ROLES OF PERSEVERANCE AND MEANING-FOCUSED COPING
IN THE RELATIONSHIP BETWEEN ACCULTURATIVE STRESS
AND SUBJECTIVE WELL-BEING
FOR EAST ASIAN INTERNATIONAL STUDENTS
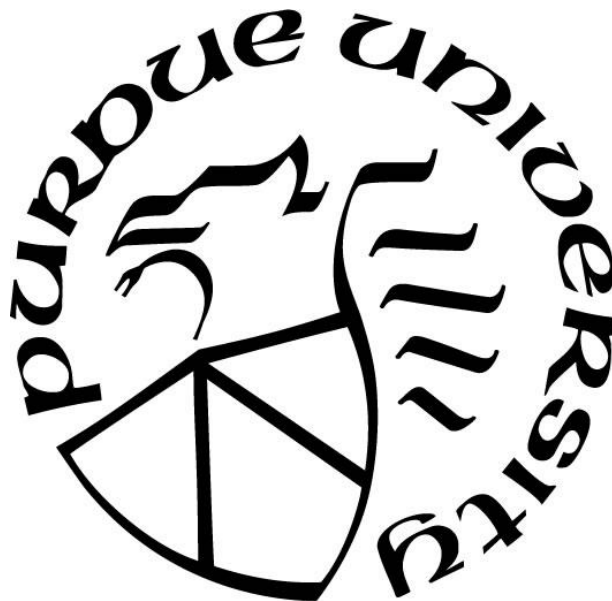
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To my parents and sisters who always believe in me and provide indescribable support

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

A growing body of research has indicated the challenges and difficulties international students face including but not limited to language barriers, academic struggles, social isolation, discrimination, and psychological distress. Among international students, East Asian international students represent a large subgroup and report higher acculturative stress and struggles due to their deep and complex cultural and language differences from the U.S. culture, compared to students from other areas. Using Tweed and Conway's (2006) framework, the current research examined a model to understand the roles of culturally relevant coping strategies (e.g., perseverance, meaning-focused coping) and acculturative stress in explaining well-being (e.g., life satisfaction, positive affect, negative affect, and peace of mind) among 200 East Asian international students. The results indicated that acculturative stress was a strong predictor of all well-being variables, perseverance was a predictor of well-being except for negative affect, and meaning-focused coping was a predictor of life satisfaction and positive affect. Tests of indirect effects revealed that perseverance partially mediates the relationship between acculturative stress and positive affect and peace of mind. The results also suggested that meaning-focused coping does not mediate the relationships between acculturative stress and well-being variables. The discussion addresses limitations of the study, suggestions for future research, and implications for literature and counseling psychology practice for East Asian international students.

CHAPTER I: INTRODUCTION

As the world is becoming globalized, an increasing number of international students are pursuing education abroad, especially in the United States (U.S.). According to the Institute of International Education (IIE, 2019), 1,095,299 international students studied at colleges and universities in the U.S. during the 2018-2019 academic year. It was marked as the thirteenth consecutive year of expansion of the total number of international students in U.S. colleges and universities. Whereas the overall number of international students enrolled at U.S. institutions has been increasing, the number of new students declined for the first time in 2016 by three percent and it continued decreasing for three consecutive years. IIE (2019) explained the decreased number of new students as due to a mix of several factors including global and local economic conditions, improved higher education opportunities in home countries, and declining populations. Besides these factors, social forces and changes in the socio-political climate are also considered as influencing the drop in the number of new international students. Specifically, president Trump's anti-immigration tone and policies negatively affected students' perceptions about personal safety and post-graduation opportunities (Najar & Saul, 2016). With fears and worries about studying in the U.S. under the Trump administration, prospective students and their parents may have chosen to apply to schools in other countries instead of the U.S.

In spite of this decrease, international students still represent 5.5 percent of the students enrolled in U.S. higher education (IIE, 2019). The high and increasing number of international students indicates their strong presence at U.S. colleges and universities. International students are known to be making significant contributions to the U.S. economy (e.g., tuition), developments in science and technology, global relationships, and cultural diversity (Leong, 2015). Considering their high numbers and significant contributions to the U.S., international

students have been receiving more attention in terms of their experiences in the U.S. and more research has emerged about how to better support them.

In many studies, international students reported facing a variety of stressors due to cultural transition and adjustment, such as language barriers, academic difficulties, homesickness, social isolation, financial problems, discrimination, and microaggressions (Ginter & Glauser, 1997; Gomez, Khurshid, Freitag, & Lachuk, 2011; Leong & Chou, 1996; Mallinckrodt & Leong, 1992; Mori, 2000; Pedersen, 1991). These acculturative and adjustment-related stresses of international students manifest in physiological and psychological symptoms. It is common for international students to report lack or loss of appetite, sleep difficulties, low stamina and energy levels, headaches, and gastrointestinal problems (Allen & Cole, 1987; Lin & Yi, 1997; Mori, 2000). In addition, cognitive fatigue, mental exhaustion, and burnout can easily occur due to the constant demand of processing a variety of information—processing that is automatic in one's own culture (Winkelman, 1994). Finally, international students suffer from various forms of psychological distress such as feelings of loss, disappointment, resentment, sadness, a sense of inferiority, feelings of loneliness, and a sense of helplessness and hopelessness (Mori, 2000; Sandhu, 1994).

Among international students, East Asian international students represent a large and unique subgroup. They come from China, South Korea, Taiwan, Japan, Hong Kong, Mongolia, Macao, and North Korea, and they make up 43.1 percent of the total international students in U.S. (IIE, 2017). The literature on international students reveals that East Asian international students experience higher levels of acculturative stress and challenges academically and socially than students from other areas (Leong, 2015). This may be because East Asian international

students have more complex cultural and language differences from the U.S. culture than international students from other areas such as Europe.

In addition, Asian international students distinguish themselves from other student populations in their unique way of expression of distress. Previous research has consistently indicated that Asian international students tend to report physical symptoms more often than psychological distress such as anxiety and depression, and seek medical or academic help although the symptoms may stem from psychological stressors (Lin & Yi, 1997; Mori, 2000). Physical symptoms include respiratory disorders, headaches, low energy levels, gastrointestinal problems, lack or loss of appetite, sleep difficulties, and fatigue (Allen & Cole, 1987; Lin & Yi, 1997; Thomas & Althen, 1989).

Given the large number of East Asian international students and their higher levels of acculturative concerns, we need to understand the factors that impact their subjective well-being to promote better services for the population. In this line of study, culturally relevant constructs must be investigated, considering East Asian international students' unique cultural backgrounds and psychological experiences. For instance, Anderson (2018) examined culturally specific variables for East Asian international students. Specifically, she tested the roles of collectivistic coping (i.e., seeking social support, forbearance) and unique cognitive appraisal (i.e., dialectical thinking) between acculturative stress and interdependent happiness among East Asian international students. The results indicated that acculturative stress is the strongest predictor among independent variables to understand interdependent happiness.

A literature review on international students pointed out that most of the previous studies have focused on problematic aspects of the adjustment process and related psychological distress, paying little attention to coping and resiliency factors among this population (Pendse &

Inman, 2016). Additionally, a deficit-oriented approach can generalize and stereotype, suggesting that all international students' adjustment experiences are problematic and distressing (Pedersen, 1991). Furthermore, it is not consistent with the counseling profession's emphasis on individuals' strengths and positive assets (Gelso, Nutt Williams, & Fretz, 2014). Thus, it is important to pay more attention to a resiliency-focused approach. Specifically, a resiliency framework can identify positive adaptation outcomes such as well-being and identify protective factors to enhance positive adaptation outcomes.

Adhering to a resilience-based perspective, the current study examined the impact of East Asian international students' acculturative stress on their subjective well-being and the mediating roles of culturally relevant coping strategies in the effect of acculturative stress on subjective well-being. Subjective well-being is assessed in two broad distinctive aspects: a cognitive and an affective component (Pavot & Diener, 1993). To identify culturally specific coping skills for East Asian international students, I used Tweed and Conway's (2006) concepts of culturally influenced beliefs about the world as my theoretical framework. The framework addresses how culturally influenced beliefs form unique coping strategies for certain cultural groups. I used perseverance and meaning-focused coping (MFC) as culturally congruent coping strategies, as these constructs stem from traditional East Asian philosophical and religious foundations: Confucianism, Taoism, and Buddhism (Leaman, 1999; Suen, Cheung, & Mondejar, 2007).

Statement of Purpose

The purpose of this study was to examine the impact of acculturative stress on subjective well-being and the roles of coping strategies which stem from culturally influenced beliefs (i.e., beliefs from Confucianism, Taoism, and Buddhism) between acculturative stress and subjective

13

well-being among East Asian international students. More specifically, I examined if perseverance and MFC function as mediators of the effect of acculturative stress on subjective well-being (i.e., life satisfaction, positive/negative affect) among East Asian international students. No study yet has investigated the role of perseverance as a coping strategy; thus, the current study would be the first research project to suggest and test how perseverance may work as a coping process among people from East Asian cultures. Although MFC has been studied fairly often, it was examined in only a few studies related to international students' acculturative stress and limited to Chinese students as participants (e.g., Pan, 2011). Considering these limitations, the current study will have significant implications in terms of identifying culturally relevant coping styles and their possible positive roles in improving subjective well-being among East Asian international students in their cultural adjustment process.

Importance of Study

The current study has a number of significant implications for scholars and clinicians. First, the current study will enrich scholarly work on East Asian international students and contribute to a balanced perspective regarding international students' experiences and how to better support them. Previous literature on international students' acculturation has focused on problematic aspects such as acculturative stressors and psychological distress, giving little attention to resiliency factors and coping (Pendse & Inman, 2016). Exploring and testing the role of East Asian international students' unique coping strategies on their positive cognitive and emotional experiences, this study will facilitate the expansion of resilience-oriented research in international students' acculturation literature.

Second, the current study will inform clinicians regarding how to work more effectively with East Asian international students. Considering the increasing number of East Asian

international students (Institute of International Education, 2017), understanding East Asian international students and their unique coping skills during the transition process would be critical for clinicians. Exploring where their coping responses (i.e., perseverance and meaning-focused coping) come from and the roles of the coping strategies, the current study will help clinicians understand East Asian international students' unique ways of coping and provide them with culturally congruent interventions. In addition, the current study may help clinicians unlearn stereotypes against East Asian international students. For instance, there is a stereotype that East Asian students achieve academic success at the cost of their well-being (Stevenson et al., 1993). In this stereotype, persevering study habits can be viewed as a negative behavioral tendency that hurts students' well-being. Through the current study, clinicians may learn why certain types of behavioral responses such as perseverance are encouraged and valued in East Asian cultures and how they can be utilized positively to cope with hardships.

Third, the current study will contribute to the development of clinicians' multicultural competencies, which in turn will impact their rapport building and working alliances with East Asian international students. Clinicians' unintentional biases against clients from different cultural backgrounds may interfere with therapeutic relationships and contribute to high dropout rates and underutilization of mental health services among people of color (Vasquez, 2007). On the contrary, clients would be more trusting and open, and would stay in treatment when their clinicians understand their cultures and validate their cultural values. By providing a deeper understanding of East Asians' culture and relevant coping styles, the current study will equip clinicians with multicultural competency that may lead to better rapport building, working alliances, and retention rates for East Asian international students.

15

Fourth, the current study is the first to suggest perseverance as a culturally specific coping strategy for people from East Asian cultures. Even though perseverance has been mentioned frequently as a strength and a resiliency factor in positive psychology (Seligman & Csikszentmihalyi, 2000; Stagman-Tyrer, 2014), to my knowledge, few studies have been conducted to test its psychological effect. The most relevant construct in psychology is *grit* which measures perseverance of effort as a sub-dimension (Duckworth, Peterson, Matthews, & Kelly, 2007). Studies found that grit predicted positive psychological outcomes (Salles, Cohen, & Mueller, 2014; Singh & Jha, 2008), and in particular, the perseverance of effort subscale was found to have more salient power to predict subjective well-being among students from collectivistic culture than the other sub-dimension, consistency of interest (Datu, Valdez, & King, 2015). The study suggests the potential role of perseverance as a coping strategy and the current study is the first attempt to conceptualize perseverance as a coping strategy and test its role in the face of adverse situations, particularly under acculturative stress.

Fifth, the present study will expand the scope of the Chinese Making Sense of Adversity Scale (CMSAS; Pan, Wong, Chan, & Joubert, 2008). The CMSAS was originally developed and validated for the Chinese population (Pan et al., 2008). However, considering the shared cultural background and philosophical foundations among East Asian countries (Leaman, 1999; Moodley, Lo, & Zhu, 2018; Suen et al., 2007), the CMSAS would be an appropriate measure to use for the broader population of people from East Asian countries. The present study will expand the use of the CMSAS to international students who are from various East Asian countries. In addition, only a few studies have tested the effect of MFC on acculturative stress (Pan et al., 2008), and the current study will enrich the literature on measurement of MFC and its impacts in relation to acculturative stress (Folkman, 2009).

Relevance to Counseling Psychology

This study is closely relevant to counseling psychology in a number of ways. First, the current study is strongly aligned with counseling psychology's emphasis on three roles (i.e., remedial, preventive, and developmental; Gelso et al., 2014). The current research will help counseling psychologists perform remedial and preventive roles for East Asian international students. For instance, clinicians can empower their East Asian international students who already report psychological distress to identify and utilize their culturally congruent coping strategies such as perseverance coping and MFC. Counseling psychologists can also use the results of the current study for preventive purposes. Psycho-educational workshops or classes could be developed to educate and prepare East Asian international students for responding to acculturative stressors in ways that are more effective and familiar to them. In particular, clinicians can validate East Asian students' unique responses to adjustment challenges and encourage them to identify and use culturally relevant coping. The current study complies with the developmental role of counseling psychology. To a greater or lesser degree, most international students experience acculturative stress in their transitioning and adjusting process both academically and culturally. By targeting East Asian international students who face developmental and acculturative challenges and providing knowledge about how to better support the population, the current study will facilitate counseling psychologists in fulfilling their developmental role.

There are five unifying themes in counseling psychology: a) it focuses on intact personality, b) it focuses on the individual's assets, strengths, and positive mental health regardless of disturbances, c) it emphasizes educational and vocational development, d) it emphasizes person-environment interaction, and e) it provides relatively brief interventions (Gelso et al., 2014). Besides these themes, counseling psychology also emphasizes

multiculturalism, social justice, and advocacy which emerged as a sixth theme. The current study reflects four of these themes: focusing on intact personality, strengths and positive mental health, person-environment interaction, and multiculturalism.

First, the current study complies with the focus of counseling psychology on intact personality in that the population of the study is East Asian international students who are mostly a non-clinical sample. The current study also holds a perspective that considers acculturative stress as a normal experience in transition and adaptation. Second, the current study focuses on individuals' assets, strengths, and positive mental health. In spite of counseling psychology's emphasis on positive mental health, current literature on acculturation focuses predominantly on negative psychological outcomes such as depression and anxiety. Having positive subjective well-being as an outcome variable, the current study reflects the focus of counseling psychology on positive mental health. Third, the current study is congruent with counseling psychology in emphasizing person-environment interaction. Acculturation itself addresses the influence of environment on a person from a different culture, and the current study starts from the premise of person-environment interaction in terms of studying the impact of acculturative stress and East Asian international students' coping responses toward acculturative stress. Lastly, the current study is in line with counseling psychology's emphasis on multiculturalism, social justice, and diversity in terms of targeting East Asian international students and testing culturally specific coping styles. Literature on international students is still an underrepresented area (Pendse & Inman, 2016), and research on East Asian international students in particular is scarce. By conducting a study on East Asian international students, the current study will contribute to improving diversity in the field and respond to the call of the multicultural competence movement in the profession (Gelso et al., 2014).

CHAPTER II: LITERATURE REVIEW

In this chapter I will provide a literature review regarding East Asian international students' experiences in the U.S., the impact on their subjective well-being (i.e., life satisfaction, positive/negative affect), and culturally relevant coping (i.e., perseverance, meaning-focused coping) stemming from culturally influenced beliefs. First I will review the literature on international students' acculturative stress (e.g., Gomez et al., 2011; Leong & Chou, 1996; Mallinckrodt & Leong, 1992; Mori, 2000) and argue for the need for a resiliency-oriented approach. Then I will focus on exploring coping strategies that are used in the face of acculturative stress among East Asian international students. Using Tweed and Conway's (2006) concepts of culturally influenced beliefs about the world, I will present and discuss perseverance and meaning-focused coping as culturally relevant coping strategies. Finally, I will provide theoretical and empirical rationale which support that the effect of acculturative stress on subjective well-being is mediated by perseverance and meaning-focused coping.

International Students in the U.S.

As discussed in the previous section, increasing numbers of international students are pursuing higher education in the U.S. (IIE, 2019). In 2018-2019 there were more than one million international students studying in the U.S., which makes up 5.5 percent of the total number of enrolled students in the U.S. Among international students, East Asian international students account for 43.1 percent of the total international students (IIE, 2019). International students are mostly undergraduate and graduate students, with some non-degree students. International students are enrolled in all fields of study, with the highest numbers in Engineering, Math and Computer Science, and Business and Management. The leading place of origin is

19

China (33.7%), followed by India (18.4%), South Korea (4.8%), Saudi Arabia (3.4%), and Canada (2.4%).

Although eleven consecutive years of increase in the total number of international students has been recorded, the number of new international students decreased from 2016-2017. The decline in new international student enrollment is attributed to several factors, including global and local economic conditions and expanded opportunities for higher education in home countries (IIE, 2017). Many U.S. institutions cite the current socio-political environment as having a negative impact on the decline (Baer, 2017). Specifically, prospective international students and their parents expressed worries and fears about coming to the U.S. due to President Trump's anti-immigration policies, and indicated their intention to apply to institutions in other countries (Baer, 2017; Najar & Saul, 2016). U.S. institutions also reported visa denials and delays as a reason for decreasing new enrollment (Baer, 2017). Although laws and regulations related to foreign students have not changed, the State Department now emphasizes that consulates "must refuse" applicants if they do not satisfactorily show intention to leave the U.S. after completion of their study (Kavilanz, 2018). The U.S. government's tougher policies on H-1B (i.e., foreign work) visas is also considered as deterring international students from applying to U.S. colleges due to the expected difficulty of staying in the U.S. after graduation. The situation worries U.S. institutions, and hundreds of universities have joined a campaign called "#YouAreWelcomeHere" to reduce concerns about xenophobia and improve the perception of safety among international students (Baer, 2017). Considering the current socio-political climate and its impacts on international students, it is timely and relevant to increase awareness about international students' need for help and to pay more attention to ways of promoting international students' well-being.

Acculturative Stress among International Students

When international students arrive in the U.S., they go through an acculturation process and experience acculturative stress as they adapt to and settle down in a new environment. Acculturation is "the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members" (Berry, 2005, p. 698). While there is a relatively stable change to achieve adaptation, acculturation involves significant life changes which can be viewed as opportunities or difficulties and stressors (Berry, 1997; 2006). In the process of acculturation, international students may experience acculturative stress, a type of stress related to their cross-cultural encounters, and it can manifest as physical, social, and psychological concerns (Berry et al., 1987).

Smith and Khawaja (2011) enumerated the frequently reported acculturative stressors by international students, categorizing them as language, educational stressors, sociocultural stressors, discrimination, and practical stressors. Challenges related to language differences are some of the major acculturative stressors that international students encounter, and lower levels of English proficiency have been found to predict levels of acculturative stress, adjustment strain, depression, and anxiety (Dao, Lee, & Chang, 2007; Duru & Poyrazli, 2007; Sumer, Poyrazli, & Grahame, 2008; Yeh & Inose, 2003). Zhang and Goodson (2011) indicated that English proficiency was a significant predictor of psychological and sociocultural adjustment in a systematic review. Whereas international students' language differences were found to impede attempts to build friendships and interact with individuals from the U.S., English competency was found to be associated with frequency of and ability to relate to local people (Barratt & Huba, 1994; Chen, 1999; Poyrazli, Arbona, Nora, McPherson, & Pisecco, 2001).

Regarding educational stressors, international students experience more intensified academic stress compared to their domestic counterparts. According to Rasmi, Safdar, and Lewis

(2009), international students with more academic hassles reported the greater levels of psychological distress. Other contributors to acculturative stress in educational environments include mismatch between academic expectations and realities, unmet expectations of educational services, and difficulties adjusting to the teaching pedagogies (Aubrey, 1991; Chen, 1999; Khawaja & Dempsey, 2007; Liberman, 1994; Mori, 2000). Asian international students who are used to rote learning (i.e., learning by memorization with repetition) have been found to have particular difficulties adjusting to the Western teaching style that emphasizes interactive learning and critical thinking (Edgeworth & Eiseman, 2007; Townsend & Poh, 2008). Educational stress is exacerbated for those with financial concerns and pressure to graduate as soon as possible, because international students are neither qualified for federal financial aid nor able to work outside the university (Cadieux & Wehrly, 1986).

