obtain more extensive and relevant training (Lau & Ng, 2012). In a narrative case study conducted by Chen (2004), international counselor trainees from non-western cultures indicated trainees with financial struggles experienced greater difficulty with their initial adjustments to a new culture and a new place. Additionally, the fewer financial resources and support a trainee received negatively impacted their physical and psychological well-being. Results from the current study also revealed international trainees were more likely to experience heightened financial concerns later in their program.

Results of this study also indicate challenges to language and academics were among the top three challenges to participants. These findings are similar to previous studies. Confidence in English language contributes immensely to international students' academic success (Swalger & Ellis, 2003). For instance, language difficulties impact international students' opportunities for internship placements (Ginkel et al., 2010) and raises encounters for prejudice and discrimination as a result of non-traditional English accents (Hein, 1997) and non-verbal communication which contribute to clinical work. Other contexts of language difficulties include proficiency in the American style of professional writing often hindered by grammatical errors and passive language (Lee, 2013). It is not surprising that language difficulties are beyond the scope of reading and writing; they also encompass other aspects such as understanding idioms, historical references, and slangs that are probably different to one's home culture (Lee, 2013) all of which contribute to a successful social and professional relationship.

Implications for Training Programs and Professional Organizations

Given findings of this study, training programs and professional organizations must understand the urgent need to better and increase recruitment and retention of ethnic and racially diverse students. While the highest population of international doctoral students was recorded during 2007, it only comprised of 5.35% of the total student population at the time (APA, 2018b). Additionally, not only were the enrolment rates comparatively low, their graduation rates were not reflective of this existing already low proportion (Christidis et al., 2018). As long as data on current trends for this population and their challenges continue to be steered away from the spotlight, the pressing need to address their concerns will not be articulated with its deserved urgency; consequently impacting the fair representation of racial

and ethnic diverse professionals in the field of psychology. Therefore, it is the researcher's hope that findings from this study will some shine light and help voice the needs of this population.

Programs already have a responsibility to annually report information, about demographics and graduate school information for students enrolled in the programs, to the respective professional bodies. Given that this is mandatory reporting to facilitate the accreditation process, professional bodies can take minor yet impactful actions to include defining questions targeted at gathering more valuable data on students from various cultural, ethnic, linguistic, and racially diverse students. For instance, some trivial yet purposeful questions include asking follow-up questions about where students' originated, what cultural backgrounds they identify with, and what languages they speak. To not ask these questions is to isolate defining characteristics of students. Additionally, while there is plenty of research that is frequently published on the shortages of ethnic and racially diverse professionals, the bridge to its mediation is severely hindered by the absence of continuously updated data on the current trajectories of existing diverse professionals-to-be.

A second major goal of this study was to collectively address all challenges for this population that have otherwise been examined in isolation for a given challenge and a given population pursuing a given program at a single moment in time. Additionally, this would enable training programs to gather valuable foundational knowledge to differentiate challenges across various students groups and maintain the equity of resources among their students throughout the training years. It is evident that collectively, students perceive certain aspects of graduate school to be challenging at some level prior to enrolment and these challenges are either maintained or worsened after enrolment. Although programs may not be equipped to

provide resources targeted at these students, having general resources and opportunities in abundance and variation can help alleviate some of these challenges across the board.

For instance, providing conditional admission requirements and financial packages, (Curtis & Hunley, 1994), creating special application packets (Bernal et al.,, 1983; Bidell et al., 2002; Ponterotto et al., 1995) , having conversations and teaching moments with international students about false biases held against using non-native accents (Skow & Stephen, 1999); providing more opportunities for these students to interact with others holding various accents, understanding communication styles and patterns of international students and modeling proper communication to use with clients at therapy sessions (Lee, 2013), trainers becoming role models and coach students who need assistance interacting about culturally sensitive or uncomfortable topics with their clients and directing them to necessary resources (Lee, 2013); encouraging supervisors to provide culturally competent supervision, promoting culturally related conversations in-person and in the classroom, and making attempts to understand supervisees' acculturation within a personal and psychological context (Roysircar, 2004); evaluating supervisors' own current beliefs and assumptions about their supervisees/ mentees cultural backgrounds (Sue, 2001), learning about the contextual factors such as immigration issues, financial concerns, and work restrictions of their mentees or supervisees (Park-Saltzman et al., 2012); making the curriculums more inclusive to include aspects of multiculturalism and internationalization of psychology (Marsella & Pedersen 2004; Ægisdóttir & Gerstein 2010).

Other recommendations of equal prominence to trainers include the awareness of one's own biases towards imperfect or accented speech and understanding speech accompanied with accents is not a sign of flawed language or low intelligence (Skow & Stephen, 1999); having more patience with learning about their students' cultural differences in all aspects of

communication (Lee, 2013); create academic opportunities to interact with individuals bearing different accents and linguistic differences with hopes to learn from each other; understanding students sources of income and financial stability since some students solely depend on the stipend from their assistantship (Lee, 2013), and fairly considering students' eligibility for teaching and research assistantships without prejudices (Kim & Kim, 2010).

