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Examining the Impact of Discrimination, Shame, and Acculturation on Psychological Wellbeing of East Asian International Students

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Abstract

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Shao-Jung Stella Ko

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Advisor: Patton O. Garriott, Ph.D.

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CHAPTER ONE: LITERATURE REVIEW

The United States (U.S.) has historically been the top country of choice for international students around the world due to its quality higher education system, popular culture, relatively free lifestyle, and more open labor market (McIntire & Willer, 1992, p.xi; Zong & Batalova, 2018). According to the United Nations Educational, Scientific and Cultural Organization Institute for Statistics (UNESCO) and the Institute of International Education (IIE), the U.S. hosted 1.1 million international students out of a total of 5.3 million students studying overseas in 2017 (IIE, 2019a; UNESCO, 2019). Among all, Asian international students contribute the largest enrollment on American campuses. For the past fifteen years, six out of the top ten places of origin of international students were Asian countries (IIE, 2019c). In the 2018–2019 academic year, Asian international students constituted 70% of the total international student population enrolling in a U.S. university or college (768,260 out of 1,095,299 students; IIE, 2019a). Moreover, 61% of the Asian students (472,085 students; IIE, 2019b) were originally from East Asia including China, Hong Kong, Japan, Macau, Mongolia, North Korea, South Korea, and Taiwan (IIE, 2019b).

Despite the yearly growth in Asian international students on U.S. campuses, this group does not always consider the university environment as welcoming and, in fact, usually encounters hostility and rejection due to discrimination (Wei et al., 2010). Asian international students appear to be at-risk for having to manage language barriers,

cultural differences, acculturative stress, financial burdens, immigration concerns, and academic difficulties with limited social support and underutilization of college counseling services (Chang, 2008; Ye, 2005). Researchers have suggested examining Asian subgroups due to cultural differences across Asian countries (Gordon et al., 2019; Iwamoto & Liu, 2010). Therefore, this study will focus on East Asian international students. To better understand trends in the enrollment of international students in U.S. higher education, it is important to explore the historical context of international students and the international education exchange.

History of International Students in the U.S.

International enrollment in the U.S. has been affected by a combination of factors including the development of immigration policies and U.S. higher education system, political and diplomatic approaches of the U.S. government, higher education institutions' readiness for hosting foreign students, and Americans' attitudes toward international students and immigrants. The U.S. has vacillated between implementing an open-door policy (welcoming foreigners to bring in cultural diversity and economic benefits) and a closed-door policy (deploying foreigners or rejecting their entry to the U.S.) between the 1800s to present (Bevis, & Lucas, 2007; Committee on Friendly Relations Among Foreign Students, 1945). Overall, international students and scholars have been granted more attention and resources on both national and organizational levels over time.

Early International Education Exchange

The earliest international student exchange on American campuses can be traced back to the eighteenth century amidst America's rapid growth of size and strength.

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Although Europe was world-renowned for its higher education system throughout the eighteenth and nineteenth centuries, more American universities and colleges had emerged and improved while emulating the institutions in Germany. By the twentieth century, U.S. institutions had become appealing choices for prospective foreign students seeking an advanced education, research opportunities, and "the freedom of personal expression" (Bevis, & Lucas, 2007, p.39). As a result, young students from Asia (e.g., India, China) began to enroll in sizable numbers in the U.S. around the mid-1800s when immigration policies were less restrictive (Bevis, & Lucas, 2007). Many student groups were sent and sponsored by their governments for (a) acquiring advanced knowledge and technical skills to facilitate the modernization of their home countries and (b) establishing and maintaining good relationships with the U.S. through their cross-national exchange as a diplomatic act (Akli, 2012; Bevis, & Lucas, 2007; Michie, 1968).

Xenophobia and Immigration Restrictions

Immigration policies and restrictions have had a powerful effect on international students and scholars as a result of the longstanding tradition of American xenophobia. Scholars have defined such fear or hatred of foreigners as 'xenophobia' (Lee, 2019), which provokes exclusion and violence against foreign-born individuals including international students. The rapid growth of immigration from Europe, Latin America, and Asia in the early nineteenth century overwhelmed Americans who perceived foreigners as threatening and problematic. A series of restrictive immigration laws were designed and enforced to further delineate the White racial category and preserve white economic interests (Pounder et al., 2003). Countless immigrants from Europe, Latin America, and

Asia were targeted, harmed, or deported throughout the nineteenth century despite holding US citizenships or work authorizations (Hartlep, 2013; Lee, 2019).

Sadly, U.S. history demonstrated the continuity and escalation of xenophobia across the centuries. The Chinese Exclusion Act of 1882 successfully deported and denied the reentry of laborers from China for more than six decades, shaping the anti-Chinese sentiment through legalizing prejudice and discrimination at a national level (Lee, 2019). During World War II, approximately 120,000 Japanese Americans were suspected as threats to national security and incarcerated in camps despite two-thirds held US citizenships. (Lee, 2019). Mexicans soon became the new target since the Great Depression as "diseased criminals that stole Americans jobs" (Cox, 2020). It became a pattern for Americans to "project blame onto a distinct group of people supplies both a distraction and an emotional outlet" especially during times of crisis (Lee, 2019).

The Asian xenophobia and racial stereotyping quickly transformed into the scapegoating of foreign workers and international students amidst the emergence of the Coronavirus. Two weeks after the restriction of employment visas was announced in the Presidential Proclamation (Trump, 2020), the Immigration and Customs Enforcement's (ICE) attempted to ban international students from returning to or remaining in the U.S. if their colleges adopt online-only instruction models amid the pandemic (BBC, 2020). Although this so-called 'student ban' policy was rescinded after 18 states and more than 200 universities sued ICE in federal court (Adams, 2020; Binkley, 2020), these xenophobic acts had left a long-lasting influence on international student's wellbeing (Rajan, 2020). Therefore, it is important to advocate and support international students

who have to constantly fight against xenophobia and discrimination that are codified in and perpetuated by laws and policies.

Advocacy and Support for International Students

Despite the hostile climate and difficult entry to the U.S., international enrollment grew steadily between 1900 and 1930 (Bevis, & Lucas, 2007). Unlike current international students, no virtual access was available for these sojourners to maintain contact with their families and friends in their home countries. This population appeared to be mostly isolated while managing to overcome language barriers, cultural differences, and academic stress with limited resources and social support. Advocacy for international students began to emerge in the early 1900s as local and national organizations were developed to support this minority population. Around 1925, A survey (i.e., YMCA survey of the Foreign Student in America) was developed and administered to approximately 600 international students in New York City to investigate their lived experiences, living conditions, and adaptive challenges (Wheeler et al., 1925). The findings not only addressed the lack of support services for international students on campus but also urged the institutions to step up and respond with tangible actions (Wheeler et al., 1925).

Several organizations were established throughout the twentieth century to care for international students locally, nationally, and globally. Association of Cosmopolitan Clubs of America (ACCA), the International Houses, Sunday suppers, the Institute of International Education (IIE), the National Association of Foreign Student Advisers (NAFSA, currently the National Association of International Educators; NAIE), and the Fulbright Program (Ball, n.d.; Kramer, 2009) was established to foster community

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support, enable access to resources, and encourage international educational exchange, particularly after the World War II Years. IIE later cooperated with UNESCO in the late 1940s to bring in the first group of UNESCO Fellows to the U.S.In 1962, 58,086 international students were enrolled in 1,666 U.S. higher education institutes from 143 countries (Bevis, & Lucas, 2007, p.156; IIE, 2019d).

Higher education institutes continued to prove their influential role in advocating for international students to the present day. On July 6th, ICE proposed to ban hundreds of thousands of foreign students from studying in the U.S. if their programs are offered online-only due to the coronavirus pandemic. A week after the announcement, more than 200 universities and colleges and 18 states sued the federal government and successfully reversed ICE's deportation order (Adams, 2020; Binkley, 2020). Universities and colleges are urged to approach policymaking with more humanity and decency to protect international students from further arbitrary policies (Fernandes, 2020).

Advantages in Hosting International Students

The U.S. gradually recognized the economic, educational, and diplomatic benefits of hosting international students during the late twentieth and early twenty-first centuries. From 1997 to 1998, $8 billion was contributed to the U.S. economy by over 50,000 international students. In 2004, New York Times even described the invested education in international students as a $13 billion industry (Nye Jr., 2004). International students' contribution to the U.S. economy continued to grow and had reached $39 billion in 2016 (Sahlu, 2018). In the 2018-2019 academic year, international students were reported to contribute $45 billion and supported 458,290 jobs to the U.S. economy. Consequently, the U.S. economy has lost $11.8 billion and more than 65,000 jobs due to the continued

decline in international student enrollment since 2016. On July 22nd, several professional

business organizations filed a lawsuit against the Trump administration over federal

immigration restrictions targeting foreign workers which "pushed investment abroad,

inhibited economic growth, and reduced job creation" (Falconer, 2020).

From an educational standpoint, NAFSA described international students as

"invaluable assets to the U.S." for enriching classrooms with diverse perspectives and

increasing domestic students' global competitiveness (NAFSA, 2020). International

students fostered cultural diversity on the U.S. campuses and prepared domestic students

to work in an increasingly globalized workplace (Ford, n.d.; Strauss, 2020). Furthermore,

more than half of U.S. universities will not be able to sustain themselves financially

without international student enrollment, given that a considerable number of

international students attend U.S. universities (Basu & Verma, 2020). For instance, more

than 20% of the student bodies in prestigious universities, such as Harvard (21.1%) and

MIT (28.9%), are international students (Fortinsky, 2019; MIT Facts, 2020).

In addition to economic and educational benefits, NAFSA (2020) also described

international students as "America's greatest foreign policy assets" for inspiring global

interconnectedness and incubating diplomacy through international education. Moreover,

National policymakers had overseen international educational exchange as an opportunity

to reconstruct international relations with other nations from the perspectives of

diplomacy and propaganda during the post-war years (O'Mara, 2012). Many US

employers supported international student internship programs for improving progress in

employment for US residents (e.g., higher productivity numbers, entrepreneurial

ventures, innovations) as well as supplying the industry with specialized skills that are in high demand (Rajan, 2020).

Despite these advantages in economy, education, and diplomacy, international students are often accused of "stealing American jobs" even though they are only allowed to work full-time under strict restrictions and certain programs (e.g., Optional Practical Training; OPT). For instance, international students have to maintain a valid F-1 visa for more than one year (excluding other types of student visas such as J-1 or M-1) while pursuing a degree (excluding non-degree programs and English language center) before applying for OPT. The employer, the department, and an international student advisor also have to verify that the job offer is directly related to the student's major. Other restrictions include work hours, weekly reports, and details related to students' field of study. Even if an international student is authorized to work under the OPT program, they are only allowed to work for one year (or up to three years if they work in STEM fields) then try the H-1B work visa lottery to change their status. H-1B visas may grant foreigners up to three years of employment (six years if the one-time extension request is accepted) until they have to ask their employers to sponsor them with a Green Card. Each of these steps costs hundreds to thousands of dollars to apply and foreign workers will be asked to leave the U.S. if their applications are denied.

Given the tedious and complicated process of applying for US work authorization, work opportunities for foreigners were already limited before the Trump administration attempted to cancel OPT in addition to work visa suspension in 2020 (Anderson, 2020). International students continued to face uncertainties around their opportunities to study and pursue a career in the U.S. (Rajan, 2020).

Declining Enrollment of International Students

International enrollment declined as the U.S. government tightened immigration regulations and visa issuance policies in response to several terror attacks in the U.S. since 1980, including the World Trade Center bombing in 1993 and the 9/11 attacks in 2001(Rosser et al., 2007). Specifically, the Student and Exchange Visitor Information System (SEVIS) was implemented shortly after the 9/11 attacks because several of the terrorists were on student visas (Rosser et al., 2007). Since then, international students and scholars were tracked nationally by the Department of Homeland Security (DHS) in the SEVIS database. The total international enrollment immediately dropped 2.4% during the 2003/2004 academic year when DHS completed the implementation of SEVIS. This decline continued until the late 2000s (IIE, 2019d).

In the 2015/2016 academic year, the U.S. broke a new record by hosting more than 1 million international students and scholars on campuses (1,043,839; IIE, 2019d). The new international enrollment for each year grew steadily over the past decade except for a 3% drop in 2016. Research has addressed President Donald Trump's anti-immigrant policies as one of the potential causes of this decline especially with the Muslim travel ban (Johnson, 2018). Since 2017, the Trump administration has issued a series of executive actions restricting entries of Muslim residents, building the U.S.-Mexico border wall, reducing refugee admissions, suspending the issuance of work visas, and deporting international students whose classes are entirely online amid the coronavirus pandemic. These xenophobic policies had a drastic effect on international enrollment. Within twelve months, Iran experienced a 92% decrease in visa issuance and Somalia experienced an 86% decrease. As international enrollment continued to shrink, many schools attributed

this trend to the Trump administration which discouraged foreign students to prioritize the U.S. as an ideal destination of studying abroad (Anderson & Svrluga, 2018).

Several surveys were conducted to investigate the decline in international enrollment after Trump's election. In IIE's annual "hot topics" survey (2018), higher education institution respondents across 49 states and the District of Columbia reported "visa delays and denials (83%)" and "the U.S. social and political climate (60%)" as two key factors to the declining international enrollment (IIE, 2018). In "The Student Experience during the Trump Era" report published by the University of California Student Association (Arroyos & Lieu, 2017), a first-generation Korean international student respondent shared his experience of "an initial culture shock superseding national and campus politics" right after the election derived from "a fear of racism and white supremacy" (Arroyos & Lieu, 2017, p.9). Another first-generation Italian international student reported, " overwhelming anxiety and fear of being an international student under an administration that is openly anti-immigrant" (Arroyos & Lieu, 2017, p.11). Both domestic and foreign respondents mentioned concerns around safety, mental health, and the lack of resources and multicultural spaces as they demanded universities to proactively protect students' safety and wellbeing (Arroyos & Lieu, 2017).

Suggestions from Educational Professionals

Scholars and education professionals had addressed their worries around losing international students who help drive the U.S. innovations and foster global competitiveness preparing domestic students for working in an increasingly globalized workplace (Batalova, 2007; Strauss, 2020). Many institutions had taken extra steps to respond to the shifting social and political climate (IIE, 2018), including "alerting

students about changes in U.S. policies (62%)", "increasing outreach to current and prospective international students (56%)", and "issuing statements in support of international students (48%)" (IIE, 2018). The Migration Policy Institute also pointed out the need for the U.S. to be more flexible to adjust to the modern "internationalization of higher education and increasing competition for foreign talent" (Batalova, 2007). Nevertheless, xenophobia has been perpetuated by the mainstream media, politicians, and authorities as a central part of American tradition that cannot be ignored. Education and mental health professionals should challenge xenophobic stereotypes as well as implementing effective interventions to protect international students in this historically xenophobic country. Hence, it is critical to understand the well-being and stress of international students before developing culturally sensitive steps to advocate for this underprivileged population.

International Student Mental Health

Mental health outcomes of international students are often measured as psychological wellbeing, which refers to "the combination of feeling good and functioning effectively" (Huppert, 2009, p. 137). Warr (2013) suggested that it is essential to measure both positive and negative themes to capture psychological wellbeing as a more adequate conceptual definition. Therefore, literature on mental illness and psychological adjustment was reviewed to offer a more holistic view of international students' wellbeing.

Mental Illness

Mental illness is often measured through negative psychological symptoms, including depression, anxiety, negative affect, general stress, and acculturative stress that

international students experience while adjusting to the U.S. culture. Researchers have identified depression and anxiety as two salient mental illnesses that are reported by international students across universities in the U.S. (Rice et al., 2012; Sümer et al., 2008). In one study examining predictors of depression and anxiety among international students, age was found to be a significant contributor to anxiety whereas English proficiency was found to contribute to both depression and anxiety (Sümer et al., 2008). English proficiency was also reported as a predictor of international students' academic performance and interpersonal relationships (Chen, 1999; Mori, 2000; Zhang & Goodson, 2011). International students with poor English proficiency tend to develop low self-esteem and feelings of shame as they struggle with understanding lectures, completing assignments, making friends, and interacting with locals (Barratt & Huba, 1994; Chen, 1999; Mori, 2000; Wei et al., 2008). Other studies indicated additional stressors such as cultural differences, acculturative stress, financial burdens, immigration concerns, and academic difficulties (Chang, 2008; Li & Lin, 2014; Smith & Khawaja, 2011; Ye, 2005).

Psychological Adjustment

Ward et al. (2001) criticized the common association between psychopathology and cross-cultural adjustment among immigrants and international students. They encouraged scholars to shift the focus to individuals' learning process and cultural strengths instead. Several studies have measured positive psychological wellbeing (i.e., psychological adjustment) to explore international students' resilience through satisfaction with life, interdependent happiness (i.e., collective way of well-being), cultural competency, and help-seeking attitudes (Anderson, 2018; Wei et al., 2010;

Yakunina & Weigold, 2011; Zhang & Goodson, 2011). These studies adopted a strength-based approach rather than psychopathology by assessing the positive aspect of the psychological wellbeing of international students rather than solely measuring negative psychiatric symptoms. This approach helps scholars explore the protective factors that foster international students' resiliency in sociocultural adjustment. Common predictors of international students' psychological adjustment were reported as stress, social support, English proficiency, years spent in the U.S., and acculturation (Zhang & Goodson, 2011).

Psychological Wellbeing of Asian and East Asian International Students

Asian students have reported more psychological stress and mental illness than European students or American students (Fritz et al., 2008; Han et al., 2013). Additionally, Asian international students in the U.S. reported a higher prevalence of mental illness (47.5% for depression and 48% for anxiety) compared to domestic students (12.8% for depression and 13% for anxiety; American College Health Association, 2010; Cheung, 2011). Asian international students reportedly experience more discrimination and cross-cultural barriers than their European counterparts due to cultural differences between Western and Asian cultures (Chataway & Berry, 1989; Sodowsky & Plake, 1992). For instance, traditional Asian culture adopts collectivism and an indirect communication style whereas Western culture emphasizes individualism and assertiveness (Park & Kim, 2008; Smith & Khawaja, 2011). These differences may cause frustration and stress for Asian international students especially when they have not developed a support system in a new country.