Another domain of acculturative stressors for international students is sociocultural challenges. International students perceive less social support and more loneliness and homesickness than their domestic counterparts (Hechanova-Alampay, Beehr, Christiansen, & Van Horn, 2002; Khawaja & Dempsey, 2007; Parr & Bradley, 1991; Rajapaksa & Dundes, 2002). Language differences, cultural norms, and the nature of friendship in the host countries as well as personality traits are found to contribute to international students' ability to build friendships, which in turn influences their levels of loneliness (Brisset, Safdar, Lewis, & Sabatier, 2010; Wang & Mallinckrodt, 2006; Ying & Han, 2006). Asian international students from collectivistic cultures may experience more sociocultural difficulties (e.g., loss of close social networks, difficulty making local friends) compared to their European counterparts due to the greater cultural differences (Smith & Khawaja, 2011).

Additional significant acculturative stressors are discrimination and microaggressions. International students, compared to domestic students, have reported increased perceived discrimination and internationational students from non-European countries reported higher levels of perceived discrimination than European international students (Hanassab, 2006; Lee & Rice, 2007; Poyrazli & Lopez, 2007). According to Poyrazli and Grahame (2007), international students reported experiencing both overt and covert off-campus discrimination. In a qualitative study of international students in the U.S. (Lee & Rice, 2007), students from Asia, India, Latin America, and the Middle East reported experiences of discrimination including physical attacks, institutional discrimination, verbal insults, feelings of inferiority, feelings of discomfort, and inhospitality whereas international students from Canada, Europe, and New Zealand reported minimal to no discrimination. Experiences of discrimination have been found to negatively affect international students' adaptation and are associated with poor well-being such as depression (Atri, Sharma, & Cottrell, 2006; Jung, Hecht, & Wadsworth, 2007; Wei et al., 2007).

Since President Donald Trump was elected, his anti-immigrant policies have created a more hostile environment for immigrants (Baer, 2017; Kavilanz, 2018; Najar & Saul, 2016). For instance, arrests and deportations of undocumented immigrants increased sharply, even for those with no criminal record (Kopan, 2018), and a travel ban was issued to suspend people from coming back, mainly from Muslim countries (Hamedy, 2018). International students are not exempt from this influence. The U.S. government issued noticeably fewer visas to foreign students, which might have contributed to the decreased number of new international students (Kavilanz, 2018). These anti-immigration policies may be increasing international students' perceived discrimination and fears (Najar & Saul, 2016); thus, more support is needed to reduce their fears and help them to better adjust to the changing U.S. environment.

Need for Resiliency-Oriented Approach

Given all these critical acculturative stressors, there has been a call for research on international students to better support their adjustment to the U.S. (Pendse & Inman, 2016). As the increasing number of studies focused on international students accummulated, the research trend was evaluated and a more balanced approach was recommended (Pendse & Inman, 2016). In general, the majority of psychological research has focused on identifying poor mental health outcomes (e.g., depression, anxiety) or risk factors to prevent the onset or reduce symptoms of psychological distress. Similarly, literature on international students has also focused on acculturative stressors, psychological distress, and risk factors rather than positive mental health (Pendse & Inman, 2016). Understanding negative aspects of life, however, is not enough for pursuit of mental health. This is because absence of distress or pain does not guarantee a good life, or vice versa (Zautra, Hall, & Murray, 2008). There are individuals who have pain and illness in their lives including severe psychological distress, yet still live fulfilling and healthy lives. Thus, to fully understand the individuals' life experiences, we should also learn about positive and adaptive mental health and factors that contribute to positive mental health (Castro & Murray, 2010). A resiliency-oriented approach will help to achieve a well-balanced understanding about mental health in general, particularly among East Asian international students.

A resiliency approach represents a paradigm shift from focusing on problems and risk factors to focusing on the assets, strengths, and positive resources of individuals (Michaud, 2006), and provides a useful framework to better understand the full experiences of an individual's life. Resilience has been widely used in literature to describe different life experiences among various populations, and its definition and measurement has been debated (Rutter, 1999). In a comprehensive review, Luthar (2006) defined resilience as "a phenomenon

or process reflecting relatively positive adaptation despite experiences of significant adversity or trauma" (p. 742). With regard to migration, Castro and Murray (2010) defined resilience as "positive adaptation to the stressors and challenges of migration, that is, an outcome that develops from persistent efforts at coping with the multiple and often chronic stressors encountered with the new environment" (p. 376).

In acculturation research, there are two directions in which to apply the resilience framework (Pan, 2011). The first is identifying positive adaptation outcomes in the acculturative process, with the premise that acculturation impacts and even enhances life opportunities and positive mental health (Berry, Kim, Minde, & Mok, 1987). This line of study focuses on positive outcomes of acculturation among different populations in the acculturation process including refugees, immigrants, and international students (e.g., Abadi, 2000; Colic-Peisker, 2009; Kim, 2000). Specifically, previous studies have investigated successful settlement in host countries and developing positive aspects of well-being such as positive emotions and life satisfaction. In a qualitative study conducted among international students at U.S. universities, the majority of participants reported that they were happier and more satisfied as they became used to a new life (e.g., new system, weather, language, etc.) and achieved academic progress (e.g., passing comprehensive exams; Abadi, 2000). Anderson (2018) conducted resiliency-oriented research focusing on interdependent happiness among 313 East Asian international students. She found that acculturative stress was the most significant factor in explaining participants' interdependent happiness and that social support, which is collectivistic coping, had a positive impact on interdependent happiness. Her study also revealed that dialectical thinking, which is rooted in the principles of contradiction, change, and holism, contributed negatively to interdependent

happiness and even exacerbated the association between acculturative stress and interdependent happiness.

The second direction involves identifying factors and mechanisms to promote positive adaptation outcomes that ameliorate or reduce the potentially negative effects of acculturative stressors (Jasinskaja-Lahti, Liebkind, Jaakkola, & Reuter, 2006; Pan, 2011; Pan et al., 2008). For instance, in a study among Russian, Estonian, and Finnish immigrants, contact with a host support network was reported to have a strong buffering effect on stress symptoms related to discrimination (Jasinskaja-Lahti et al., 2006). In addition, active contact with relatives and friends in immigrants' home countries were found to have protective effects on the well-being of immigrants who experienced significant discrimination in the host country. In another instance, Pan (2011) developed and tested a resilience model of acculturation with mainland Chinese postgraduate students in Hong Kong. She reported that sense-making coping played a protective role, mediating the relationship between threat appraisal of acculturative hassles and positive/negative affect. The results also indicated that meaning-in-life had a significant protective effect on positive affect, but not on negative affects.

I applied a resiliency-oriented approach in the current study in both directions. First, I focused on subjective well-being (i.e., life satisfaction, positive/negative affects) as outcome variables. Second, I examined the effect of culturally sensitive coping strategies (i.e., perseverance, meaning-focused coping) to investigate their positive roles in the face of acculturative stress.

Subjective Well-being

Subjective well-being has been identified as having two components: life satisfaction, which is a global cognitive evaluation of the quality of one's life (Andrews & Withey, 1976),

and an affective aspect which refers to positive and negative emotional experiences (Bradburn, 1969; Lucas, Diener, & Suh, 1996). Although these two components have been found to be interrelated, they are not identical (Lucas et al., 1996). Also, positive and negative affect are not exact opposites, but rather partially independent (see Argyle, 1987). Thus, comprehensive subjective well-being can be understood to have three components: a) levels of life satisfaction over time, b) frequency and degree of positive affects such as joy, and c) absence of negative affects including depression or anxiety (Argyle & Martin, 2013).

Life Satisfaction

Life satisfaction has been conceptualized as a global cognitive evaluation of life that represents evaluative judgment (Diener, 1984). Then how do people judge satisfaction with life? It is considered to be associated with changes in chronically accessible domains (Schimmack, Diener, & Oishi, 2002; Schimmack & Oishi, 2005). Schimmack et al. (2002) found that people tend to use the same types of information to make life satisfaction judgments which are repeated over time. They also reported that when information sources used in life satisfaction judgments change, reported levels of life satisfaction also change. One likely source of information of life satisfaction is an individual's personality, particularly temperament. For instance, DeNeve and Cooper (1998) conducted a meta-analysis of how personality traits are related to subjective well-being. The results indicated that the personality traits most strongly associated with subjective well-being are repressive-defensiveness, emotional stability, trust, desire for control, locus of control-chance, positive affectivity, hardiness, private collective self-esteem, and tension. The authors clustered 137 different personality attributes into larger groups of personality variables, using Big Five dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. They found an overall correlation between all personality traits and all

components of subjective well-being. With regard to life satisfaction, Neuroticism was found to be the strongest negative correlate and Conscientiousness was the strongest positive correlate.

The second significant source of information about life satisfaction is levels of satisfaction with specific life domains (Stubbe, Posthuma, Boomsma, & De Geus, 2005). Life domain satisfaction refers to judgments about specific aspects of life such as job satisfaction, marital satisfaction, satisfaction with housing, and so forth. In general, domain satisfaction and life satisfaction have been found to be substantially correlated. However, the sum of domain satisfaction does not represent life satisfaction, because individuals use different types of domain satisfaction with different weights to think about life satisfaction. For instance, when college students were asked to identify their sources for life satisfaction judgments, participants reported life domains such as romantic relationships, health, academic performance, and family relationships as more important sources of information than other potential sources such as financial situation and housing (Schimmack et al., 2002). The authors also found individual differences in the use of life domains as sources and in the importance assigned to those domains. When individuals reported a particular domain as important, they tended to use that domain as a source of information for life satisfaction judgments.

There are different points of view regarding formation of life satisfaction judgments. From an adaptation viewpoint, life changes and events in life domains have a short-lived influence on life satisfaction or overall subjective well-being (Pavot & Diener, 2008). That is, these factors initially impact one's level of life satisfaction; however, people adapt to a new environment and their level of life satisfaction often returns to their long-term baseline of life satisfaction. From this perspective, the impact of life changes and events on life satisfaction and subjective well-being are minimized and the influence of temperament disposition is

28

emphasized. However, there has been substantial evidence that the impact of some life events and changes may last. For instance, some stressful and traumatic experiences such as becoming a widow (Lucas, Clark, Georgellis, & Diener, 2003) and being a caregiver for a person with Alzheimer's disease (Vitaliano, Russo, Young, Becker, & Maiuro, 1991) can exert a negative long-term influence on subjective well-being. Another example indicated that unemployment produced a long-lasting impact on life satisfaction even after reemployment (Lucas et al., 2003). Thus, significant life events and experiences at least in some life domains are considered to have impacts that result in long-term changes in level of life satisfaction. International students' stressful experiences and consequent life changes may have long-lasting impacts on life satisfaction. This is because the experiences involved in international students' acculturative process are across different life domains including academics, interpersonal relationships, and personal lifestyles, and their impacts are stronger than other life changes.

Studies have investigated predictors of life satisfaction among people in an acculturative process. Among international students in foreign countries, the following factors were found to predict satisfaction with life: Acculturative stress, perceived discrimination, information received prior to the sojourn, English proficiency, number of friends, satisfaction with finances, independent self construal, social connectedness, and ratio of friendship with host nationals versus co-nationals (Du & Wei, 2015; Oguri & Gudykunst, 2002; Sam, 2001; Ye, 2005). For instance, independent self-construal, which is the prototypical self-construal in the host culture, was found to be associated with psychological adjustment including satisfaction with living in the U.S. (Oguri & Gudykunst, 2002). In another study, social connection with mainstream society was also found to be a better predictor of life satisfaction among Chinese international

students in the U.S. than social connection with an ethnic community (Wang, Wei, & Chen, 2015).

For international students, settling down successfully in the host country and achieving academic success might be one of the most important life domains. Thus, acculturative stress produced in academic and daily life adjustments may be an important source of life satisfaction. Surprisingly, however, there has been a limited number of studies exploring the impact of acculturative stress on life satisfaction and moderating or mediating variables between them. Considering the wide and significant influence of acculturative stress on life satisfaction among international students, the factors that decrease the effect of acculturative stress and increase the levels of life satisfaction need to be explored.

Positive and Negative Affect

The second and third components of subjective well-being are positive and negative affect (Diener, 1984). Affective evaluations occur in the form of emotions and moods. Emotions are considered to be short-lived reactions related to external stimuli or specific events (Frijda, 1999), whereas moods are considered as more diffuse feelings that might not be associated with specific stimuli (Morris, 1999). Plenty of studies on affective evaluations have been focused on how emotions and moods can be categorized, and there are two approaches to this topic (Diener, Scollon, & Luca, 2003). The first approach focuses on discovering whether there are certain basic emotions. Researchers in this line of study try to determine the basic features of emotions, then investigate variations in these features to identify basic emotions. For instance, Frijda (1999) claimed that emotions have five features. First, emotions are associated with feelings of pleasure or pain. Second, emotions contain appraisal of an event or object as good or bad. Third, the elicitation of emotions is related to behavioral changes toward the environment. Fourth,

emotions are often tied to automatic arousal. Lastly, emotions are associated with cognitive changes. By investigating variations in these features, basic emotions can be classified. Some basic emotions identified as pleasant emotions include joy, contentment, happiness, and love; unpleasant emotions include sadness, anger, worry, and stress (Ortony & Turner, 1990).

Another approach to categorizing emotions is the dimensional approach (Diener et al., 2003). Researchers who work from this perspective argue that certain types of emotions and moods tend to be strongly correlated both between individuals and within individuals. That is, people who experience high levels of negative emotions such as sadness tend to experience high levels of other negative emotions such as fear and anxiety. The fact that these emotions are highly correlated suggests that they may stem from the same underlying processes. Thus, from this approach, it can be possible to identify certain basic dimensions underlying the covariation in various emotions and moods. Research on causes or outcomes of emotions can progress by focusing on underlying emotional dimensions of various emotions rather than on the specific emotions themselves. Researchers in subjective well-being tend to focus on these dimensions rather than individual emotions, because different emotions with the same valence have been found to be moderately to strongly correlated (Zelenski & Larsen, 2000).

Most dimensional models of emotions have focused on two dimensions underlying emotional experiences. Russell (1980), for instance, suggests orthogonal dimensions of pleasantness and arousal to describe the variations among emotions. According to the model, emotions can be described based on noting the levels of pleasantness (i.e., positive versus negative) and arousal (i.e., high versus low arousal). For example, an emotion such as excitement would be a pleasant and highly aroused emotion while an emotion such as contentment would be a pleasant emotion with low levels of arousal. There have been disagreements about the structure

of affect, resulting in debates on whether or not positive and negative affects are independent and separable (Diener et al., 2003). Although positive and negative affects are moderately correlated, studies found that two constructs are clearly separable by factor analysis (Diener & Emmons, 1984; Diener, Smith, & Fujita, 1995). In addition, the fact that positive and negative affects are correlated differently with other variables such as anxiety and social participation supports the idea that they are independent constructs (Bradburn, 1969).

An issue regarding affective experiences in subjective well-being is what to measure: frequency versus intensity (Diener et al., 2003). People may experience certain emotions at any given time with high or low intensity. The question is whether a person who feels intense positive emotions sometimes is better off than a person who experiences mild happiness most of the time, or the frequency of emotions is more important than intensity to determine one's affective well-being. According to Diener et al. (2003), the frequency measure is considered to be theoretically and empirically more desirable in determining general affective well-being than the intensity measure for several reasons. Specifically, at a theoretical level, the process that leads to intense positive emotions tends to lead to intense negative emotions as well; as a result, those intense emotions cancel each other out (Diener, Sandvik, & Pavot, 2009). In a laboratory study, people who use amplifying or dampening strategies with emotions were found to be likely to use the same strategies with both positive as well as negative emotions (Larsen, Diener, & Cropanzano, 1987). Another reason that the frequency-based measure is more important than the intensity measure to assess general affective well-being is that intense emotional experiences are very rare (Diener, 1984). When emotions are repeatedly sampled over time, extremely intense emotions are very rarely reported, suggesting they may be unlikely to impact overall levels of affective well-being (Diener et al., 2009). Lastly, the frequency measure has been found to have

better psychometric characteristics. Diener et al. (2009) and Schimmack and Diener (1997) found that frequency reports were more highly associated with global well-being. Kahneman (1999) claimed that it is not difficult to report whether one feels positive or negative emotions and that it is a valid question, having similar meaning across individuals. According to Kahneman (1999), however, it is difficult to determine how intensely one feels certain emotions, and the meaning of the intensity scale can vary across respondents.

In spite of prolific research on positive and negative affects, research focused on positive/negative affects related to international students' acculturation process is still limited. Only a few studies have investigated subjective well-being among international students. Reported predictors of positive and negative affects among international students in foreign countries include acculturative stressors, acculturative strategies, self-determined motivation, threat appraisal, sense-making coping, meaning of life, and social connectedness (Du & Wei, 2015; Pan, 2011; Pan & Wong, 2011; Pan, Wong, Joubert, & Chan, 2007; Yang, Zhang, & Sheldon, 2018). For instance, Yang et al. (2018) found that self-determined motivation to study abroad is highly associated with positive/negative affect and life satisfaction, and that the relation is fully mediated by autonomy needs, relatedness needs, and competence needs. For another instance among international students, Du and Wei (2015) reported that social connectedness with the mainstream has a positive relationship with positive affect, but no relationship with negative affect. Also, social connectedness with the ethnic community displayed a weak positive association with positive affect and a negative association with negative affect. Again, only a few studies examined the influence of acculturative stress on international students' positive/negative emotions and factors that are associated with the influence of acculturative stress. Thus, further

attention and research in these specific areas are needed to promote healthier emotional experiences among international students.

Given that differences have been found between emotional experiences and their expression in individuals from Western and Eastern populations, caution must be taken when determining the construct to investigate. Are positive and negative affect appropriate constructs for an East Asian population? Although differences in emotional experiences have been reported between Westerners and Easterners, including emotional intensity and emotional regulation (Davis et al., 2012; Eid & Diener, 2001), a strong two-factor structure for affective experience (i.e., positive and negative affects) was found among different cultural groups including an Asian population (Scollon, Diener, Oishi, & Biswas-Diener, 2005). Also, positive and negative affects have been examined as core components of subjective well-being across nations, indicating its validity among individuals from different areas including East Asian counties (e.g., Kuppens, Realo, & Diener, 2008; Wang et al., 2015).

In addition, testing positive and negative emotions as separate constructs will be beneficial to understanding individuals from East Asian countries in terms of capturing their dialectical emotions. People from East Asian cultures tend to show their emotions in dialectical ways in which positive and negative emotions are positively correlated, whereas positive and negative emotions tend to be negatively correlated among individuals from Western cultures (Bagozzi, Wong, & Yi, 1999; Scollon et al., 2005). Specifically, frequency of pleasant and unpleasant emotions displayed strong negative correlations among people from countries such as the U.S. and Australia (e.g., Schimmack, Oishi, & Diener, 2002). On the contrary, researchers found less negative or even positive correlations among positive and negative affects in individuals from countries such as China and Japan (e.g., Kitayama, Markus, & Kurokawa,

2000). Scollon, Diener, Oishi, and Biswas-Diener (2005) conducted a cross-cultural study to compare the association between pleasant and unpleasant emotions among European Americans, Hispanics, Asian Americans, Japanese, and Indians. The positive relationship of frequency and intensity between pleasant and unpleasant emotions was only found in individuals from collectivistic cultures who endorse dialectical philosophy (i.e., Japanese, Asian American, and Indians), but not among individuals (i.e., Hispanic) from collectivistic cultures who do not endorse dialectical philosophy. The authors claimed that dialectical philosophy better explains the positive relationship between pleasant and unpleasant emotions than collectivistic culture. Considering the positive correlation of positive and negative affects, two separate constructs for positive and negative affect will better capture the unique emotional experiences of the East Asian population rather than a single bipolar construct.