Given that data of this research indicate those students' overall challenges, before and after matriculation, were not significantly different to each other despite what program they were in or what region they originated, some findings are noteworthy. Doctoral students from South-East Asia in school experience the greatest challenges pre-matriculation and those in combined psychology programs experience the greatest challenges post-matriculation. While this finding does not reveal what isolated areas of challenges consist of, programs can benefit from these findings and the growing research already addressing the unique needs of certain groups and populations of international students (Aguirre, 2004; Arthur, 2004; Rahman & Rollock, 2004; Seo, 2005; Tseng & Newton, 2002; Wang et al., 2007) to attain equity of resources. Additional data about the retention and graduation rates of these populations will further be beneficial to programs.

Conducting research and having ongoing conversations about these groups and their unique needs will better inform and prepare training programs to provide support in areas that international student need them the most. For instance, international students from a western culture that share a similar cultural background and language to that of the U.S. will need less support with language and cultural adjustments compared to students from a non-western and non- English speaking background. Therefore, assuming that all international students need the same type and degree of support is current a misconception.

While there is a plethora of recommendations to trainers and training programs, there is some responsibility in the hands of international students themselves in light of better experiences. It is critical for international students to develop flexibility and openness to learning concepts, theories, and nuances of the American culture and seek opportunities to improve their language skills (Lau & Ng, 2012). Additionally, it is important for international students to initiate discussions about their fears, worries, and challenges that arise with being a foreign student in an alien environment by themselves, pursuing a goal that is rewarding yet challenging at the same time. Often international students avoid these conversations to prevent any negative perceptions from their mentors and fellow students as means to save face (Park-Saltzman et al., 2012). However, attempting to defy this practice and conforming to open and realistic communication and conversations can help build good relationships with advisors (Park-Saltzman et al., 2012), especially with those who are sensitive and attend to students' needs.

While existing research emphasizes the critical impact of not having adequate diverse professionals to cater to the needs of the rising diverse populations in U.S., I believe its impact extends globally. Given that the U.S. has well established programs in psychology, it has a responsibility to provide more opportunities and open more placements to potential students from other countries. This is extremely important to bring about social change and eradicate biases held against mental health, globally.

Limitations and Implications for Future Research

This study has several strengths; in that it presents the most comprehensive data currently available and encompasses multiple challenges of international students, pursuing all health psychology fields in the U.S. While results endorsed existing findings, it also presented

novel ones that pave way for critical next steps. As with any investigation, it is also important to highlight potential limitations to pave opportunities for future directions for the continuation of research on international students in health psychology.

First, relying on DCTs as the primary point of survey dissemination to students added another layer of challenge to data collection. The researcher was unable to confirm if all DCTs forwarded the invitation email to international students in their program and was also unable to confirm the total numbers of students who received the invitation email (Nagle et al., 2004). Considering this shortcoming, the researcher complied with recommendations to send follow-up emails as reminders to complete the survey (Aerny-Perreten et al., 2015) with hopes that these also acted as reminders for DCTs to forward the invitation email. However, while it is the researcher's judgment that the responses to this survey were well below that of the actual number of students enrolled in programs, a response rate was not calculated due to the absence of data on the current numbers of international students in programs.

Next, the participants enrolled in the study were below the estimated count as determined by the G-power. This discrepancy may be related to the design of the survey and the use of survey methodology which may have limited the response rate. Although not created to align with empirically and statistically sound factors, the survey was rather comprehensive and estimated to take approximately 40 minutes to complete. As a result, responses to the current survey were missing and incomplete, some participants may have opted out of the study. While the average response rate for online surveys administered on health-care professionals was approximately 38%, this trend has continued to decrease in the recent years (Cho et al., 2013). Additional limitations accompanying surveys includes self-selection,

offering few open ended questions, inability to generalize responses, (McDermott & Sarvela, 1999), omission of questions, and quitting the survey prior to completion.

As a result, several measures were taken to encourage participants to participate in the study and participate fully. The first measure was to include the duration of progress on the screen for participants to view the proportion of the survey completed and the proportion of the survey remaining to complete as they progressed through each question. This measure prevented participants from becoming exhausted and simultaneously made them aware of their progress. Second, the participants were expected to complete the previous question to unlock access to the next question. This measure prevented participants from omitting questions and providing incomplete responses. Third, participants were sent follow-up emails as reminders to complete the survey (Aerny-Perreten et al., 2015) and provided incentives (Cho et al., 2013) for successful completion of the survey.