Among Asian international student groups, East Asian international students reported less flexibility in adjusting to cultural differences compared to South Asian international students (Frey & Roysircar, 2006). This may because South Asia contains more linguistic, religious, and ethnic diversity compared to East Asia given its complex history and geographical context (e.g., British colonization, economic and industrial growth; Frey & Roysircar, 2006). East Asian countries such as China, Korea, and Japan commonly share a similar cultural tradition of Confucianism which emphasizes the role and function of family, hierarchy systems, and corporateness (H. Y. Lee, 2008). Thus, scholars have suggested examining Asian subgroups due to cultural differences across Asian countries instead of aggregating all Asian ethnicities as a homogenous group, (Schmitt et al., 2003). East Asian international students appear to experience more acculturative stress and greater psychological distress because of the cultural distance between the U.S. Western culture and East Asia Confucianism culture.

In the broadly defined Confucianism culture, personal achievements are perceived collectively as both individual and family success (H. Y. Lee, 2008). Consequently, East Asians experience shame at both individual and family levels as they interpret personal failures as dishonors to family (Wang et al., 2018; Wong et al., 2014). This mindset also impacts the help-seeking behavior of East Asian international students. Studies reported that East Asian international students considered seeking counseling as "shameful and embarrassing" and underutilized college counseling services (Chen & Lewis, 2011; Li & Lin, 2014). Individuals who seek counseling or express mental health concerns would be viewed as "weak, crazy or not work hard enough" by their friends and family since counseling and mental illness are often socially stigmatized in most Asian groups. Thus,

collectivistic members usually feel more comfortable seeking social support (e.g., friends, family, groups that they are affiliated with) rather than professional support (counselors, professors; Fang, 2013; Wang et al., 2019).

In conclusion, East Asian international students are a minority population whose wellbeing needs to be further investigated along with the impact of both stressors (e.g., discrimination) and protective factors (e.g., acculturation). Although discrimination and acculturation were commonly studied in international student mental health research, limited studies were dedicated to East Asian international students. Shame or family shame has been studied by researchers in the field of Asian and Asian American mental health due to the collectivistic nature of Asian culture, but no study has examined this concept with East Asian international students. Therefore, the present study hopes to examine the relationships between wellbeing, discrimination, shame, and acculturation of East Asian international students in the U.S. Minority Stress Theory (Meyer, 2003) will be used to guide the current study for its unique conceptualization of the impact of social stigma on minorities' wellbeing through forms of minority stress.

<div align="center">Minority Stress Theory</div>

Wirth (1945) defined minority as "a group of people who are singled out from the others in the society in which they live for differential and unequal treatment because of their physical or cultural characteristics" (p. 347). This group is inferior and stigmatized for being the target of "collective discrimination" whereas a corresponding dominant group is enjoying a higher social status and greater privileges (p. 347). Stigmatized individuals are more likely to experience psychological stress and demonstrate psychopathology which leads to the internalization of stereotypes and prejudice.

Stereotypes are assumptions or generalizations about qualities of people affiliating with stigmatized groups (Devine, 1989). Prejudice occurs when people believe these stereotypes and judge the stigmatized groups based on assumptions instead of their real experience (Allport, 1954; Devine, 1989). Internalized stigma occurs when marginalized individuals begin to attach negative social meanings of stigma to their concept of self (Frost, 2011). For instance, racial and ethnic minorities experience internalized racism (Wester et al., 2006), women experience internalized sexism (Szymanski & Kashubeck-West, 2008), and sexual minorities experience internalized homophobia (Frost & Meyer, 2009).

Although stigma is socially constructed, individuals who are regularly and frequently exposed to social stigma may gradually internalize and apply stereotypes and prejudice to themselves resulting in self-devaluation and self-hatred (Cross, 1991; Gonsiorek, 1988). Frost (2011) described stereotypes and prejudice as interrelated as they both (a) stem from social stigma and (b) increase psychological stress for stigmatized individuals. Meyer (2003) proposed the Minority Stress Theory (MST) to explain the higher prevalence of mental disorders in sexual minorities with the emphasis on the harmful effects of stigma and prejudice. According to Meyer (2003), it is normal for minority populations to present a higher prevalence of psychiatric disorders because minorities are required to spend extra efforts to cope with the social stigma in which the majority have the privilege to avoid. He argued that scholars and clinicians should recognize external environmental factors including prejudice, harassment, and hate crimes (i.e., heterosexist discrimination) as potential causes of psychiatric illness as opposed to attributing the higher mental disorder prevalence to individuals' minority

status. The idea of shifting the focus from person to environment implies the message that professionals should stop over-pathologizing and stigmatizing sexual minorities but help reduce hostile environments.

Individuals experience psychological stress when they find their adaptive capacities insufficient for coping with environmental demands (Cohen et al., 1997). However, this definition does not specify the unique stress that is only experienced by minorities. Meyer (2003) defined "minority stress" as "the excess stress to which individuals from stigmatized social categories are exposed, often as a result of their social, often a minority position" (Meyer, 2003; p. 675). Researchers had mentioned the concept of minority stress and discussed its negative impact on the wellbeing of minority individuals for exhausting their adaptive capacities in addition to coping with general stress (Dohrenwend, 1998; Friedman, 1999; Meyer, 1995). Past studies described minority stress as (a) unique (i.e., minority stress is derived from stigmas associated with one's minority identity and status, and therefore should be distinguished from general stress that is experienced by all people); (b) chronic (i.e., minority stress is relatively stable and systematically constructed for stemming from underlying social and cultural structures); (c) socially based (i.e., minority stress is a phenomenon rooted in social processes, institutions, and structures instead of individual events or conditions that are considered general stressors; Meyer, 2003). Based on these three assumptions, Meyer proposed the Minority Stress Theory (MST; see Figure 1) to explain the influences of stress and coping on minority individuals' mental health outcomes.

An Overview of the Model

The Minority Stress Theory (MST) contains nine key elements: (a) circumstances in the environment, (b) minority status, (c) general stressors, (d) distal minority stress processes, (e) minority identity, (f) proximal minority stress processes, (g) characteristics of minority identity, (h) coping and social support, and (i) mental health outcomes. Some of these elements are interdependent as they intersect with each other and directly or indirectly impact the wellbeing of minority individuals.

Circumstances in the environment. Meyer (2003) argued that minority stress is "situated within general environmental circumstances" (p.681) as stigma is a socially constructed product integrated into our everyday life. For international students, classrooms, on-campus part-time jobs, authorized off-campus practicums or internships (e.g., curriculum practical training; CPT), residential life, and extracurricular activities may be potential environments where they experience minority stress under certain circumstances.

Minority status. Song (2020) argues that "minority status cannot be straightforwardly discerned on the basis of one's physical appearance alone, in isolation from one's lived life" (p.14). In other words, minority status should not be limited to racial and ethnic status (e.g., "non-White") because people can be marginalized in various forms of minority status such as sexual orientation and gender (Meyer, 2003; Song, 2020). From this perspective, minority identity can be defined as "a category of people who experience relative disadvantage in relation to members of a dominant social group" (Song, 2020; p14).

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Minority Identity. Minority identity refers to " personal identification with one's minority status" (Meyer, 2003, p.8) and can be consistent or inconsistent with minority status. For example, others may perceive a woman who is in a romantic relationship with another woman as lesbian (i.e., minority status) whereas this individual might not self-identify as lesbian (i.e., minority identity). "Asian international student" is a minority status that this group no longer holds once they return to their home countries as their power and status shift depend on the environments. In sum, "minority status" is generally how others perceive and classify the minority individual whereas "minority identity" is how this minority individual perceives oneself.

General stressors. People are exposed to general stressors within circumstances in the environment (e.g., a job loss, family death, etc.). For instance, college freshmen may experience general stressors such as academic stress or homesickness as they adjust to college life.

Distal minority stress processes/Distal minority stressors. Distal minority stressors refer to objective stressors that do not depend on individuals' perceptions or appraisals and are directly related to individuals' minority status, including violence, discrimination, and other prejudice events (Meyer, 2003). These stressors are unique for minority individuals' status and occur in their daily environments such as discrimination in employment.

Proximal minority stress processes/Proximal minority stressors. Proximal minority stressors are more subjective and related to individuals' minority identities which vary socially and personally as they involve self-perceptions and appraisals (Meyer, 2003). For instance, some sexual minorities "may be vigilant in interactions with

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others (expectations of rejection), hide their identity for fear of harm (concealment), or internalize stigma (internalized homophobia)" (Meyer, 2003, p.5).

Characteristics of minority identity. Prominence (or salience), valence, and level of integration with the individual's other identities can augment or weaken the impact of stress on minority individuals' wellbeing (Meyer, 2003). For example, international students' adherence to the culture of their home country as well as American culture may impact the support that they obtain to cope with minority stress.

Coping and social support. Coping and resilience are found to be helpful for minority individuals to respond to prejudice (Allport, 1954; Clark et al., 1990; Meyer, 2003). Minority identity can be a strength that ameliorates the impact of stress and fosters minorities' support systems through in-group acceptance, a sense of belongingness, and affinity communities (Postmes & Branscombe, 2002). Meyer (2003) distinguishes individual-level coping from group-level coping as individual resources vary by people whereas group resources are available to all minority members. Most personal coping mechanisms are developed to (a) manage the emotional aspect of the stress experience (e.g., meditation) or (b) modify the circumstances of the source of the stress (e.g., changing jobs to avoid discrimination; Frost, 2011). Minority individuals can also benefit from group-level coping as their affiliations with minority groups allow them to experience social environments in a non-stigmatized way and gain support to respond to social stigma (Jones et al., 1984).

Mental health outcomes. The above factors and the interrelationships between each other impact the wellbeing of minority individuals both positively and negatively. Frost (2011) extended Meyer's model and further elaborated on the outcomes of minority

stress. He describes positive outcomes as "positive marginality (i.e., reclaiming minority status as an advantage instead of a disadvantage), social creativity (e.g., enhancing community connectedness, manifesting activism), and attempts at social change." Negative outcomes may be reflected through "mental health, physical health, academic or job performance, and relationships (Frost, 2011, p.18). Additionally, coping and social support moderates the way minority individuals respond to minority stress. Individuals who are equipped with healthy coping mechanisms and community resources may present more resilience than those who have less coping and support. Individual and group support serves as the protective factor which ameliorates minority stress for minority members.
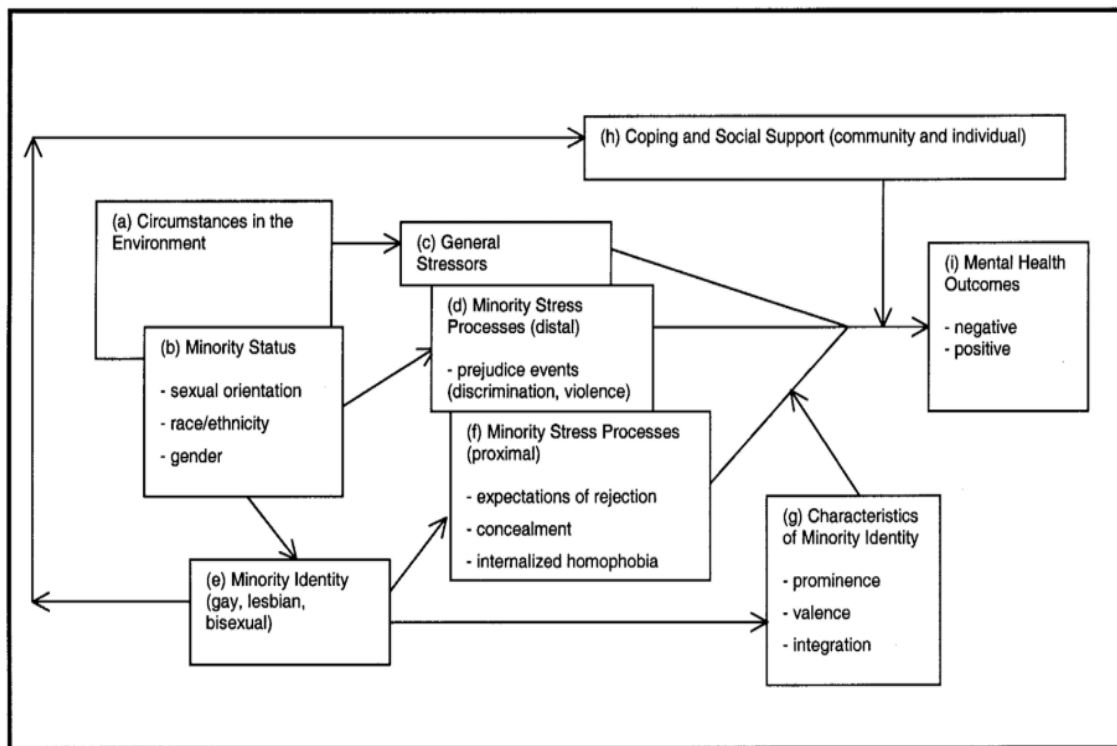

Figure 1. Minority Stress Theory.

MST acknowledges hostile and stressful environments as the primary sources causing mental health problems among minority groups. The ongoing battle between

minority populations and social stigma has prompted scholars to investigate the causes and outcomes of social stigma. Herek (2009) defined stigma as ''the negative regard, inferior status, and relative powerlessness that society collectively accords to people who possess a particular characteristic or belong to a particular group or category'' (p. 441). From a cognitive perspective, social stigmas can be viewed as negative beliefs that are developed within social structures targeting certain populations. Social structures are defined as "distal concepts whose effects on an individual depend on how they are manifested in the immediate context of thought, feeling, and action—the proximal social experiences of a person's life" (Lazarus & Folkman, 1984; p. 321). When a particular group is stigmatized, members of this group are marginalized both individually and organizationally compared to the non-stigmatized. On one hand, stigmatized groups experience hostility through everyday discrimination and stereotypes associated with their inferior status (Frost, 2011). On the other hand, they are preventing from fully accessing the benefits to rights, freedom, and opportunities like their non-stigmatized counterpart as laws, policies, and institutions are structured in exclusive ways reflecting social stigma (Frost, 2011). Although this model was originally developed to explain the higher prevalence in sexual minorities, scholars have used it to investigate minority stress among underrepresented college students such as students of color and international students (Wei et al., 2010, 2011). The next section will elaborate on college students' experiences with social stigma through the lens of minority stress.

Minority Stress of College Students

A positive university environment is crucial for minority students' persistence in college (Bennett, 1995). Existing literature indicates that minority stress negatively

impacts the psychological wellbeing and college retention of racial and ethnic minority students (Wei et al., 2010). Students of color often experience psychosocial and emotional challenges related to their minority status within institutions of higher learning (Hastings & Boone, 2009). Their transition to college can be stressful as they (a) are usually the only ethnic minority student in a classroom if attending a predominately White institution, (b) might not be able to find ethnic minority faculty mentors or role models on campus, and (c) experience more discrimination and prejudice than their White peers (Hastings & Boone, 2009; Nora & Cabrera, 1996).

Minority stress is found to explain significant variance in ethnic minority students' psychological distress beyond general life stresses (Smedley et al., 1993), which contributes to the overall negative perception of the university environment (Wei et al., 2011). Moreover, experiencing a negative campus climate may push minority students out of college (Arbona & Jimenez, 2014; Hurtado et al., 1999). Lee (2003) described racial and ethnic discrimination as a lifelong struggle for people of color in the U.S.Therefore, it is important to explore the impact of minority stress on college students of color to foster minority students' academic success as well as an inclusive university environment.

Black college students. Minority stress appears to negatively impact Black and African American students' wellbeing. In a quantitative study investigating minority status stress and mental health among Black undergraduates, minority status stress was found to negatively predict mental health (McClain et al., 2016). Increased stress levels may lead to unhealthy coping if minority individuals do not receive sufficient support. In one quantitative study examining the stress and coping experiences of Black college

students, race-related stress was found to contribute to risky alcohol use behaviors (Pittmana et al., 2019). The same study also reported acculturative stress as a significant predictor of coping-motivated drinking behaviors (i.e., individuals consume alcohol to regulate emotional experiences) (Pittmana et al., 2019). With increased stress and inadequate support, Black students may report low academic persistence intentions and graduation rates (Brown et al., 2005; Neblett et al., 2006). However, McClain et al. (2015) found that ethnic identity was a significant positive predictor of mental health among Black college students. This finding echoes Meyer's (2003) claim that minority identity can be a strength facilitating minority individuals' coping through forms of community connectedness and social support.

Latinx college students. Similar to Black students, Latinx/Hispanic college students also reported experiences with minority stress that result in negative wellbeing. Studies indicated that minority stress may generate feelings of alienation (Oliver et al., 1985), depressive symptoms, low self-esteem (Abber, 2002), somatization, anxiety, hostility (Alamilla et al., 2010), and college dropouts (Fry, 2004) among Latinx/Hispanic college students. Cheng and Mallinckrodt (2015) described Hispanic/Latino college students experiencing racial/ethnic discrimination as "at-risk" for developing posttraumatic stress (PTSD) symptoms and maladaptive alcohol use. In a study with Latinx undergraduate students, negative perceptions of the campus climate and academic achievement stress significantly predicted depression (Arbona & Jimenez, 2014). Other areas of minority stress include perceived racism, racial/ethnic discrimination, and stereotype concerns reported by Latinx/Hispanic college students (Alamilla et al., 2010; Fry, 2004; Ojeda et al., 2012). Although Latinx/Hispanic students are a stigmatized group

on campus, traditional cultural values such as Familismo (familism), Respeto (respect and deference paid to an individual's position), Religiosidad (religiosity; the belief in greater power and prayer), and traditional gender roles are significant predictors of resilience (Morgan Consoli & Llamas, 2013). Scholars have suggested that certain Mexican American cultural values may serve as cultural strengths for Latinx/Hispanic people to manage minority stress (Morgan Consoli & Llamas, 2013).