Peace of Mind

Although positive and negative affect are accepted as universal constructs, questions arose as to whether affect scales appropriately measure specific emotions to understand well-being of individuals from different cultures (Lee, Lin, Huang, & Fredrickson, 2013). Lee et al. (2013) pointed out that previous affective measures, which are derived from a hedonic view of happiniess, assess only the moderate (e.g., happy, pleased, and joyful) to high-arousal (e.g., enthusiastic, excited, and alert) positive affect. However, these moderate to high-arousal emotions may not accurately reflect affective component of subjective well-being among Asian populations and previous studies found discrepancies in ideal affect and happiness between people from Western and Eastern cultures (Lu & Gilmour, 2004; Tsai, Knutson, & Fung, 2006). For instance, when asked how people want to feel, European Americans and Asian Americans valued high-arousal positive affect (e.g., excited) more than their Hong Kong Chinese

counterparts did (Tsai et al., 2006). In contrast, Hong Kong Chinese and Asian American individuals valued low-arousal positive affect (e.g., peaceful) more than European Americans did.

Among low-arousal affect, peace of mind may be one of the most desirable positive affects among Asian poplation (Lu & Gilmour, 2004; Tsai et al., 2006). Lu and Gilmour (2004) asked Chinese and European Americans what happiness is and the participants' responses revealed large discrepancies. Specifically, Chinese individuals often reported the term "harmony" and "balance" to define happiness whereas European Americans never indicated these words. The value of inner peace and harmony also has been found in Eastern philosophical grounds (i.e., Confucianism, Taoism, and Buddhism). Considering that being peaceful is the desirable affect among East Asian population, the current study assessed peace of mind to supplement the limitation of an affective scale developed from hedonic view of happiness.

Coping Strategies and Culturally Influenced Beliefs about the World

Discussion of acculturation or acculturative stress tends to lead to curiosity about the coping strategies individuals utilize in the process of acculturation. This might be because, as prominent acculturation scholars have argued, the principles of acculturation theory are rooted in stress and coping theory (Berry, 1997; Ward, 2001). From their point of view, acculturation can be considered a process that individuals experience in an effort to manage and cope with changes and stressors caused by migration and long-term contact with a new culture. Kuo (2014) conducted a review of theoretical and empirical literature focusing on coping's role and effect on the acculturation process. According to Kuo (2011), major acculturation theories share an emphasis that coping is: a) a principle determinant of acculturation and cultural adaptation among migrants, b) a significant mediator and moderator in the relationship between migrants'

stress and their psychological adaptation, and c) a process which is deeply shaped and influenced by migrants' cultural characteristics and social contexts (Aldwin, 2007; Castro & Murray, 2010; Kuo, 2011). Kuo (2014) also pointed out that empirical studies indicated that coping plays an essential role in attenuating the impacts of both acculturative and non-acculturative stress in the process of acculturation. Thus, to improve international students' well-being in their acculturative process, the importance of coping cannot be overemphasized. Again, one of the integral aspects that must be paid attention to is the cultural relevance of specific coping strategies. This is because international students' cognitive processes, emotional experiences, and behaviors cannot be fully understood without considering their original cultures, culturally influenced beliefs, and cultural norms. Therefore, I introduce a framework that contains cultural influences on coping styles to identify culturally congruent coping strategies for East Asian international students.

Tweed and Conway (2006) suggested a framework that culturally-influenced beliefs shape coping styles among cultural groups. They argued that culturally influenced beliefs held by each cultural group play a significant role in forming coping styles among members of the group. According to Tweed and Conway (2006), cultural beliefs influence how people view and conceptualize adversity and how people respond to and cope with the adversity. Previous research indicated how cultural beliefs among different cultural groups are associated with utilization of unique coping skills (Tweed, White, & Lehman, 2004; Yeh & Inose, 2002). For instance, different religions teach different types of coping styles. Buddhism emphasizes detachment from worldly desires to escape from suffering, whereas Taoism teaches one to adapt oneself to the environment, and Confucianism encourages individuals to acquire personal resources to be well prepared for potential future difficulty.

Then how are culturally influenced beliefs shaped? Tweed and Conway (2006) elucidated how culture and unique belief systems emerge, listing five contributing factors: human epistemic needs, belongingness motive, terror management, communication processes, and rational responses to social and geographic environments. First, Tweed and Conway (2006) argued that people have a need to understand the world, and epistemic needs may partly explain the origin of cultural belief systems. Having a desire to understand the world, people receive and accept information from others around them, and they influence and are influenced by people directly around them. Then people share certain cultural belief systems, and in that way the epistemic needs contribute to the origin of culture (Tweed & Conway, 2006). Second, Tweed and Conway (2006) claimed that sense of belonging is associated with the origin of cultures. This is because culture exists to help people feel that they fit in and belong to the cultural group with which they have shared beliefs (Baumeister & Leary, 1995). Third, Tweed and Conway (2006) suggested the motivation to avoid death as contributing to the origin of culture. According to terror management theory (Greenberg, Pyszczynski, & Solomon, 1997), cultural belief systems emerge partly to alleviate the threat of one's impending death. Membership in a cultural group provides a sense that one serves values and purposes beyond oneself, which in turn reduces the fear that all that one creates will end with one's death (Richter & Kruglanski, 2003). Fourth, Tweed and Conway (2006) asserted that the communication process also contributes to the emergence of culture. Specifically, people tend to persuade others who have different beliefs, and cultural differences emerge because communication and persuasion tend to be directed at others who are geographically near (Conway & Schaller, 2007; Lehman, Chiu, & Schaller, 2004). Finally, Tweed and Conway (2006) argued that rational response contributes to the origin of cultures. Specifically, environmental and socio-historical contexts most likely

contribute to the specific cultural belief systems relevant to coping (Conway, Ryder, Tweed, & Sokol, 2001). While the previous factors do not deal with specific contents, rational response explains why specific beliefs are formed in specific cultures. For example, Chinese individuals may use coping strategies to accept reality and live in contentment because it is a rational way to control the mind in the midst of external, pervasive, and chronic difficulties such as natural disasters, widespread poverty, foreign invasion, and other similar adversities.

Tweed and Conway (2006) posited that specific culturally influenced beliefs about the world contribute to the use of specific types of coping among cultural groups. Table 1 shows exemplary coping strategies formed by culturally influenced beliefs. First, belief in the utility of effort plays a role in increasing persistent coping in the face of difficulties or failures (see Heine et al., 2001; Stevenson, Chen, & Lee, 1993). For example, Stevenson and colleagues (1993) reported that Chinese and Japanese students who are influenced by the Confucian tradition are more likely than their American counterparts to believe that hard work and effort determine success. This belief in utility of effort was found to be associated with a particular form of coping, which is putting forth persistent and perseverant effort in response to demanding tasks (Heine et al., 2001).

Second, implicit beliefs which are related to traditional religious beliefs may influence cultural meaning systems even if only a few people adhere to and try to live according to traditional religious beliefs (Tweed & Conway, 2006). Although the role of religious beliefs in coping has not received enough attention, coping with religious beliefs has been found to have positive psychological outcomes (see Blaine & Crocker, 1995; Pargament, Koenig, & Perez, 2000). Tweed and Conway (2006) claimed that specific coping strategies stemming from

religion, such as detachment coping in Buddhism and reappraisal of events in Christianity, are influential in their respective cultures.

Table 1. Culturally influenced beliefs and relevant coping styles.

Culturally influenced beliefs	Exemplary coping styles
Belief in the utility of effort	Persistence coping
Religious beliefs	Detachment in Buddhism
Belief in the entity view of the world	Accepting problems
Belief in a benevolent world	Rebuilding belief in a benevolent world
Values (e.g., harmony)	Self-adjustment
Belief in the ubiquity of change	Persistence coping

Note. Summarized from *Coping strategies and culturally influenced beliefs about the world*, by R. G. Tweed and L. G. Conway, 2006, Dallas, TX: Spring

Third, belief in an entity view of the world (i.e., whether one perceives the world as difficult to change or not) may contribute to coping styles (Tweed & Conway, 2006). There is no direct research on manipulating entity views about the world to see if it influences coping strategies. However, individuals from East Asian cultures were seen as more likely to perceive that the world is unchangeable than individuals from Euro-American cultures (Chiu, Dweck, Tong, & Fu, 1997). Compared to their Euro-American counterparts, individuals from East Asian cultures reported coping by controlling themselves (e.g., accepting problems, waiting) rather than trying to change an unchangeable world (Tweed et al., 2004).

Fourth, a belief that events, even tragedy, have benevolent purposes and work for the good may be related to coping styles (Tweed & Conway, 2006). Belief in a benevolent world is a traditional Western belief and was found to still be a central response to trauma among North Americans (Janoff-Bulman, 1992). More specifically, people with traumatic experiences reported coping by rebuilding their belief in a benevolent world and other assumptions which were shattered by trauma.

Fifth, values are also associated with coping strategies (Tweed & Conway, 2006). For instance, people in collectivistic and individualistic cultures tend to cope differently (Lebra, 1984; Tweed et al., 2004). Specifically, individuals from collectivistic cultures have been found more likely to utilize coping styles such as self-adjustment and compromise to preserve social connections and harmony rather than expressing their emotions or confronting others.

Sixth, belief in the ubiquity of change which is associated with the Taoist tradition appears to influence specific types of coping (Tweed & Conway, 2006). Ji et al. (2001) found that Chinese participants were more likely to affirm the ubiquity of change in the world than their Euro-American counterparts. When participants were asked to predict patterns in graphs for things like cancer rates and economic growth, the Chinese tended to anticipate that more changes would occur and even predicted more reversals in the direction of the change compared to North Americans. Chinese participants also predicted changes in the direction of trend of their future happiness compared to North Americans. Ji et al. (2001) suggested that Chinese belief in the ubiquity of change and anticipation of reversals may influence their use of persistence coping when facing temporary hardships.

Lastly, Tweed and Conway (2006) also suggested that beliefs about illness and belief in the utility of personal preparation may influence coping styles, and could be explored further. In the next section, I will explore Eastern Asian cultures and culturally influenced beliefs that may promote the use of certain types of coping strategies.

Eastern Culture and Culturally Relevant Beliefs

What are the most dominant beliefs that would help East Asians and East Asian international students cope with hardships? The answer may be found in the influential philosophical and religious ground for Eastern Asians. Confucianism, Taoism, and Buddhism are

41

known as the common ground in East Asian countries (Leaman, 1999; Suen et al., 2007). Although Confucianism, Taoism, and Buddhism are known as religions, they impact modern society as philosophical principles rather than religions. Moodley et al. (2018) suggested exploring Confucianism, Taoism, and Buddhism for inclusion and integration of Asian healing traditions into the Western physical and mental health care system to meet the needs of diverse multicultural societies. Therefore, exploring these philosophical principles would be important to identifying effective coping strategies for East Asian international students who still believe in and apply those principles to their daily lives.

Confucianism is considered to be the most influential traditional principle that continues to impact East Asian populations in different areas including interpersonal relationships, communication, education, etc. (e.g., Chou, Tu, & Huang, 2013; Huang & Charter, 1996; Yum, 1988). Confucianism teaches virtues including what people have to do to become "proper" individuals (e.g., filial piety, dutifulness, honesty, rightness, compassion, ritual practices, etc.) and how people can change society (Rainey, 2010). From a Confucian perspective, to become a "gentleman" or "sage," one needs to cultivate moral values by practicing rituals (e.g., ancestral veneration, noble etiquette, and proper behaviors). Thus, self-cultivation and education are emphasized as well as inner strength and virtues such as perseverance and tolerance (Shek, 2004). The value of perseverance in Eastern cultures has been reflected in East Asian idioms and sayings such as the Japanese idiom *Gambatte* (i.e., keep trying to do your best, do not give up).

The Confucian emphasis on perseverance and self-cultivation can be associated with belief in the utility of effort, which explains East Asians' persistent and perseverant coping styles (Tweed & Conway, 2006). Heine et al. (2001) reported that when manipulating participants' belief in the utility of effort, East Asian students continued to persist even after failure, which

42

indicates that belief in the utility of effort as influenced by the Confucian tradition may contribute to perseverance among East Asian international students. We can also expect that East Asian international students may be likely to respond to their difficulties and challenges in the acculturation process with perseverance, which is familiar to them and highly valued in their cultures and traditions.

Another philosophical foundation that significantly impacts people in East Asian countries can be found in Taoism (Sun, 2018). Taoism is a Chinese religious and philosophical tradition that deals with understanding the nature of the world and human life (Peng, Spencer-Rodgers, & Zhong, 2006). It teaches living in harmony with the Tao, which means "the way," "patterns and laws of nature," and the way the universe works (Peng et al.; Sun, 2018). While Confucianism emphasizes rituals and social order, Taoist ethics emphasize effortless action, naturalness, simplicity, spontaneity, and harmony with the Tao. If Taoism emphasizes naturalness and non-action, does it mean that one is supposed to do nothing or should not make an effort? Of course not. Rather, it is a paradoxical "action of non-action," which refers a state of being in complete harmony with the way of nature and humanity (Slingerland, 2000). Non-action can be compared to water, which flows naturally. In the same way that water flows, effortless action is seen as being able to overcome the strong (Peng et al., 2006).

One way that Taoism still influences modern societies is through dialectical thinking. While dialecticism in Eastern philosophy is similar to Hegel and Marx's dialectic in terms of reaching synthesis from a thesis and antithesis, dialecticism in Eastern traditions more often involves accepting, transcending, or even insisting upon the contradiction in premises (Nisbett, Peng, Choi, & Norenzayan, 2001). The Eastern dialecticism which is central to Taoism consists of three characteristics (Peng & Nisbett, 1999). The first is "the principle of change," meaning

that reality is dynamic and changeable, not static. The second is "the principle of contradiction,"

which means that contradictions such as old and new or good and bad exist in the same event or

object and rely on each other for their existence. As change occurs constantly, contradiction is

constant. The third characteristic is "the principle of relationship or holism," meaning that

everything in human life and in nature is connected and interdependent. Taoism teaches

tranquility, which is attained through contemplation when one understands that pain and loss are

as essential as pleasure and gain (Peng et al., 2006). Idioms reflecting this belief (e.g.,

Gojingamrae in Korean, which means *sweet after bitter* or *pleasure follows pain*) are used

frequently in difficult situations. This type of dialectical thinking may influence East Asians to

consider hardships and adversities as not independent events or situations, but rather as part of

the whole that includes good aspects of life such as the source of success or happiness. This

process will occur through contemplation in which one thinks about and understands the

meaning of hardships, and the contemplation resembles meaning-focused coping. Thus, East

Asians may be familiar with and likely to utilize meaning-focused coping when encountering

hardships due to the influence of traditional Taoist beliefs.

A third philosophical and religious foundation of Eastern culture can be found in

Buddhism. From an early Buddhist view, human suffering comes from one's desire to view the

world as static and permanent (Finn & Rubin, 2000). According to Buddhism, people can

liberate themselves from endless cycles of suffering by understanding the impermanent and

interdependent nature of all phenomena in the world. It also emphasizes spiritual transformation

through meditation practice as a primary vehicle for liberation from suffering. Buddhism evolved

into many different forms as it spread, and the Mahayana tradition flourished in East Asian

countries including China, Korea, and Japan (Wada & Park, 2009). From the Mahayana view,

complete liberation from suffering stems from wisdom and compassion (Aronson, 2004). The essence of wisdom can be understood as an awareness of the impermanence of one's subjective experience and external events. Compassion represents one's desire and commitment to help other people liberate themselves from suffering. Like other religions, Buddhism has been impacted by the sociocultural values in which it is practiced. In Asian countries, practices of Buddhism have been influenced by Asian belief systems and traditions that value interdependence, harmony, and conformity.

Buddhism provides different ways of coping in stressful or adverse situations. Phillips and colleagues (2009) conducted thematic analyses to identify coping styles that Buddhists utilize and found several themes. The first and most common theme was *Right Understanding*: an attempt to view the world as it is, impermenant and fleeting, and avoid inaccurate perceptions of the world that lead to suffering. Participants in the study reported that they interpret or make sense of stressful situations using Buddhist ideas and resources such as impermanence (i.e., remembering that stressors do not last forever), compassion (i.e., showing empathy and being nonjudgmental toward self and others), karma (i.e., believing that stress results from one's past actions), and inter-being (i.e., remembering everything is interrelated; Phillips et al., 2009). The fact that *Right Understanding* is the most common theme shows that meaning-focused coping would be one of the most relevant coping strategies for individuals influenced by the Buddhist tradition. Other themes include *Meditation* (i.e., focusing on a specific stimulus without judgment), *Mindfulness* (i.e., observing what is occurring in the moment), *Morality* (i.e., practicing moral behaviors such as right speech, right livelihood, and right action), and *Finding Support* in one's spiritual community (Phillips et al., 2009). In particular, mindfulness has been well-known and respected in medical and psychological fields as an efficacious way to cope with

pain, anxiety, stress, and other symptoms among individuals with physical or psychological disorders (Grossmans, Niemann, Schmidt, & Walach, 2004).

I have briefly reviewed three influential philosophical foundations in East Asian cultures (i.e., Confucianism, Taoism, and Buddhism) and suggested perseverance and meaning-focused coping as culturally attuned ways of coping derived from East Asian philosophical and traditional beliefs. In sum, individuals from East Asian cultures tend to view and interpret adversity or suffering as impermanent or as preceding blessings and not as a single definite negative event, due to the influence of Buddhism and the dialectical thinking of Taoism (Peng et al., 2006; Wada & Park, 2009). This belief may prompt East Asians to respond to adversity using meaning-focused coping, in which the situation is interpreted differently. The dialectical view of Taoism as well as Confucianism's ethic of self-cultivation may influence East Asians to persist and persevere in the face of hardships and challenges because the situation will change, and they should stick to it to finally receive blessings and become a proper person (Ai, 2017; Peng & Nisbett, 1999; Tweed & Conway, 2006). In the next section, I review the literature on perseverance and meaning-focused coping and their expected roles in subjective well-being (i.e., life satisfaction and positive/negative affect).

Perseverance

"*It does not matter how slowly you go, as long as you do not stop.*" – Confucius

Perseverance is defined by the Merriam-Webster dictionary as "the quality that allows someone to continue trying to do something even though it is difficult." Gelderen (2012) defined perseverance as "continued goal-striving in spite of adversity" (p. 630). Although perseverance is a concept frequently mentioned as a strength in positive psychology (see Seligman & Csikszentmihalyi, 2000), there has been scant literature in psychological studies

that conceptualizes and measures perseverance as a psychological construct. Also, its role and effect in psychological adjustment and positive mental health has barely been studied. Instead, the role of perseverance can be found in some literature on achievement and success. Howe (1999) reviewed the biographical details of prominent geniuses such as Darwin and Einstein and refuted the notion that high achievement derives from exceptional mental ability. Rather, he claimed that "perseverance is at least as crucial as intelligence" (p. 15). Also, in the study of development of expertise, Ericsson and Charness (1994) suggested that 10 years of "deliberate practice" was a predictor of being an expert performer in chess, sports, music, and visual arts and 20 years of dedicated practice was a stronger predictor of world-class achievement. Ericsson and Charness (1994) claimed that the factors that make individuals engage in deliberate practice and sustain high levels of practice are a more plausible predictor of high achievement than inborn ability. Because perseverance has barely been studied, these are all the literature I could locate that address perseverance's positive role in achieving desired goals.

As Tweed and Conway (2006) suggested, belief in utility of effort may induce persistence coping, and Stevenson et al. (1993) found that East Asian individuals reported more belief in effort and hard work. They conducted research to investigate the differences between North American (i.e., in the U.S.) and East Asian (i.e., in Japan and Taiwan) elementary and secondary school students in academic achievement, satisfaction with their academic performance, parents' satisfaction, and other related variables. When students were asked what they thought was the most important factor in their performance in mathematics, more Japanese and Chinese than North American students reported "studying hard" as the most important factor (72% and 59% versus 27%, respectively). In contrast, fewer Chinese and Japanese students than North American students chose "a good teacher" (18% and 14 % versus 54%, respectively) as

the most important factor. The tendency was found among teachers as well. When teachers were asked the same question 93% of Japanese teachers reported "studying hard" as the first choice while only 26% of North American teachers selected it. While 41% of North American teachers chose "innate intelligence," only 7% of Japanese teachers thought innate intelligence was the most important factor. The authors claimed that the difference resulted from participants' different beliefs. That is, East Asian students and teachers believe in importance of hard work and effort whereas American students and teachers believe in importance of innate ability.

There have been stereotypes and criticism of East Asian students' intense focus on academic success, arguing that their high levels of academic performance are gained at great psychological cost (Stevenson et al., 1993). However, Stevenson et al. (1993) found that this is not the case. In their study, they asked Chinese, Japanese, and North American eleventh graders about how frequently they experienced feelings of depression, stress, aggression, and somatic symptoms as well as how nervous they felt when test results were returned. Unlike the stereotype, Japanese students showed the lowest frequencies of all of the above feelings and North American students reported the most frequent feelings of stress, academic anxiety, and aggression. While the study used a different age group of participants than the current study used, it is the only study I found regarding the stereotype and it demonstrates that working hard and consequent high academic performance are not necessarily gained at the expense of their well-being.