The unsuccessful completion of the survey or participants opting out of participation raised the possibility of certain populations and programs types being under-represented in the data and findings (Bartlett et al., 2001). Additionally, the limited sample sizes of participants from African region, Eastern Mediterranean region, and the Americas prevented unique and important comparisons across the various program types and regions of origin. While, the survey approach provided the essential quantitative data and was the appropriate methodology to answer the research questions in this study, the researcher recognizes the importance of providing opportunities for participants to include qualitative responses to indicate questions and areas that are not included in the survey.

Considering the current scarceness of research on international students in health psychology doctoral programs, finding from this study provide interesting and unique avenues

for future directions. Given the current research outlining the multiple areas of challenges such as language and academics, culture, financial, mentoring and supervision, and career opportunities, it will be of definite interest to identify correlations between challenges and how each challenge varies across region of origin. A recent trend in research also calls attention to specific needs of particular groups of international students (Aguirre, 2004; Arthur, 2004; Rahman & Rollock, 2004; Seo, 2005; Tseng & Newton, 2002; Wang et al., 2007). For instance, research indicates specific challenges when mentoring counseling psychology students (Alexander et al., 1976). Replicating a similar study, longitudinally and assessing students' concerns across the years in comparison to just pre and post will provide training programs and professional organizations more important and useful information to better streamline and prioritize support to their international students, thereby increasing recruitment and retention.

While our inferences from this study are limited by sample sizes and thereby generalization, some facts continue to remain true. The international student population in psychology is truly a group that is resilient, persistent, and fearless (Lee, 2013). Their stressors are numerous and although voiced, their concerns are neglected and rarely heard (Koyama, 2010). Their presence can yield and contribute critical and rich cultural perspectives that have the potential to enrich discussions about human behavior across borders (Brehm, 2008); and in that sense, this population is truly as asset.

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APPENDIX A

SURVEY

Section A: Demographic/ Background Information

1. Native Country	Provide dropdown
2. Gender	Provide dropdown
3. What is your current age	
4. Total Duration of time spent in the US	(Years and Month)
5. Year you began your program	(Year and Month)
6. Year you expect to graduate	(Year and Month)
7. Program Location	(State in the US)
8. Program Type	(Clinical, Counseling, School, Combined)
9. Degree Type	(PhD, PsyD)
10. Current year in the program	(1st, 2nd, 3rd, 4th, 5th, 6th and above)
11. Have you been to the US prior to graduate school?	Yes/No
12. Is English your second language	
13. For how long have you been speaking English	Less than 6 months; 6 months to a 1 year; 1 year; 2 years….; 10+ years
14. In your opinion, how would you rate your fluency in English	(Provide dropdown with fluency ratings)
15. Indicate the number of international students currently in your program	

What are the top three areas you looked for when applying to graduate programs in psychology? Rank your choices with 1- being the highest ranked and 3 being the lowest ranked.

Items	Rank
University/ program recruitment effort	
Correspondence with graduate school/ professors before arrival	
Funding opportunities	
Ranking/ reputation of the school	
Ranking/ reputation of the program	
Program opportunities (volunteer, leadership, conferences, research etc.)	
Program structure (courses, program length, degree awarded etc.)	
Student diversity on campus (cultural/ gender/ racial)	
Student diversity in the program(cultural/ gender/ racial)	
Relationships with faculty in the program	
Expertise of faculty in the program	
University location	
Employment prospects after graduation	

Overall expenses/ cost of living	
Having friends/ family close to you	
Others, please specify	

Section B: Funding Opportunities

The following questions attempt to ask you questions about any financial support you are receiving from your program or your university toward tuition.

1. Do you currently receive funding from the university/ department?
   Yes/No/ IDK
   a. Has this funding being continuous since you began your graduate program?
      Yes/No/ IDK
      i. How many months prior to beginning the program did you first hear about your approved funding status?
      ii. Did you timely receive your funding documents to process immigration paperwork?
   b. Indicate how your current funding is supported?
      Graduate Assistantship/ Fellowship/ Scholarship/ Financial Aid/ Work-Study Program/ Unknown
   c. Indicate the approximate percentage of in-state and out-of-state tuition waiver included in this funding.
   d. Does this funding include a stipend?
   e. Please indicate your gross monthly stipend.

2. Have you ever received funding from the university/department?
   Yes/No/ IDK
   a. Indicate how this funding was supported? (Select all that apply)
      Graduate Assistantship/ Fellowship/ Scholarship/ Financial Aid/ Work-Study Program/ Unknown
   b. Indicate the total number of semesters or years you have received funding from the university/ department.
   c. Indicate the approximate percentage of in-state and out-of-state tuition waiver included in this funding.
   d. Has this funding included a stipend?
   e. Did you receive funding from the university/ program in the first semester of the program?
      Yes/No/ IDK
      i. How many months prior to beginning the program did you first hear about your approved funding status?

ii. Did you timely receive your funding documents to process immigration paperwork?