Asian college students. Asian American college students reported the highest levels of psychological distress while holding more stigmatized views toward mental illness and counseling than their White counterparts compared to White, Latinx, and African American college students (Kearney et al., 2011; Rao et al., 2007). Unlike their Black and Latinx/Hispanic peers, Asian Americans are stigmatized as model minorities "achieving the American Dream through hard work, perseverance, and extreme levels of individual effort and sacrifice" (Hartlep, 2013; p. xvi). Model minority stereotypes are harmful for (a) implying that hard work alone may overcome any obstacles including racial discrimination; (b) invalidating the struggles of other minority groups (e.g., "they do not work hard enough to succeed"); and (c) disciplining other people of color while maintaining White supremacy and colorblindness (e.g., neglecting racial gaps and upholding Whiteness; Poon et al., 2016). The model minority myth not only bolsters racism but also stereotypes Asian Americans as "problem-free high achievers" (Poon et al., 2016; Suzuki, 2002, p.29). Liang et al. (2004) indicated that minority stress was negatively associated with self-esteem and positively associated with psychological distress among Asian Americans. Specifically, racial discrimination stress was reported as a significant predictor of depression among Asian Americans after controlling for

general stress and perceived discrimination (Wei et al., 2010). However, family support can provide a buffer against stress, racial discrimination, and psychological distress for Asian American students (Wei et al., 2010, 2013).

Minority Stress of International Students

Meyer (2003) emphasized both "minority stress" and "coping and social support" as two salient factors together impacting minorities' mental health negatively and positively. Although very little research has been dedicated to testing the Minority Stress Theory (MST) among the international student population, a few scholars have investigated the concept of minority stress within this population in the areas of acculturation and discrimination. Other scholars have also examined factors that help international students cope with minority stress such as social support. Therefore, the following sections will cover the findings from studies examining minority stress and coping among international students including Asian and East Asian international students.

Acculturation. The concept of acculturation emerged when researchers explored the processes that immigrants undergo to settle down in a foreign country. Acculturation was originally defined as a unidimensional model explaining how migrants adopt the host country's culture while discarding their heritage culture, which would be viewed as "assimilation" from a modern perspective (Berry, 2005; Schwartz et al., 2010). However, researchers later discovered the possibility for migrants to adjust to the host culture while maintaining the beliefs and traditions of their heritage culture (Goldberg, 1941; Green, 1947). The idea that one can integrate both cultures prompted scholars to study the levels of migrants' adherence to both the host culture and their culture of origin, which

modified acculturation as a bi-dimensional process. Currently, acculturation is usually

defined as a dual process of cultural and psychological changes including various forms

of mutual accommodation (e.g., cultural attitudes, values, behaviors) as a result of

interacting between two distinctive cultures (Berry, 2005). These two dimensions guide

conceptual definitions of acculturation, which contain four acculturation categories:

assimilation (adopting the host culture and discarding the heritage culture), separation

(rejecting the host culture and retaining the heritage culture), integration (adopting the

host culture and retaining the heritage culture), and marginalization (rejecting both the

heritage and host cultures).

   Scholars began to apply the acculturation model to international students who

temporarily migrate to a foreign country and acquire cross-cultural immersion experience

(Atri et al., 2007; Dao et al., 2007; Gholamrezaei, 1997; Kashima & Loh, 2006).

Researchers reported that higher levels of adherence to the host culture predicted less

mental illness, better psychological adjustment, and better sociocultural adjustment (Li et

al., 2013; Wang & Mallinckrodt, 2006; Zhang & Goodson, 2011). This finding is

consistent with another study (Wang et al., 2015) indicating that social connection with

mainstream society better predicted Chinese students' satisfaction with life trajectories

than social connection with one's ethnic community. Smith and Khawaja (2011)

emphasized the importance of local relationships as international students who were able

to make friends in the host country locally demonstrated better adjustment outcomes.

With the establishment of local friendships, international students receive more social

support and resources while developing higher self-esteem and social efficacy. These

positive experiences thus lead to successful adaption for international students acculturating to the host culture.

However, Asian international students reported more difficulties making friends with locals compared to their European counterparts due to language anxiety, cultural differences, and different interpersonal styles (Park & Kim, 2008; Smith & Khawaja, 2011; Yeh & Inose, 2003). Asian international students face more cross-cultural barriers compared to European international students while undergoing the acculturation process (Chataway & Berry, 1989; Smith & Khawaja, 2011). Berry (1997, 2005) defines the stress that results from the acculturation process as acculturative stress, which usually emerges from the incongruence between one's ethnic-cultural values and that of the dominant culture. This concept was proposed to highlight the affective aspect of acculturation, which emphasizes psychological well-being, life satisfaction, and emotional distress.

Coming from a collectivistic background, Asian international students report more difficulties in making American friends compared to their European counterparts due to the different interpersonal styles between Asia and the U.S. (Park & Kim, 2008; Smith & Khawaja, 2011). With limited support, Asian international students often experience higher levels of anxiety, lower self-efficacy in English, more perceived discrimination, depression, chronic stress, loneliness or alienation, and less social support upon socializing into the American context (Chapdelaine & Alexitch, 2004; Chataway & Berry, 1989; Chen, 1999; Ye, 2005). Other acculturative stressors include language barriers, cultural misunderstandings, racial discrimination, loss of social support, academic stress resulted from a strong desire to pursue good grades, education stressors

(e.g., the unfamiliar U.S. educational system), practical stressors (e.g., issues of accommodation and transportation), and sociocultural stressors (Liao & Wei, 2014; Smith & Khawaja, 2011; Tung, 2011).

Discrimination. Discrimination is defined as one's perception of receiving differential or negative treatment of being subject to prejudice due to their racial minority status (de Araujo, 2011). Studies have shown a strong association between perceived discrimination and mental health issues among international students (Hanassab, 2006; Zhang & Goodson, 2011). International students of color usually experience more discrimination than White international students and thus have experienced more systemic oppression than their White international counterparts (Constantine et al., 2005; Hanassab, 2006; Wei et al., 2012). Discrimination is identified as a distal minority stress process in Meyer's model (2003), which is associated with negative mental health outcome among international students such as depression, anxiety, and lower satisfaction with life (Sam, 2001; Jung et al., 2007; Wei et al., 2012). Moreover, Asian international students can be discriminated against both racially and nationally for holding two minority status as a foreigner of color (i.e., dual minority stress). To better understand the impact of discrimination on international students' wellbeing, the following paragraphs will discuss racial and national discrimination as a cause of international students' minority stress.

Racism has been an obstacle threatening the wellbeing and survival of international students and scholars since the international education exchange started in the nineteenth century. American universities in the early nineteenth century were considered not well prepared for foreign students due to their racially exclusive climate

(Fraser & Brickman, 1968, pp.293-295). One of the studies mentioned a case of a wealthy young Haitian man who was rejected by hotels in New York City due to his skin color (Bevis & Lucas, 2007, pp. 36-37). Filder (1832, p.46) addressed the lack of career opportunity for foreign scholars and suggested that students of color in Europe were treated more respectfully and felt securer. Foreign students appeared to struggle with discrimination in addition to academic stress and cultural adjustment to the U.S. culture from the beginning of the study abroad trend.

Despite the progressive development of the U.S. educational systems since the nineteenth century, international students nowadays still experience everyday discrimination in the U.S.Approximately 70% of international students reported that they had personally experienced discrimination or heard about others' experiences with discrimination (Klineberg & Hull IV, 1979). Discrimination continues to threaten international students' well-being to the present day. In a 2019 survey of approximately 2000 international students, 31 percent reported that they had personally experienced discrimination and 40 percent of East Asian students (particularly Chinese) faced nationality-based discrimination (Skinner et al., 2019). Studies have shown that White international students from Canada, Europe, and New Zealand reported more positive experiences in comparison to international students of color from South East Asia, South Asia, the Middle East, and Latin America (Chavajay & Skowronek, 2008; Lee & Rice, 2007; Sodowsky & Plake, 1992). Experiences with discrimination not only cause stress to international students but also changes their perception of the country. International students who have been discriminated against at a personal and institutional level tend to

develop damaged self-esteem and learned helplessness which ruins their previous idealized impression of the U.S. (Sandhu & Asrabadi, 1994).

Asian international students often experienced stress due to feeling rejected and discriminated against in the U.S. (Chavajay & Skowronek, 2008). Within the framework of MST, incidents of microassault, microaggression, or discrimination are conceptualized as distal minority stress processes for minority individuals. Meanwhile, minorities respond to these external events with internal processes such as emotional distress and self-doubts (i.e., proximal minority stress processes). This finding echoed another study indicating discrimination and prejudicial attitudes produced identity gaps as international students received negative perceptions of themselves from the environment (Jung et al., 2007). From an appraisal perspective, individuals construct their own identities based on perceptions and evaluations of lived experiences including external events and others' feedback. Based on experiences with discrimination, Asian international students are more likely to internalize the social stigmas associated with their dual minority status (i.e., international students of color). In other words, Asian international students may begin to perceive themselves negatively (e.g., feeling ashamed) as they are exposed to various forms of social stigma including discrimination and microaggression.

Shame. Shame is a painful feeling that involves guilt, embarrassment, and negative self-evaluation. Individuals often experience shame when they attribute frustration and failures to themselves then sabotage their self-worth and self-perception accordingly (Matheson & Anisman, 2009; Wong et al., 2014). Shame has been reported as a common response to discrimination as victims often experience discrimination as an explicit rejection or personal failure without attributing the hostile event to external

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factors (e.g., prejudice, systematic oppression; Matheson & Anisman, 2009). Furthermore, it may be difficult for the victims to respond to or confront the discriminatory events due to power differential (e.g., employer vs. employee) or the ambiguous nature of discrimination (e.g., determining if a job rejection has anything to do with racial biases). It is possible that one may internalize discrimination as personal shortcomings and experience the feeling of shame for causing the rejection (e.g., "I was rejected because I am not good enough."). This concept appears to align with the relationship between distal and proximal minority stressors as discrimination may be internalized as shame for minority populations.

In Asian cultures, the concept of shame is more collectivistic as individuals' achievements and failures also represent their family, teachers, and the groups that they are affiliated with (Wang et al., 2018). Studies indicated that Chinese, Japanese, Taiwanese, Koreans, and other Asian groups are concerned about "losing face" (i.e., failing to preserve a positive self-image) which leads to shame and loss of social status (Wang et al., 2019; Yakunina & Weigold, 2011). Wong et al. (2014) introduced the concept of interpersonal shame which refers to the experience of shame arising from interpersonal concerns, and consists of external shame (resulting from concerns about others' negative evaluations of the self) and family shame (resulting from perceptions that one has brought shame to one's family; Wong et al., p.4). Wang et al. (2018) indicated that Asians who experienced greater family shame reported more psychological distress when perceiving discrepancies between personal and family standards. Shame appears to be a collectivistic concept for traditional Asians, which may cause stress to Asian international students when encountering shameful events (e.g., discrimination).

Asian international students' perception of shame appeared to impact their wellbeing and support seeking. East Asian international students appeared to consider seeking counseling as shameful or negative and therefore demonstrate less intention in seeking professional help (Yakunina & Weigold, 2011). Furthermore, scholars have addressed the association between shame and negative psychological outcomes such as depression, suicidality, social withdrawal, and passive avoidance (Chao et al., 2011; Kim et al., 2011; Lester, 1997; Wang et al., 2018). Shame appears to be a critical factor that requires further investigation when studying East Asian international students' mental health.

The above literature review suggested that Asian international students appeared to experience greater psychological distress amidst their acculturation to the U.S. Scholars have addressed the issue of "dual minority stress" for individuals who hold two minority statuses and face discriminatory events associated with each status (Chen & Tryon, 2012). East Asian international students are especially vulnerable to being discriminated against both racially and nationally in the U.S. However, no studies have investigated East Asian international students' dual minority stress nor their sources of support using Meyer's MST. In fact, international students do not receive much research attention in the field of counseling psychology. Among the 6,191 studies published in counseling psychology-related journals between 1980 and 2014, only 1.37% focused on international students (Pendse & Inman, 2016). The majority of these studies reported a variety of general adjustment issues and urged higher education institutes and mental health professionals to implement effective interventions to assist Asian international students. Thus, the present study is aimed to fill the gap in international student research

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by examining East Asian international students' psychological wellbeing with the focuses on discrimination, shame, and acculturation.

Purpose of the Present Study

The purpose of the present study is to better understand the roles of minority stress and acculturation in the psychological wellbeing of East Asian international students in the U.S. Additionally, no study has adopted the Minority Stress Theory (Meyer, 2003) to examine East Asian international students' minority stress as well as their resilience. This study hopes to shed some light on recognizing East Asian international students' unique struggles in managing dual minority stress while using their cultural strengths as healthy coping mechanisms. The following hypotheses will be tested:

Hypothesis 1) There will be a significant, negative correlation between discrimination and mental health outcomes.

Hypothesis 2) There will be a significant, negative correlation between shame and mental health outcomes.

Hypothesis 3) Acculturation will moderate the relationship between discrimination and wellbeing.

Hypothesis 4) Acculturation will moderate the relationship between shame and wellbeing.
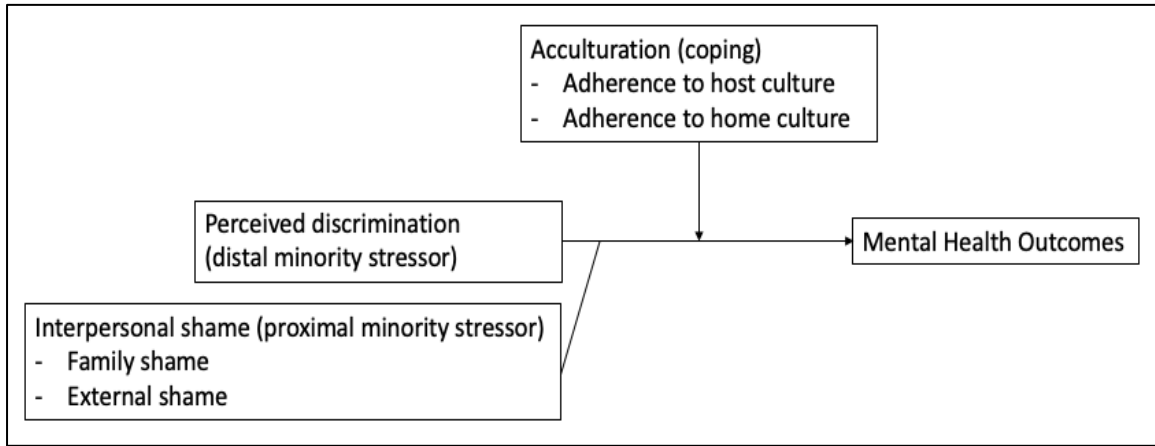
Figure 2. Research Model.

CHAPTER TWO: METHOD

Using minority stress theory (MST; Meyer, 2003) as the theoretical framework, this quantitative study examined (a) the associations between discrimination (i.e., distal minority stressor), shame (i.e., proximal minority stressor), and psychological wellbeing (i.e., mental health outcomes) of East Asian international undergraduate students in the U.S., and (b) the potential moderating effects of acculturation on the association between minority stressors and wellbeing. UNESCO defines international students as "students who have crossed a national or territorial border for the purposes of education and are now enrolled outside their country of origin" (UNESCO, 2006, p.178). To expand this definition, I define East Asian international students as students who are originally from East Asian countries (e.g., China, Japan, Korea, Taiwan) and have crossed a national border for the purposes of education and are currently enrolled outside their country of origin.

Meyer (2003) described the three processes of minority stress from the distal to the proximal as (a) external, objective stressful event and conditions that are chronic and acute, (b) expectations of the events and the vigilance caused by these expectations, and (c) the internalization of social stigma. East Asian international students may encounter discrimination constantly and chronically (i.e., distal minority stressor) and thus develop a negative evaluation of the self (i.e., shame). In the present study, discrimination is hypothesized as a distal minority stressor whereas shame is hypothesized as a proximal

minority stressor. This study hypothesizes that East Asian international students may internalize everyday discrimination as shame while interpreting discriminatory events as rejections and failures.

Moreover, acculturation, including adherence to both host and heritage culture, is examined as a moderator in the relationship between discrimination and wellbeing. Minority stress theory (2003) includes "social support and coping" as a moderator impacting the relationship between distal minority stress processes and mental health outcomes. Existing literature has emphasized the unique role of acculturation when studying East Asian international students' wellbeing (Li et al., 2013; Mason, 2017; Zhang & Goodson, 2011). Therefore, moderation analyses were conducted to examine levels of acculturation as potential moderators of the relationship between discrimination and mental health. This chapter will describe the participants, measures, procedures of data collection, and the plan for data analysis.

Participants

Participants were undergraduate students who: (a) are 18 years old or older, (b) identify as international students (i.e., F-1 student visa holders), (b) are currently enrolled at a U.S. college or university as a full-time student, (c) do not hold a US citizenship or US residency, and (d) are originally from East Asia. The Institute of International Education (IIE) lists East Asian countries as China, Hong Kong, Japan, Macau, Mongolia, North Korea, South Korea, and Taiwan in their annual reports (1950-2020).

The final sample consisted of 281 East Asian international undergraduate students. The demographic statistics are presented in Tables 1 and 2.