Perseverance may work in a manner counter to the stereotype; for people from East Asian cultures, perseverance may be a coping response to challenges or hardships that is consistent with the concept of "non-action" in Taoism and self-cultivation in Confucianism (Peng et al., 2006; Sun, 2018). Some studies imply that perseverance may be a coping strategy

among East Asian individuals. For instance, an experimental study by Heine et al. (2001) indicated that East Asians do not just persistently work hard, but also tend to persist longer in the face of an obstacle or a failure. In the study, participants were asked to complete a creativity task and then assigned to success and failure conditions, in which they discovered they gained high scores and low scores compared to their peers, respectively. Then participants were put in a situation where they could solve another set of tasks if they desired. The results showed that Canadian participants who received success feedback persisted significantly longer on the second set of tasks than those who received failure feedback. Among the Japanese, in contrast, participants who had failed persisted significantly longer than those who had succeeded. The authors also found that Japanese participants persisted significantly longer after failure than U.S. participants did. These results indicate that East Asians not only persist, but they persist longer when they face failure. The tendency may imply that persistence is a way of response that East Asians use in the face of hardship as Tweed and Conway (2006) suggested, and that East Asians would be more likely to cope by persevering in response to failure.

Given the limited literature on perseverance, I will also review a construct similar to perseverance: grit. Grit is a construct that entails perseverance as a sub-dimension (Duckworth et al., 2007). According to Duckworth and colleagues (2007), grit is a personal quality that is shared by high-achieving individuals and leaders in every field. They defined grit as perseverance and passion to achieve long-term goals, which entails "working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plenteous in progress" (p. 1087). Previous literature indicated that grit predicted adaptive psychological outcomes such as happiness, life satisfaction, and positive/negative affects (Salles et al., 2014; Singh & Jha, 2008). In a longitudinal study, for instance, grit predicted well-being among

residents in surgical specialties at an academic medical center, indicating that those with greater grit at baseline reported significantly higher levels of general well-being and lower levels of burnout, emotional exhaustion, and depersonalization six months later compared to those with less grit (Salles et al., 2014).

Although grit has received attention as a predictor of subjective well-being and academic success (Duckworth et al., 2007; Duckworth & Quinn, 2009; Eskreis-Winkler, Shulman, Beal, & Duckworth, 2014; Salles et al., 2014; Singh & Jha, 2008), the perseverance of effort was found to have more salient predicting power among individuals in collectivistic cultures (Datu et al., 2015). Datu et al. (2015) studied students in a collectivistic culture (i.e., the Philippines) and found that grit consisted of two distinct dimensions: perseverance of effort and consistency of interest. Perseverance of effort positively predicted life satisfaction and positive affect, whereas consistency of interest did not, among both undergraduate and high school students. This result differs from the results of previous studies among Western people in which both perseverance and consistency were positively associated with various scales of well-being (Duckworth et al., 2007). Datu et al. claimed that perseverance of effort is the more relevant construct in collectivist cultures. The authors explained that in collectivistic cultures, relationship harmony and fulfilling significant others' expectations are valued more than individuals' personal interests and goals (Markus & Kitayama, 1991), and thus their interests may not remain steady as they adjust their goals to social demands and expectations. Furthermore, individuals from Asian cultures tend to use dialectical cognitive patterns which allow conflicting and multiple interests and goals, and they may be passionate about pursuing their long-term goals without consistent interest (Datu et al., 2015). The results of the study and the explanation suggest that perseverance would be a

culturally relevant construct that predicts positive psychological outcomes rather than grit among East Asians from a collectivistic cultural background.

Again, although perseverance was mentioned often as a strength and a resiliency factor (Seligman & Csikszentmihalyi, 2000; Stagman-Tyrer, 2014), there has been little empirical research that investigated the influence of perseverance as a psychological variable in the face of stressful or challenging situations. Thus, it would be meaningful to examine the role of perseverance among people experiencing hardship, in particular among people from East Asian cultures who have a tendency to persist and persevere in the face of adversity.

Meaning-Focused Coping

Whereas the relationship between coping and adaptation has been studied for the last several decades, most research has targeted problem-focused and emotion-focused coping styles (Park & Folkman, 1997). In addition to these coping strategies, Park and Folkman (1997) proposed meaning-focused coping (MFC) as a third type of coping. Because "meaning" is not inherent in a situation or a person (O'Conner, 2002), MFC is defined as a cognitive coping strategy in which an individual finds positive meaning in adversity or negative situations (Folkman & Moskowitz, 2000). MFC is a strategy used to change the evaluation of a stressful situation and make one's beliefs, goals, and situations more consistent so that the individual is open to dealing with stressful situations (Pearlin, 1991). MFC does not involve changing the problem itself, nor decreasing the pressure resulting from negative emotions or distress. Rather, the process of MFC occurs by re-evaluating the positive aspects of incidents (Thomson, 1985) and answering the following questions: why the event happened (e.g., Dollinger, 1986; Taylor, 1983); why this happened to me (e.g., Brickman & Bulman, 1977; Frazier & Schauben, 1994); which part of my life changed after the event (e.g., Collins, Taylor, & Skokan, 1990); and which

51

part of the event helped me think that the incident was meaningful to my life (e.g., McIntosh, Silver, & Wortman, 1993; Silver, Boon, & Stones, 1983). In previous literature, MFC has been conceptualized in two ways: sense-making and benefit-finding (Davis, Nolen-Hoeksema, & Larson, 1998; Janoff-Bulman, 1992; Park & Folkman, 1997; Thompson, 1985; Thornton, 2002). Sense-making concerns the strategy of developing a positive explanation or an understanding of the adversity (Davis et al., 1998; Janoff-Bulman, 1992), while benefit-finding refers to the strategy of identifying lessons or benefits of the adversity or traumatic experience (Affleck & Tennen, 1996; Taylor, 1983; Thornton, 2002). Although sense-making and benefit finding are not exhaustive construals of meaning, they are considered representative of the most frequently used notions of meaning in coping and trauma literature (Davis et al., 1998).

Park and Folkman (1997) suggested that meaning-focused coping may have three positive results: 1) enhancing social support, including building new social support systems and developing better relationships with family or friends; 2) strengthening personal resources, including cognitive change or changing personal values or goals; and 3) developing new coping strategies. Previous studies have found that MFC helps individuals to experience positive affects even in negative situations or adversity (Folkman & Moskowitz, 2000; O'Connor, 2002). For instance, MFC has been found to predict well-being, including positive social relations, self-acceptance, and personal growth (Danhauer, Carlson, & Andrykowski, 2005; Schanowitz & Nicassio, 2006). According to research on bereavement, people who could make sense of their loss were less distressed than those who were not able to do so (Schmidt, Holstein, Christensen, & Boivin, 2005). In contrast, failure to make sense of loss was found to be associated with complicated grief symptoms, and to mediate the relationship between violent loss and complicated grief symptoms among the bereaved (Currier, Holland, & Neimeyer, 2006). Shek

52

(2004) examined the relationship between Chinese beliefs about adversity and well-being among Hong Kong adolescents. The results indicated that stronger endorsement of positive Chinese beliefs (e.g., hardship increases stature) correlated positively with life satisfaction and negatively with levels of anxiety and depression.

Researchers have also found that MFC is related to adaptation after traumatic experiences, especially under uncontrollable stressors such as illness, loss, or natural disasters (Holahan, Moos, Holahan, & Brennan, 1995; Moskowitz, Folkman, Collette, & Yittinghoff, 1996). Guo, Gan, and Tong (2013) investigated how different types of coping (i.e., problem-focused coping, emotion-focused coping, and meaning-focused coping) influenced mental health, both positive and negative aspects, among victims of the 2008 Sichuan earthquake. They found that MFC significantly predicted positive affect and well-being above and beyond problem-focused coping and emotion-focused coping. However, MFC did not predict negative affect and depression, which indicates that MFC played a role in terms of increasing positive mental health aspects and adaptation, rather than reducing negative psychological distress in this case. The findings also indicated that post-traumatic growth, which is a positive psychological change after serious life stress, mediated MFC and positive affects and well-being.

Meaning-focused coping is a cultural and context-specific strategy (Linsky, Bachman, & Straus, 1995; Slavin, Rainer, McCreary, & Gowda, 1991). However, a few studies have explored the effect of meaning-focused coping on cross-cultural adaptation or acculturative stressors for East Asian international students. Pan et al. (2008) developed and validated the Chinese Making Sense of Adversity scale (CMSAS) with Chinese international students in Australia and mainland Chinese students in Hong Kong. Pan (2011) conducted a study to test a role of sense-making coping between acculturative hassles and affective outcomes. The results indicated that

53

sense-making coping significantly reduced the effect of threat appraisal of acculturative hassles on both positive and negative affects. Pan argued that sense-making coping may reduce the threatening aspects of a stressful situation, focusing on positive aspects of the situation such as mastery, personal growth, and potential gains. She also suggested that cognitive coping strategies including sense-making coping may facilitate the use of problem-focused coping, which reduces the negative impacts of acculturative stresses during cross-cultural adaptation.

Considering that many acculturative stressors (e.g., financial issues, language barriers, homesickness, etc.) for international students are not easy to change or control, meaning-focused coping could be a fairly effective strategy for international students. In addition, East Asian international students may be familiar with meaning-focused coping which is closely related to Buddhist practices in the face of adversity (e.g., *Right Understanding*) and Taoist practice (e.g., contemplation). Thus, the current study tested the effect of meaning-focused coping as well as perseverance among East Asian international students on their subjective well-being in the midst of acculturative stress. In the next section, I summarize the previous literature and present research questions and hypotheses.

Current Study

With the globalization of the world, increasing number of students are pursuing higher education abroad, particularly in the U.S. The high number of international students (1,095,299; IIE, 2019) and their significant contributions to higher education (Leong, 2015) have led to increasing attention on their acculturative experiences and developing ways to better support them. According previous research, international students encounter various acculturative stressors and challenges including language barriers, academic difficulties, homesickness, social isolation, financial problems, discrimination, and microaggressions (Ginter & Glauser, 1997;

54

Gomez et al., 2011; Leong & Chou, 1996; Mallinckrodt & Leong, 1992; Mori, 2000; IIE, 2019). Continuously experiencing these stressors in the acculturative and adjustment process, international students reported physiological and psychological symptoms including lack or loss of appetite; sleep difficulties; low stamina and energy levels; headaches; gastrointestinal problems; cognitive fatigue; feelings of loss, disappointment, resentment, and sadness; a sense of inferiority; homesickness; feelings of isolation and loneliness; and a sense of helplessness and hopelessness (Allen & Cole, 1987; Lin & Yi, 1997; Mori, 2000; Sandhu, 1994; Winkelman, 1994). Among international students, East Asian international students are a large subgroup, making up 43.1% of total international students (IIE, 2019). Having greater cultural and language differences, they report higher levels of academic and social challenges and stress in the acculturative process compared to students from other areas such as Europe (Leong, 2015). Thus, considering the high number of East Asian international students and their reported struggles, research on improving East Asian international students' well-being needs more attention.

To gain a holistic and well-rounded understanding of international students, both positive and negative aspects of their experiences need to be studied. However, previous research has been focused on the problematic aspects of international students' acculturative experiences rather than positive and resiliency-oriented aspects (Pendse & Inman, 2016). Thus a resiliency-focused approach is recommended and this approach is also consistent with counseling psychology's emphasis on individuals' positive assets and strengths (Gelso et al., 2014). The present study investigated East Asian international students' subjective well-being, focusing on the positive aspects of their experiences. Subjective well-being consists of three elements: level

of satisfaction with life, frequency of positive affect, and absence of negative affect (Argyle & Martin, 2013).

Another aspect to consider in a study focused on international students is integrating cultural pieces when deciding on target constructs. In terms of coping styles, Tweed and Conway (2006) posited that cultural groups tend to use culturally relevant coping styles shaped by culturally influenced beliefs. Among culturally influenced beliefs, they suggested, several may be related to the unique coping styles of East Asian individuals such as belief in the utility of effort, religious beliefs, an entity view of the world, and belief in the ubiquity of change. Beside the beliefs Tweed and Conway (2006) suggested, there are fundamental philosophical grounds influencing the East Asian population: Confucianism, Taoism, and Buddhism. The principles and emphases of these three religious and philosophical foundations suggest that perseverance and meaning-focused coping would be familiar and effective coping strategies for people of East Asian background. In the current study I examined the roles of two culturally attuned coping strategies (i.e, perseverance and meaning-focused coping) among East Asian international students between acculturation stress and their subjective well-being.

I suggest that perseverance would be a culturally attuned coping strategy and expected to mediate acculturative stress and subjective well-being. Besides the philosophical background, an empirical study indicated that East Asians demonstrate belief in effort and hard work (Stevenson et al., 2006) and tend to persist in the face of failure (Heine et al., 2001), suggesting perseverance as a coping strategy.

Despite the fact that perseverance has frequently been referenced as a resiliency factor in positive psychology (see Seligman & Csikszentmihalyi, 2000), there has been little research on conceptualizing and examining its role in psychological studies. The only line of research in

which the impact of perseverance can be found is research on grit. Grit is a composite variable that consists of two sub-dimensions: perseverance of effort and consistency of interest in long-term goals despite adversity (Duckworth et al., 2007). Grit has been found to predict adaptive psychological outcomes such as life satisfaction, happiness, and positive/negative affect (Salles et al., 2014; Singh & Jha, 2008).

In collectivistic cultures, perseverance of effort was found to have more salient predicting power than consistency of interest for life satisfaction and positive affect (Datu et al, 2015), indicating that perseverance is a culturally specific and relevant coping strategy for people from collectivistic cultures. Based on philosophical foundations and empirical evidence, we can expect that East Asian international students may likely use perseverance for coping when facing acculturative stressors. Thus, the present study tested the mediating effect of perseverance in the association between acculturative stress and subjective well-being. More specifically, the current study investigated whether acculturative stress increases the use of perseverance, which in turn increase life satisfaction and positive/negative affect.

The second preventive factor I suggest as a culturally sensitive coping strategy is meaning-focused coping (MFC). Park and Folkman (1997) proposed MFC as a third type of coping besides problem-focused coping and emotion-focused coping. MFC is a cognitive coping strategy that involves finding positive meaning in a negative situation or adversity (Folkman & Moskowitz, 2000). More specifically, MFC involves changing the evaluation of a stressful or negative situation to make one's beliefs, goals, and situation more consistent (Pearlin, 1991). MFC has been categorized in sense-making coping, which involves developing a positive explanation of an adverse event (Davis et al., 1998; Janoff-Bulman, 1992), and benefit-finding, which refers to finding lessons or benefits in adversity (Affleck & Tennen, 1996; Taylor, 1983;

Thornton, 2002). Previous literature indicated that MFC predicted well-being, greater levels of life satisfaction and positive affect, and lower levels of negative emotions (e.g., Guo, Gan, & Tong, 2013; Shek, 2004). The current study investigated whether MFC mediates the relationship between acculturative stress and subjective well-being among East Asian international students. Specifically, East Asian international students are expected to utilize MFC when encountering acculturative stressors because a) many acculturative stressors are not easy to resolve or out of their control and b) East Asian international students may be familiar with MFC due to Taoist and Buddhist traditions. Thus, I suggest that MFC will mediate the relationship between acculturative stress and subjective well-being. Specifically, the current study will investigate whether acculturative stress predicts the use of meaning-focused coping, which in turn predicts the levels of life satisfaction and positive/negative affect.

In sum, the current study will answer following research questions.

RQ1: Does acculturative stress predict subjective well-being (i.e., life satisfaction, positive affect, negative affect, and peace of mind)?

H1: Acculturative stress will predict the well-being variables. Specifically, acculturative stress will be negatively associated with life satisfaction, positive affect, and peace of mind and positively associated with negative affect.

RQ2: Does perseverance mediate the relationship between acculturative stress and well-being (i.e., life satisfaction, positive affect, negative affect, and peace of mind)?

H2: Perseverance coping will mediate the relation between acculturative stress and well-being. Specifically, higher levels of acculturative stress will predict greater use of perseverance coping, which in turn predicts higher levels of life satisfaction, positive affect, and peace of mind and lower levels of negative affect.

RQ3:   Does MFC mediate the relationship between acculturative stress and well-being

(i.e., life satisfaction, positive affect, negative affect, and peace of mind)?

H3:   MFC will mediate the relation between acculturative stress and well-being.

Specifically, higher levels of acculturative stress will predict greater use of MFC, which in turn predicts higher levels of life satisfaction, positive affect, and peace of mind and lower levels of negative affect.

CHAPTER III: METHOD

The purpose of this study was to examine how culturally relevant coping strategies (i.e., perseverance and meaning-focused coping) function in the relation between acculturative stress and subjective well-being among East Asian international students. The current research was an observational and quantitative study, using an on-line survey for data collection. This chapter addresses participants, sampling procedure, measurements, and statistical analysis.

Participants

The participants in this study were East Asian international students who were enrolled in colleges and universities in the United States. Qualifications for the participants included: a) being from areas in East Asian countries (i.e., China, Hong Kong, Japan, Macau, Mongolia, South Korea, or Taiwan), b) currently living in the U.S. and pursuing an undergraduate or graduate degree, c) holding an F-1 student visa, d) being older than 18 years old, and e) first language not English. International students who did not qualify in all of these criteria (e.g., from other than East Asian countries, holding other types of visas, enrolled in non-degree programs) were excluded from the study.

A total of 200 participants consisted of 111 (56.1%) men and 87 (43.9%) women and two participants did not respond; ages ranged from 18 to 38 (M = 24.42 , SD = 4.26). Seventy nine (39.9%) participants were undergraduate students and 119 (60.1%) were graduate students, and two participants did not respond. The countries of origin were as follows: 112 China (56.5%), 56 South Korea (28.3%), 19 Taiwan (9.6%), 4 Japan (2.0%), 5 Hong Kong (2.5%), 1 Mongolia (0.5%), 1 other (0.5%; from South Korea and Japan), and 2 non-responses. Sexual orientation of participants was reported as follows: 169 heterosexual (85.4%), 2 Lesbian (1.0%), 20 Bisexual

(10.1%), 1 Queer (0.5%), 6 Questioning (3.0%), and 2 non-responses. Regarding relational status, 133 (67.2%) participants reported as single, 43 (21.7%) as partnered, 15 (7.6%) as married, 5 (2.5%) as cohabitating, 1 (0.5%) as divorced, 1 (0.5%) as engaged, and 2 failed to answer. Reported religions included: 116 (58.9%) reported they do not have religion, 17 Buddhism (8.6), 1 Confucianism (0.5%), 2 Taoism (1.0%), 34 Christianity (17.3%), 1 Shintoism (0.5%), 15 Atheist (7.6%), 5 Agnostics (2.5), 6 other (3.0%) and 3 did not reponded. Participants' social economic status was reported as follows: 45 (22.7%) as "upper" and "upper middle" class, 84 (42.4%) as "middle" class, 69 (34.9%) as "lower class," and 2 participants did not answer. The median length of stay was 2 years and 7 months, ranging from 1 month to 23 years and 11 months. The first language of participants was reported as follows: 138 (69%) Chinese, 57 (28.5%) Korean, 3 (1.5%) Japanese, and 4 non-responses. Regarding English fluency, the mean score for English fluency was 3.75 (*SD* = 0.93), based on likert scale ranging 1 (*not fluent at all*) to 5 (*very fluent*). The mean score for level of comfort communicating in English was 3.76 (SD = 1.05), likert scale ranging 1 (*not comfortable at all*) to 5 (*very comfortable*). Participants who did not respond to some or all demographic questions listed above were included in the analyses because they confirmed that they are East Asian international students and hold F-1 visas.

Sampling Procedure

The sampling procedure consisted of purposive sampling and snowball sampling methods. Once the exemption approval from Purdue University's Institutional Review Board (IRB, Appendix A) was obtained, I asked the Registrar's Office, the International Students & Scholars (ISS) at Purdue University, and student organizations for East Asian international students to send out the survey link. Specifically, they sent out the initial recruitment email

(Appendix B) and a follow-up email (Appendix C) to students who meet the inclusion criteria. I also shared the recruitment posting on Facebook (Appendix D), including information about the study, inclusion criteria, the URL for the online survey, and information about an incentive drawing for participation. As a snowball technique, in both the email and Facebook posting participants were asked to share and forward the study participation invitation to others who would be eligible to participate in the study.

