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# Acculturative Stress, English Proficiency, Social Support, and Coping Strategies Among Chinese International Students

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ACCULTURATIVE STRESS, ENGLISH PROFICIENCY, SOCIAL SUPPORT, AND  
COPING STRATEGIES AMONG CHINESE INTERNATIONAL STUDENTS

By

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Bachelor of Arts – Psychology  
University of Nevada, Las Vegas  
2018

A thesis submitted in partial fulfillment  
of the requirement for the

Master of Social Work

School of Social Work  
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## Thesis Approval

The Graduate College  
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entitled

Acculturative Stress, English Proficiency, Social Support, and Coping Strategies Among  
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## Abstract

Drawing on data from 137 Chinese students who enrolled in a large research university in the Southwest of the United States, this quantitative study examined the relationships between Chinese students' acculturative stress, English proficiency, social support, and coping strategies. This study utilized a survey method and employed four previously established questionnaires; moreover, the use of these questionnaires was to examine students' acculturative stress, as it is the dependent variable of this study.

In data analysis, *t*-test and one-way analysis of variance (ANOVA) were used to compare means and standard deviations of Chinese students' acculturative stress through students' demographics and characteristics. The linear correlational analyses were conducted to examine the relationships between acculturative stress, English proficiency, social support, and coping strategies. In addition, a hierarchical linear regression was performed to test the predictive power of each studied variable on acculturative stress, controlling for age, gender, home region, marital status, length of stay, and source of funding.

The results of *t*-test and ANOVA showed that the mean difference in marital status and source of funding were statistically significant in acculturative stress. Students with significant others and with family funding more likely to report less acculturative stress. The results of the linear correlational analyses indicated that students with higher levels of English proficiency (perceived and TOFEL) reportedly experienced lower levels of acculturative stress related to language insufficiency, social isolation, academic pressure, and guilt toward family. Social support from significant others was also significantly and negatively correlated with acculturative stress related to academic pressure. In addition, students who use suppressive and reactive coping strategies are more likely to report more acculturative stress related to language

insufficiency, social isolation, perceived discrimination, academic pressure, and guilt toward family. Controlling for age, gender, region, marital status, source of funding, and length of stay, results of a linear regression revealed that students who use suppressive and reactive coping strategies are more likely to report higher levels of acculturative stress.

The findings of this study can inform higher education institutional officials and cross-cultural mental health professionals in addressing Chinese students' acculturative stress during their temporary stay in the United States. By examining the cultural composition of their acculturative stress, English proficiency, social support, and coping strategies, this study hopes to contribute to the existing literature in understanding the challenges Chinese students face while in their undergraduate studies.

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## **List of Definitions**

*Acculturation.* Acculturation accounts for the process of change when one has to adjust to a new environment.

*Acculturative stress.* Psychological stress experienced by those who are in the process of acculturation when residing in a foreign country.

*International students.* International students who are full-time enrolled students with F-1 student visa pursuing their desired college degree in the U.S. F-1 visa is a type of non-immigrant student visa that grants foreigners, the ability to pursue education in the US. In addition to limited financial aid and competitive job opportunities in the host country, the majority of international students are ineligible to work outside of their institutions while they are students. Furthermore, students with this type of immigration status must complete their program of study within four to six years on average a reasonable time frame.

*Chinese students.* International students who moved from mainland China including regions such as Hong Kong Special Administrative Region and Macao Special Administrative Region (Thereafter refers to Hong Kong and Macao). Students from Taiwan are often studied together with Chinese students due to the high degree of similarity between the two cultures; therefore, students from China, Hong Kong, Macao, and Taiwan are studied together for the purpose of this research.

*Other regions.* Due to a small number of participants from certain places, students who came from Hong Kong, Macao, and Taiwan are considered one group in the mean comparison of this study.

*English proficiency.* The level of perceived English adequacy in terms of speaking, writing, and academic performance as well as their English adequacy indicated by students' TOFEL scores.