NOTE: The next set of questions cover different aspects of challenges international students experience in relation to pursuing a professional psychology doctoral program in the U.S. There are five different aspects (i. Language and Academics; ii. Culture; iii. Finances; iv. Mentoring/ Supervision/ Training; and v. Career Opportunities) which include multiple questions.
You are asked to rate these challenges given your experiences across two different time periods; one which is pre- matriculation (this is the time period prior to enrolling in your program of study) and the other which is post-matriculation (this is the time period after enrolling in your program of study). You may have to reflect back on your experiences to answer questions pertaining to pre- matriculation. The purpose of these questions is to identify how your challenges as international doctoral students in professional psychology programs have changed over time. These questions may appear to be similar however, but they focus on challenges in the past and challenges in the present.
Please rate your challenges on a scale of 0 to 4 with:

0- Not Challenging
1- Least Challenging
2- Somewhat Challenging
3- Often Challenging
4- Most Challenging
N/A- Not Applicable

LANGUAGE AND ACADEMICS CONCERNS

For the following, answer the questions from what you recall were your expected language and academic concerns before beginning your graduate program in the U.S. Following each question is a similar question, asking if these have been current concerns now that you are in your program. The scale indicates the following:

Question 1

- Prior to beginning your graduate program, how challenging did you expect the impact of adjusting and acquainting to | 0 | 1 | 2 | 3 | 4 | N/A | the U.S. education system to be
-
- Now that you are in your graduate program, how challenging has the impact of adjusting and acquainting to the U.S. education system been

0	1	2	3	4	N/A

Question 2

- Prior to beginning your graduate program, how challenging did you expect your language skills to impact your academic performance? (If English was your first language and you were coming to an English speaking program, select n/a)

0	1	2	3	4	N/A

- Now that you are in your graduate program, how

challenging has the impact of language skills been on your academic performance? (If English was your first language and you were coming to an English speaking program, select n/a)

0	1	2	3	4	N/A

Question 3

Rate the level of challenge associated with each of the following aspects:

Language Skills (comprehending English, communicating in English, using formal and sophisticated spoken and written language in graduate school, confidence with the use of English)

- Prior to beginning your graduate program, you expected the impact to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact been

0	1	2	3	4	N/A

Grading System (understanding the grading system, keeping up with the grading system, maintaining passing grades)

- Prior to beginning your graduate program, you expected the impact to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact been

0	1	2	3	4	N/A

Coursework such as readings, presentations, exams, assignments (demands of coursework, completing coursework accurately and efficiently, complexity of coursework, difficulty of coursework, quality of coursework, online coursework)

- Prior to beginning your graduate program, you expected the impact to be

- Now that you are in your graduate program, how challenging has the impact been

0	1	2	3	4	N/A
0	1	2	3	4	N/A

Comprehensive exams (studying for comprehensive exams, passing comprehensive exams, writing for comprehensive exams, paying for comprehensive exams)

- Prior to beginning your graduate program, you expected the impact to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact been

0	1	2	3	4	N/A

Standardized licensure (understanding licensure requirements, studying for licensing exams, sitting for licensure exams, paying for licensure exams, obtaining supervision for licensure requirements)

- Prior to beginning your graduate program, you expected the impact to be

0	1	2	3	4	N/A
0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact been

Research (understanding research, conducting research, collaborating with other researchers, developing a line of research, writing manuscripts, presenting research)

- Prior to beginning your graduate program, you expected the impact to be

0	1	2	3	4	N/A
0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact been

Dissertation (the general demands of the dissertation, the intensity and complexity of the dissertation, effort that goes into a dissertation, conducting the dissertation study, writing the dissertation)

- Prior to beginning your graduate program , you expected the impact to be

0	1	2	3	4	N/A
0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact been

Practicum (understanding the expectations of practicum, applying skills in a practical setting, working with individuals off campus, working with individuals different to you, communicating in a second language, travelling to practicum, working without pay, understanding laws and ethics)

- Prior to beginning your graduate program, you expected the impact to be
- Now that you are in your graduate program, how challenging has the impact been

0	1	2	3	4	N/A
0	1	2	3	4	N/A

Clinic (understanding the expectations of clinical practice, applying skills in a clinical setting, working with individuals off campus, working with individuals different to you, communicating in a second language, travelling to clinic, working without pay, understanding laws and ethics)

- Prior to beginning your graduate program, you expected the impact to be
- Now that you are in your graduate program, clinic is

0	1	2	3	4	N/A
0	1	2	3	4	N/A

Internship (understanding the expectations of internship, applying skills in a practical setting, working with individuals off campus, working with individuals different to you, communicating in a second language, applying for internship, travelling for interviews, facing interviews, the matching process of internship sites, understanding laws and ethics)