In the beginning of the survey, participants were provided with an informed consent form (Appendix E) that asked each participant to provide consent by pressing a button in order to progress to the survey. Confidentiality involved explaining that participants' identifying information would not be disclosed, nor would they be identified when participating in the incentive drawing. Autonomy of participation was emphasized, in that the information letter indicated that participation in the study was voluntary and participants could withdraw from the survey at any time. Potential risks, which were minimal, were addressed. When participants gave consent to participate, they were asked to answer the demographic/background questions (e.g., age, sex, enrollment status, country of origin, area of study, etc.) and respond to survey instruments. Participants were encouraged to look up the meanings of unfamiliar words and phrases while completing the survey. After completing the survey, participants chose whether to enter a separate survey for an incentive drawing.

Measurement

Participants were asked to respond to the survey that included: a) the Index of Life Stress (ILS; Yang & Clum, 1995; Appendix F), b) the Satisfaction With Life Scale (SLWS; Diener, Emmons, Larsen, & Griffen, 1985; Appendix G), c) the Scale of Positive and Negative Experience (SPANE; Diener et al., 2010; Appendix H), d) the Peace of Mind Scale (POMS; Lee

et al, 2013; Appendix I), e) the Perseverance of Effort subscale from the Grit Scale (Duckworth et al., 2007; Appendix J), and f) the Chinese Making Sense of Adversity Scale (CMSAS; Pan et al., 2008; Appendix K), and g) the demographic/background information sheet (Appendix L).

Demographic/Background Information

The demographic/background information sheet included region of origin, age, length of residency in the U.S., academic status, first language, religion, economic status, gender, sexual orientation, marital/romantic relationship status, and perceived English proficiency.

Acculturative Stress

Acculturative stress was measured by the Index of Life Stress (ILS; Yang & Clum, 1995). The ILS is a 31-item scale developed to assess the acculturative stress uniquely experienced among Asian international students. It measures five areas of acculturative stressors reported by Asian international students: a) language difficulty (e.g., "My English embarrasses me when I talk to people"), b) cultural adjustment and desire to return home (e.g., "I don't like the things people do for their entertainment here"), c) academic concerns (e.g., "I worry about my academic performance"), d) financial concerns (e.g., "I worry about my financial situation"), and e) interpersonal stress (e.g., "I can feel racial discrimination toward me in stores").

After collecting the data, I found that item #12 in the Index of Life Stress (ILS; Yang & Clum, 1995) was not from the original scale. Yang and Clum developed two separate scales and reported them in the same article. The item #12 used in the current study was from another scale, and the original article did not include item #12 in the factor analysis results (Yang & Clum, 1995). Thus, I deleted the data for item #12 and conducted all the analyses with the original 30 items.

Participants were requested to rate how often they feel "the way described in each statement" using a 4-point Likert scale, ranging 0 (*never*) to 3 (*often*). The mean scores of the 30 items were used in analysis, with the higher mean scores reflecting a greater level of acculturative stress. The ILS is the appropriate scale to assess the acculturative stress of the current study's participants. The scale was developed by administration to 101 Asian international students, approximately 33% from East Asian countries (Yang & Clum, 1995). Also, the five factors of the ILS were developed to assess the unique stressors that Asian international students reported (Smith & Khawajia, 2011). In Yang & Clum's (1995) original study, the test-retest reliability and internal consistency of scores were satisfactorily high at .87 and .86, respectively. Other empirical studies among East Asian international students indicated sound internal consistency, ranging from .83 to .88 (Chen, Mallinckrodt, & Mobley, 2002; Lee, Koeske, & Sales, 2004). In the current study, the alpha coefficient was .84.

Life Satisfaction

Life satisfaction, the cognitive aspect of subjective well-being, was assessed by the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 1993). The scale measures how satisfied people are with their lives as a whole based on their own criteria and values, allowing individuals to decide on different aspects of life and the weight of each aspect to evaluate their life satisfaction (Pavot & Diener, 1993). The SWLS consists of 5 items, with the following sample items: "In most ways, my life is close to my ideal," "So far I have gotten the important things I want in life," and "If I could live my life over, I would change almost nothing." Items were scored on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and the mean scores of the 5 items was used as a score for life satisfaction.

Good convergent validity of the SWLS was reported with other scales related to subjective well-being (e.g., Diener et al., 1985; Pavot, Diener, Colvia, & Sandvik, 1991; Pavot & Diener, 1993). Scores also showed discriminant validity from scales that measure affective well-being (e.g., Diener et al., 1985; Judge, 1990). Among Asian populations, internal consistency was reported as satisfactorily high: .85, .89, and .92 for Chinese, Korean, and Asian Americans respectively (Kang, Shaver, Sue, Min, & Jing, 2003). In the current study, the alpha coefficient of the scale was .88.

Positive and Negative Affect

Positive and negative affective experiences were measured by the Scale of Positive and Negative Experience (SPANE; Diener et al., 2010), which consists of two 6-item subscales. The scale measures how frequently participants experienced positive feelings (i.e., positive, good, pleasant, happy, joyful, contented) and negative feelings (i.e., negative, bad, unpleasant, sad, afraid, angry) over the previous 4 weeks. Participants answered using 5-point scales ranging from 1 (*very rarely or never*) to 5 (*very often or always*). The positive and negative subscales were scored separately because of the separability and partial independence of the two types of affect. Both the summed positive score (SPANE-P) and negative score (SPANE-N) can range from 6 to 30. The combined balance score (SPANE-B) can be earned by subtracting the negative score from the positive score, ranging from -24 to 24.

The SPANE has several desirable features compared to previous measures of positive and negative affects (Diener et al., 2010). First, the scale assesses both general (e.g., positive, negative) and specific (e.g., happy, sad) feelings, and the broad descriptors allow the scale to capture the full range of emotional experiences without an exhaustive list of words. Second, the SPANE reflects positive and negative emotional experiences regardless of their provenance,

arousal levels, or cultural contexts. Lastly, the time frame of 4 weeks ensures that respondents can recall actual experiences rather than using a general self-concept, yet provides an adequate time period to avoid answers pertaining to short-term moods.

Scores have displayed sound reliability and validity in college student samples (Diener et al., 2010). The construct validity of the SPANE-P, SPANE-N, and SPANE-B was good, showing moderate to very high correlations with other scales of well-being and affect. Cronbach's alpha of the SPANE-P, SPANE-N, and SPANE-B were reported as .87, .81, and .89, respectively. Test-retest reliability of the three scores over one month were .62, .63, and .68, respectively. The SPANE has been translated into several languages including Chinese and Japanese, showing sound psychometric properties. For instance, the Japanese version of the SPANE showed Cronbach's alpha coefficients of SPANE-J-P, SPANE-J-N, and SPANE-J-B were .91, .90, and .88, respectively (Li, Bai, & Wang, 2013; Sumi, 2014). Internal consistency of the scores of the SPANE-P and SPANE-N in the present study were .90 and .83, respectively.

Peace of Mind

To capture the accurate ideal positive affect, low-arousal positive affect was measured by the Peace of Mind scale (PoM; Lee et al., 2013). The PoM is the 7-items measure that assesses levels of affective well-being which is focused on low-arousal positive affect (i.e., a sense of internal peace and harmony) which is valued and desired in East Asian cultures. Participants answered how frequently they experience the listed internal states using a 5-point Likert scale (1 = *not at all*, 5 = *all of the time*). The sample items include "My mind is free and at ease" and "It is difficult for me to feel settled (reverse scored)." The mean score of all items was used for analysis and higher sores indicate the greater degrees of peace of mind.

66

The Peace of Mind (PoM) scale displayed sound validity and reliability (Lee et al., 2013; Wang, Wong, & Yeh, 2016). The criterion-related validity of the PoM was established, evidenced by positive correlations between PoM and affective and cognitive aspects of well-being and significant negative correlations between PoM and psychological ill-being indices such as depression, state anxiety, and entrapment (Lee et al., 2013). The LoM established good discriminant validity. Specifically, the correlations between the PoM and low-arousal positive affect was higher than correlation coefficient between the conventional measure of SWB and low-arousal positive affect. In multiple regression, the regression coefficient of PoM was found to be significant even after controlling the effects of other SWB measures. Furthermore, the PoM displayed the incremental validity by predicting depression, anxiety, and entrapment when relevant variables (e.g., gender, age, social desirability) and conventional SWB indices were controlled. The alpha reliability coefficeint ranged from .88 to .94 in previous studies (Lee et al., 2013; Wang et al., 2016) and Cronbach's alpha coefficient in the current study was .88.

Perseverance

Perseverance was assessed by the Perseverance of Effort subscale from the Grit Scale (Duckworth et al., 2007). Duckworth et al. (2007) defined grit as a personal quality shared by high-achieving individuals and leaders in every field, and developed the 12-item Grit scale consisting of two subscales: the Perseverance of Effort and the Consistency of Interests. The Perseverance of Effort subscale measures ability to maintain effort for long-term goals in the face of adversity. The Perseverance subscale of the Grit Scale consists of 6 items, scored on a 5-point Likert scale from 1 (*not like me at all*) to 5 (*very much like me*). The higher scores indicate greater levels of grit and the mean score of the items was used for the anlysis. Sample items include "I finish whatever I begin" and "I have achieved a goal that took years of work."

Duckworth and collegues (2007) reported sound psychometric properties in the Grit Scale. Regarding predictive validity, grit accounted for education attainment and low career change among adult population, GPAs among undergraduate students, and retention rate among the United States Military Academy cadets. More specifically, levels of education showed significan differences in grit, $F(5,1535) = 15.48$, $p<.001$. Grit significantly predicted career change (OR $= 0.65$, $\beta = -.44$, $p = .001$), GPA ($r = .25$, $p < .01$), and retention rate after rigorous summer training ($\beta = .48$, OR $= 1.62$, $p < .001$). The relationship between Grit-S and the Big Five personality dimensions was examined and grit was associated with Conscientiousness ($r = .77$, $p < .001$) than other dimensions, and grit also related to self-control ($r = .63$, $p < .001$), indicating convergent validity. In addition, the study showed that grit has incremental validity. Specifically, when conscientiousness was controlled, education still significantly predicted grit, $F(3, 657) = 10.63$, $p = .001$.

The Grit scale demonstrated sound internal consistency ($\alpha = .85$) for the overall score and each sub-scales (Consistency of Interests, $\alpha = .84$; Perseverance of Effort, $\alpha = .78$). Reliability among East Asian population was only tested for the Short Grit Scale, which excluded two items from each subscale. A study among Chinese adults showed that internal consistency of the overall scale, consistency of interest, and perseverance of effort were .5, .70, and .75, respectively (Zhong et al., 2018). The current study only used perseverance of effort subscale and the alpha coefficient in this study was .83.

Meaning-Focused Coping

Meaning-focused coping was assessed by the Chinese Making Sense of Adversity Scale (CMSAS; Pan et al., 2008). The CMSAS is a 12-item scale developed to measure cognitive coping skills used to make sense of adversity in the process of acculturation. The scale consists

of two factors: 8 items making positive sense of adversity and 4 items making negative sense. Participants were asked to answer how they make sense of the difficulties or stressors they face during their study in host countries on a 6-point Likert-type scale, ranging from 1 (*totally disagree*) to 6 (*totally agree*). Items in the negative sense-making subscale was be reverse-scored. The mean of the item scores was computed, with higher scores indicating a greater tendency to utilize a meaning-focused coping strategy. Sample items include: "Adversity provides a good opportunity for learning," "Adversity is normal and natural, and everyone will have to face it in life" (making positive sense), and "Adversity means the end of the world and I am not able to resolve it" (making negative sense).

The CMSAS was originally developed for the Chinese population using samples of overseas Chinese students in Hong Kong and Australia (Pan et al., 2008). Good concurrent validity was reported for the CMSAS. Specifically, the CMSAS was found to be negatively related to negative affects ($r = -.31$, $p < .001$) and positively associated with positive affects ($r = .26$, $p < .001$) and life satisfaction ($r = .25$, $p < .001$). The reliability of scores was reported as satisfactory with Cronbach's alpha .89 and Guttman split-half reliability .79. The alpha coefficients in this study were .80 for the whole scale.

Data Analysis

I used SPSS 24.0 for preliminary analysis and Lisrel 8.8 and Rmediation for the primary analysis. First, I conducted data screening, evaluated statistical assumptions, and examined descriptive analyses of the primary variables, using SPSS 24.0. Statistical assumptions for Structural Equational Modeling (SEM) were confirmed by examining normality, nonlinearity, univariate outliers, multivariate outliers, and multicollinearity. To examine normality of distribution, visually inspected histograms and boxplots as well as skewness and kurtosis were

examined. I checked homoscedasticity and linearity by scatterplots. In order to examine univariate outliers, I evaluated standardized deviations of each variable to identify outliers with absolute values greater than 3.29. To examine multivariate outliers, I tested Mahalanobis distance. In order to examine multicollinearity, bivariate correlations and the variation inflation factor (VIF) were evaluated. I tested means, standard deviations, and reliabilities of primary variables. Lastly, I conducted t-tests and ANOVAs to test group differences on primary variables.

Lisrel 8.8 was used for Structural Equational Modeling (SEM). First, prior to testing structural models, I examined a measurement model of seven latent variables (i.e., acculturative stress, perseverance, MFC, life satisfaction, positive affect, negative affect, and peace of mind and evaluated whether all the indicators (i.e., parcels) loaded on the latent variables as expected. Second, in order to examine the mediating effects of coping strategies between acculturative stress and well-being variables, I tested the full structural model to see if the model fits the data. Lastly, I tested an alternative model in which the order of coping strategies and well-being variables were switched. I used multiple goodness of fit indices to evaluate the measurement model and structural models: χ^2 goodness of fit, which indicates a good fit if it is non-significant (Weston, 2006), the standardized root mean squared residual (SRMR), with cutoffs close to or lower than .10 (Kline, 2005), the comparative fit index (CFI), with cutoffs close to or greater than .95 (Hu & Bentler, 1999), and the root mean square error of approximation (RMSEA), with cutoffs close to or lower than .80 (Browne & Cudeck, 1993). To test indirect effects of each mediator, I used RMediation (Tofighi & MacKinnon, 2011). Indirect effect is statistically significant at .05 level if the 95% confidence interval does not include zero.

When testing measurement and structural models, I used the item parcels. Parceling is a commonly used measurement practice that is summing or averaging two or more items, responses, or behaviors (Little, Cunningham, Shahar, & Widaman, 2002). Scholars in counseling psychology commonly use the item parcels in structural equation modeling due to statistical merits such as reduced levels of skewness and kurtosis, higher reliability, more precise parameter estimates, and better model fit (Bandalos, 2002; Dow, Wong, Jackson, & Leitch, 2008; Little et al., 2002; Weston & Gore, 2006). In the current study, I formed three parcels for all latent variables, given that all variables were unidimensional and thus appropriate to use parcels (Dow et al., 2008). Specifically, I used an item-to-construct balance procedure to build balanced parcels (Little et al., 2002). I conducted exploratory factor analysis and assigned items to parcels in countervailing order based on the size of factor loadings.

CHAPTER IV: RESULTS

In this chapter, I will present the results of the current study. First, the data cleaning process and the results of the preliminary analyses will be presented, which include testing of statistical assumptions, descriptive analysis of variables, and correlations among primary variables and group differences. In the primary analysis, I will present the results of testings of the measurement model, structural model, and an alternative model. SPSS 24.0, Lisrel 8.8, and RMediation were used for the analyses.

Data Screening and Preliminary Analysis

Prior to the primary data analyses, I conducted data screening and preliminary analyses. First, I examined the accuracy of the data entry by checking the SPSS file generated from the Purdue Qualtrics website. Then, I conducted a screening process to remove cases that did not provide valid data. Specifically, a total of 262 students who identified themselves as East Asian international students participated in the survey. Among them, I deleted 60 participants who did not complete at least one measure, resulting in 202 participants in total. Most of those 60 participants withdrew before the beginning of the first measure or right after the ending of the first measure. For the remaining data, I examined whether missing values were random by Little's Missing Completely at Random (MCAR) test in SPSS. The results showed that there were no discernable patterns related to the missing values. Given that the missing data were completely at random, I used the full information maximum likelihood (FIML) method. I replaced missing values with item-level means.

I checked for univariate and multivariate outliers. In order to detect univariate outliers, I examined the z-score of each variable and found no univariate outliers with the absolute value greater than 3.29 (Tabachnick & Fidell, 2007). To check the presence of multivariate outliers, I

72

performed the Mahalanobis Distance test and found two multivariate outliers (Tabachnick & Fidell, 2007). Given that these two outliers impacted the results of the primary analyses, I deleted them for the following analyses. Finally, the aforementioned data screening processes resulted in the final sample of 200 participants.

I evaluated the statistical assumptions for structural equation modeling and conducted descriptive analysis of all primary variables (Table 2). To examine normality of distribution, I visually inspected histograms and boxplots which indicated normal distributions. Levels of skewness values ranged from -.34 to .23 and kurtosis ranged from -.62 to .09, indicating normal distribution of all variables (Byrne, 2010). Next, I examined for the homoscedasticity and linearity by scatterplots and did not find nonlinear relationships. Finally, multicollinearity and singularity were examined by testing bivariate correlations of all primary variables and variation inflation factors (VIF). Although all variables were significantly correlated with each other, all correlation coefficients were below .70, and I did not find evidence for multicolleniarity and singularity issues. All variables showed appropriate reliabilities, Cronbach's alpha ranging from .80 to .90, which indicate that the measurements are reliable to use in analysis with the dataset in the current study.

Table 2. Descriptive Statistics of Primary Variables and Normality of Distribution

Scales	Scale Range	M	SD	Skewness	Kurtosis	Cronbach's α
Acculturative Stress	0-3	1.16	.39	-.13	.07	.84
Perseverance Coping	1-5	3.37	.70	-.12	-.01	.83
Meaning-focused Coping	1-6	4.34	.66	-.07	.08	.80
Life Satisfaction	1-7	4.54	1.33	-.42	-.32	.88
Positive Affect	1-5	3.54	.69	-.34	.09	.90
Negative Affect	1-5	2.61	.76	.23	-.50	.83
Peace of Mind	1-5	3.21	.81	-.19	-.62	.89

I conducted t-tests and one-way ANOVAs to test possible group differences for the primary variables based on some of the categorical demographic variables. For region of origin, I analyzed differences only for three groups, China, South Korea, and Taiwan, because all other categories had 5 or fewer cases. The ANOVAs results revealed statistically significant effects for region of origin on life satisfaction, $F(2, 184) = 3.41$, $p = .035$. Results also indicated no significant ANOVA F values for region of origin on acculturative stress, $F(2, 184) = .06$, $p = .94$, perseverance, $F(2, 184) = .97$, $p = .38$, MFC, $F(2, 184) = .46$, $p = .64$, positive affect, $F(2, 184) = 2.11$, $p = .13$, negative affect, $F(2, 184) = .04$, $p = .96$, and peace of mind, $F(2, 184) = .42$, $p = .66$.

For religion, because more that half of the participants reported that they do not have a religion (N = 116, 58%), I conducted a t-test between a group with no religious affiliation and a group who identified religious affiliation (e.g., Buddhism, Christianity, Shintoism). The t-test results revealed no significant effects for religion on acculturative stress ($t = -1.69$, $p = .09$), perseverance ($t = -.40$, $p = .69$), MFC ($t = -.73$, $p = .47$), life satisfaction ($t = -.98$, $p = .33$),

positive affect ($t = -.56$, $p = .58$), negative affect ($t = -.61$, $p = .54$), and peace of mind ($t = -1.05$, $p = .30$).

For marital/romantic relationship status, I conducted a t-test between those who identified as single and those who are in relationships (i.e., partnered, married, cohabitating), given that participants who identified as single (N=133, 66.5%) were more than half of the total participants. Results indicated no significant group differences for relationship status on acculturative stress ($t = .28$, $p = .78$), perseverance ($t = 1.02$, $p = .31$), MFC ($t = -.55$, $p = .58$), life satisfaction ($t = -.98$, $p = .33$), positive affect ($t = -.52$, $p = .60$), negative affect ($t = -.02$, $p = .99$), and peace of mind ($t = -.88$, $p = .38$).

Lastly, the t-test results indicated no significant group differences for gender on acculturative stress, ($t = -.148$, $p = .21$), perseverance ($t = .92$, $p = .78$), MFC ($t = .74$, $p = .92$), life satisfaction ($t = -.1.10$, $p = .57$), positive affect ($t = -.80$, $p = .07$), negative affect ($t = -1.17$, $p = .86$), and peace of mind ($t = .07$, $p = .94$).