*Social support.* The perceived level of social support experienced by international students from their Significant Others, Family, and Friends.

*Coping strategies.* The ways in which international students solve problems, such as reflective coping, suppressive coping, and reactive coping.

## **Chapter 1: Introduction**

When international students pursue their college education in the United States, they come with a pre-determined life style, thought process, specific stress and needs that serve as challenges in the process of their study. Some difficulties are caused by cross-cultural transition and acculturative adjustment. As such, international students face great challenges in adapting to the new culture. This study addresses important factors that relate to international students' acculturative stress and aims to discover the relationships between English proficiency, social support, coping strategies, and acculturative stress.

This chapter first provides an overview of the topic followed by a brief summary of the current literature, problem statement, purpose of the study, research questions that guided the study, and the significance of the study. Furthermore, this chapter addresses the hypotheses, concluding with a summary and overview of the remaining chapters in this thesis.

### **Background of the Study**

Studying overseas has become popular in many countries today, which results in the rapidly increasing number of international students in the United States. Since the 1970s, the Chinese government has greatly promoted exchanges of Chinese international students and scholars with the United States following a US-China educational exchange (Yan & Berliner, 2013). In 2016, about 903,127 international students enrolled in U.S. institutions, which constituted 4.5% of the total number of students enrolled in the US (Institute of International Education, 2016). The total number of Chinese students in 2016 was 328,547, 32.5% of the total population of international students in the US (Institute of International Education, 2016). This long history of educational exchange reveals the importance of further research focused on Chinese international students in higher education.

Compared to international students from other countries, Chinese students face unique challenges due to the significant differences of the students from Eastern and Western countries in terms of their language, culture, educational system, and social norms. European students, for example, are found to be less likely to experience acculturative stress and have higher social connectedness than non-European students (Yan, 2011). Although there is an increasing number of Chinese students, not many empirical studies explored the issues in their cultural adaptation, which may directly influence their success in their program. There is a need for more research on Chinese international students.

### **Problem Statement**

Previous studies have emphasized cross-cultural transition and the acculturative adjustment process among international students (Berry, 1997). When students move to the United States to pursue a degree in higher education, dramatic life transitions occur so they must manage to develop greater skills and knowledge (Ra, 2016). Several studies found that the impact of acculturative stress is significant in the acculturation process (e.g., Lowinger, He, Link, & Chang, 2014; Wang et al., 2012). Students may experience unique stressors in the acculturation process due to language barriers, loss of previous social interaction, perceived discrimination, and unhealthy coping skills (Bai, 2015). Chinese students, in particular, generally meet admission requirements and receive passing placement exam scores. However, they still have challenges in completing undergraduate programs within four to six years. Additionally, students' academic success involves more factors beyond their English proficiency. It was suggested that academic problems (e.g., failing courses, delayed graduation) may be caused by acculturation problems, language difficulties, and low academic self-efficacy for international students. Moreover, international students may experience serious acculturative stress in the host

culture when there is lack of social support from family and peers (Ra, 2016). There has also been a concern regarding international students' perceived social support. Bai's (2016) study found that international students not only reported a variety of concerns regarding social support, but also social interaction and social connectedness in the new cultural environment.

Specifically, Asian students' coping experiences differ from those of European countries due to the different cultural backgrounds and the economic development level in the home country (Yan, 2013). In order to avoid negative consequences, students from Asian countries are less willing to seek support than American students (Wei, 2011). Particularly, forbearance coping is a commonly used coping strategy among Chinese students, who are more likely to minimize problems in order to continue their social harmony (Wei, 2011). Different coping behaviors may result in different levels of cross-cultural adaptation.

Acculturative stress influences students' cultural adaptation in their acculturation process, which in turn possibly leads to psychological distress for students who come from a different culture (Westwood & Baker, 1990). This phenomenon combined with the growing number of international students emphasizes the need to further explore their cultural and environmental backgrounds, English proficiency, social support, and coping strategies that may relate to acculturative stress. This would allow for U.S. institutional officials and mental health personnel to improve the psychological well-being of such populations. Research on the challenges Chinese students face and to what extent different factors contribute to the students' success in dealing with the issues will significantly impact the quality of international education.