- Prior to beginning your graduate program, you expected internship to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, internship is

0	1	2	3	4	N/A

Question 4

Prior to beginning your graduate program, how challenging did you expect your language comprehension skills to impact providing psychological services to clients

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has the impact of your language comprehension skills been when providing psychological services to clients

0	1	2	3	4	N/A

Question 5

Prior to beginning your graduate program, how challenging did you expect your language comprehension skills to impact obtaining supervision from advisors/mentors

0	1	2	3	4	N/A

Now that you are in your graduate program, how language has the impact of your comprehension skills been when obtaining supervision from advisors/mentors

0	1	2	3	4	N/A

Question 6

Prior to beginning your graduate program, how challenging did you expect your language communication skills to impact providing psychological services to clients

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has the impact of your language communication skills been when providing psychological services to clients

0	1	2	3	4	N/A

Question 7

Prior to beginning your graduate program, how challenging did you expect your language and speaking skills (grammar, accuracy, fluency, comprehension, accents), to impact your success in graduate school

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has the impact of your language and speaking skills been (grammar, accuracy, fluency, comprehension, accents), for success in graduate school

0	1	2	3	4	N/A

Question 8

Prior to beginning your graduate program, how challenging did you expect your communication skills to impact obtaining supervision from advisors/mentors

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has the impact of your communication skills been when obtaining supervision from advisors/mentors

0	1	2	3	4	N/A

Question 9

Prior to beginning your graduate program, how challenging did you expect your accent in your speech to impact providing psychological services to clients

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has the accent in your speech been when providing psychological services to clients

0	1	2	3	4	N/A

Question 10

Prior to beginning your graduate program, how challenging did you expect your accent in my speech to impact navigating/ progressing through your psychology career

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has the accent in your speech been when navigating/ progressing through my psychology career

0	1	2	3	4	N/A

CULTURAL CONCERNS

For the following, answer the questions from what you recall were your expected cultural concerns before beginning your graduate program in the U.S. Following each question is a similar question, asking if these have been current concerns now that you are in your program.

Question 1

Prior to beginning your graduate program, how challenging did you expect your understanding of the American culture (cultural differences, cultural practices, cultural conflicts, cultural traditions) to impact your level of acculturation

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has your understanding of the American culture (cultural differences, cultural practices, cultural conflicts, cultural traditions) been on your level of acculturation

0	1	2	3	4	N/A

Question 2

Rate the level of challenge associated with culture and each of the following aspects when delivering psychological services to clients

Treating clients as equals

- Prior to beginning your graduate program, how challenging did you expect treating clients as equals to impact the delivery of psychological services to clients

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been to treat clients as equals when delivering psychological services to clients

0	1	2	3	4	N/A

Practicing various theories in psychology

- Prior to beginning your graduate program, how challenging did you expect practicing various theories in psychology to impact the delivery of psychological services to clients

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been to practice various theories in psychology delivering psychological services to clients

0	1	2	3	4	N/A

Respecting clients' beliefs

- Prior to beginning your graduate program, how challenging did you expect respecting clients' various beliefs (Religious/ gender/ parenting/ family dynamics, etc.) to impact the delivery of psychological services to clients

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been to respect

clients' various beliefs (Religious/ gender/ parenting/ family dynamics, etc) when delivering psychological services to clients

0	1	2	3	4	N/A

Understanding clients

- Prior to beginning your graduate program, how challenging did you expect your understanding clients' racial/gender/ social/ cultural norms to impact the delivery of psychological services to clients

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been to understand clients' racial/gender/ social/ cultural norms when delivering psychological services to clients

0	1	2	3	4	N/A

Biases Directed by Clients

- Prior to beginning your graduate program, how challenging did you expect biases directed at you by clients to impact the delivery of psychological services to clients

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging have biases directed at you by your clients been when delivering psychological services to clients

0	1	2	3	4	N/A

Question 3

Prior to beginning your graduate program, how challenging did you expect the impact of cultural differences between you and your supervisor/ advisor to be

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has the impact of cultural differences between you and your supervisor/ advisor been

0	1	2	3	4	N/A

Question 4

Prior to beginning your graduate program, how challenging did you expect the impact of your advisor/supervisor's overall understanding of your culture to be

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has the impact of your advisor/supervisor's overall understanding of your culture been

0	1	2	3	4	N/A

Question 5

Prior to beginning your graduate program, how challenging did you expect the difference in cultures between you and your clients to be

0	1	2	3	4	N/A

Now that you are in your graduate program, how challenging has the difference in cultures between you and your clients been

0	1	2	3	4	N/A

Question 6

Rate your level of challenge associated with culture and peer relationships

a.Level of microaggression(s)

- Prior to beginning your graduate program, how challenging did you expect the level of microaggression (s) directed at you by your peers to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the level of microaggression (s) directed at you by your peers been