Primary Analysis

In this section, I present the structural equation modeling to address the research question and test the hypotheses of the current study. The research questions and hypotheses were as follows:

RQ1: Does acculturative stress predict subjective well-being (i.e., life satisfaction, positive affect, negative affect, and peace of mind)?

RQ2: Does perseverance mediate the relationship between acculturative stress and well-being (i.e., life satisfaction, positive affect, negative affect, and peace of mind)?

RQ3: Does MFC mediate the relationship between acculturative stress and well-being (i.e., life satisfaction, positive affect, negative affect, and peace of mind)?

To answer the research questions, following hypotheses were tested:

H1:   Acculturative stress will predict the well-being variables. Specifically, acculturative stress will be negatively associated with life satisfaction, positive affect, and peace of mind and positively associated with negative affect.

H2:   Perseverance coping will mediate the relation between acculturative stress and well-being. Specifically, higher levels of acculturative stress will predict greater use of perseverance coping, which in turn predicts higher levels of life satisfaction, positive affect, and peace of mind and lower levels of negative affect.

H3:   MFC will mediate the relation between acculturative stress and well-being. Specifically, higher levels of acculturative stress will predict greater use of MFC, which in turn predicts higher levels of life satisfaction, positive affect, and peace of mind and lower levels of negative affect.

Measurement Model

Prior to testing the structural models, I examined a measurement model of the seven latent variables, using Lisrel 8.8 and the full information maximum likelihood method was employed to estimate all models. I used three parcels for each unidimensional construct (Dow et al., 2008). To evaluate the measurement and structural models, I used multiple goodness-of-fit indices, including χ^2 goodness of fit, the standardized root mean squared residual (SRMR), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). Scholars recommend cutoffs close to or lower than .10 for the SRMR (Kline, 2005), cutoffs close to or greater than .95 for the CFI (Hu & Bentler, 1999), and cutoffs close to or lower than .80 for the RMSEA (Browne & Cudeck, 1993). For χ^2 goodness of fit, non-significant values indicate a good fit (Weston, 2006).

Goodness-of-fit indices of the measurement model denoted that the model was acceptable to the data overall, χ^2 (176) = 316.51, $p < .001$, CFI = 0.98, RMSEA = 0.067, 90% CI [0.055, 0.078], and SRMR = 0.068. All indicators loaded onto their expected factors at coefficients of .54 or higher ($p < .001$). Table 3 depicts the factor correlations in which all factors are significantly correlated.

Table 3. Factor Correlations of Primary Variables

	1	2	3	4	5	6
1. Acculturative Stress	-					
2. Perseverance	-.31***	-				
3. Meaning-focused Coping	-.18*	.25***	-			
4. Life Satisfaction	-.47***	.50***	.39***	-		
5. Positive Affect	-.41***	.52***	.37***	.74***	-	
6. Negative Affect	.49***	-.21*	-.21***	-.45***	-.43***	-
7. Peace of Mind	-.49***	.48***	.27***	.78***	.75***	-.53***

Note: *$p < .05$, ***$p < .001$

Structural Model

I specified the structural model based on the hypotheses of the present study in which acculturative stress predicts coping strategies (i.e., perseverance and meaning-focused coping), which in turn, predict four well-being variables (i.e., life satisfaction, positive affect, negative affect, and peace of mind). In addition, I added correlations among coping strategies as well as among well-being variables as shown in Figure 1. The structural model did not have direct paths from acculturative stress to well-being variables, positing full mediation of coping strategies in

the relation between acculturative stress and well-being. The model had acceptable fit, χ^2 (172) = 359.08, $p < .001$, CFI = 0.97, RMSEA = 0.076, 90% CI [0.066, 0.087], and SRMR = .10. All paths in the model were significant, and the model explained 12% of the variance in perseverance, 3% of the variance in meaning-focused coping, 34% of the variance in life satisfaction, 34% in positive affect, 8% in negative affect, and 27% in peace of mind.
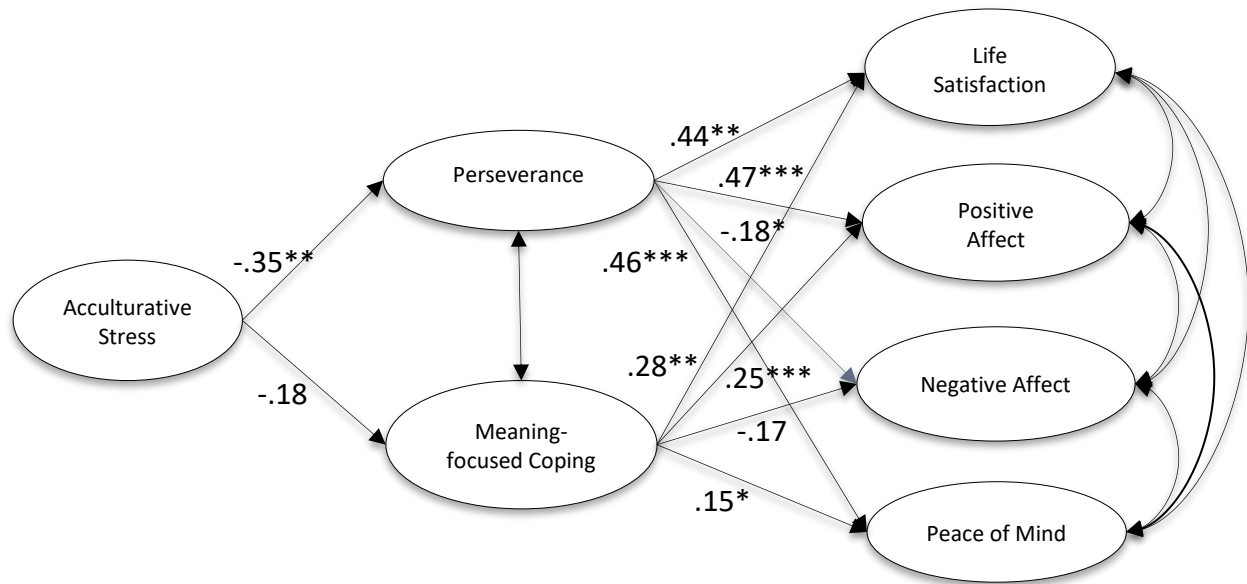
Figure 1. The hypothesized model with standardized regression coefficients.
Note: Errors are not shown. *p < .05, ***p < .001.

Alternative Model

I tested an alternative model by adding direct paths from acculturative stress to the well-being constructs as shown in Figure 2, positing a partial mediating model. The model had an excellent fit, χ^2 (168) = 316.51, $p < .001$, CFI = 0.98, RMSEA = 0.067, 90% CI [0.055, 0.078], and SRMR = .068. All paths from acculturative stress to coping and the well-being constructs were significant, while paths from both coping to negative affect and from meaning-focused coping to peace of mind became non-significant. The model explained 10% of the variance in

perseverance, 3% of the variance in meaning-focused coping, 42% of the variance in life satisfaction, 39% in positive affect, 26% in negative affect, and 37% in peace of mind.

The alternative model was compared with the proposed model to determine which provides a better model fit to the data. The fit of the alternative model and the proposed model can be compared in three ways (Weston & Gore, 2006): (a) by examining the significance of parameter estimates, (b) by evaluating the change in explained variance for dependent variables, and (c) by testing the significance of improvement in model fit with a chi-square difference test and other fit indices. First, I evaluated the paths by examining the significance of parameter estimates. Compared to the hypothesized model, the alternative model has less significant paths between coping strategies and well-being constructs. Second, explained variance in latent constructs were compared, and the alternative model showed increased variance in all well-being constructs, while the alternative model shows decreased variance in perseverance coping by 2 %. Lastly, the difference in chi-square between the proposed model and the alternative model was significant, χ^2 (4) = 42.57, $p < 0.001$, which indicates that the alternative model has a better fit compared to the proposed model. Further, all other fit indices, CFI, RMSEA, and SRMR, show an improvement in fit.

Figure 2. Alternative model with standardized regression coefficients.
Note: Errors are not shown. *p < .05, **p < .01, ***p < .001.

Given that the alternative model has a better fit to the data and better explained the

dependent variables, I chose it as a final model. Then, I made adjustments by removing three

non-significant paths from the model estimation. First was the structural path from perseverance

to negative affect, indicating perseverance is not a significant predictor of negative affect. In

addition, two paths from meaning-focused coping to negative affect and peace of mind were

non-significant, indicating meaning-focused coping is not a significant predictor of negative

affect and peace of mind. The model was not positively or negatively affected by removing these

three non-significant paths, χ^2 (3) = 5.15, $p > 0.05$ and thus, I removed the paths to have a more parsimonious model (Kim & Stoner, 2008; McKenzie, Gow, & Schweitzer, 2004). Figure 3 shows the final model with regression coefficients. The final model had an excellent fit, χ^2 (171) = 321.66, $p < .001$, CFI = 0.98, RMSEA = 0.066, 90% CI [0.055, 0.077], and SRMR = .073. The model explained 10% of the variance in perseverance, 4% of the variance in meaning-focused coping, 40% of the variance in life satisfaction, 37% in positive affect, 25% in negative affect, and 36% in peace of mind.

Indirect Effects

I tested five indirect effects from acculturative stress to the well-being variables via perseverance and MFC. Given that Lisrel 8.8 does not test individual indirect effects for each mediator, I used RMediation in which an indirect effect is significant at .05 level if the 95% confidence interval does not include zero (Tofighi & MacKinnon, 2011). First, the results revealed that the indirect effect from acculturative stress to life satisfaction via perseverance was not significant ($B = .109$, $SE = .079$; 95% CI -.008 to .293). Second, the indirect effect from acculturative stress to positive affect via perseverance was significant ($B = .125$, $SE=.064$; 95% CI .01 to .259). Third, the indirect effect from acculturative stress to peace of mind via perseverance was significant ($B = .112$, $SE = .06$; 95% CI .008 to .242). Fourth, the indirect effect from acculturative stress to life satisfaction via MFC was not significant ($B = .038$, $SE = .044$; 95% CI -.028 to .144). Lastly, the indirect effect from acculturative stress to positive affect via MFC was not significant ($B = .032$, $SE=.024$; 95% CI -.005 to .087).

Therefore, the results of the current study partially support the second hypothesis in that the levels of acculturative stress predicted positive affect and peace of mind through perseverance. However, the present results do not support the hypothesis that the levels of

acculturative stress predict life satisfaction and negative affect via perseverance. Also, the results

do not support the hypothesis that the levels of acculturative stress predict life satisfaction,

positive affect, negative affect, and peace of mind via MFC.
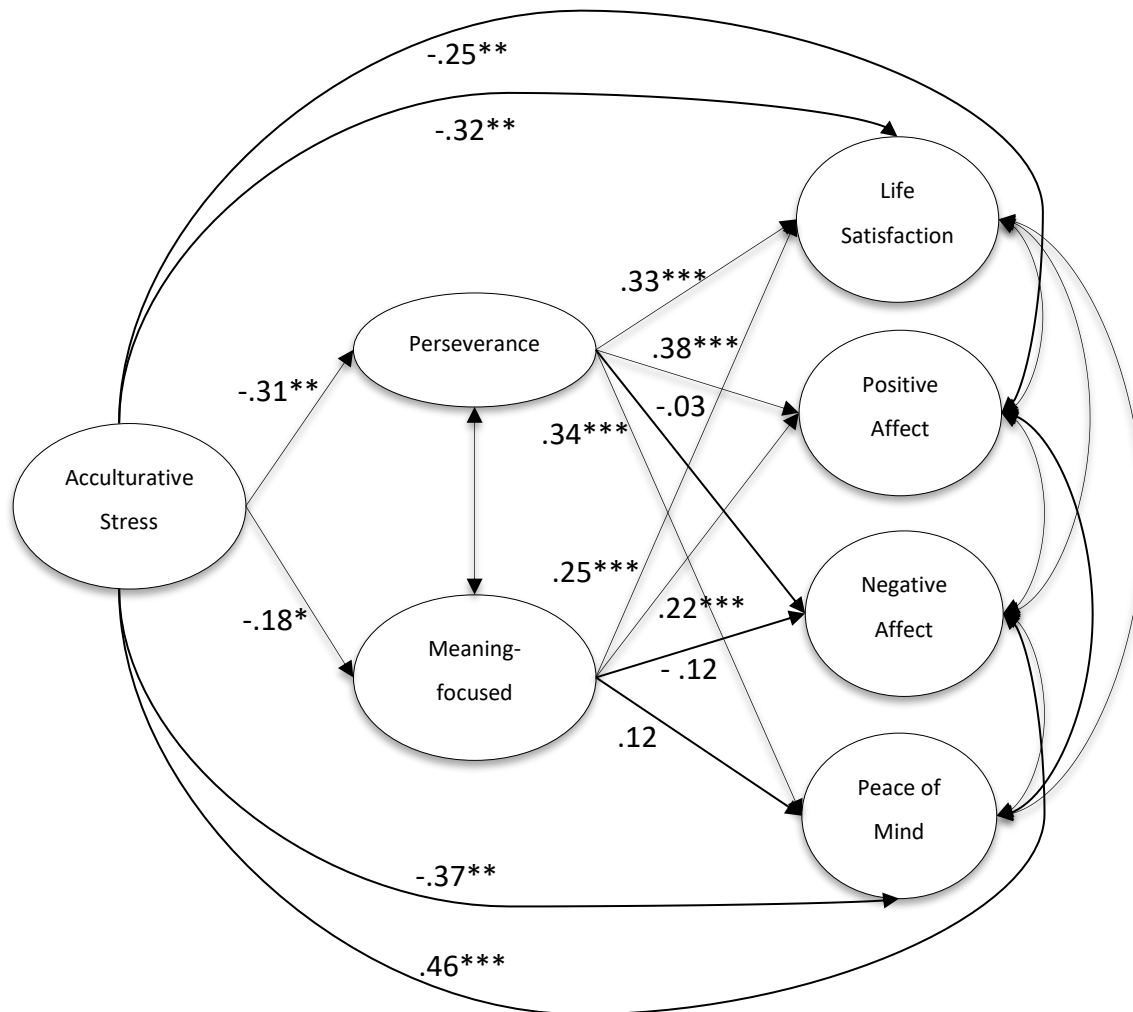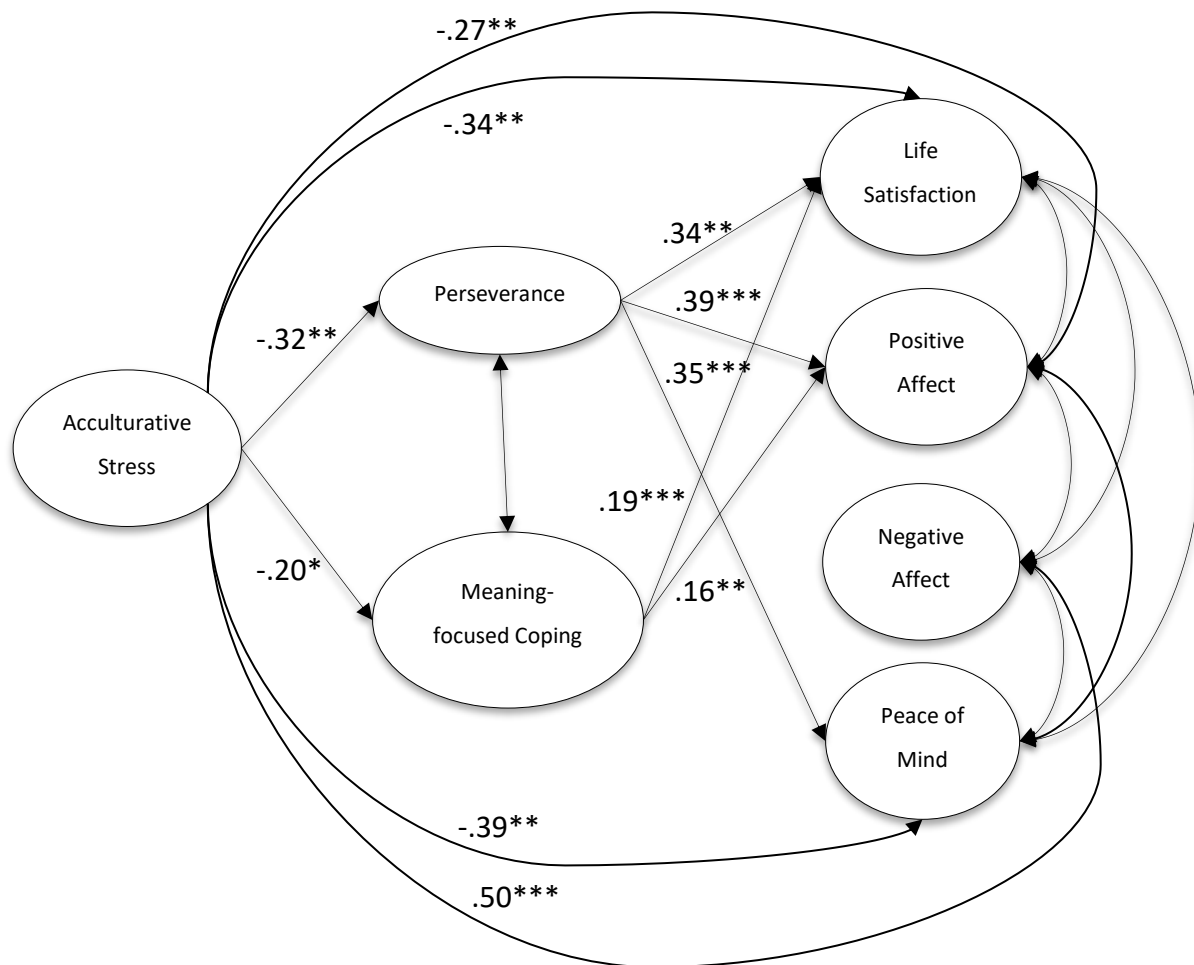

Figure 3. Final structural model with standardized regression coefficients.

Note: Errors are not shown. *$p < .05$, **$p < .01$, ***$p < .001$.

Evaluation of the Hypotheses

My first hypothesis was that higher levels of acculturative stress would negatively relate

to life satisfaction, positive affect, and peace of mind and positively relate to negative affect. The

second hypothesis was that perseverance coping would mediate the relation between

82

acculturative stress and well-being. And the last hypothesis was that MFC would mediate the relation between acculturative stress and well-being. Based on the results of the structural model, the hypotheses of the present study were partially supported. As expected, acculturative stress significantly negatively related to life satisfaction, positive affect, and peace of mind and positively related to negative affect. Regarding the second hypothesis, indirect effects from acculturative stress to only positive affect and peace of mind via perseverance were significant. For the last hypothesis, acculturative stress significantly and negatively related to MFC, which in turn positively related to life satisfaction and positive affect. However, both indirect effects from acculturative stress to life satisfaction and positive affect via MFC were not significant.

CHAPTER V: DISCUSSION

Using Tweed and Conway's (2006) framework regarding culturally relevant coping styles, the current study aimed to examine the mediating effects of perseverance and meaning-focused coping in the relationship between acculturative stress and well-being (i.e., life satisfaction, positive affect, negative affect, and peace of mind) among East Asian international students. In this chapter, I first present the findings and interpretations of the primary analyses. Then, I discuss the limitations of the study and implications for counseling psychology research and practice.

Discussion of Findings

Based on Tweed and Conway's (2006) framework and previous literature, I developed three hypotheses to test the relationship of acculturative stress and well-being and the mediating roles of culturally relevant coping strategies between acculturative stress and well-being. First, I hypothesized that acculturative stress would predict well-being. Specifically, I anticipated that acculturative stress would be negatively associated with life satisfaction, positive affect, and peace of mind and positively associated with negative affect. Second, I predicted that perseverance coping would mediate the relation between acculturative stress and well-being. Specifically, I hypothesized that higher levels of acculturative stress would predict greater use of perseverance coping, which in turn predicts higher levels of life satisfaction, positive affect, and peace of mind and lower levels of negative affect. Lastly, I hypothesized that MFC would mediate the relation between acculturative stress and well-being. Specifically, I anticipated that higher levels of acculturative stress would predict greater use of MFC, which in turn predicts

higher levels of life satisfaction, positive affect, and peace of mind and lower levels of negative affect.