### **Purpose of the Study**

The purpose of this study is to explore the relationships between various factors including English proficiency, coping strategies, social support, and acculturative stress among Chinese

students. Understanding the influences of acculturative stress on Chinese students will enhance and strengthen the literature within this area of study. More importantly, studying the acculturative stress of Chinese students increases their awareness of the importance of English proficiency, social support, and coping skills. It also encourages the students to learn more about acculturative stress through self-reflection. Locally, this study will also encourage the university itself to explore interventions for better academic outcomes (e.g. cultural programs, workshops, and skills training for coping strategies). This research study focuses on the growing population in the U.S. higher education institutions and examines acculturative stress that may relate to demographic variables: age, gender, home region, marital status, source of funding, and length of stay. This investigation may inspire institutions of higher education to consider providing more support services for international students to increase students' retention and graduation rate, and overall well-being.

### **Research Questions**

The research questions of this study include:

1. Does acculturative stress differ by student characteristics, such as age, gender, home region, marital status, length of stay, and funding resources?
2. What are the relationships between the acculturative stress, English proficiency, social support, and coping strategies of Chinese students?
3. What are the significant predictors (e.g. English proficiency, social support, and coping strategies) of acculturative stress controlling for gender, age, home region, marital status, length of stay, and funding resources?

The overall hypothesis of this study is that Chinese students' higher English proficiency, greater social support, and use of positive coping strategies are associated with their lower acculturative stress.

### **Significance of the Study**

Lack of English proficiency, social support, and healthy coping strategies may increase the likelihood of acculturative stress, potentially leading to mental health problems (Sullivan & Kashubeck-West, 2015). The later addressed findings of this study aimed to raise the awareness among Chinese students who completed the survey. This study provided empirical evidence for applying intervention strategies to international students in the admission process and during students' program of study.

### **Organization of the Thesis**

This thesis includes five chapters. Chapter 1 introduces the problem, identifies the purpose, and addresses the significance of this study. The chapter also addresses the research questions. Chapter 2 reviews the current literature that forms the theoretical framework for this thesis. Chapter 3 explains the methodology used in this study. Chapter 4 includes the results of the study within the context of the research questions and hypotheses. Lastly, Chapter 5 offers an interpretation of the findings as well as implications for future studies.

## **Chapter 2: Theoretical Framework and Literature Review**

This chapter provides a review of Berry's (1997) acculturation model, which guides this study. The chapter then summarizes, analyzes, and synthesizes the recent literature of studies on factors that relate to acculturative stress and psychological distress among Asian international students, such as English proficiency, social support, and coping strategies. There is also a discussion of the research questions and hypotheses generated for the purpose of this study.