Table 1

Demographic Characteristics of the Sample (N = 281)

Variable		n	%
Year in College	Freshman	27	9.6
	Sophomore	87	31.0
	Junior	63	22.4
	Senior	87	31.0
	I prefer not to answer.	15	5.3
	Missing	2	.7
Location of Institution	Midwest	72	25.6
	Northeast	74	26.3
	South	92	32.7
	West	40	14.2
	I prefer not to answer.	1	.4
	Missing	2	.7
Place of Origin	China	103	36.7
	Hong Kong	7	2.5
	Japan	47	16.7
	Korea	12	4.3
	Macau	1	.4
	Mongolia	1	.4
	Taiwan	16	5.7
	I prefer not to answer.	94	33.5
Gender	Man	99	35.2
	Woman	114	40.6
	I prefer not to answer.	68	24.2
Ethnicity	Hakka	18	6.4
	Han/Chinese	57	20.3
	Hokkien/Minnan People	23	8.2
	Hongkonger	15	5.3
	Indigenous	3	1.1
	Joseonin	15	5.3
	Yamato	42	14.9
	Other	7	.02
	I prefer not to answer.	101	35.9

First Language	Cantonese	8	2.8
	English	13	4.6
	Japanese	45	16.0
	Korean	11	3.9
	Mandarin Chinese	83	29.5
	Mongolian	1	.4
	Taiwanese	24	8.5
	Other	2	.8
	I prefer not to answer.	94	33.5
Sexual Orientation	Heterosexual/Straight	152	54.1
	Gay	12	4.3
	Lesbian	15	5.3
	Bisexual	5	1.8
	Other	5	1.8
	I prefer not to answer.	92	32.7
English Fluency	Very High	85	30.2
	High	126	44.8
	Average	59	21.0
	Low	10	3.6
	Missing	1	.4
Major	Agriculture	8	2.8
	Business and management	29	10.3
	Education	8	2.8
	Engineering	46	16.4
	Fine and applied arts	22	7.8
	Healthcare professions	24	8.5
	Humanities	12	4.3
	Intensive English study	5	1.8
	Math and computer science	31	11.0
	Physical and life science	40	14.2
	Social sciences	43	43
	Other	6	2.2
	Undecided/undeclared	2	.7
	Missing	2	.7
First-generation Status	Yes	158	56.2
	No	115	40.9
	Other	3	1.1
	I prefer not to answer.	3	1.1
	Missing	2	.7

First-generation International Status	Yes	200	71.2
	No	75	26.7
	Other	1	.4
	I prefer not to answer.	3	1.1
	Missing	2	.7

Note. *N* = 281

Table 2

Demographic Characteristics of the Sample (Scale Variables)

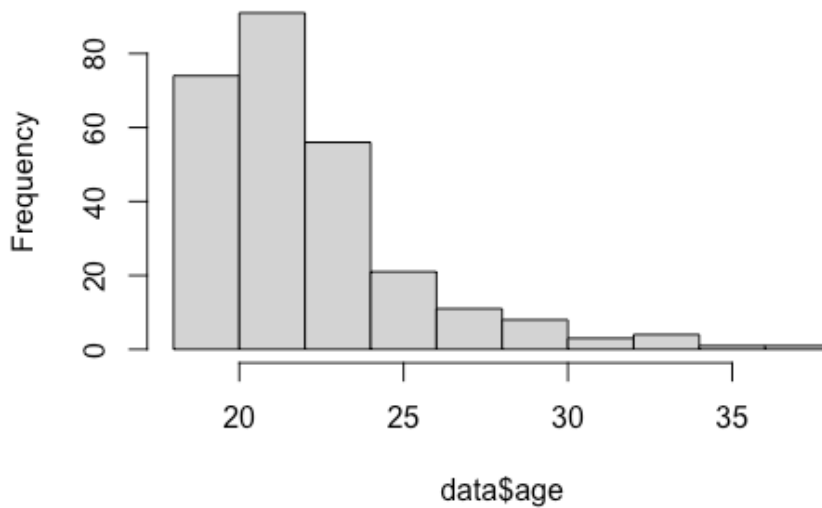|	N	M	SD	Min	Max	Range
Age	270	22.49	3.22	18	38	20
Years of Attending Schools in the U.S.	254	3.95	2.34	1	18	17
Years of Living in the U.S.	255	4.83	3.47	0	20	20

Figure 3

Histogram of Age

Figure 4
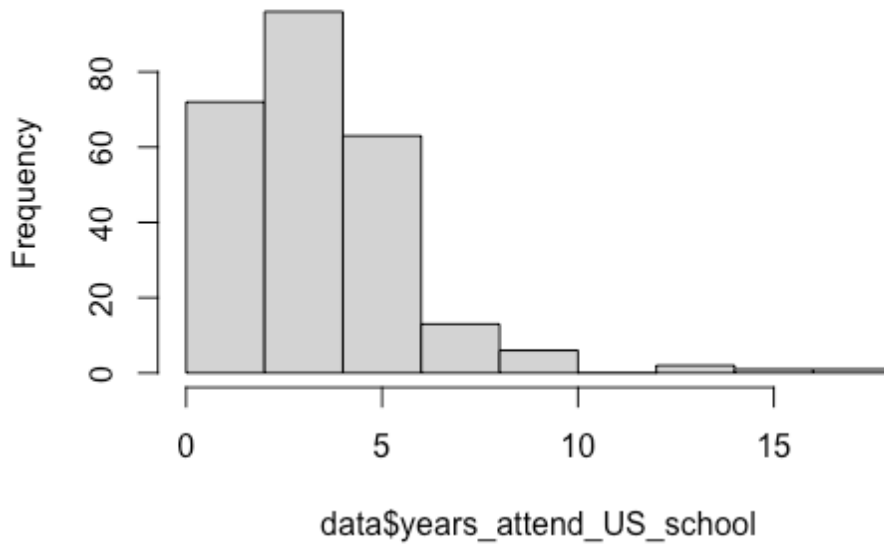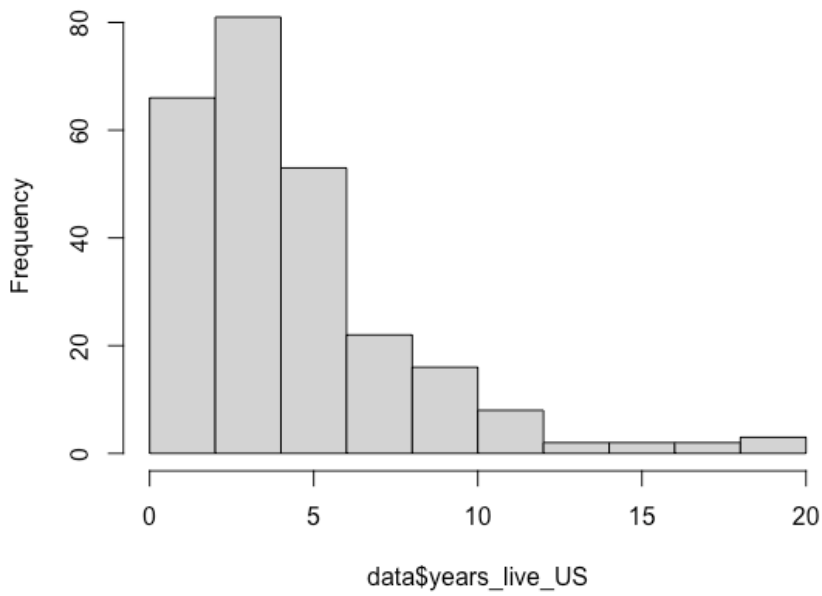
Histogram of Years of Attending School in the U.S.

Figure 5

Histogram of Years of Living in the U.S.

Participants and Procedure

An anonymous online survey was distributed through Qualtrics. The survey included a brief description of the study, the study measures, a demographic questionnaire, and a consent form. All data were collected online, anonymously, and voluntarily to ensure the trustworthiness of the responses and the safety of data. Validity check items were included to detect random or careless responses. 680 responses were collected through emailing professional psychology organizations and university student clubs, messaging international student organizations, and posting recruitment flyer on social media (Instagram and Facebook), promoting the study during an international student mental health discussion (live stream) with a national organization (International Student Voice), contacting the international student and scholar services at different universities, reaching out to instructors to invite their students for participation, and word of mouth. Data collection lasted for about two months (12/07/2020 to 02/04/2021) with the majority of data collected over December through mid-January.

A list of approximately 700 international student organizations and East Asian student clubs was generated and contacted based on (a) the top 25 institutions that host the most international students according to the report by IIE (2019) and (b) the top 10 leading places of origin of the 2018/2019 international enrollment (IIE, 2019c). Specifically, China, South Korea, Taiwan, and Japan were identified as the leading countries of international enrollment in the U.S. New York University, University of Southern California, Northeastern University – Boston, Columbia University, University of Illinois - Urbana-Champaign, Arizona State University – Tempe, University of

California - Los Angeles, Purdue University - West Lafayette, University of California - San Diego, Boston University, University of California – Berkeley, University of Texas – Dallas, Pennsylvania State University - University Park, University of Washington, University of Michigan - Ann Arbor, Carnegie Mellon University, University of California – Irvine, University of California – Davis, Ohio State University – Columbus, Cornell University, University of Wisconsin – Madison, Texas A&M University - College Station, SUNY University at Buffalo, University of Pennsylvania, and Michigan State University were targeted as the institutions hosting the most international students in the 2018-2019 academic year (IIE, 2019d). A recruitment email was sent to approximately 700 international student-affiliated/East Asian-affiliated organizations throughout the data collection process.

To promote the study, an international student mental health discussion was held on January 7th, 2021 as an Instagram live stream in collaboration with the International Student Voice (i.e., a national organization aimed to support and guide international students in the U.S. with the focus on academic achievement and wellbeing). The anonymous survey link was left in the caption for the audience to access the survey voluntarily. In addition to data collection, the live stream offered a space for international students to ask questions, discuss the xenophobia and racist incidents in relation to the COVID-19 pandemic (e.g., stigmas around wearing masks and the offensive term "Chinese virus"), normalize their stress with taking online classes and visa concerns, and learn about healthy coping skills.

Participants were also recruited from professional email listservs of professional organizations such as the American Psychological Association (APA) Division 17

(Counseling Psychology), International Section of Division 17, Vocational Psychology of

Division 17, and APA Division 52 (International Psychology). Other channels included

posting flyers on social media (e.g., Facebook Group of International Mentoring and

Orientation Committee of Division 17) and word of mouth. International student and

scholar services offices at universities were also contacted, however, the majority

declined or did not respond to the invitation due to strict IRB policy restrictions. The final

sample contained 281 East Asian international undergraduate students.

Measures

Psychological wellbeing. Psychological wellbeing was measured using the MHI-

5, a five-item version of the full 38-item RAND Mental Health Inventory (Berwick et al.,

1991; Veit & Ware, 1983), which had been tested with college students including

ethnically diverse undergraduates and East Asian international students (Cokley et al.,

2013; Hartley, 2011; Ogunyemi & Mabekoje, 2007; Park et al., 2014). Respondents were

asked to report how long within the past month they have felt (1) nervous, (2) calm and

peaceful, (3) downhearted and blue, (4) happy, and (5) so down in the dumps that nothing

could cheer them up on a 6-point Likert scale ranging from 1 ("*all of the time*") to 6

("*none of the time*"). Items 2 and 4 were reversed scoring. Scores were averaged with

high scores indicating better mental health (Ritvo et al., 1997). The MHI-5 has been

shown to produce similar reliability and validity statistics as the full MHI-38. A

Cronbach's alpha ranging from .76 to .85 was also reported with evidence of convergent

and discriminant validity (Cokley et al., 2013; Hartley, 2011; Park et al., 2014; Ritvo et

al., 1997). When comparing with MHI-18, GHQ-12 (12 item-General Health

Questionnaire), GHQ-30, and SSI-28 (28-item Somatic Symptom Inventory) for

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detecting symptoms of depression, anxiety, and other affective disorders, the MHI-5 was characterized as a better tool than the SSI-28 and performed as well as the MHI-18 and the GHQ-30 (Berwick et al., 1991). The MHI-5 has also been shown to have similar psychometric properties as GHQ-12 and had a strong positive correlation with the GHQ-12 ($r = .64$; McCabe et al., 1996). MHI-5 has been used cross-culturally with student samples. In one study examining Nigerian college students' mental health, MHI-5 was positively correlated with self-efficacy ($r = .40$) and personal growth initiative ($r = .11$; Ogunyemi & Mabekoje, 2007). In another study measuring East Asian international students' wellbeing with the MHI-5, a negative correlation was reported between MHI-5 and acculturative stress ($r = -.31$; Park et al., 2014). With the current sample, the MHI-5 produced a Cronbach's alpha of .54.

Perceived discrimination. Perceived discrimination was measured with the Perceived Discrimination Subscale as part of Sandhu and Asrabadi's (1994) Acculturative Stress Scale for International Students (ASSIS). This subscale had been widely used to measure perceived discrimination among international students (Lee, 2008; Mason, 2017; Jean-Paul, 2015; Jung et al., 2007; Wei et al., 2008; Zhang & Jung, 2017). The ASSIS is a self-report, 36-item instrument developed to measure intrapersonal acculturative stress of international students (Sandhu & Asrabadi, 1994). Coefficient alphas of the ASSIS have ranged from .87 to .95 (Poyrazli et al., 2004; Yeh & Inose, 2003), and construct validity has been supported by a positive association with depression among international students (Constantine et al., 2004). The Perceived Discrimination subscale is a self-report, 8-item measure that assesses experience with unfair treatment, unequal opportunities, and bias on a 5-point Likert scale ranging from 1

(*strongly disagree*) to 5 (*strongly agree*). Example items include, "I feel that I receive unequal treatment" and "others are biased toward me." No reversed scoring was used in ASSIS. The total score was calculated with high scores reflecting higher acculturative stress. Jung et al. (2007) reported a coefficient alpha of .92 for the Perceived Discrimination subscale with an international student sample. The same study also indicated a negative association with depression among international students as further evidence of construct validity for this subscale (Jung et al., 2007). Coefficient alpha of .92 was reported when researchers used this subscale with Asian international students (Wei et al., 2008). With the current sample, the ASSIS Perceived Discrimination Subscale produced a Cronbach's alpha of .59.

Interpersonal shame. Interpersonal shame was measured with the Interpersonal Shame Inventory (ISI; Wong et al., 2014). The ISI is a 10-item self-report instrument that measures Asians' experience of shame arising from interpersonal concerns on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree). ISI consists of two subscales: external shame and family shame. The total score for each subscale was calculated with high scores reflecting higher levels of shame. Wong et al. (2014) presented four studies to develop the ISI and demonstrated empirical evidence for criterion-related validity, concurrent validity, discriminant validity, and incremental validity. The ISI had been administered to college students including Asian Americans, Asian international students, and Asian immigrants (Carrera & Wei, 2017; Kim et al., 2016; Wong et al., 2014). The internal reliability for both ISI subscales was .94 and .97 (Cronbach's alphas) in the original study (Wong, et al., 2014) and the total score was reported as .96 (Cronbach's alphas; Carrera & Wei, 2017). Both subscales were used in the current study to measure

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external shame and family shame separately. Sample items include "these days, I feel like avoiding others because people might view me as weak" and "these days, I feel like escaping because my defects might disgrace my family." In the current sample, the ISI External Shame subscale and Family Shame subscale both produced Cronbach's alphas of .77.

Acculturation. Acculturation was measured with the Vancouver Index of Acculturation (VIA; Ryder et al., 2000). The VIA was developed to independently measure the degree of cultural immersion of the respondents in both the host culture and their heritage culture, which aligns closely with Berry's bidimensional acculturation model (Berry et al., 1987). Each dimension is measured by 10 items and receives a total score. This 20-item self-report measure assesses three domains through a 9-point Likert scale: (a) adherence to traditions, (b) social relationships, and (c) values. Example items include, "I often participate in my heritage cultural traditions" and "I believe in mainstream American values." The heritage culture acculturation subscore was calculated as the mean of the odd-numbered items, whereas the host culture acculturation subscore was calculated as the mean of the even-numbered items. Higher scores reflected higher levels of adherence. Research has demonstrated high internal consistency of VIA scale scores among Chinese and East Asian undergraduate students (Ryder et al., 2000; Zhang, 2010). Cronbach's alpha was .86 for the heritage culture dimension and .80 for the host culture dimension in a study consisting of over 500 Chinese international students (Zhang, 2010). The construct validity of IVA was supported via the association between adherence to host culture and psychosocial adjustment (Zhang, 2010) as well as the association between adherence to heritage culture and depression (Mason, 2017). These

findings parallel the results from other literature examine the acculturation process of East Asian international students using different measures of acculturation (Wang & Mallinckrodt, 2006; Ying & Han, 2006). The VIA Acculturation to Heritage Culture Subscale produced a Cronbach's alpha of .82 while the VIA Acculturation to Host Culture Subscale produced a Cronbach's alpha of .78.

Power Analysis

In a 30-year review of studies assessing moderating effects published in three influential journals, a sample size of at least 158 was suggested for reaching power of 0.8 with a targeted effect size of 0.02 (Aguinis et al., 2005). A priori power analysis using G*Power 3.1.9.4 software was conducted to determine the minimum sample size needed for this study using a linear multiple regression model (fixed model, R squared increase; Faul et al., 2009). The final sample met the minimum threshold identified as adequate for the statistical analyses.

Data Analysis

Before analyzing the data, levels and patterns of missingness were addressed and reported following the suggestions of Schlomer et al. (2010). To distinguish between missing completely at random (MCAR) and missing at random (MAR), Little's missing completely at random (MCAR) test in SPSS 26.0 was used to examine the pattern of missingness.

Univariate and multivariate normality were examined along with the test of assumptions through correlation and regression analyses (Garson, 2012; Oppong & Agbedra, 2016). Scatterplots, skewness, and kurtosis of the variables were checked for normality and homoscedasticity. Data transformations were conducted to increase

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normality if necessary (e.g., square root, logarithm, inverse). Outliers were checked and removed based on the values of standardized residual and Mahalanobis's distance. Influential observations were checked and reported based on the values of Cook's distance, Leverage, and DFBeta (Mendenhall & Sincich, 2012; pp.412-420). Pearson correlation coefficients were assessed to determine potential multicollinearity in the model. The normality of residuals was also checked to see if residuals are normally distributed as assumed.