0	1	2	3	4	N/A

b. Ethnic/racial comments

- Prior to beginning your graduate program, how challenging did you expect ethnic/racial comments directed at you by your peers to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging have the ethnic/racial comments directed at you by your peers been

0	1	2	3	4	N/A

c. Knowledge and education on culture

- Prior to beginning your graduate program, how challenging did you expect knowledge and education on culture demonstrated by peers in your program to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the knowledge and education on culture demonstrated by peers in your program been

0	1	2	3	4	N/A

d. Cultural Diversity

- Prior to beginning your graduate program, how challenging did you expect the shortage of cultural diversity among your peers in your program to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the shortage of cultural

diversity among your peers in your program been

0	1	2	3	4	N/A

e. Alienation and Isolation

- Prior to beginning your graduate program, how challenging did you expect alienation and isolation by your peers in your program to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the alienation and isolation by your peers in your program been

0	1	2	3	4	N/A

f. Academic and Nonacademic Support

- Prior to beginning your graduate program, how challenging did you expect obtaining academic and nonacademic support from your peers to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been to obtain academic and nonacademic support from your peers in your program

0	1	2	3	4	N/A

Question 7

- Prior to beginning your graduate program, how challenging did you expect acculturating to the U.S. to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been acculturating to the U.S.

0	1	2	3	4	N/A

Question 8

Rate your level of challenge associated with culture and opportunities in graduate school

a. Internship Opportunities

- Prior to beginning your graduate program, how challenging did you expect finding internship opportunities to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been finding internship opportunities

0	1	2	3	4	N/A

b. Scholarships /Awards Opportunities

- Prior to beginning your graduate program, how challenging did you expect finding scholarship/ award opportunities to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been finding scholarship/award opportunities

0	1	2	3	4	N/A

c. Leadership Opportunities

- Prior to beginning your graduate program, how challenging did you expect finding leadership opportunities to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been finding leadership opportunities

0	1	2	3	4	N/A

d. Research Opportunities

- Prior to beginning your graduate program, how challenging did you expect finding research opportunities to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been finding research opportunities

0	1	2	3	4	N/A

e. Networking Opportunities

- Prior to beginning your graduate program, how challenging did you expect finding networking opportunities to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been finding networking opportunities

0	1	2	3	4	N/A

FINANCIAL CONCERNS

For the following, answer the questions from what you recall were your expected financial concerns before beginning your graduate program in the U.S. Following each question is a similar question, asking if these have been current concerns now that you are in your program.

Question 1

- Prior to enrolling in your graduate program, how challenging did you expect the impact of financial concerns to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of financial concerns been

0	1	2	3	4	N/A

Question 2

- Prior to enrolling in your graduate program, how challenging did you expect the impact of managing financial stress to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of managing financial stress been

0	1	2	3	4	N/A

Question 3

- Prior to enrolling in your graduate program, how challenging did you expect the impact of paying semester tuition to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of paying semester tuition been

0	1	2	3	4	N/A

Question 4

- Prior to enrolling in your graduate program, how challenging did you expect the impact of financial hardship on your academic goals to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of financial hardship on your academic goals been

0	1	2	3	4	N/A

Question 5

- Prior to enrolling in your graduate program, how challenging did you expect the impact of financial stress on your academic goals to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of financial stress on your academic goals been

0	1	2	3	4	N/A

Question 6

- Prior to enrolling in your graduate program, how challenging did you expect the impact discrimination when seeking extra funding to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of discrimination when seeking extra funding been

0	1	2	3	4	N/A

Question 7
Rate your level of challenge associated with financial resources demanded by the program

Practicum Costs
- Prior to enrolling in your graduate program, how challenging did you expect practicum costs (travel money, buying formal clothes, liability insurance) to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has practicum costs (travel money, buying formal clothes, liability insurance) been

0	1	2	3	4	N/A

Conference Costs
- Prior to enrolling in your graduate program, how challenging did you expect conference costs (travel, registration, accommodation, meals) to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has conference costs (travel, registration, accommodation, meals) been

0	1	2	3	4	N/A

Internship Costs
- Prior to enrolling in your graduate program, how challenging did you expect internship costs (submitting applications, buying formal clothes, paying for transport, accommodation meals) to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has internship costs (submitting applications, buying formal clothes, paying for transport, accommodation meals) been

0	1	2	3	4	N/A

Professional licensure Costs
- Prior to enrolling in your graduate program, how challenging did you expect licensure costs (submitting paperwork, exams, study guides) to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has licensure costs (submitting paperwork, exams, study guides) been

0	1	2	3	4	N/A

Study Supplies

- Prior to enrolling in your graduate program, how challenging did you expect study costs (textbooks, study guides, journal subscriptions) to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has study costs (textbooks, study guides, journal subscriptions) been