Acculturative Stress and Well-being

At the bivariate level, acculturative stress was significantly related to the well-being outcomes. Specifically, acculturative stress negatively related to life satisfaction, positive affect, and peace of mind and positively related to negative affect. The relationships were the same in the structural model. That is, when direct paths from acculturative stress to each of well-being variable added in the final model, acculturative stress was still a significant predictor of all of the well-being variables. Furthermore, acculturative stress was the only predictor of negative affect. This is in line with previous literature that indicates acculturative stress is the prominent predictor of well-being and psychological adjustment of international students (Church, 1982; Smith & Khawajia, 2011; Zhang & Goodson, 2011). This result can be explained in that acculturative stress caused by language and educational differences, interpersonal distress, discrimination, and other such factors may lower the levels of life satisfaction and positive affect and exacerbate the experience of negative affect. For instance, East Asian international students may face unsatisfactory academic performance compared to one they had in their home countries due to language and educational differences. This academic stressor would likely decrease their life satisfaction and positive affect. Limited interpersonal relationships and social support in the U.S. may impinge on their affective state. In addition, acculturative stressors may interact with each other and exacerbate the negative impact on the perceived well-being of East Asian international students. For example, experiences of racism and microaggressions in the lack of social support could dampen their positive emotions and lead to negative emotions.

Acculturative Stress and Coping Strategies

Contrary to the hypotheses, acculturative stress negatively related to both coping strategies: perseverance and MFC. I expected positive relations between acculturative stress and the coping strategies because conceptually, coping refers to cognitive and behavioral responses to deal with negative or stressful situations (Endler & Parker, 1990; Folkman, 1984). Thus, I predicted that people would use more of these coping strategies as they experience more acculturative stress. In addition, particularly regarding perseverance, some studies imply that individuals from East Asian cultures may respond to hardships with perseverance (Heine et al., 2001). Thus, I hypothesized that international students with higher levels of acculturative stress would be more likely to use those coping strategies which are congruent with their cultural background and beliefs. However, the results of the current study indicated that acculturative stress negatively predicted perseverance and MFC. In other words, international students who participated in this study with higher levels of acculturative stress indicated less use of perseverance and MFC. The results can be understood as limited mental and physical resources to utilize coping under high stress. That is, international students who experience higher levels of acculturative stress may have fewer resources and energy to use perseverance or MFC than those with lower levels of acculturative stress. Acculturative stress can lead to physical consequences such as lack or loss of appetite, sleep difficulties, low stamina and energy levels, and headaches (Allen & Cole, 1987; Lin & Yi, 1997; Mori, 2000), and these physical challenges may contirbute to an inability to persevere. In addition, acculturative stress may cause cognitive fatigue and mental exhaustion among international students (Winkelman, 1994), inhibiting the use of MFC.

The result for MFC is consistent with the previous literature for MFC which used an interindividual approach. That is, research that examined the mediating effect of MFC showed that acculturative stress negatively related to MFC (Pan, 2011). A longitudinal study conducted

among international students in China also indicated a negative correlation between acculturative stress and primary and secondary coping among Asian international students, while a positive correlation was found between those variables among non-Asian international students (English, Zeng, & Ma, 2015). The authors claimed that coping strategies among Asian and other minority groups who are acculturating are under studied and need further attention. It would be valuable to investigate if there are different patterns in relationships between acculturative stress and coping among different cultural groups. In addition, scholars may investigate which coping strategies East Asian international students more likely use under acculturative stresss when there is decreased perseverance and MFC. Testing varieties of coping together, including traditional categories of coping such as problem-, emotion-, and avoidance-coping and culturally relevant coping such as forbearance, can reveal the patterns of coping used by East Asian international students.

Coping Strategies and Well-being

Hypotheses on the relations between coping strategies and well-being variables were partially supported. In the final model, perseverance positively related to life satisfaction, positive affect, and peace of mind. This is consistent with previous literature (Datu et al., 2015; Duckworth et al., 2007; Singh & Jha, 2008). Specifically, the perseverance of effort subscale of grit scale positively related to life satisfaction and positive affect and negatively related to negative affect (Datu et al., 2015). The current results corroborate with existing research regarding the role of perseverance in well-being, suggesting that students who persevere are likely to have greater life satisfaction and positive emotions, including peace of mind. East Asian international students who persevere may feel more satisfied with their lives because they are pursuing and achieving their goals and meeting an important cultural value that emphasizes

87

persevering in the midst of hardships (Tweed & Conway, 2006). Further, satisfying their significant others' expectations by persevering in the U.S. may contribute to their life satisfaction because meeting significant others' expectations is important in collectivistic cultures (Datu et al., 2015; King, McInerney, & Watkins, 2013). The aforementioned sense of achievement and meeting the cultural values and significant others' expectations may also facilitate experiences of positive emotions among East Asian international students. Particularly, students may have peace of mind because the act of perseverance can give relief through knowing that they are working on what they should do or what they are expected to do.

Not supporting the hypothesis and contrary to the previous literature (Datu et al., 2015), perseverance did not relate to negative affect in the final model. In the hypothetical model in which a direct path from acculturative stress to negative affect was not included, perseverance negatively related to negative affect, consistent with previous studies and the hypothesis of the current study. Then, when the direct paths from acculturative stress to dependent variables were added, the relationship became non-significant. This finding suggests that perseverance does not play a role in predicting the levels of negative affect; rather, acculturative stress is a strong predictor of negative affect. Regarding previous findings of a positive association between perseverance and negative affect, it is possible that a third variable actually plays a role in the variance of negative affect, which has been reported to be explained by perseverance in previous research (Datu et al., 2015). Perseverance is not a predictor of negative affect under acculturative stress because there are different types of acculturative stressors and many of them may keep producing negative affect regardless of their persistent effort. Acculturative stressors include language, educational stressors, sociocultural stressors, discrimination, and practical stressors (Smith & Khawaja, 2011). Although it is possible that the negative affect caused by some of

88

those stressors can be relieved by adjusting to the U.S. culture and academic system, many of the stressors would not significantly change by individuals' effort and perseverance. Thus, consequent negative affect may be maintained regardless of their perseverance and this might be why perseverance does not play a role in reducing the levels of negative affect. The different relationships of perseverance with positive and negative affect support a stance that negative and positive affect are separate constructs (Diener & Emmons, 1984; Diener, Smith, & Fujita, 1995).

Second, supporting the hypotheses, MFC positively related to life satisfaction and positive affect. This is in line with previous literature in which MFC relates to individuals' well-being and adaptation (Danhauer et al., 2005; Guo et al., 2013; Schanowitz & Nicassio, 2006). East Asian international students may find positive meanings under acculturative stress and challenges they encounter, including having an opportunity for advanced learning, personal growth by life experiences, accomplishment of their degree, meeting the expectations of their family, and enhancing their own and family pride. Then, the meanings of these hardships may increase their life satisfaction and positive affect.

The results did not support the hypothesis regarding peace of mind. That is, MFC did not relate to peace of mind, which is a supplemental variable for positive affect. The results suggest that peace of mind, which is a low-arousal positive affect, is a separate construct than high-arousal positive emotions and that MFC is helpful only for high-arousal positive emotions (e.g., pleasant, joyful, contented) while it is not associated with low-arousal positive emotions (e.g., peaceful, ease, harmonious). Given that peace of mind is a relatively new construct, its predictors, particularly coping styles that impact the level of peace of mind, need to be further explored and identified.

It is important to think about why perseverance has a positive association with peace of mind, whereas MFC does not. Given that international students are in a situation in which they have a reasonably increased workload compared to domestic students due to differences in language and academic system from their home countries, they may feel more pressure to work on academic tasks. Perseverance involves the behavioral pattern by which individuals keep working toward their goals, and being involved in goal-oriented behaviors may help individuals feel peaceful, knowing they are doing what they are required to or supposed to do. On the contrary, using only MFC without working on tasks at hand may not be enough to promote feelings of ease and peace in their daily lives. In sum, MFC may relate to the levels of high-arousal positive emotions by facilitating awareness of their achievements and potential rewards, however, it may not influence peace of mind, because peace of mind can be broken by stressors which can be resolved by behavioral engagement.

Not supporting the hypothesis, the final model showed that MFC did not relate to negative affect. There have been inconsistent results regarding the relationship between MFC and negative affect. Specifically, studies suggested that the use of MFC negatively related to negative affect including anxiety and depression (Pan, 2011; Shek, 2004), whereas other studies found that MFC did not predict negative affect and depression (Guo et al., 2013). The current study corroborates the latter line of findings and suggests that MFC does not play a role in levels of negative affect, particularly under acculturative stress. Although international students use MFC and find positive meaning in their acculturative stress, it may not influence their experience of negative affect because they constantly encounter challenges including stressors that hamper their daily function. MFC may have different effects depending on a given situation and stressors. For instance, negative affect related to cognitive appraisal (e.g., I am not achieving as I

90

did in my home country) may be relieved by MFC because MFC concerns the cognitive changes, whereas negative affect linked to constantly facing stressful situations (e.g., constant experience of microaggression) may not be reduced by MFC. If it is the case, further research is needed to clarify when MFC relates to reduced negative affect and when it does not.

Mediating Effects of Coping Strategies

Indirect effects were tested only when both paths from acculturative stress to coping strategy and from coping to the well-being variables were significant. When indirect effects from acculturative stress to life satisfaction, positive affect, and peace of mind through perseverance were examined, indirect effects from acculturative stress to only positive affect and peace of mind via perseverance were significant, indicating perseverance as an underlying mechanism for positive affective aspects of well-being. The results suggest that when people experience higher levels of acculturative stress, they are less able to persevere, which in turn, may decrease their levels of positive affect, including peace of mind. Experiencing acculturative stress may limit the cognitive, emotional, and physical energy of East Asian international students because they may spend more time and energy processing their struggles and solving the issues. Consequently, they may not be able to keep studying or working on academic tasks as much as they want, which in turn, reduces their experience of positive emotions. For instance, they may feel less positive or contented with their lives because they are not working as hard as they want or expect of themselves. Particularly, not being able to persistently work hard may cause them to feel less peaceful and more worried or anxious about their academic performance and not meeting the expectations of themselves or their family, considering the investment from their family.

Contrary to my hypothesis, the indirect effect from acculturative stress to life satisfaction via perseverance was not significant, indicating perseverance is not an underlying mechanism of

91

the relationship between acculturative and life satisfaction. This may suggest that perseverance is a mechanism only between acculturative stress and positive affective aspects of well-being, but not for cognitive evaluation of one's life.

Also, when mediating effects of MFC between acculturative stress and life satisfaction and positive affect were tested, no indirect effects were significant. MFC has been suggested to mediate acculturative stress and well-being variables (Pan, 2011), and in the present study, paths from acculturative stress to MFC and from MFC to life satisfaction and positive affect were significant. It is possible that the mediating effect of MFC is not significant in the final model due to the inclusion of perseverance in the model. That is, variances which seemed to be explained by MFC in the previous study may actually be explained by perseverance and thus, when perseverance is analyzed together, the mediating effect of MFC disappeared. Given that MFC does not mediate acculturative stress and well-being, and perseverance which correlated to MFC mediates the relationship, it is plausible to predict that MFC mediates acculturative stress and well-being through perseverance. That is, when experiencing acculturative stress, use of MFC may facilitate the act of perseverance, which influences well-being. Future studies may further examine this relationship among the given constructs.

Limitations

There are several limitations in the current study related to sampling, research design, measurement, and analysis. First, there is a potential self-selection bias due to sampling procedures. The sampling method used in the current study comprised of purposive sampling and snowball sampling. Because I did not have control over who would participate and who would not, there might be self-selection bias. Thus, it is possible that participants with certain levels of the primary variables have participated. For instance, students with high levels of acculturative

92

stress and low levels of well-being might have not participated because they are not able to engage in extra activities, whereas students with less acculturative stress and high levels of well-being might have willingly participated.

In addition, the majority of participants identified themselves as Chinese or South Korean. Although the percentage of students from other countries such as Japan and Mongolia reflects their portion of total international students in U.S. institutions, the results may not strongly reflect their experiences in the current study due to their low proportion in the sample.

Moreover, the participants of the study were expected to be from a large, research-oriented Midwestern university where I requested the registrar's office, International Students and Scholars office, and relevant students organizations to send the recrutment emails. The current study did not ask participants' institutions and the study used snowball sampling, inviting East Asian international students who were eligible via social media. Thus, it is not possible to track how many participants are from that Mideaster university. However, the email addresses submitted for the incentive drawing indicated that the majority of the participants were from the university. Although the institution is located in a White dominated region, there is a high percentage of international students and faculty at the institution. By potentially having more international or co-national friends and faculty, participants of the present study may had more opportunity to get social support and less acculturative stress compared to those at small private schools where they have a few international or co-national friends. Considering these limitations regarding sampling procedures and consequent participants' demographics, future researchers need to try to collect samples that consist of a balanced number of East Asian international students from each region of origin and that represent the diverse environments (e.g., small private White dominated university) they belong to.

Second, the current study used cross-sectional design which is adequate for correlational inquiry. Although the cross-sectional research design is frequently used in counseling psychology research, there are potential threats to internal validity and limitations for the interpretation of results. There are possible confounding variables that systematically influence independent or dependent variable (Johnson & Christensen, 2008), such as length of residency in the U.S. Experimental or longitudinal studies may have more control over extraneous variables. There is another threat to internal validity which is ambiguous temporal precedence (Johnson & Christensen, 2008). That is, in a cross-sectional study, it is not possible to specify the cause and effect. In the present study, coping is conceptualized as a response to a stressful situation and a predictor of well-being, and thus, the findings were interpreted as acculturative stress predicting the use of the given coping strategies. However, it is plausible that there are bidirectional relationships between acculturative stress and coping as well as between coping and well-being. That is, it is possible to interpret the findings as individuals who frequently use perseverance and MFC experience less acculturative stress. In a similar way, it is plausible that those who experience higher levels of well-being are likely to use those coping strategies. Thus, to better control confounding variables and establish a causal relationship among acculturative stress, coping strategies, and well-being, future studies may replicate the results using an experimental or longitudinal research design.

In addition, given that the items of the coping scales, the Index of Life Stress (ILS; Yang & Clum, 1995) and the CMSAS (Pan et al., 2008), are phrased as describing dispositions or traits, it is possible that responses to these scales may reflect participants' behavioral and cognitive tendencies that they hold prior to experiencing acculturative stress, not as responses to acculturative stress. Thus, it is also plausible that the coping strategies play moderating roles in

94

the relationship between acculturative stress and well-being. That is, the coping strategies may buffer the relation between acculturative stress and well-being among East Asian international students. Future researchers may investigate the moderating effects of perseverance and MFC as dispositional variables.

Third, there are limitations related to measurement and data collection. First, data were collected by online self-report questionnaires and it is possible that participants' condition (e.g., fatigue), self-awareness, and social desirability might have affected their responses. Second, all of the questionnaires were written in English and there is a potential issue with English proficiency. Although it is expected that participants satisfied the requirements for English reading comprehension to enter the university, there might be participants who were not familiar with English phrases used in the survey, which could have influenced the results. However, potential issues caused by the nature of self-report method and language used in the survey are not expected to have a significant influence on the findings. Third, I found that an item of the Index of Life Stress (ILS; Yang & Clum, 1995) was not from the original scale after data collection. Thus, I deleted data for the item and analyzed the data with 30 items. Considering the large number of items in the scale, it is not expected that the deletion would have had a substantial influence on the primary analyses. Lastly, an item of the Index of Life Stress (ILS; Yang & Clum, 1995) asks about difficulty developing opposite-sex relationships. This item limits romantic relationships to heterosexual relationships and might have been exclusionary to participants who identify as LGBTQ+. I suggest that the researchers who developed the measure revise the item to be more inclusive.

Last, in the data cleaning process, I deleted cases of which at least one measurement was not completed. Most of those participants withdrew right after the informed consent or in the

middle of or after the first scale. I decided to delete those cases because it was not possible to

analyze the relationships between variables with those cases. However, it is possible that early

dropout may relate to study variables such as perseverance. For instance, those who withdrew in

the middle of the survey may tend to give up easily in difficult situations, and the data collected

may be from those who tend to be more persistent and persevering. If this is the case, it is

possible that the data used in the study is biased. It is also plausible that East Asian international

students who have more language difficulties or acculturative stress gave up in the early stage of

the survey. However, there are other possible reasons for early withdrawal, such as participating

only to enter into a drawing for compensation and not completing the whole survey. Future

researchers may need to develop strategies to reduce the dropout rate, such as using

questionnaires written in their first languages.

Implications for Research and Practice

The present study has significant implications for current research on East Asian

international students and practices for the population. First, regarding contributions to current

research, the present study will contribute to a better understanding of the full experiences of

East Asian international students by using a resiliency framework. In spite of increasing numbers

of studies focused on international students, the majority of this research has focused on negative

psychological outcomes and risk factors (Pendse & Inman, 2016). The current study will enrich

the current literature and provide a more balanced understanding of East Asian international

students by investigating positive mental health outcomes (i.e., life satisfaction, positive affect,

and peace of mind) and coping styles stemming from their positive resources.

Second, the current study was the first to conceptualize perseverance as a culturally

congruent coping strategy of individuals with East Asian cultural backgrounds. Although

perseverance has been mentioned often as a strength and a resiliency factor (Seligman & Csikszentmihalyi, 2000; Stagman-Tyrer, 2014), little empirical research examined its role as a psychological construct, particularly as a coping strategy. Moreover, there are no studies that tested its influence in the face of acculturative stress. The current study will extend the understanding of perseverance as a way of coping which is particularly appropriate for East Asian populations, and its role under acculturative stress.

Third, the present study will extend the use of the CMSAS (Pan et al., 2008) beyond Chinese. The CMSAS was developed and validated originally for Chinese populations, however, it can be a culturally appropriate measure for people from other East Asian countries because of the shared cultural background and cultural beliefs (Leaman, 1999; Moodley et al., 2018; Suen et al., 2007). By assessing MFC using the CMSAS among East Asian international students and examining its role on well-being, the current study will expand the scope of the CMSAS to individuals from other East Asian countries.

The current study also has implications for practice valuable to mental health professionals. Findings of the present study will inform clinicians regarding how to work more effectively with East Asian international students and help them increase their multicultural competencies. First, clinicians should be aware of and integrate the findings regarding the relationships of acculturative stress, well-being, and coping. The body of research and the current study consistently reveal that acculturative stress positively relates to maladaptive well-being variables and negatively relates to adaptive well-being variables. Thus, clinicians working with international students, particularly with East Asian international students, need to be aware of a potential influence of acculturative stress on well-being to increase clients' awareness. That is, clinicians need to facilitate clients' exploration and processing to identify which specific areas of

97

acculturative stress are critically influencing the clients' positive or negative affect as well as satisfaction with life. Then, clinicians and clients can determine the target stressors which clients want to reduce the impact, and explore possible ways of coping. Clinicians need to help clients try and evaluate different types of coping under their unique and specific situations. In this process, perseverance and MFC can be introduced as potentially beneficial ways of coping for East Asian international students.

Second, clinicians may encourage their clients who identify as East Asian international students to use perseverance under acculturative stress. Previous studies (Datu et al., 2015) and the current study indicate adaptive function of perseverance on well-being, however, the findings showed that acculturative stress negatively relates to perseverance. Acculturative stress may inhibit the use of perseverance by limiting clients' mental and physical resources. Again, it is important to increase positive affect to have a healthy life, not only reducing the negative affect (Zautra et al., 2008) and the findings suggest that perseverance may promote positive affect, including peace of mind, at the face of acculturative stress. Thus, clients may benefit from understanding perseverance as a culturally relevant coping strategy and test its impact on their positive affect. To support clients's use of perseverance, clinicians may need to unlearn a potential stereotype that East Asian students achieve academic success at the cost of their own well-being (Stevenson et al., 1993). Having this stereotype, persevering study habits can be viewed as a negative tendency that hurts clients' well-being. The current study will provide evidence for clinicians that perseverance actually can function positively and they can help clients who identify as East Asian international students by normalizing and encouraging the use of perseverance. When applying the findings, however, clinicians need to be cautious not to unintentionally put additional pressure on clients to work and study harder, by emphasizing or

encouraging perseverance. Rather, it is important that clinicians are aware of the origins of the tendency to persevere among East Asian international students as well as its impacts and use this understanding to provide balanced intervention. Clinicians may validate both engaging in perseverance which would be consistent with clients' cultural values and not engaginig in perseverance due to a variety of stressors and external challenges.