Correlation and multiple regression analyses were performed to test the hypotheses and examine the relations among the variables. Correlation analyses were performed to determine the strength and direction of these relationships. Multiple regression analyses were conducted to assess the associations between discrimination, shame, and mental health. Two regressions containing the same criterion variable (mental health) and the moderator (acculturation) were performed with two different predictors (discrimination, shame) using the PROCESS macro for SPSS (Version 3.4; Hayes, 2018). PROCESS Model 2 was used in the current study to examine acculturation as a dual moderator based on the acculturation theory (Berry, 2005). Since acculturation is theorized as a bi-dimensional concept consisting of adherence to the host culture and adherence to the heritage culture, acculturation to host culture and culture of origin is supposed to occur simultaneously rather than separately (i.e., a bidimensional rather than unidimensional process; Berry, 2005). Model 2 includes one predictor, one outcome variable, and two moderators which appeared to best fit the research hypotheses and Berry's acculturation theory. The PROCESS macro provides the Johnson Neyman method which helps visualize the interaction effect by generating a series of plots that can

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be assembled into diagrams and graphs. These diagrams depict the conditional effect of the predictor on the dependent variable as a function of moderator variables. The moderated effects were explored using the regions of significance following the Johnson-Neyman technique (Hayes, 2018).

CHAPTER THREE: RESULTS

This chapter will report the results of the statistical analyses, including data preparation, descriptive statistics, and a summary of the preliminary and main analyses. Tables and figures are included to provide additional information and to illustrate the results of the statistical analyses.

Data Preparation

To avoid errors with merging multiple datasets or misspelling, inclusion and exclusion criteria were entered as codes to systematically remove duplicated, invalid, or unqualify responses in R Studio. 680 responses were collected anonymously through an online Qualtrics survey and directly downloaded from Qualtrics into a CSV. file to be imported to R Studio for data cleaning.

First, IP addresses were used to identify duplicated responses and ballot box stuffing (i.e., robots). Considering that respondents will demonstrate the same IP address if taking from the same dormitory/residential hall, a maximum of two responses is allowed for each IP address to sustain the majority of the data. 222 responses were considered duplicated and removed as three or more of these responses shared the same IP address. During this step, 465 responses were retained as non-duplicated data.

Next, criteria items and validity items were used to remove invalid responses. Responses were considered invalid for respondents identifying as graduate students, U.S. citizens, or non-international students, as well as not passing the validity check (e.g.,

One hundred fifty-five answering other numbers when being asked to enter "6").

responses were removed for (a) answering "no" to "are you an international student from East Asia," (b) selecting "Graduate Student" to "which of the categories best describes you", (c) entering values less than 18 to "what is your age in years", or (d) answering the validity items wrong (i.e., "please type '6' for this question"). 310 responses were retained as valid responses during this step.

Last, demographic items were used to ensure the participants qualify for the current study. Twenty responses were removed for identifying as non-Asian and 290 responses were retained. Among these 290 responses, two responses were removed for identifying as Indian (non-East Asian). Within the rest of the data ($N = 288$), seven responses were removed for identifying their place of origin as non-East Asian countries (i.e., Argentina, Canada, Denmark, Malaysia, Nigeria, Singapore, U.S.). In sum, 281 responses were retained as the final sample size whereas 399 responses were removed as duplicated, invalid, or unqualified data.

Missing Data

Given that all survey items were set as "required", missing data was eliminated during the survey administration process. A MCAR test was unable to perform and multiple imputations were also not conducted. However, a large number of respondents preferred not to answer the demographic questionnaires and left their responses as "N/A" across different demographic items. Further exploration on this issue will be discussed in the current and the next chapter as a limitation of this study.

Univariate and Multivariate Normality and Test Assumptions

Participant data were examined for univariate and multivariate normality outliers. No univariate outliers were detected using +/- 3.29 as the standard deviation threshold. Seven multivariate outliers were identified with significant Mahalanobis distance values ($p < .001$). No significant differences were identified in the results when analyzing data with and without these seven outliers. Therefore, these outliers were kept in order to optimize the statistical power for the current study.

Preliminary Analyses

Participants were 281 East Asian international undergraduate students. 99 identified as man (35.2%), 114 identified as woman (40.6%), and 68 preferred not to answer (24.2%). 27 identified as freshman (9.6%), 87 identified as sophomore (31%), 63 identified as junior (22.4%), 87 identified as senior (31%), 15 preferred not to answer, and 2 missing responses (5.3%). The average age of the participants is 22.49 years old with 18 being the minimum and 38 being the maximum. The majority of the sample came from China ($N = 103$; 36.7%), followed by Japan ($N = 47$; 16.7%), Taiwan ($N = 16$; 5.7%), Korea ($N = 12$; 4.3%), Hong Kong ($N = 7$; 2.5%), Macau ($N = 1$; 0.4%), and Mongolia ($N = 1$; .4%), and 94 participants preferred not to answer (33.5%). Descriptive statistics for the main study variables are provided in Table 3.

Table 3

Descriptive Statistics and Cronbach's Alphas for Study Variables

	M	SD	Min	Max	Range	α
MHI-5	3.80	.72	1.8	6	4.20	.54
ASSIS PD	3.04	.53	1.25	4.5	3.25	.59
ISI ES	3.26	.99	1	5.6	4.6	.77
ISI FS	3.14	1.03	1	5.2	4.2	.77
VIA Heritage	5.74	1.24	3.2	8.8	5.74	.82
VIA Host	5.45	1.16	2.4	8.4	5.46	.78

Note. *N* = 281

The mean for the MHI-5 was 3.80 (*SD = .72*) with a maximum possible mean score of 6. This indicated that participants reported moderate levels of psychological wellbeing (mental health outcome).

The mean for the ASSIS PD was 3.04 (*SD = .53*) with a maximum possible mean score of 4.5. This indicated that participants experienced moderate to high levels of discrimination in their daily life.

The ISI consists of two subscales which are examined separately as factors of interpersonal shame: External Shame (ISI ES) and Family Shame (ISI FS). The mean for the ISI ES subscale was 3.26 (*SD = .99*) with a maximum possible mean score of 5.6. The mean indicated a moderate level of external shame perceived by this sample. The mean for the ISI FA subscale was 3.14 (*SD = 1.03*), with a maximum possible mean score of 5.2. The mean on this subscale indicated participants experienced moderate levels of family shame.

The VIA consists of two subscales which are examined separately as factors of acculturation: adherence to the heritage culture (VIA Heritage) and adherence to the host culture (VIA Host). The mean of the VIA Heritage was 5.74 (*SD = 1.24*) with a

maximum possible mean score of 8.8. The mean for this scale indicated that participants

in this sample reported moderate adherence to their culture of heritage (home country).

The mean of the VIA Host was 5.45 (*SD = 1.16*) with a maximum possible mean score of

8.4. The mean for this scale indicated that participants in this sample reported moderate

adherence to the culture of the host country (American culture).

Testing of Assumptions

The statistical assumptions in multiple linear regression (Hayes, 2018) were tested

with *health* (i.e., MHI-5*)* being the dependent variable (DV) and *discrimination*, *external*

shame, and *family shame* being the independent variables (IVs; ASSIS PD; ISI ES; ISI

FS) as hypothesized.

The assumption of linearity was examined with scatterplots demonstrating a

negative linear relationship between the DV and IVs. The relationship

between *health* and *discrimination*, *external shame*, and *family shame* appeared linear, so

this assumption was met.

Figure 6

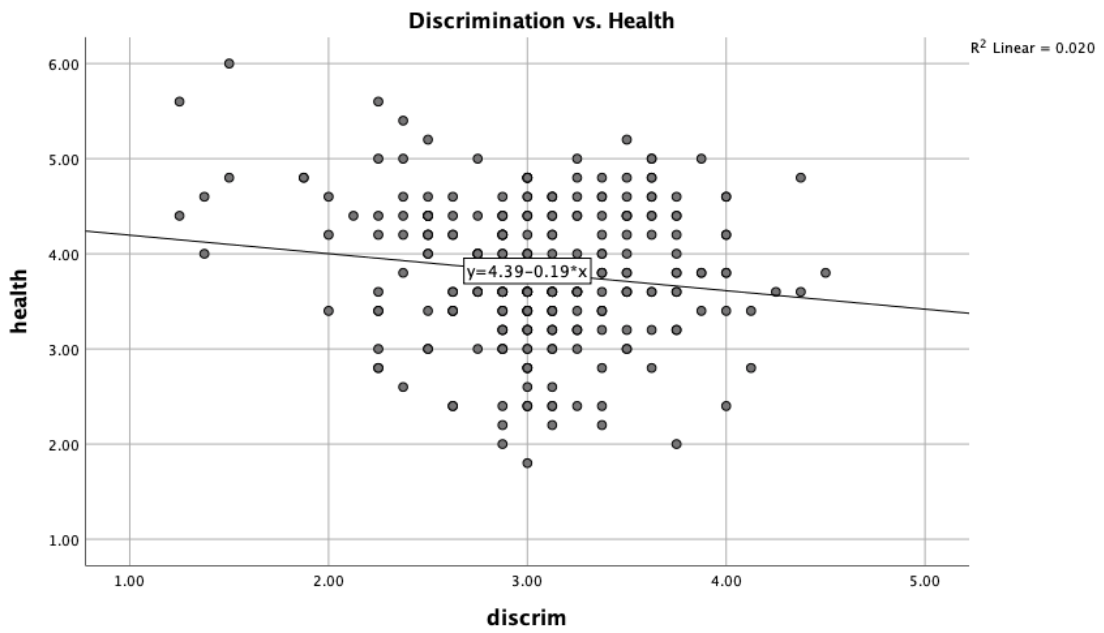*Scatterplot of Discrimination vs. Health*
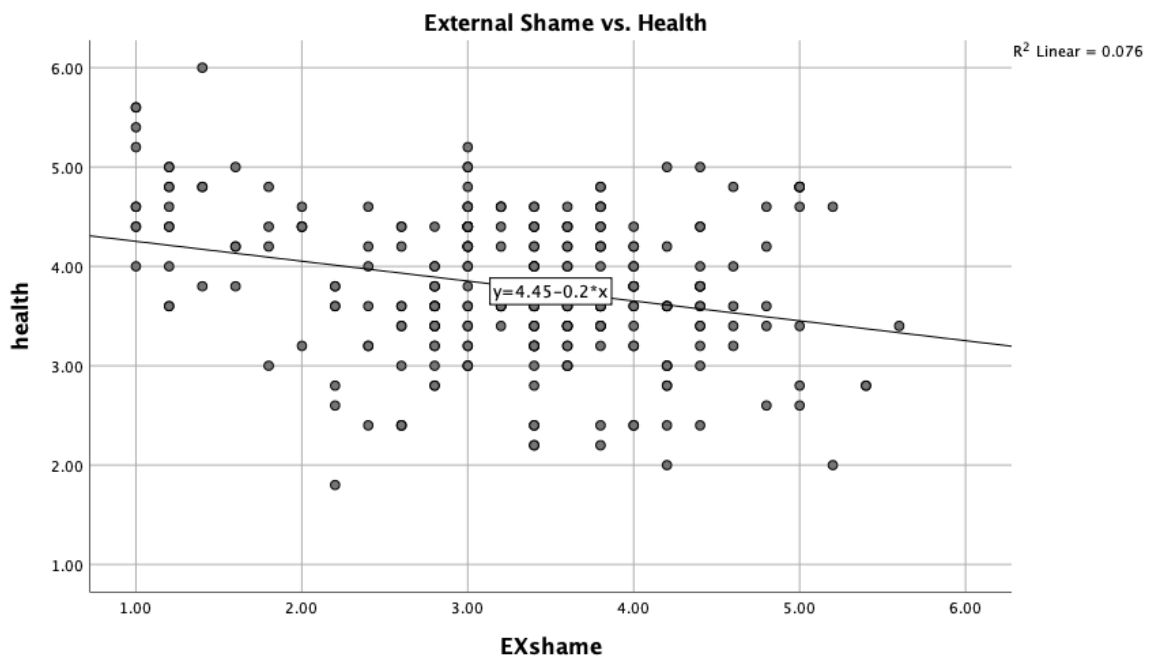

Scatterplot of Discrimination vs. Health

Figure 7

Scatterplot of External Shame vs. Health

Scatterplot of External Shame vs. Health

Figure 8

Scatterplot of Family Shame vs. Health

Family Shame vs. Health

$y = 4.43 - 0.2*x$

$R^2 \text{ Linear} = 0.083$
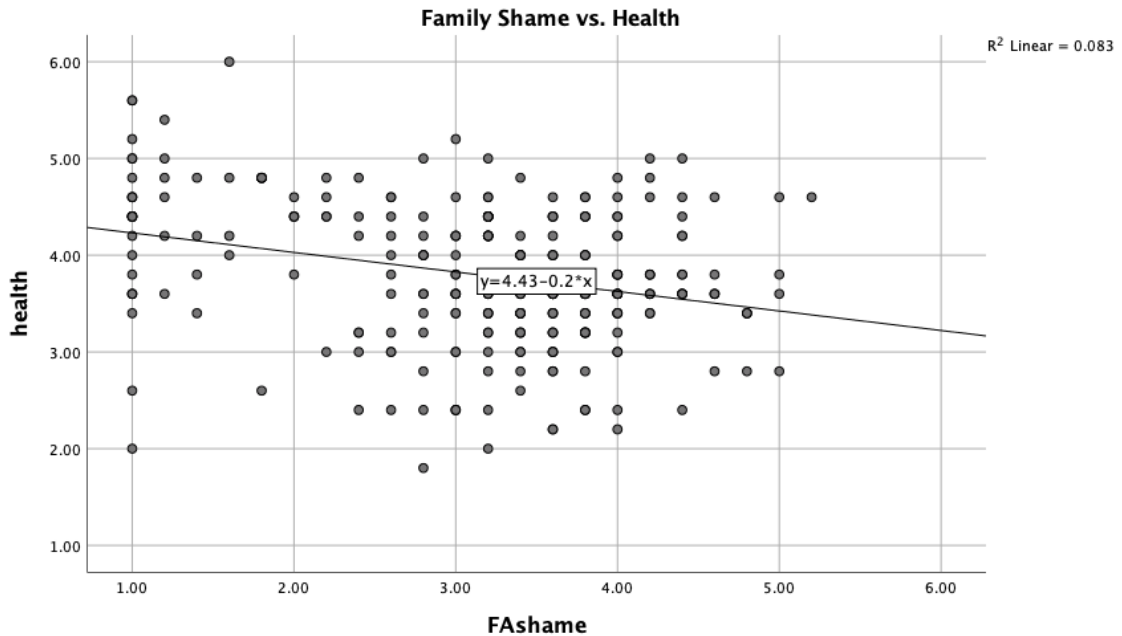
Internal consistency estimates (Cronbach's alphas) for each measure were examined to ensure that all variables were measured without error (Hayes, 2018). Hinton et al. (2004) described moderate reliability as an alpha score of .50 to .70 and high reliability as an alpha score above 0.75 (p. 364). According to Table 2, four out of six variables demonstrated a Cronbach's alphas of .75 or higher (*external shame*/ISI ES, $\alpha = .77$; *family shame*/ISI FS, $\alpha = .77$; *adherence to heritage culture*/VIA Heritage, $\alpha = .82$; *adherence to host culture*/ VIA Host, $\alpha = .78$) indicating these variables were measured with minimal error. With an alpha score above .50 (*health*/MHI-5, $\alpha = .54$; *discrimination*/ASSIS PD, $\alpha = .59$), *health* and *discrimination* variables were kept in the current study with further discussion on scale reliability.

The assumption of normality was tested by examining the histogram, Skewness, and Kurtosis. All histograms appeared relatively symmetric which indicates normal

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distribution, which was supported by the skewness and kurtosis values. The cutoff for acceptable levels of skewness was set at +/-1 whereas the cutoff for acceptable levels of skewness was set at +/-3. Skewness on IVs ranged from -.703 to -.120. Kurtosis values ranged from -.189 to 1.283. These results confirmed that the assumption of normality was met.

The assumption of homoscedasticity was tested with the scatterplot demonstrating the distribution of the residuals. The scatterplot did not have an obvious pattern. The observations were equally distributed above and below zero on the X-axis, and to the left and right of zero on the Y-axis. The scatterplot indicated the fulfillment of the assumption of homoscedasticity.

Figure 9

Scatterplot of the Distribution of the Residuals
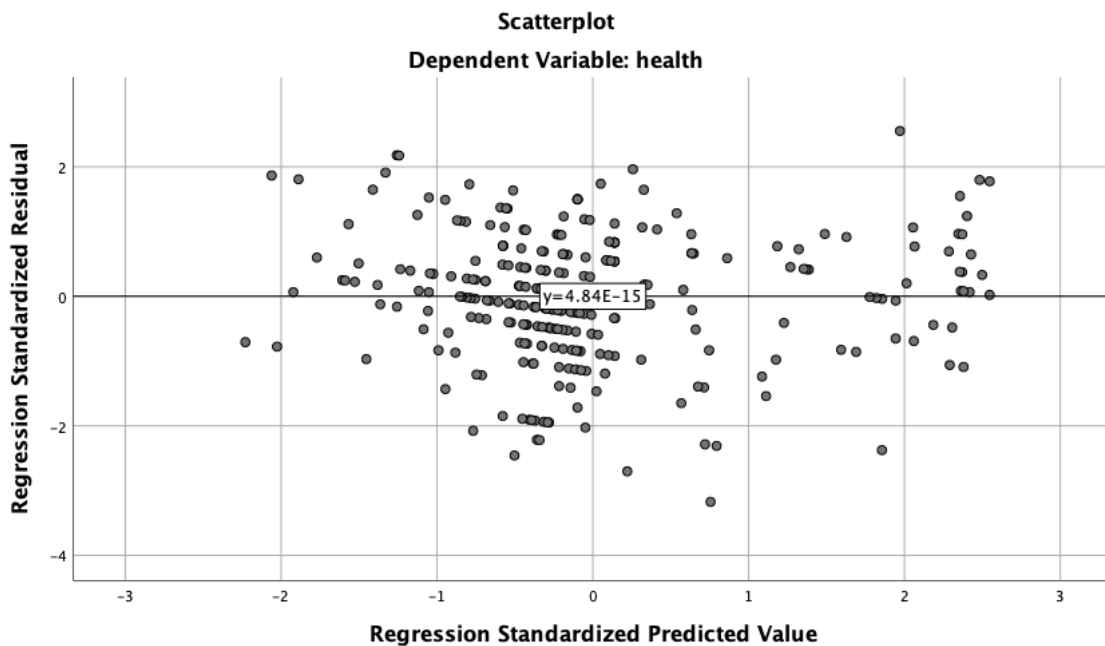
Multicollinearity and collinearity were also tested. The Variance Inflation Factor (VIF) values for all variables were much less than 10 which confirmed the absence of multicollinearity. All variables appeared to have a Tolerance value much larger than .01 which confirmed the absence of collinearity.