### **Theoretical Framework**

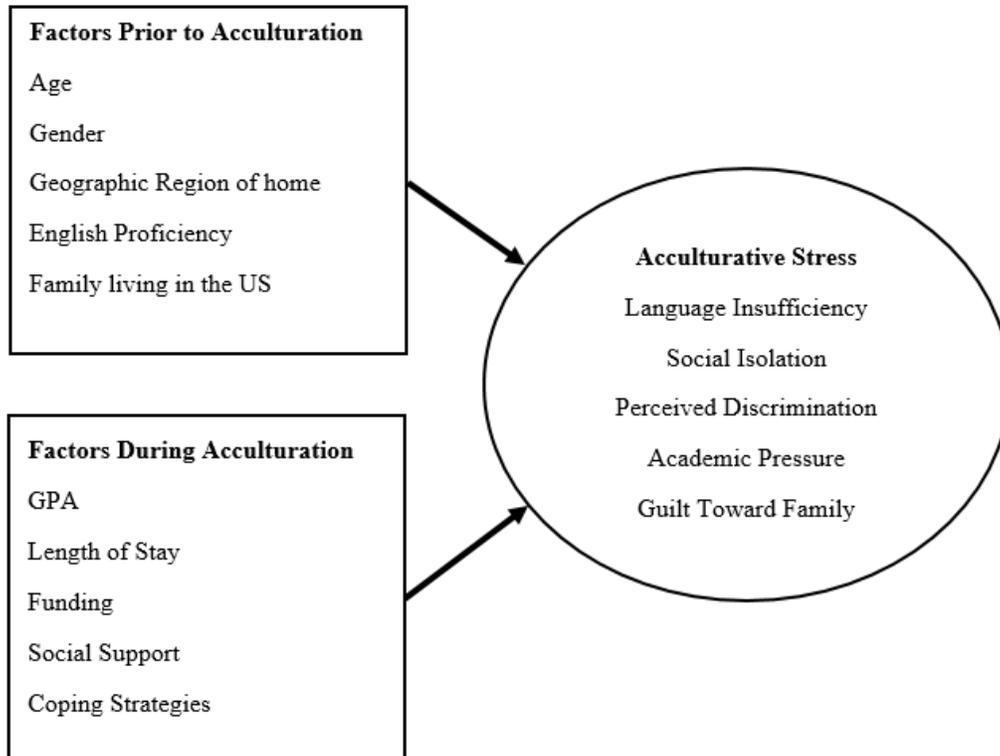
#### **Background of Berry's Acculturation Model**

The first acculturation models developed in early years focused on the environmental stressors (e.g., language differences) that happen in the adaptation process within a new cultural context, while later models focused on culture learning and social support (Yan & Berliner, 2015), as well as coping process (Wei et al., 2011).

#### **Factors Prior to and During Acculturation**

In addition to informing the field of cross-cultural psychology, Berry's (1997) acculturation model sought ways to apply this knowledge in public policy and education. This model categorizes the influence on acculturation into two factors, group level and individual level. Additionally, he suggests that individual level factors affect the process of acculturation prior to and during acculturation. The factors prior to acculturation include age, gender, previous education, language proficiency, and personality (Berry, 1997). The factors during acculturation involve length of stay, living condition, current social support, and coping strategies. According to Berry (2012), individual level factors such as years of acculturation and length of stay are influenced by the characteristics of the individual and the environment. Moreover, individuals embrace their cultural values while living and adjusting in a new society. Several factors, as

shown in Figure 1, including social support and English proficiency, act as moderators in acculturative stress and acculturation outcomes (Berry, 2012).



*Figure 1 Individual-Level Framework for Acculturative Stress*

### **Acculturation Strategies**

Based on Berry's acculturation model (1997), acculturation strategies include assimilation, separation, integration, and marginalization, and these strategies significantly influence how well an individual adapts from a home culture to a new culture. This model focuses on factors studied in this research. Language proficiency is partially affected by an individual's education prior to acculturation; however, it is also an important factor in the acculturation process (e.g., taking required English classes). Social support and coping strategies are important factors linked to an individual's acculturative adaptation, which also relates to their psychological adaptation (Yan & Berliner, 2013).

One of Berry's approaches to the study of acculturation is the stress and coping framework, which emphasizes affective, behavioral, or cognitive changes respectively in the psychological acculturation process. This stress and coping framework for acculturation explains the factors that affect acculturative stress and adaptation, drawing on broad models of stress and coping. Berry (1997) conceptualizes the psychological acculturation experience and states such significant change in life events are cognitively appraised by the individual and may be viewed as opportunities, or alternatively as difficulties. When faced with an acculturative stressor, individuals with adequate coping strategies are more likely to better cope with and overcome these stressors. If adequate coping strategies are employed, the acculturative stress experienced may be lower; however, if the coping strategies are not sufficient to overcome the stressor or if maladaptive coping is used, the acculturative stress experienced may be higher, and in severe cases may manifest as "psychopathology" such as depression and anxiety (p. 18).