Third, the current study may inform clinicians on how to guide their East Asian international student clients to use MFC. The findings showed that, although MFC does not mediate the relationship between acculturative stress and well-being, MFC positively relates to life satisfaction and positive affect. In addition, given that MFC is effective to deal with uncontrollable stressors (Holahan et al., 1995; Moskowitz et al, 1996), clients particularly with uncontrollable acculturative stressors can benefit from MFC. Thus, clinicians can introduce MFC and encourage Esat Asian international students to use it to promote the positive aspects of well-being. In this process, clinicians may need to be cautious not to instill their own values. Clients would benefit from MFC by finding positive meanings that are congruent with their own beliefs and values. Thus, clinicians may need to explore with their clients how to reinterpret or positively reframe the clients' adversities and hardship in line with clients' own values and beliefs.

Fourth, it should be noted that neither perseverance nor MFC are predictors of negative affect in the final model. Clients tend to seek help to manage their negative emotions or symptoms, and thus, clinicians and scholars need to identify culturally congruent coping strategies that reduce negative affect in the face of acculturative stress among East Asian international students. For instance, when the effects of well-being constructs (i.e., relational harmony, dialectical coping, and nonattachment), which are related to East Asians' philosophical

99

foundation, on mental health outcomes were tested among Taiwanese participants, nonattachment was the only and the strongest predictor of negative affect and psychological distress (Wang, 2016). Nonattachment is a state of "not being stuck or fixated on ideas, images, or sensory objects and not feeling an internal pressure to acquire, hold, avoid, or change (Sahdra, Shaver, & Brown, 2010, p. 118). Nonattachment is considered as a remedy to be free from anxiety, frustration, and depression among Buddhists. Sahdra and collegues (2010) developed a scale to assess nonattachment and their findings indicated that nonattachment negatively related to depression, anxiety, stress, and difficulties with emotion regulation and positively related to subjective and eudemonic well-being and positive interpersonal functioning. Nonattachment would be particularly effective when facing uncontrollable acculturative stressors such as discrimination or microaggressions which can lead strong emotional reactions. Nonattachment is a related but distinct construct from mindfulness and research indicated that nonattachment mediated mindfulness and well-being (Whitehead, Bates, Elphinstone, Yang, & Murray, 2019). Further research on interventions to promote nonattachment will benefit East Asian international students under acculturative stress.

Conclusion

The current study examined the relationships among acculturative stress, culturally congruent coping strategies (i.e., perseverance, MFC), and well-being (i.e., life satisfaction, positive affect, negative affect, and peace of mind) among East Asian international students, using SEM. The results revealed that acculturative stress is a strong predictor of well-being, perseverance is a predictor of well-being except for negative affect, and MFC is a predictor of life satisfaction and positive affect. Tests of indirect effects indicated that perseverance partially mediates the relationship between acculturative stress and positive affect and peace of mind. The

results also revealed that MFC does not mediate the relationships between acculturative stress and well-being variables.

The present study has implications for research focused on international students and counseling practice for East Asian international students. Findings of this study filled in gaps in the literature on international students by using a resiliency-oriented approach which is critical to fully understand international students' experiences. Additionally, the study enriched the stress and coping literature, particularly in multicultural aspects, by suggesting perseverance as a culturally relevant coping strategy and extending the usage of CMSAS (Pan et al., 2008) to broader population (i.e., international students from East Asian countries). Most importantly, the current study informs practitioners regarding how to better support their clients who identify themselves as East Asian international students. The results of the study suggest exploring clients' acculturative stress to identify areas to focus, normalize culturally relevant coping strategies, and encourage clients to use the appropriate coping strategies for their unique situations. Perseverance can be a beneficial coping strategy for East Asian international students to increase their positive affect including peace of mind under acculturative stress, and MFC can be helpful to enhance their life satisfaction and positive affect.

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APPENDIX A. APPROVAL OF PURDUE UNIVERSITY INSTITUTIONAL REVIEW BOARD

PURDUE
UNIVERSITY

HUMAN RESEARCH PROTECTION PROGRAM
INSTITUTIONAL REVIEW BOARDS

To:	CIFTCI, AYSE
From:	DICLEMENTI, JEANNIE D, Chair Social Science IRB
Date:	11/30/2018
Committee Action:(1) (2)	Determined Exempt, Category (1) (2)
IRB Action Date:	11 / 29 / 2018
IRB Protocol #:	1811021364
Study Title:	Roles of Perseverance and Meaning-focused Coping in the Relationship between Acculturative Stress and Subjective Well-being for Asian International Students

The Institutional Review Board (IRB) has reviewed the above-referenced study application and has determined that it meets the criteria for exemption under 45 CFR 46.101(b).

Before making changes to the study procedures, please submit an Amendment to ensure that the regulatory status of the study has not changed. Changes in key research personnel should also be submitted to the IRB through an amendment.

General

- To recruit from Purdue University classrooms, the instructor and all others associated with conduct of the course (e.g., teaching assistants) must not be present during announcement of the research opportunity or any recruitment activity. This may be accomplished by announcing, in advance, that class will either start later than usual or end earlier than usual so this activity may occur. It should be emphasized that attendance at the announcement and recruitment are voluntary and the student's attendance and enrollment decision will not be shared with those administering the course.
- If students earn extra credit towards their course grade through participation in a research project conducted by someone other than the course instructor(s), such as in the example above, the students participation should only be shared with the course instructor(s) at the end of the semester. Additionally, instructors who allow extra credit to be earned through participation in research must also provide an opportunity for students to earn comparable extra credit through a non-research activity requiring an amount of time and effort comparable to the research option.
- When conducting human subjects research at a non-Purdue college/university, investigators are urged to contact that institution's IRB to determine requirements for conducting research at that institution.
- When human subjects research will be conducted in schools or places of business, investigators must obtain written permission from an appropriate authority within the organization. If the written permission was not submitted with the study application at the time of IRB review (e.g., the school would not issue the letter without proof of IRB approval, etc.), the investigator must submit the

APPENDIX B. INITIAL RECRUITMENT EMAIL

Subject Header: Survey Invitation: Your well-being as an East Asian International Student.

Dear Purdue Student,

My name is Lina Liw, and I am a doctoral student in Counseling Psychology at Purdue University. I am currently working on a research project under the direction of my advisor, Dr. Ayşe Çiftçi, and we are inviting you to participate in our research on stress and subjective well-being among East Asian international students. This study will help us to have better understanding of and provide attuned support to East Asian international students. You may receive the same invitation email more than once. Please complete the survey only once.

In order to participate, you need to be **a) originally from following places:** China, South Korea, Hong Kong, Japan, Macau, Mongolia, or Taiwan, **b) living in the U.S. and pursuing an undergraduate or graduate degree**, **c) holding an F-1 student visa**, **d) at least 18 years old,** and **e) your first language is not English**.

The participation will take approximately 10-15 minutes to complete the survey questions. Your participation is completely voluntary and you are free to withdraw at any time. Your responses will be completely anonymous and results will be reported as aggregate data.

At the end of the survey, you will have the opportunity to be entered into a drawing for a **$50 gift card for Amazon.com** by submitting your email address. Winners will be selected at random. The odds of winning are dependent on the number of responses received but are expected to be 1 in 400 or better. Electing to participate in the drawing does not impact the anonymity of your responses; your survey answers are not connected to the information you provide to enter into the drawing.

If you are interested, please click on the link below to complete the on-line survey.
https://purdue.ca1.qualtrics.com/jfe/form/SV_2u7zTlmEJDhOlqR

Please feel free to forward this e-mail invitation to your friends who are eligible to participate in the study. If you have any questions about this study, please feel free to contact me at **lliw@purdue.edu** or my advisor Dr. Ayşe Çiftçi at ayse@purdue.edu.

Thank you for your time and help!

Sincerely,

Lina Liw, M.Ed
Doctoral Candidate, Counseling Psychology
Department of Educational Studies
Purdue University
lliw@purdue.edu

APPENDIX C. FOLLOW-UP REMINDER RECRUITMENT EMAIL

Subject header: REMINDER: Survey Invitation: Your well-being as an East Asian International Student.

Dear Purdue Student,

My name is Lina Liw, and I am a doctoral student in Counseling Psychology at Purdue University. I am currently working on a research project under the direction of my advisor, Dr. Ayşe Çiftçi, and we are inviting you to participate in our research on stress and subjective well-being among East Asian international students. This study will help us to have better understanding of and provide attuned support to East Asian international students. You may receive the same invitation email more than once. Please complete the survey only once.

In order to participate, you need to be **a) originally from following places:** China, South Korea, Hong Kong, Japan, Macau, Mongolia, or Taiwan, **b) living in the U.S. and pursuing an undergraduate or graduate degree**, **c) holding an F-1 student visa**, **d) at least 18 years old,** and **e) your first language is not English**.

The participation will take approximately 10-15 minutes to complete the survey questions. Your participation is completely voluntary and you are free to withdraw at any time. Your responses will be completely anonymous and results will be reported as aggregate data.

At the end of the survey, you will have the opportunity to be entered into a drawing for a **$50 gift card for Amazon.com** by submitting your email address. Winners will be selected at random. The odds of winning are dependent on the number of responses received but are expected to be 1 in 400 or better. Electing to participate in the drawing does not impact the anonymity of your responses; your survey answers are not connected to the information you provide to enter into the drawing.

If you are interested, please click on the link below to complete the on-line survey.
https://purdue.ca1.qualtrics.com/jfe/form/SV_2u7zTlmEJDhOlqR

Please feel free to forward this e-mail invitation to your friends who are eligible to participate in the study. If you have any questions about this study, please feel free to contact me at **lliw@purdue.edu** or my advisor Dr. Ayşe Çiftçi at ayse@purdue.edu.

Thank you for your time and help!

Sincerely,

Lina Liw, M.Ed
Doctoral Candidate, Counseling Psychology
Department of Educational Studies
Purdue University
lliw@purdue.edu

APPENDIX D. FACEBOOK STATUS

Hello! I am currently conducting research on stress and well-being among East Asian international students. If you take this on-line survey, you will have the opportunity to be entered into a drawing for a $50 Amazon.com gift card.

In order to participate, you must be at least 18 years old and must be an East Asian international student from one of the following areas: China, South Korea, Hong Kong, Macau, Taiwan, Japan, North Korea, and Mongolia. Please feel free to share this with your friends who are eligible to participate in the study.

Thank you for your time and help!
https://purdue.ca1.qualtrics.com/jfe/form/SV_2u7zTlmEJDhOlqR

(Lina Liw: lliw@purdue.edu)

APPENDIX E. WEB-SURVEY CONSENT FORM

RESEARCH PARTICIPANT CONSENT FORM
Stress and Well-being among East Asian International Students
Research Project Number {insert here}
Ayşe Çiftçi, Ph.D.
Lina Liw, M.Ed.
Department of Educational Studies
Purdue University

Purpose of Research
The purpose of this study is to better understand the impact of stressors on subjective well-being in East Asian international students.

Qualifications for the Participants
In order to participate, you need to be **a) originally from following places:** China, South Korea, Hong Kong, Japan, Macau, Mongolia, or Taiwan,, b) living in the U.S. and pursuing an undergraduate or graduate degree, c) holding an F-1 student visa, d) at least 18 years old, and e) your first language is not English.

Procedures
If you wish to participate in this study, please click the "participate in the study" button below after reading this form. You will then be directed to the online survey to complete the questionnaires. You will also be provided with the opportunity to be entered into a drawing for a $50 Amazon.com gift card.

Duration of Participation
This survey will take approximately 10-15 minutes to complete.

Risks
The risk of participating in this study is considered minimal and no greater than you would encounter in everyday life. A breach of confidentiality is a risk associated with the research. However, a safeguard has been put in place to minimize the risks.

Benefits
You understand that there are no obvious personal benefits to you from participating in this study. However, the findings may benefit counseling profession and the society. This study may increase understanding of contributing factors to well-being in East Asian international students. The findings then may inform helping professionals to provide better services to improve well-being among East Asian international students.

Compensation
At the end of this survey, you will be given the opportunity to click on a link to provide your email address for entrance into a random drawing for a $50 Amazon.com gift card. The odds of winning are dependent on the number of responses received but are expected to be 1 in 400 or better.

Confidentiality

All your responses are completely anonymous and will be kept confidential. Your survey answers will not be able to be traced directly to you or your email address and all data will be coded and entered into a computerized data file. The data will be stored in password-protected computers and only Lina Liw, M.Ed., and Ayşe Çiftçi, Ph.D. will have an access. E-mail addresses obtained for the lottery drawing will be destroyed after the drawing. The project's research records may be reviewed by departments at Purdue University responsible for regulatory and research oversight.

Voluntary Nature of Participation

You do not have to participate in this research project. If you agree to participate, you can withdraw your participation at any time, and you can skip questions if you choose without penalty.

Contact Information

If you have any questions about this research project, you can contact either Lina Liw at lliw@purdue.edu or my advisor Dr. Ayse Ciftci at ayse@purdue.edu. If you have concerns about the treatment of research participants, you can contact the Institutional Review Board at Purdue University, Ernest C. Young Hall, Room 1032, 155 S. Grant St., West Lafayette, IN 47907-2114. The phone number for the Board is (765) 494-5942. The email address is irb@purdue.edu.

Documentation of Informed Consent

I have read the information provided above which describes this study and my participation in the study. I have had the opportunity to read this consent form and have the research study explained. I have had the opportunity to ask questions about the research project and my questions have been answered. I am prepared to participate in the research project described above.

If you agree to participate, please print a copy of this form for your records, and then click on the button at the bottom of the page.

[I agree]

APPENDIX F. INDEX OF LIFE STRESS (YANG & CLUM, 1995)

Please indicate how often you feel the way described in each of the following statement. Click one number, which most closely represents your own personal experience living in the U.S., for each statement.

0 = never; 1 = rarely; 2 = sometimes; 3 = often

1. My English embarrasses me when I talk to people.
2. I don't like the religions in the U.S.A.
3. I worry about my academic performance.
4. I worry about whether I will have my future career in my own country.
5. I can feel racial discrimination toward me from other students.
6. I'm not doing as well as I want to in school.
7. My English makes it hard for me to read articles, books, etc.
8. It's hard for me to develop opposite-sex relationships here.
9. I don't like the ways people treat each other here.
10. I don't like American food.
11. People treat me badly just because I am a foreigner.
12. I trust my church (or any religious place) here.
13. I think that people are very selfish here.
14. I don't like the things people do for their entertainment here.
15. I can feel racial discrimination toward me in stores.
16. I worry about whether I will have my future career in the U.S.A.
17. Americans' way of being too direct is uncomfortable to me.
18. I study very hard in order not to disappoint my family.
19. I can feel racial discrimination toward me from professors.
20. I can't express myself well in English.
21. It would be the biggest shame for me if I fail in school.
22. I worry about my financial situation.
23. I don't like American music.
24. I can feel racial discrimination toward me in restaurants.
25. My financial situation influences my academic study.
26. I worry about my future: will I return to my home country or stay in the U.S.A.
27. I haven't became used to enjoying the American holidays.
28. I don't want to return to my home country, but I may have to do so.
29. My English makes it hard for me to understand lectures.
30. I want to go back to my home country in the future, but I may not be able to do so.
31. My financial situation makes my life here very hard.

APPENDIX G. THE SATISFACTION WITH LIFE SCALE (SWLS; DIENER, EMMONS, LARSEN, & GRIFFIN, 1985)

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in our responding. The 7-point scale is as follows.

1 = strongly disagree
2 = disagree
3 = slightly disagree
4 = neither agree nor disagree
5 = slightly agree
6 = agree
7 = strongly agree

___ 1. In most ways my life is close to my ideal
___ 2. The conditions of my life are excellent.
___ 3. I am satisfied with my life.
___ 4. So far I have gotten the important things I want in life.
___ 5. If I could live my life over, I would change almost nothing.

APPENDIX H. THE SCALE OF POSITIVE AND NEGATIVE EXPERIENCE (SPANE; DIENER ET AL, 2010)

Please think about what you have been doing and experiencing during the past 4 weeks. Then report how much you experienced each of the following feelings, using the scale below. For each item, select a number from 1 to 5, and indicate that number on your response sheet.

1. Very rarely or never   2. Rarely   3. Sometimes   4. Often   5. Very often or always

___ Positive (P)
___ Negative (N)
___ Good (P)
___ Bad (N)
___ Pleasant (P)
___ Unpleasant (N)
___ Happy (P)
___ Sad (N)
___ Afraid (N)
___ Joyful (P)
___ Angry (N)
___ Contented (P)

APPENDIX I. THE PEACE OF MIND SCALE

How often do you feel internal peace and ease in your daily life? Use the following scale to indicate your response.

1 = Not at all
2 = Some of the time
3 = Often
4 = Most of the time
5 = All of the time

____ 1. My mind is free and at ease.
____ 2. I feel content and comfortable with myself in daily life.
____ 3. My lifestyle gives me feelings of peace and stability.
____ 4. I have peace and harmony in my mind.
____ 5. It is difficult for me to feel settled. (–)
____ 6. The way I live brings me feelings of peace and comfort.
____ 7. I feel anxious and uneasy in my mind. (–)

APPENDIX J. THE PERSEVERANCE OF EFFORT IN THE GRIT SCALE

(Duckworth, Peterson, Matthews, & Kelly, 2007)

Please respond to the following six items. Be honest – there are no right or wrong answers!

1 = Not like me at all
2 = Not much like me
3 = Somewhat like me
4 = Very much like me
5 = Mostly like me

___ 1. I have achieved a goal that took years of work.
___ 2. I have overcome setbacks to conquer an important challenge.
___ 3. I finish whatever I begin.
___ 4. Setbacks don't discourage me.
___ 5. I am a hard worker.
___ 6. I am diligent.

APPENDIX K. THE CHINESE MAKING SENSE OF ADVERSITY SCALE

(CMSAS; Pan, Wong, Chan, & Joubert, 2008)

The following statements are about people's perceptions of adversity and/or stress. How do you perceive your difficulties and the stress you have experienced, or are experiencing, in the U.S.? Please circle the number corresponding to your answer on the following scale.

1 = Strongly disagree
2 = Disagree
3 = Somewhat disagree
4 = Somewhat agree
5 = Agree
6 = Strongly agree

___1. Adversity is normal and natural, and everyone has to face in life.
___2. Adversity is a fact of life and one cannot grow up without it.
___3. Adversity provides a good opportunity for learning.
___4. Adversity not only causes pressure, but also is a motivation.
___5. Adversity is the end of the world and I am not able to resolve it.
___6. To me, coping with adversity is a process of accumulating life experiences.
___7. Adversity makes me feel that life is meaningless.
___8. Adversity is indispensable in life.
___9. I have lost a lot due to the adversity that I have encountered.
___10. To me adversity is a kind of discipline.
___11. The adversity that I have encountered is a platform for my future development.
___12. I have wasted precious time in my life because of the adversity that I have experienced.

Negative sense-making (4): 5, 7, 9, 12, Positive sense-making (8): 1, 2, 3, 4, 6, 8, 10, 11

APPENDIX L. DEMOGRAPHIC QUESTIONNAIRE

Please choose the answers that apply best or write your answers in the space provided. Feel free to look up words or phrases that you are not familiar with!

1. Are you an East Asian international student?
_____Yes
_____ No

2. Do you hold valid F-1 student visa?
_____Yes
_____ No (Please specify your status): _____

3. Please indicate your region of origin:
_____ China
_____ South Korea
_____ Taiwan
_____ Japan
_____ Hong Kong
_____ Macau
_____ North Korea
_____ Mongolia
_____ Others (Please specify): _____

4. Age_____

5. How long have you been in the U.S.? _____ years and _____ months

6. What is your academic standing?

_____ First-year student
_____ Sophomore
_____ Junior
_____ Senior
_____ Graduate student

7. What is your first language? _____

8. What is your religion if you have any?
_____ Buddhism
_____ Confucianism
_____ Christianity
_____ Taoism
_____ Shintoism

_____ Folk Religion
_____ Atheist
_____ Agnostics
_____ Do not have

_____ Other (Please specify): _____

9. What is your economic status?
_____ Lower
_____ Lower middle
_____ Middle
_____ Upper middle
_____ Upper

10. What is your gender?
_____ Man
_____ Woman
_____ Other (Please specify): _____

11. What is your sexual orientation?

_____ Heterosexual

_____ Gay

_____ Lesbian

_____ Bisexual

_____ Transgender

_____ Queer

_____ Questioning

_____ Other (Please specify): _____

12. What is your martial/relationship status?
_____ Single
_____ Partnered
_____ Married
_____ Divorced
_____ Widowed
_____ Living together/Cohabitating
_____ Others (Please specify): _____

13. What is your level of English fluency? (1= not fluent at all - 5 = very fluent)
___1 ___2 ___3 ___4 ___5

14. How comfortable are you communicating in English? (1 = not comfortable at all - 5 = very comfortable)
___1 ___2 ___3 ___4 ___5