0	1	2	3	4	N/A

Question 8

Rate your level of challenge associated with managing finances on the stipend awarded by your assistantship

Meals

- Prior to enrolling in your graduate program, how challenging did you expect eating healthy on your stipend to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has eating healthy on your stipend been

0	1	2	3	4	N/A

Utilities

Prior to enrolling in your graduate program, how challenging did you expect paying for utilities (water, internet, electricity, phone bill, gas, etc.) with your stipend to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has paying for utilities (water, internet, electricity, phone bill, gas, etc.) with your stipend been

0	1	2	3	4	N/A

Transportation

- Prior to enrolling in your graduate program, how challenging did you expect paying for transportation (public/private) with your stipend to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has paying for transportation (public/private) with your stipend been

0	1	2	3	4	N/A

Insurance

- Prior to enrolling in your graduate program, how challenging did you expect affording insurance (health, dental, vehicle, renter's) on your stipend to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has affording insurance (health, dental, vehicle, renter's) on your stipend been

0	1	2	3	4	N/A

Question 9

Rate your level of challenge associated with immigration/legal restrictions when seeking extra funding

Status on Campus

- Prior to enrolling in your graduate program, how challenging did you expect being enrolled as a fulltime student to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been to be enrolled as a fulltime student been (If currently not on a fulltime status, select N/A)

0	1	2	3	4	N/A

Number of Hours

- Prior to enrolling in your graduate program, how challenging did you expect the restrictions on the number of work hours to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging the restriction on the number of work hours been

0	1	2	3	4	N/A

Financial Resources (Loans and Scholarships)

- Prior to enrolling in your graduate program, how challenging did you expect your limited access to financial resources to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has your access to limited financial resources been

0	1	2	3	4	N/A

MENTORING/SUPERVISING/TRAINING CONCERNS

For the following, answer the questions from what you recall were your expected mentoring/supervision concerns before beginning your graduate program in the U.S. Following each question is a similar question, asking if these have been current concerns now that you are in your program.

Question 1

- Prior to enrolling in your graduate program, how challenging did you expect your advisor/supervisor's overall level of understanding/awareness of your cultural background to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has your advisor/supervisor's overall level of understanding/ awareness of your cultural background been

0	1	2	3	4	N/A

Question 2

- Prior to enrolling in your graduate program, how challenging did you expect your advisor/ supervisor's interest to learn about your culture to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has your advisor/ supervisor's interest to learn about your culture been

0	1	2	3	4	N/A

Question 3

- Prior to enrolling in your graduate program, how challenging did you expect your advisor/ supervisor's interest to learn about your clients' culture to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has your advisor/ supervisor's interest to learn about your clients' culture been

0	1	2	3	4	N/A

Question 4

- Prior to enrolling in your graduate program, how challenging did you expect having frequent of conversations about culture with your advisor/ supervisor to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been to have frequent conversations about culture with your advisor/ supervisor

0	1	2	3	4	N/A

Question 5

- Prior to enrolling in your graduate program, how challenging did you expect obtaining your advisor's/supervisor's interest in your concerns and requests to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been to obtain your advisor's/supervisor's interest in your concerns and requests

0	1	2	3	4	N/A

Question 6

- Prior to enrolling in your graduate program, how challenging did you expect your impact of your advisor's/supervisor's level of cultural awareness to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of your advisor's/supervisor's level of cultural awareness been

0	1	2	3	4	N/A

Question 7

- Prior to enrolling in your graduate program, how challenging did you expect the impact of limited culture-based conversations at supervision meetings to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of limited culture-based conversations at supervision meetings been

0	1	2	3	4	N/A

Question 8

- Prior to enrolling in your graduate program, how challenging did you expect your advisor/supervisor's ability to generate culture related conversations to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has your advisor/supervisor's ability to generate culture related conversations been

0	1	2	3	4	N/A

Question 9

- Prior to enrolling in your graduate program, how challenging did you expect using culture to build a relationship with your advisor/supervisor to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has it been to use culture to build a relationship with your advisor/supervisor

0	1	2	3	4	N/A

Question 10

- Prior to enrolling in your graduate program, how challenging did you expect satisfaction with supervision to be, given your advisor's/supervisor's limited cultural awareness

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has your satisfaction with supervision been, given your advisor's/supervisor's limited cultural awareness

0	1	2	3	4	N/A

CAREER OPPORTUNITY CONCERNS

For the following, answer the questions from what you recall were your expected career opportunity concerns before beginning your graduate program in the U.S. Following each question is a similar question, asking if these have been current concerns now that you are in your program.