Table 4

Table of Correlations

		Health	Discrimination	External Shame	Family Shame
Pearson Correlation	Health	1.000	-.143	-.276	-.289
	Discrimination	-.143	1.000	.408	.337
	External Shame	-.276	.408	1.000	.555
	Family Shame	-.289	.337	.555	1.000
Sig. (1-tailed)	Health	.	.008	.000	.000
	Discrimination	.008	.	.000	.000
	External Shame	.000	.000	.	.000
	Family Shame	.000	.000	.000	.
N	Health	281	281	281	281
	Discrimination	281	281	281	281
	External Shame	281	281	281	281
	Family Shame	281	281	281	281

Table 5

Table of Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	4.658	.245		19.027	.000					
Discrimination	-.015	.086	-.011	-.174	.862	-.143	-.010	-.010	.816	1.225
External Shame	-.119	.052	-.164	-2.296	.022	-.276	-.137	-.131	.637	1.569
Family Shame	-.136	.048	-.194	-2.807	.005	-.289	-.166	-.160	.678	1.476
a. Dependent Variable: Health										

Independent Variables

     Table 6 presents bivariate correlations for the variables examined in the study. As expected, significant, negative correlations were observed between health and discrimination (i.e. ASSIS PD), external shame (i.e., ISI ES), and family shame (i.e., ISI FS; $r = -.143$, $p < .05$; $r = -.276$, $p < .01$; $r = -.289$, $p < .01$, respectively). The correlations indicated that lower levels of mental health were associated with higher levels of perceived discrimination, external shame, and family shame. Additionally, significant, positive correlations were observed between health and acculturation for both heritage and host culture (i.e., VIA Heritage; VIA Host; $r = -.350$, $p < .01$; $r = -.263$, $p < .01$, respectively). The correlations indicated that higher levels of mental health were associated with higher levels of acculturation for both heritage and host culture.

     The Perceived Discrimination subscale was significantly, positively correlated with external shame, family shame, and adherence to heritage culture ($r = .408$, $p < .01$; $r = .337$, $p < .01$; $r = .122$, $p < .05$, respectively). The correlations indicated that higher levels of perceived discrimination were associated with higher levels of external shame, family shame, and acculturation for heritage culture.

     The External Shame subscale was significantly, positively correlated with family shame ($r = .555$, $p < .01$) but significantly, negatively correlated with adherence to heritage culture ($r = -.264$, $p < .01$, respectively). The correlations indicated that higher levels of external shame were associated with higher levels of family shame whereas lower levels of external shame were associated with higher levels of acculturation (heritage culture).

The Family Shame subscale was significantly, negatively correlated with acculturation for both heritage and host culture ($r = -.354$, $p < .01$; $r = -.143$, $p < .05$, respectively). The correlations indicated that lower levels of family shame were associated with higher levels of acculturation (both heritage and host culture).

The Family Shame subscale was significantly, negatively correlated with acculturation for both heritage and host culture ($r = -.354$, $p < .01$; $r = -.143$, $p < .05$, respectively). The correlations indicated that lower levels of family shame were associated with higher levels of acculturation (both heritage and host culture).

The VIA Heritage subscale was significantly, positively correlated with the VIA Host subscale ($r = .441$, $p < .01$, respectively). The correlations indicated that higher levels of adherence to heritage culture were associated with higher levels of adherence to host culture.

Table 6

Correlations among Study Variables

Variable	1	2	3	4	5	6
1. Health	---	-.143*	-.276**	-.289**	.350**	.263**
2. Discrimination		---	.408**	.337**	.122*	-.038
3. External Shame			---	.555**	-.264**	.027
4. Family Shame				---	-.354**	-.143*
5. Heritage Acculturation					---	.441**
6. Host Acculturation						---

* $p < .05$, ** $p < .01$

Primary Analyses

The PROCESS macro (Hayes, 2018) for SPSS 26.0 was used to analyze the

relationships between the predictors (*X;* discrimination, external shame, and family

shame), moderators (acculturation), and outcome (*Y*; wellbeing). Specifically,

discrimination, external shame, and family shame were each hypothesized to predict

wellbeing. The two moderators (*W* = adherence to the heritage culture; Z = adherence to

the host culture) were hypothesized to explain how the relation between *X* (predictor)

and *Y* (mental health outcome; wellbeing) varied depending on levels of acculturation.

The direct interaction effects (predictor x moderator) on wellbeing were also calculated

between each predictor (*X*) and both moderator W (adherence to the heritage culture) and

moderator Z (adherence to the host culture). All coefficients were calculated as

unstandardized regression coefficients. The moderation model tested is presented in

Figure 10 below.

Figure 10

Moderation model
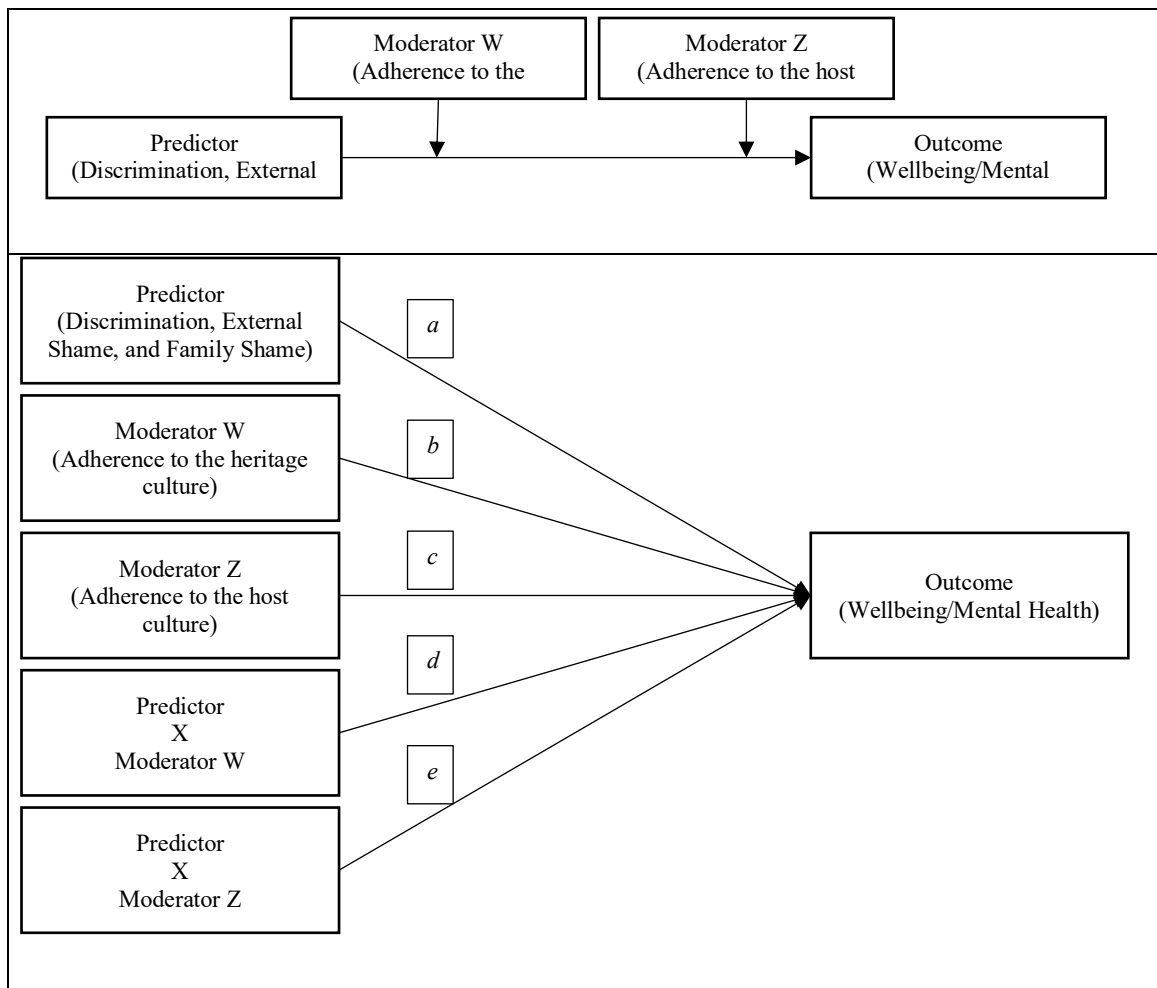
Note: *a* is the effect of independent variables on outcome variable; *b* is the effect of

moderator variables on outcome variable; *c* is the interactions effect of independent

variables X moderators on the outcome variable.

To test for the moderation effect, the relationships for (a) the direct effect of the

predictor on the outcome, (b) the direct effect of moderators on the outcome, and the

interaction effect (predictor x moderators) on outcome need to be significant (Hayes,

2018). In SPSS PROCESS macro, the interaction effect was automatically calculated

along with the proportion of the variance explained by the moderating effect of acculturation (R square increase due to interaction; Hayes, 2018). To test for the significance of the interaction effects, a 1000-sample bootstrap procedure was used to estimate the upper and lower bounds of bias-corrected 95% confidence intervals (CIs). The relationships are statistically significant if CIs do not include 0, and vice versa.

Based upon study hypotheses, three regression models were generated to examine the moderating effect of acculturation on the relation between three predictors (i.e., discrimination, external shame, and family shame) and the criterion variable (i.e., wellbeing).

Figure 11

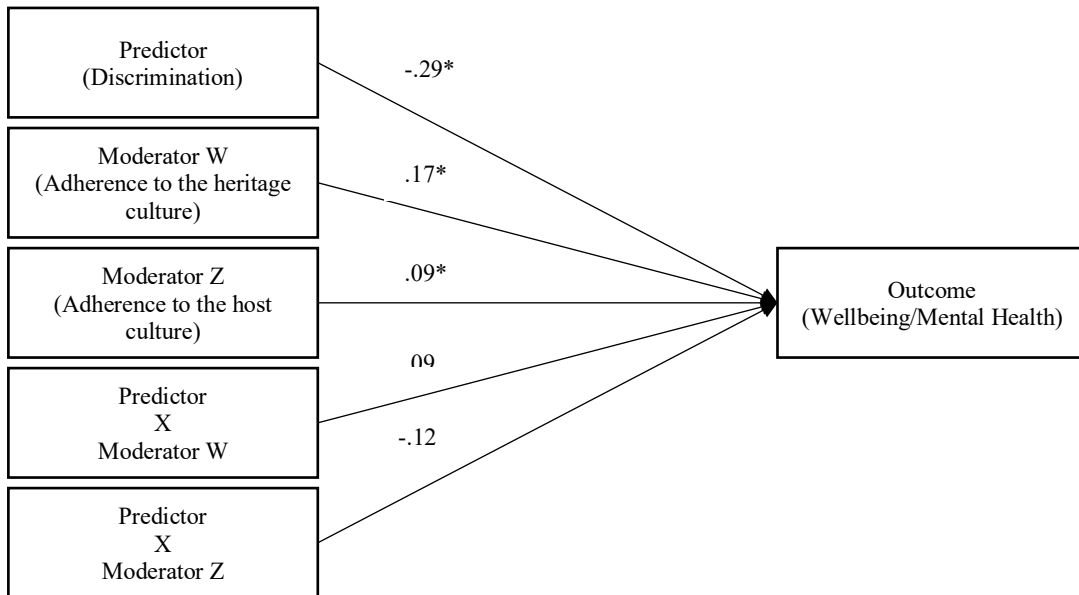*Model 1: Discrimination, Acculturation, and Mental Health*

Table 7

Table of Regression Coefficients for Model 1

Model Summary	R	R^2	MSE	F	df1	df2	p
	.4212	.1774	.4327	11.8599	5	275	.0000

Model	Coefficient	SE	t	p	LLCI	ULCI
Constant	3.7887	.0398	95.2856	.0000	3.7104	3.8670
Discrimination	-.2280	.0905	-2.5181	.0124	-.4062	-.0497
Heritage Acculturation	.1734	.0367	4.7177	.0000	.1010	.2457
Discrimination* Heritage Acculturation	.0899	.0693	1.2964	.1959	-.0466	.2264
Host Acculturation	.0870	.0391	2. 2234	.0270	.0100	.1640
Discrimination* Host Acculturation	-.1182	.0700	-1.6891	.0923	-.2599	.0196

Hypotheses 3 was tested to examine the moderating effect of acculturation on the direct effect of discrimination on wellbeing. The result was not statistically significant when testing acculturation as a dual moderator ($B = .09$, $p > .05$). In support of Hypothesis 1, results showed that participants experiencing higher levels of discrimination reported lower levels of wellbeing ($B = -.29$, $t(275) = -2.52$, $p < .05$). The relationship between adherence to the heritage culture (W) and wellbeing appeared significant ($B = -.17$, $t(275) = 4.72$, $p < .001$) as well as the relationship between adherence to the host culture (Z) and wellbeing ($B = .09$, $t(275) = 2.22$, $p < .05$). However, the interaction between discrimination and heritage culture on wellbeing was not statistically significant ($B = .09$, $t(275) = 1.30$, $p > .05$). Similarly, the interaction between discrimination and host culture on wellbeing was not statistically significant ($B = -.12$, $t(275) = -1.69$, $p > .05$). Approximately 18% of the variance in wellbeing was accounted for by the predictors ($R2 = .18$, $F(5, 275) = 11.86$, $p < .001$). Hypothesis 3 was not supported as the 95% confidence interval showed the interaction effect between predictor and moderators was not significant for the model containing heritage culture
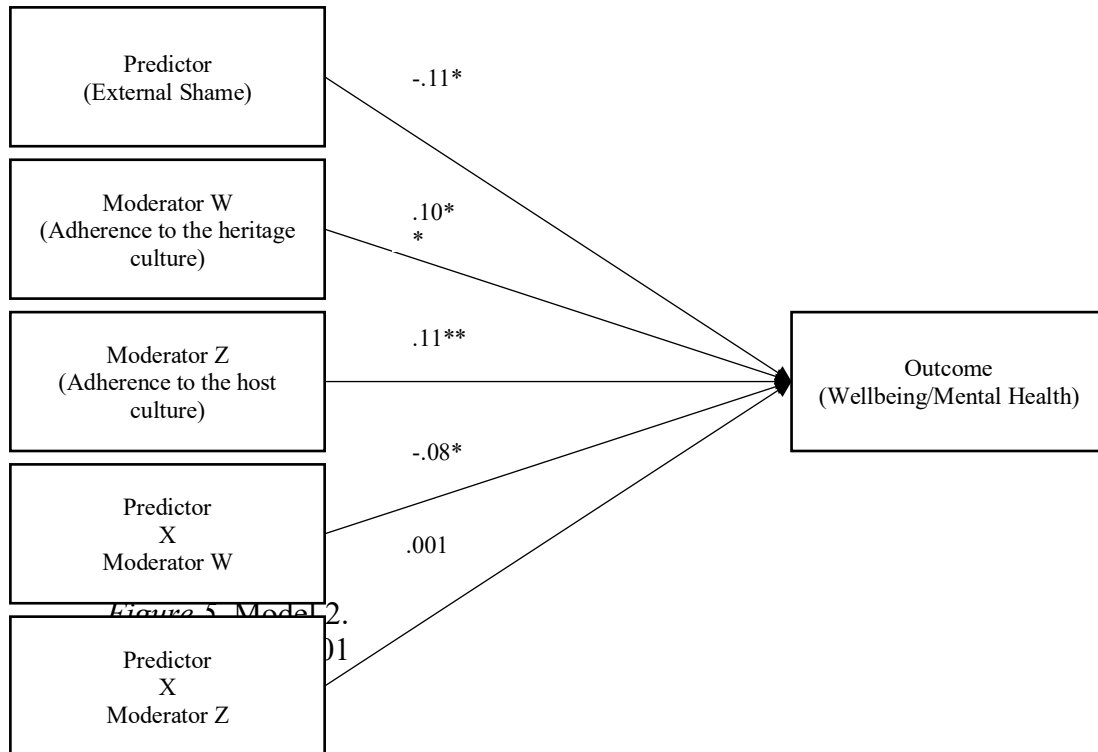
(B = .09, 95% CI [-.0466, .2264]; or host culture (B = -.12, 95% CI [-.2559, .0196]).

Overall, none of the interactions were significant when discrimination was entered as the

predictor.

Figure 12

Model 2: External Shame, Acculturation, and Mental Health

*p < .05, **p < .01

Table 8

Table of Regression Coefficients for Model 2

Model Summary	R	R^2	MSE	F	df1	df2	p
	.4506	.2030	.4192	14.0091	5	275	.0000

Model	Coefficient	SE	t	p	LLCI	ULCI
Constant	3.7724	.0401	94.0424	.0000	3.6934	3.8514
External Shame	-.1128	.0471	-2.3947	.0173	-.2055	-.0201
Heritage Acculturation	.0998	.0380	2.6288	.0091	.0251	.1746
External Shame * Heritage Acculturation	-.0808	.0321	-2.5172	.0124	-.1439	-.0176
Host Acculturation	.1110	.0380	2. 9229	.0038	.0362	.1857
External Shame * Host Acculturation	.0012	.0380	.0305	.9757	-.0736	.0759

Hypothesis 4 was tested to examine the moderation effect of acculturation on the association between external shame and wellbeing. In support of Hypothesis 2, results showed that participants experiencing higher levels of external shame reported lower levels of wellbeing ($B = -.11$, $t(275) = -2.39$, $p < .05$). The relationship between adherence to the heritage culture (W) and wellbeing was significant ($B = .10$, $t(275) = 2.63$, $p < .001$) as well as the relationship between adherence to the host culture (Z) and wellbeing ($B = .11$, $t(275) = 2.92$, $p < .05$). In support of Hypothesis 4, the interaction between external shame and heritage culture on wellbeing was statistically significant ($B = -.08$, $t(275) = -2.52$, $p < .05$). However, the interaction between external shame and host culture on wellbeing was not statistically significant ($B = .001$, $t(275) = .03$, $p > .05$).

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Approximately 20% of the variance in wellbeing was accounted for by the predictors (R^2 = .20, $F(5, 275) = 14.01$, $p < .001$). Hypothesis 4 was partially supported as the 95% confidence interval showed the interaction effect between external shame and heritage culture was significant (B = -.08, 95% CI [-.1439, -.0176]; but the interaction between external shame and host culture was not (B = .001, 95% CI [-.0736, .0759]).

Specifically, the association between external shame and wellbeing was weak and non-significant at low levels of heritage culture (B = -.01, $p > .05$), but stronger and significant at both moderate (B = -.11, $p < .05$) and high levels (B = -.21 $p < .01$) of heritage culture. In other words, endorsing high levels of heritage culture acculturation seemed to strengthen the relationship between external shame and wellbeing.

Figure 13

Model 3: Family Shame, Acculturation, and Mental Health

Predictor (Family Shame)	-.12** →	
Moderator W (Adherence to the heritage culture)	.06	Outcome (Wellbeing/Mental Health)
Moderator Z (Adherence to the host culture)	.13**	
Predictor X Moderator W	-.11*	
Predictor X Moderator Z	.09**	
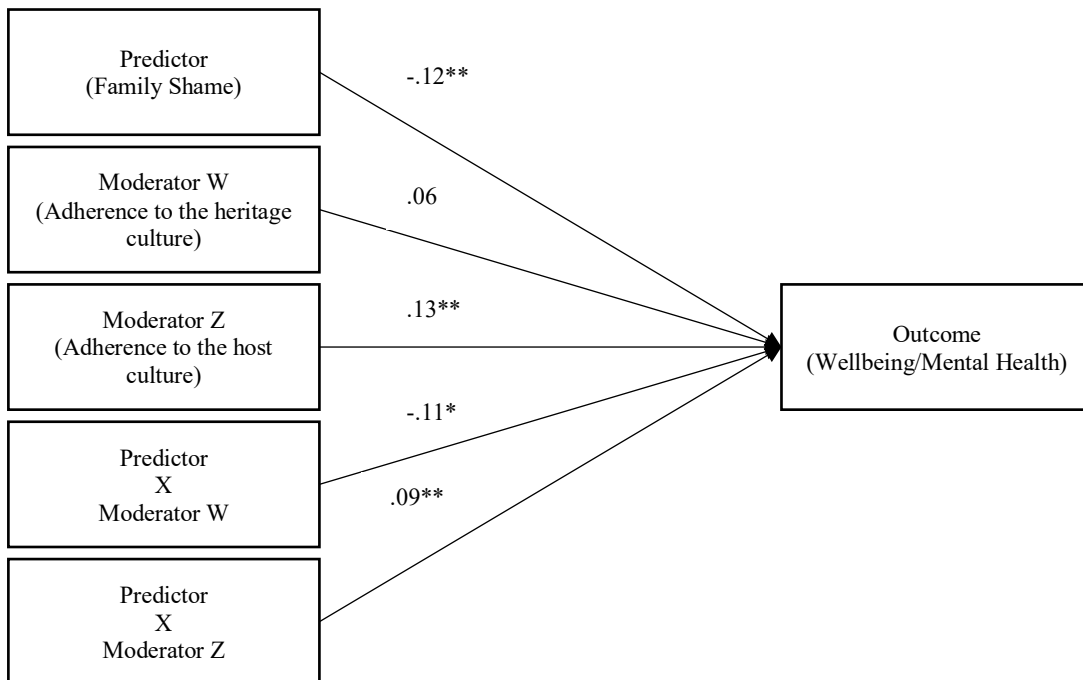
*$p < .05$, **$p < .01$

Table 9

Table of Regression Coefficients for Model 3

Model Summary	R	R^2	MSE	F	df1	df2	p
	.4534	.2056	.4178	14.2311	5	275	.0000

Model							
	Coefficient	SE	t	p	LLCI	ULCI	
Constant	3.7648	.0410	91.7241	.0000	3.6840	3.8456	
External Shame	-.1197	.0456	-2.6239	.0092	-.2094	-.0299	
Heritage Acculturation	.0585	.0416	1.4079	.1603	-.0233	.1404	
External Shame * Heritage Acculturation	-.1093	.0337	-3.2438	.0013	-.1756	-.0430	
Host Acculturation	.1314	.0394	3.2438	.0010	.0539	.2089	
External Shame * Host Acculturation	.0915	.0349	2.6194	.0093	.0227	.1603	

Hypothesis 4 was tested to examine the moderation effect of acculturation on the direct effect of family shame on wellbeing. In support of Hypothesis 2, results showed that participants experiencing higher levels of family shame reported lower levels of wellbeing ($B = -.12$, $t(275) = -2.62$, $p < .01$). The relation between adherence to the heritage culture (W) and wellbeing was not significant ($B = .06$, $t(275) = 1.41$, $p > .05$). The relation between adherence to host culture (Z) and wellbeing was significant ($B = .13$, $t(275) = 3.34$, $p < .05$). In support of Hypothesis 4, the interaction between family shame and heritage culture on wellbeing was statistically significant ($B = -.11$, $t(275) = -3.24$, $p < .01$). Similarly, the interaction between family shame and host culture on wellbeing was significant ($B = .09$, $t(275) = 2.62$, $p < .01$). Approximately 21% of the variance in wellbeing was accounted for by the predictors (R2 = .21, $F(5, 275) = 14.23$, $p < .001$). Hypothesis 4 was supported as the 95% confidence interval showed the interaction effect between predictor and moderators was significant for

heritage culture (B = -.1093, 95% CI [-.1756, -.0430]; and host culture acculturation (B = .09, 95% CI [.0227, .1603]).

The dual moderation effect of heritage culture and host culture acculturation was also significant. Specifically, the association between family shame and wellbeing became significant and stronger at moderate levels of heritage culture acculturation in combination with low (B = -.23, p < .01) and moderate levels (B = -.12, p < .001) of adherence to the host culture; as well as high levels of adherence to the heritage culture and low (B = -.36, p < .001), moderate (B = -.26, p < .001), and high levels (B = -.15, p < .01) of adherence to the host culture.

CHAPTER FOUR: DISCUSSION

The purpose of this study was to better understand relations between discrimination, shame, acculturation, and psychological wellbeing among East Asian international students. This chapter includes a discussion of the key findings, connections to theory and existing literature, limitations, and implications for research, practice, and policy.

Results and Discussion of Research Hypotheses

Guided by minority stress theory (MST; Meyer, 2003), the current study examined the relations between discrimination, shame, and wellbeing in East Asian international students with regard to levels of acculturation. The following hypotheses were made: (a) Discrimination would be a significant negative predictor of positive mental health outcome, (b) Shame would be a significant negative predictor of positive mental health outcome, (c) Acculturation would moderate the relationship between discrimination and wellbeing, and (d) Acculturation would moderate the relationship between shame and wellbeing. Acculturation was examined as a dual moderator consisting of adherence to the heritage culture and adherence to the host culture. Support for the above hypotheses is reviewed in the following section along with how the results of this study extended existing research.

The first hypothesis was supported, as the association between discrimination and wellbeing was negative and statistically significant. In other words, higher levels of

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discrimination appeared to predict lower levels of psychological wellbeing in East Asian international students. This finding aligns with previous studies addressing the harmful impact of discrimination on Asian international students' mental health (Chavajay & Skowronek, 2008; Hanassab, 2006; Wei et al., 2012; Zhang & Goodson, 2011). From an MST perspective, the finding indicates that East Asian international students experienced discrimination as a distal minority stressor.

The second hypothesis was also supported as both external shame and family shame demonstrated a significant, negative association with wellbeing. Higher levels of shame were associated with lower levels of wellbeing and stemmed from others' negative perception of the self (i.e., external shame) and concerns around dishonoring one's family (i.e., family shame). This finding aligns with existing literature indicating that Asian groups experienced shame collectively and reported greater psychological distress under the impact of shame (Wang et al., 2018; Wong et al., 2014). Given the U.S.'s long history of racism and xenophobia, East Asian international students are likely to experience overt or covert discrimination in their college life. When encountering discrimination (e.g., verbal or relational rejection, physical or verbal assault), the initial reactions of shock, fear, and anger may occur followed by powerlessness, embarrassment, and shame. Due to the strong emphasis on family within the East Asian culture, international students may choose not to disclose these incidents to their families to avoid worrying them. This may be because they prefer to prioritize their family's wellbeing over their own even though they could receive emotional support if disclosed. It may also be that East Asian international students feel too ashamed to share these incidents (i.e., being rejected by

Americans) with their family as they have unconsciously internalized discrimination as personal failures.

As hypothesized, the present study showed that shame was a proximal minority stressor for East Asian international students. Specifically, discrimination was significantly and positively correlated with external and family shame. These findings suggested that discrimination may be conceived of as a personal problem instead of as a systematic issue in East Asian international students. Furthermore, this phenomenon is a toxic product of internalized racism in which White supremacy and racial oppression are indirectly internalized by the racially subordinated (Pyke, 2010). During their immersion into negative stereotypes (e.g., model minority myth) and White cultural standards (e.g., professionalism standards endorsing White supremacy), East Asian international students might feel ashamed and experience self-blame for being a victim of discrimination. For example, an East Asian international student could think that it was shameful that others refused to assist them due to their accent or low English proficiency. Another example could be students feeling bad when their American professors and peers struggled to pronounce their foreign names in class, and some might offer alternative English names for easier pronunciation. Although some adaption strategies are protective for East Asian international students from encountering discrimination, they might also perpetuate White supremacy and support the status quo (e.g., minimizing or dismissing racism).

The third hypothesis was not supported. The interaction between discrimination and acculturation on wellbeing was not statistically significant when examining the dual moderating effects of acculturation. In other words, levels of acculturation did not alter the direction or strength of the relationship between discrimination and wellbeing for East

Asian international students. This finding could be interpreted from different perspectives. First, it could be that discrimination was too stressful to cope with regardless of participants' levels of acculturation. This interpretation would be more convincing if data were collected before the pandemic, as participants from the current sample might be less acculturated to U.S. culture due to limited socialization and on-campus activities during the pandemic. Thus, it is difficult to know whether levels of acculturation would buffer the association between discrimination and wellbeing if the participants had more opportunities to interact with Americans in person and utilize campus resources.

Second, the literature suggests international students at high acculturation levels experience less acculturative stress due to their social support from local communities (Sullivan & Kashubeck-West, 2015). However, acculturation also includes increased knowledge or practice of American culture (e.g., food, music, movie, traditions, jokes and humor; Ryder et al., 2000) in addition to the social aspects (e.g., friendships, romantic relationships, social activities, other interpersonal interactions; Ryder et al., 2000). For participants who were knowledgeable about American culture through social media or news coverage but rarely interacted with Americans in everyday life, they might not receive much support from the local communities to cope with discrimination. The way acculturation was measured did not directly reflect the levels of support and coping for the participants, and thus might not mitigate the negative impact of discrimination on wellbeing.

The fourth hypothesis received partial support. As hypothesized, acculturation was found to be a dual moderator in the relationship between wellbeing and both external

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shame and family shame. It should be noted that in this analysis the specific interaction between adherence to host culture and external shame was non-significant while the specific interaction between adherence to heritage culture and external shame was statistically significant. The significant dual moderation effect emphasized the critical influence of heritage culture acculturation on how East Asian international students reacted to shame. Specifically, the association between external shame and wellbeing was stronger and significant at both moderate and high levels of heritage culture acculturation and low, medium, and high levels of host culture acculturation. In contrast, the association between external shame and wellbeing was weak and non-significant at low levels of heritage culture acculturation and low, medium, and high levels of host culture acculturation. In other words, shame appeared to play a stronger role for participants who were highly acculturated in their East Asian culture, as this group demonstrated worse wellbeing.

Since adherence to the heritage culture intensified the association between shame and wellbeing, East Asian or Asian value adherence clearly played a crucial role in international student mental health. Asian value adherence was found to negatively predict help-seeking behavior in Asian American groups due to the stigmas around help-seeking and shame related to disclosing personal problems outside the family (Gloria et al., 2008; Shea & Yeh, 2008). Asian international students with high adherence to traditional Asian values were also found to underutilize college counseling services (Yakunina & Weigold, 2011). The stigmas around help-seeking within the Asian community might have provoked more shame for East Asian international students to seek support and resources on campus.

Another key finding of the present study is that adherence to both heritage and host culture moderated the relation between family shame and wellbeing. This finding was, however, contradictory with the literature and the acculturation model (Berry, 2005). Based on Berry's acculturation model, individuals with high adherence to both heritage and host culture reach the acculturation level of *integration*. As a result, they experience less external stress and internal conflicts because they have become capable of adopting the host culture while retaining the heritage culture. In the current study, the relation between family shame and wellbeing was significant when heritage culture acculturation was high and host culture acculturation was low, medium, or high. Contrary to Berry's theory, participants at high levels of both heritage and host culture acculturation (i.e., integration) reported a strong association between family shame and wellbeing. However, this effect was strongest when host culture acculturation was low, and became weaker as host culture acculturation went higher. The declined strength of the effect as host culture acculturation became stronger provided some support to Berry's theory.

A possible explanation could be that although participants were highly acculturated in both cultures, they might be "code-switching" to fit in the U.S. higher education setting instead of regulating the differences to become bicultural. In other words, they might experience a "spilt" in which they present themselves differently to bridge the gap between the university environment and their family culture. Moreover, 56% of the participants identified as first-generation college students and 71% identified as first-generation international students. East Asian international students may grapple with institutional barriers that their family might not be familiar with nor have the

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capability to assist with. Research has shown that first-generation college students often struggle with psychological distancing from their families of origin, including family achievement guilt (i.e., feeling guilty for surpassing the achievements of the family; Covarrubias & Fryberg, 2015), survivor guilt (i.e., negative emotions related to leaving family "behind" in difficult contexts; Tate et al., 2013), and pressure to succeed and make the family proud (Bryan & Simmons, 2009). Given their first-generation and/or first-generation international status, East Asian international students might experience additional stress and shame during their institutionalization process to adjust to the norms and expectations of U.S. higher education.

<div style="text-align:center">Limitations</div>

Several limitations need to be addressed in the present study. First, two measures demonstrated a Cronbach alpha below .70 which implied cross-cultural validity threats in applying ASSIS Perceived Discrimination subscale (Sandhu & Asrabadi, 1994) and MHI-5 (Berwick et al., 1991) to East Asian international students. ASSIS PD demonstrated a Cronbach alpha of .59 while MHI-5 demonstrated a Cronbach alpha of .54. Within-group differences among international student groups need to be further examined to better measure discrimination and wellbeing for East Asian groups.

Another limitation is around multicollinearity as the current analyses may provide biased parameter estimates given that the two "shame" variables (i.e., external shame and family shame) are analyzed separately. It would be helpful to use Structural Equation Modeling (SEM) to capture the variance shared between the external and family shame variables by including all residual correlations within the same model.

Second, there are some issues related to data collection that could potentially skew the results. One of the limits was that participants were primarily recruited from student organizations on campus. This might have limited the participants to those who were more connected to the university and had higher acculturation levels. Another limitation was the high percentage of the "N/A" responses due to most demographic questions were answered in the text entry format in Qualtrics. Although the questions were modified to multiple choices format after this issue was observed, a good portion of the demographic information was already lost. This further limited the capacity to examine within-group differences (e.g., place of origin, ethnicity, sexual orientation) due to the imbalanced groups and unknown responses ("N/A"). Moreover, graduate students were not included in the sample which limited the ability to compare the results of East Asian international students between undergraduate and graduate students. Additionally, it is possible that those who completed the survey had more time to participate in the study or were motivated by demand characteristics (i.e., East Asian international undergraduate students). Although it is impossible to know why people left the survey unfinished or did not take the survey, this issue needs to be addressed for potentially biasing the results of this study.

Fourth, the current sample was collected during the coronavirus pandemic in which virtual learning (asynchronous or synchronous online teaching format) had become the primary modality for most universities in the U.S. According to Table 2, the minimum of years attending school in the U.S. was one whereas the minimum of years living in the U.S. was zero. This discrepancy indicated that some international students never attend in-person classes in the U.S. despite their length of enrollment at a U.S.

university. Specifically, freshman and sophomore students (n = 114; 40.6%) who just started college might have limited opportunities to interact with their American peers, instructors, or local community outside online classes. Other participants also missed in-person classes, student club events, internships, and other social activities in which they could familiarize themselves with the American culture.

International students' studying abroad experience could be drastically different if they never went overseas or were rarely on campus. Given that some participants were taking online classes from their home countries, they might not have encountered as much racial and/or xenophobic discrimination as they would on a U.S. campus. In other words, the moderating effect of acculturation was examined in participants who experienced acculturation and discrimination differently compared to existing literature due to a global pandemic. These unique characteristics of the sample could also help explain the observed coefficient alphas for the scale scores, as the reports of discrimination could be inconsistent due to some participants only taking online classes in their home country. Findings from the present study need to be applied with caution to avoid overgeneralizing international students' cross-cultural experiences.

Implications

This study provided empirical support of the relations between discrimination, shame, acculturation, and psychological wellbeing. Three major contributions were made by the present study: (a) this dissertation was, to the author's knowledge, the first study that tested the minority stress theory and examined interpersonal shame in East Asian international students, (b) unlike most studies either focusing solely on adherence to the host culture or examining the two dimensions separately, the present study tested

acculturation as a dual moderator to better apply Berry's acculturation theory, and (c) this study highlighted the unique role of heritage culture adherence in strengthening the link between shame and wellbeing. Implications for research, practice, and policy were provided below.