Question 1

- Prior to enrolling in your graduate program, how challenging did you expect the impact of legal/ immigration restrictions to be on finding a pre-doctoral internship

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of legal/ immigration restrictions been on finding a pre-doctoral internship

0	1	2	3	4	N/A

Question 2

- Prior to enrolling in your graduate program, how challenging did you expect the impact of language and culture to be on finding a pre-doctoral internship

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of language and culture been on finding a pre-doctoral internship

0	1	2	3	4	N/A

Question 3

- Prior to enrolling in your graduate program, how challenging did you expect compiling essays and cover-letters for pre-doctoral internship applications to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has compiling essays and cover-letters for pre-doctoral internship applications been

0	1	2	3	4	N/A

Question 4

- Prior to enrolling in your graduate program, how challenging did you expect finding a post-doctoral internship to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has finding a post-doctoral internship been

0	1	2	3	4	N/A

Question 5

- Prior to enrolling in your graduate program, how challenging did you expect finding a full-time job after graduation to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has finding a full-time job after graduation been

0	1	2	3	4	N/A

Question 6

- Prior to enrolling in your graduate program, how challenging did you expect networking for future career opportunities to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has networking for future career opportunities been

0	1	2	3	4	N/A

Question 7

- Prior to enrolling in your graduate program, how challenging did you expect your opportunities to engage in career-related conversation with your advisor/supervisor to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging have opportunities to engage in career-related conversation with your advisor/supervisor been

0	1	2	3	4	N/A

Question 8

- Prior to enrolling in your graduate program, how challenging did you expect the impact of your program director's attempts to understand international students' immigration policies to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has the impact of your program director's attempts to understand international students' immigration policies been

0	1	2	3	4	N/A

Question 9

- Prior to enrolling in your graduate program, how challenging did you expect Curricular Practicum Training (CPT) and Optional Practical Training (OPT) regulations to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging have the Curricular Practicum Training (CPT) and Optional Practical Training (OPT) regulations been

0	1	2	3	4	N/A

Question 10

- Prior to enrolling in your graduate program, how challenging did you expect obtaining state licensure to practice psychology upon graduation to be

0	1	2	3	4	N/A

- Now that you are in your graduate program, how challenging has obtaining state licensure to practice psychology upon graduation been

0	1	2	3	4	N/A

APPENDIX B

IRB APPROVAL

MISSISSIPPI STATE UNIVERSITY

Office of Research Compliance

Institutional Review Board for the Protection of Human Subjects in Research
P.O. Box 6223
53 Morgan Avenue
Mississippi State, MS 39762
P. 662.325.3294

www.orc.msstate.edu

NOTICE OF DETERMINATION FROM THE HUMAN RESEARCH PROTECTION PROGRAM

DATE: July 09, 2019

TO: Kasee Stratton-Gadke, PhD, Counseling Ed Psyc & Foundations, Cheryl Justice;Daniel Gadke;Jasmine Sorrell;Tianlan Wei
Chathuri Illapperuma, PhD, Counsel Ed Psych & Foundation, Cheryl Justice, Counseling Ed Psyc &Foundations, Daniel Gadke, Counseling Ed Psyc & Foundations, Jasmine Sorrell, Counsel Ed Psych & Foundation, Tianlan Wei, Counseling Ed Psyc & Foundations

PROTOCOL TITLE: International Students' Perceptions of Challenges: Pre to Post Matriculation in U.S. Professional Psychology Doctoral Programs

PROTOCOL NUMBER: IRB-19-264

Approval Date: July 09, 2019 Expiration Date: July 08, 2

EXEMPTION DETERMINATION

The review of your research study referenced above has been completed. The HRPP had made an Exemption Determination as defined by 45 CFR 46.101(b)2. Based on this determination, and in accordance with Federal Regulations, your research does not require further oversight by the HRPP.

Employing best practices for Exempt studies is strongly encouraged such as adherence to the ethical principles articulated in the Belmont Report, found at www.hhs.gov/ohrp/regulations-and-policy/belmont-report/# as well as the MSU HRPP Operations Manual, found at www.orc.msstate.edu/humansubjects. As part of best practices in research, it is the responsibility of the Principal Investigator to ensure that personnel added after this Exemption Determination notice have completed IRB training prior to their involvement in the research study. Additionally, to protect the confidentiality of research participants, we encourage you to destroy private information which can be linked to the identities of individuals as soon as it is reasonable to do so.

Based on this determination, this study has been inactivated in our system. This means that recruitment, enrollment, data collection, and/or data analysis CAN continue, yet personnel and procedural amendments to this study are no longer required. **If at any point, however, the risk to participants increases, you must contact the HRPP immediately. If you are unsure if your proposed change would increase the risk, please call the HRPP office and they can guide you.**

If this research is for a thesis or dissertation, this notification is your official documentation that the HRPP has made this determination.

If you have any questions relating to the protection of human research participants, please contact the HRPP Office at irb@research.msstate.edu. We wish you success in carrying out your research project.

Review Type: EXEMPT

IRB Number: IORG0000467