First, there is certainly a need for instrument development to better measure perceived discrimination and psychological wellbeing among East Asian international students. Scholars are encouraged to modify existing scales or create new scales to improve the psychometric properties particularly cross-culturally validity. For instance, it may be helpful to reword some of the items for East Asian international students to easily understand. Taking MHI-5 as an example, instead of asking if the participant feels "downhearted and blue" or "down in the dumps", consider other words of choices such as "sad, discouraged, helpless, unhappy, upset, hopeless, desperate." A confirmatory factor analysis (CFA) could be conducted with MHI-5 and ASSIS-PD to test how well the number of items represent the constructs. Based on the loadings, means, and inter-item correlations, researchers may identify problematic items and consider removing or revising these items. Moreover, these two scales are relatively short which could impact the overall internal reliability of the scales. Researchers may also consider adding new items and running an exploratory factor analysis (EFA) to discover the factor structure of the revised scale and to examine its internal reliability.

Future studies may develop more reliable and valid scales to accurately measure the acculturative stress of East Asian international students. For instance, Gu (2007) developed a four-factor, thirty-three-item Acculturation Scale for Asian International Students. Bai (2016) also developed a five-factor, thirty-two-item Acculturative Stress

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Scale for Chinese Students to better capture acculturative stress in Chinese international students. Future scholars may continue to develop culturally competent scales to accurately measure the perceived discrimination and psychological wellbeing of East Asian international students.

Second, more studies need to be conducted on examining internalized racism and internalized xenophobia in East Asian international students. The present study identified shame as one form of internalized discrimination given the roles that discrimination being a distal minority stressor and shame being a proximal minority stressor. With the finding that acculturation moderated the impact of shame but not discrimination on wellbeing, East Asian international students might have internalized racism and xenophobia without recognizing the stressful events as discrimination. Researchers need to be more sensitive to covert, proximal minority stressors when studying the impact of racism and/or xenophobia as opposed to only overtly measuring discrimination. Future scholars should further examine other forms of internalized racism and internalized xenophobia such as beliefs in negative racial stereotypes (e.g., implicit racial biases, racial essentialist beliefs) and endorsement to white cultural norms or white supremacy (e.g., colorblindness that upholds racism, anti-Blackness in the Asian community).

Third, future researchers should consider examining other variables such as coping style and social support to learn more about how East Asian international students react to stress. Asian international students were found to manage stress with suppressive coping which strengthened the association between perceived discrimination and depression (Wei et al., 2008). However, existing studies indicated social support buffered the stress of discrimination and reduced the psychological distress among Asian students

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(Mossakowski & Zhang, 2014). It would be helpful to examine coping strategies, social support, and help-seeking behaviors in future studies to advance the field's understanding of East Asian international students' resiliency and adjustment process.

Since this study highlighted adherence to the heritage culture as a moderator on the impact of shame on wellbeing, it is important to further explore the unique characteristics or values of East Asian culture to better understand this moderation effect. Scholars in the field of Asian American psychology emphasized the importance of heritage culture acculturation and defined such cultural process as enculturation. Enculturation refers to the process of retaining Asian cultural values, behaviors, knowledge, and identity, which is a multidimensional construct developed based on a foundation of fourteen Asian value domains (Kim et al., 2001). These values include collectivism, the importance of family, avoidance of family shame, placing other's needs ahead of one's own, and maintenance of interpersonal harmony (Kim et al., 2001). The author proposed a contextual model of acculturation/enculturation explaining the Asian client-counselor relationship and counseling process effectiveness. In addition to enculturation and acculturation, this multidimensional model also includes cultural factors impacting enculturation and acculturation (i.e., values, behavior, identity, knowledge), personal factors (e.g., age, gender, generation since immigration, English proficiency), environmental factors (e.g., political climate, parent/family, peer group), client attitudes and behaviors, counselor attitudes and behavior, and the counseling process effectiveness (Kim et al., 2001). Scholars may use this clinically focused, Asian value-embedded model instead of Berry's acculturation model to explore the impact of enculturation on East Asian mental health.

Last, more research could be conducted using a different research design (e.g., longitudinal, experimental) to deepen the field's understanding of East Asian international students' needs and capture causal as well as temporal effects of discrimination and shame on wellbeing. It may also be helpful to conduct qualitative research or mixed study to better understand the lived experience of East Asian international students to capture the richness of their acculturation process and coping style (Wang et al., 2018). For example, researchers may interview East Asian international students about their study abroad journey in the U.S. understand their cross-cultural immersion experience during the pandemic. Researchers could see if discrimination, shame, and acculturation emerge as salient themes across qualitative interviews to understand how East Asian international students experience these concepts in their daily life. Researchers may also consider replicating the present study post-pandemic to possibly obtain more consistent results based on participants taking in-person classes on U.S. campuses.

Clinicians should be culturally responsive and sensitive throughout their work with East Asian international student clients. Throughout the course of treatment, clinicians should assess clients' levels of acculturation to both the U.S. culture and their heritage culture. This recommendation is made based on the finding that heritage culture acculturation tended to escalate East Asian students' perception of shame resulting in poor mental health. Therefore, clinicians need to understand what and how traditional East Asian values align with the client when assessing their symptoms and stressors. These questions include: tell me about your (heritage) culture, how do you feel about being a _____(client's ethnic identity), what aspects of your culture make you feel

proud/stressed, how does your (heritage) culture different from/similar to the American culture (and how do you feel about these differences/similarities). These questions could create opportunities for the therapist to get to know their East Asian international student clients from a cultural lens and to empathize them from their East Asian perspective.

Psychoeducation on counseling, mental illness, and acculturation are essential in therapy to normalize East Asian clients' discomfort and shame around seeking professional help as well as reducing mental health stigmas. For instance, a Chinese male freshman client might express anxiety in the session while self- doubting if he is not smart enough for his major. The clinician could explain the concept of acculturative stress, remind the client that he is taking college-level courses in his second language during his first semester, and recognize his dedication and high learning motivation as his strengths. Clinicians are encouraged to use a strength-based approach to work with this population to practice self-compassion (i.e., being kind to oneself, recognizing personal efforts and successes) and reduce shame. Therapists may also reinforce clients' healthy coping mechanisms and strengthen their motivation to change by recognizing clients' courage to attend counseling and discussing their therapeutic progress throughout therapy.

When developing case conceptualizations of East Asian international students, clinicians should take multicultural factors into consideration especially their family relationships and a collective perception of self and personal problems. In other words, therapists should be aware that clients may perceive their achievements and failures as family outcomes instead of individual experiences, and thus feel proud or ashamed collectively. Adames et al. (2018) urged counselors to recognize the ways clients are

impacted by their multiple marginalized identities as well as by the system of oppression (e.g., racism, xenophobia). It is also important to recognize signs of internalized xenophobia and empower the client through the externalization of xenophobic incidents. For example, a Korean international senior student might feel the pressure to outperform her American peers who do not need work visa sponsorship or feel not having a choice but to accept a lower-paid position within her Optional Practical Training (OPT) grace period (i.e., a sixty-day grace period post-graduation before the last day to leave the U.S.). Clinicians need to understand East Asian international students' fear and worry around their visa status to be able to connect with the client at a deeper level. Therapists should seek consultation and collaboration from international student advisors, English learning center, and other campus resource offices to develop a basic understanding of visa terms (e.g., CPT, OPT, F-1, H-1B) and better advocate for clients.

Higher education institutions should make continuous efforts to reduce institutionalized barriers as well as combating racism and xenophobia on campus. First, all campus resources should demonstrate their commitment to antiracism and antixenophobia by creating a supportive and inclusive environment. For example, many university counseling centers have included an antiracism statement and a list of resources for Asian American and Pacific Islander community on their website or decorated their offices with flyers or signs endorsing antiracism. This approach conveyed the message that East Asian international students are welcomed on campus, which could also be adapted by other campus services such as residence halls and dining halls. Moreover, academic advisors and instructors should receive training on how to assist East Asian international students with thriving in their academic programs. In East Asian

cultures, it is important to interact with authority figures respectfully by not causing them inconvenience. Therefore, it may be difficult for East Asian international students to ask questions or ask for help due to their concerns around causing inconvenience to authority figures (i.e., disrespecting authorities). Therefore, East Asian international students will likely benefit from academic advisors who proactively provide clear information and guidance to reduce the students' confusion and anxiety. Academic advisors should avoid making assumptions on students' familiarity with university policies and resources such as class enrollment, web-based learning management systems (e.g., Canvas), tuition payment, scholarship, and financial aid. Similarly, East Asian international students may not be used to participating in class discussions and asking questions since it could be disrespectful to interrupt instructors in their home country under any circumstances. Therefore, instructors should not assume East Asian international students as not paying attention to class or not wanting to participate in discussion when they appear quieter than their American peers in class. It may be helpful to incorporate small group discussions and other strategies (e.g., the "popcorn" share method) to create opportunities for East Asian international students to participate in discussions.

Given shame being a cultural barrier for East Asian international students to utilize counseling services, university counseling centers (UCC) are advised to take more proactive steps to serve East Asian students through outreach. Banks (2020) proposed a UCC outreach model and encouraged staff psychologists to spend more time conducting outreach as a prevention intervention to reach the underserved student populations on campus. UCCs may also consider developing outreach activities that targeted academic issues to attract East Asian international students who were more willing to utilize UCC

services for academic concerns. For example, UCCs may provide psychoeducation and teach healthy coping strategies to normalize mental health issues while reducing shame and stigmas related to help-seeking behaviors. Psychologists may integrate counseling techniques with academic workshops focusing on managing academic stress, test anxiety, and school-life balance. UCCs may make mental health resources more accessible for East Asian international students through workshops and outreach programming. International Student and Scholar Services (ISSS) or the English Learning Center (ELC) could also develop peer mentorship program to establish social connections and supportive culture by pairing up international students with domestic students or advanced international students. These opportunities may increase international students' support system and local friendships.

Last, advocacy for international students should be an ongoing process and responsibility of the university chancellors, executive team members, faculty, and student affairs coordinators. One of the examples was the reverse of ICE's "student ban" policy after higher education institutions and states collaborated to challenge the Trump administration (Adams, 2020; Binkley, 2020). Policymakers and universities should continue to empower East Asian international students by confronting xenophobic policies and protecting international student rights. UCCs and ISSSs could also speak out about anti-Asian racism and xenophobia on campus as well as advocate for international students through staff training meetings or advocacy resource sharing. For example, the American Psychological Association Division of Counseling Psychology International Section (APA ICP) has developed two resource handbooks for international students and

allies with detailed advocacy tips, career resources, and visa information (Division of Counseling Psychology International Section, 2020a & 2020b).

The present dissertation provided practical implications above for researchers, clinicians, and administrators to address the needs of East Asian international students as well as advocate for this underserved population

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APPENDICES

Appendix A: Mental Health Inventory-5

The next set of questions are about how you feel, and how things have been for you during the past 4 weeks. If you are marking your own answers, please circle the appropriate response (0, 1, 2,...). If you need help in marking your responses, tell the interviewer the number of the best response. Please answer every question. If you are not sure which answer to select, please choose the one answer that comes closest to describing you. The interviewer can explain any words or phrases that you do not understand.

1= All of the time
2= Most of the time
3= A good bit of the time
4 = Some of the time
5 = A little bit of the time
6= None of the time

During the past 4 weeks, how much of the time...

1. have you been a very nervous person?

2. have you felt calm and peaceful?

3. have you felt downhearted and blue?

4. were you a happy person?

5. have you felt so down in the dumps that nothing could cheer you up?

Appendix B: ASSIS Perceived Discrimination Subscale

As foreign students have to make a number of personal, social, and environmental changes upon arrival in a strange land, this *cultural-shock* experience might cause them acculturative stress. This scale is designed to assess such acculturative stress you personally might have experienced. There are no right or wrong answers. Please fill in the box that BEST describes your response.

1= Strongly disagree, 2= Disagree, 3= Not sure, 4 = Agree, 5 = Strongly agree

Because of my different cultural background as a *foreign* student, I feel that:
1. Many opportunities are denied to me.
2. I am treated differently in social situations.
3. Others are biased toward me.
4. I feel that I receive unequal treatment.
5. I am denied what I deserve.
6. I feel that my people are discriminated against.
7. I am treated differently because of my race.
8. I am treated differently because of my color.

Appendix C: Interpersonal Shame Inventory

Authors: Joel Wong, Bryan Kim, Chi Nguyen, Janice Cheng, and Anne Saw.

The following statements are about experiences of <u>shame</u>. Please indicate the extent to which you agree with these statements as they relate to your life recently. Each statement has two parts separated by the word "because." In deciding on your rating, consider the extent to which <u>both</u> parts of the statement apply to you. You should focus on your <u>recent</u> experiences, not how you think or feel in general.

Options:
1. Strongly Disagree
2. Moderately Disagree
3. Slightly Disagree
4. Slightly Agree
5. Moderately Agree
6. Strongly Agree

1. These days, I feel like hiding because people might view me as flawed
2. These days, I wish I could disappear because my deficits might cause my family to lose face
3. These days, I feel like escaping because others might think something is wrong with me
4. These days, I feel like crawling into a hole because others might regard me as defective
5. These days, I feel like escaping because my defects might disgrace my family
6. These days, I feel like crawling into a hole because my deficiencies might dishonor my family
7. These days, I wish I could run away because my inadequacies might cause my family to look bad
8. These days, I feel like avoiding others because people might view me as weak
9. These days, I wish I could shrink away because others might perceive me as incompetent
10. These days, I wish I could become invisible because my shortcomings might bring disrepute to my family

Scoring Instructions:
External Shame Subscale: (items 1 + 3 + 4 + 8+ 9)/5
Family Shame Subscale (items in bold): (items 2 + 5 + 6 + 7 + 10)/5
Currently, there is no evidence supporting the U.S.e of the total score for the Interpersonal Shame Inventory.
Range: 1- 6

Appendix D: Vancouver Index of Acculturation

Please circle *one* of the numbers to the right of each question to indicate your degree of agreement or disagreement.

Many of these questions will refer to your *heritage culture*, meaning the original culture of your family (other than American). It may be the culture of your birth, the culture in which you have been raised, or any culture in your family background. If there are several, pick the one that has influenced you *most* (e.g. Irish, Chinese, Mexican, African). If you do not feel that you have been influenced by any other culture, please name a culture that influenced previous generations of your family. Your heritage culture (other than American) is: _____

Disagree   Agree

1   2   3   4   5   6   7   8   9

1. I often participate in my heritage cultural traditions.
2. I often participate in mainstream American cultural traditions.
3. I would be willing to marry a person from my heritage culture.
4. I would be willing to marry a white American person.
5. I enjoy social activities with people from the same heritage culture as myself.
6. I enjoy social activities with typical American people.
7. I am comfortable interacting with people of the same heritage culture as myself.
8. I am comfortable interacting with typical American people.
9. I enjoy entertainment (e.g. movies, music) from my heritage culture.
10. I enjoy American entertainment (e.g. movies, music).
11. I often behave in ways that are typical of my heritage culture.
12. I often behave in ways that are typically American.
13. It is important for me to maintain or develop the practices of my heritage culture.
14. It is important for me to maintain or develop American cultural practices.
15. I believe in the values of my heritage culture.
16. I believe in mainstream American values.
17. I enjoy the jokes and humor of my heritage culture.
18. I enjoy white American jokes and humor.
19. I am interested in having friends from my heritage culture.
20. I am interested in having white American friends.

The heritage subscore is the mean of the odd-numbered items, whereas the mainstream subscore is the mean of the even-numbered items. Researchers studying acculturation in other mainstream contexts may wish to change
'North American' to another descriptor such as 'American' in the United States or 'British' in Great Britain.

Appendix E: Demographic Questionnaire

1. How do you currently describe your gender identity?
   Please specify: _____
   I prefer not to answer.

2. What is your age in years? (e.g., 19, 21, 23, etc.).
   Please specify: _____
   I prefer not to answer.

3. How many years have you been attending school in the U.S.? (e.g., 1, 2, 3, etc.)
   Please specify: _____
   I prefer not to answer.

4. How many years have you been living in the U.S.? (e.g., 1, 2, 3, etc.)
   Please specify: _____
   I prefer not to answer.

5. What is your race?
   Please specify: _____
   I prefer not to answer.

6. What is your ethnicity?
   Please specify: _____
   I prefer not to answer.

7. What is your nationality/country of origin?
   Please specify: _____
   I prefer not to answer.

8. What is your first language?
   Please specify: _____
   I prefer not to answer.

9. What is your present level of English fluency?
   Very high
   High
   Average
   Low
   Very low
   Other, please specify: _____
   I prefer not to answer.

10. Which categories describe you? Select all that apply to you:
    Freshman

Sophomore
Junior
Senior
Other, please specify: _____
I prefer not to answer.

11. Where is your current university/college?
   Midwest—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, North Dakota, South Dakota, Wisconsin
   Northeast—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont
   South—Arkansas, Alabama, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia
   West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming
   I prefer not to answer.
   Other, please specify: _____

12. Do you consider yourself to be:
   Heterosexual or straight
   Gay or lesbian
   Bisexual
   Fluid
   Pansexual
   Queer
   Demisexual
   Questioning
   Asexual
   Other, please specify: _____
   I prefer not to answer.

13. What is your current field of study?
   Business and management
   Engineering
   Physical and life sciences
   Social sciences
   Math and computer science
   Fine and applied arts
   Health care professions
   Education
   Intensive English study
   Humanities
   Agriculture

Undecided/undeclared
Other, please specify: _____
 I prefer not to answer.

14. Are you a first-generation college student (i.e., none of your parental guardians has attended a college or university and earned a bachelor's degree)?
    Yes
    No
    Other, please specify: _____
    I prefer not to answer.

15. Are you a first-generation international student (i.e., none of your parental guardians has attended a U.S. college or university and earned a U.S. bachelor's degree)?
    Yes
    No
    Other, please specify: _____
    I prefer not to answer.