### **Usefulness of the Theory to the Study**

Berry's (1997) acculturation model guides the research design of this proposed study, which focuses on individual-level variables and their relationships with acculturative stress rather than group-level variables. Based on this model, this study examines the associations of acculturative stress in light of English proficiency, social support, and coping strategies, as well as students' demographic variables, such as age, gender, home region, marital status, source of funding, and length of stay in the US.

## **Review of the Literature**

### **Article Selection Criteria and Process**

"Acculturative stress" is the important dependent variable in this study of Chinese students. Literature searches included the following keywords, "international students," "Chinese

students,” “social support,” “coping strategies,” “English proficiency,” “acculturation,” and “acculturative stress.” This literature review was conducted using five academic search engines and databases: Academic Search Premier, ERIC, PsyARTICLES, PsycINFO, and ScoINDEX. This study reviewed articles published in peer-reviewed journals since 2010. Based on the purpose of this study, 16 articles were found that closely relate to the keywords used, six studies focused on acculturation and English proficiency, seven articles focused on social support and acculturative stress, three articles focused on coping related issues among Asian International students. Among the articles found for this literature review, three of these 16 articles studied coping issues among Chinese students that involved all three variables: acculturative stress, social support, and coping among Chinese students.

### **English Proficiency and Acculturative Stress**

Language difficulties were found to be one of the most challenging issues for the majority of Chinese international students (Zhang & Goodson, 2011). In a previous study, a higher level in English proficiency resulted in a lower level of academic stress (Liao, 2011). It was found that English language fluency is a significant predictor of acculturative stress due to comfort in speaking English in class and engaging in discussions (Liao, 2011).

Many Chinese students have difficulties in expressing themselves, which diminishes their academic ability even when they have high academic achievement, such as an acceptable TOFEL score. According to the Bai’s (2012) study, academic achievement contributes to less acculturative stress; therefore, TOFEL scores are used in the correlation analysis in this study. Wang et al. (2012) also addressed that higher TOFEL scores predict lower level academic pressure, which is an important component in ASSCS. Furthermore, according to Zhang and Goodson’s (2011) study, a significant negative relationship was found between international

students' English proficiency and acculturative stress, which guided the researcher to analyze the relationship between English proficiency and acculturative stress.

English proficiency can also serve as a barrier to help-seeking behaviors and social connectedness, which could threaten the psychological well-being of Chinese students (Li et al., 2015). In addition, Zhang and Goodson's (2011) research showed that English proficiency was a predictor of both psychological and sociocultural adjustment. Evidence demonstrates that lower levels of English proficiency predict more acculturative stress and psychological distress, and these challenges could indicate negative the mental health outcomes among Chinese students (Wei et al., 2012).

### **Social Support and Acculturative Stress**

International students are sojourners who temporarily reside in the United States and are expected to return to their home country after they complete their programs. A majority of them come to the United States by themselves without living with significant others, friends, or family. According to previous research, these students reported that they rely more on friends from their home country while they are in the host country because they feel more socially supported by those who have the same cultural background (Bertran, Poulakis, Elsasser, & Kumar, 2013). Sullivan and Kashubeck-West (2015) assessed sources of social support among Chinese students. These studies showed that the more social support in the host country yields a lower level of acculturative stress. Previous findings analyzed in the literature review of this study are also consistent with studies demonstrating negative associations between social support and acculturative stress (Bai, 2016; Bertran, Poulakis, Elsasser, & Kumar, 2013; Hendrickson, Kashubeck-West, 2015; Rosen, & Aune, 2011; Zhang & Goodson, 2011)

Previous research also suggested that international students who lack the familiar support networks from family or friends may experience more acculturative stress when they encounter problems, such as English insufficiency, academic pressure, and perceived discrimination (Bai, 2016). Lacking the support, they may have received in their home country and friendships established in the host country, was found to decrease the levels of satisfaction and social connectedness. Meanwhile, there was a positive association found between new social circles formed and decreased acculturative stress that results from homesickness. Established friendships are found to decrease acculturative stress and increase the likelihood in successful adaptation in studying in the US (Hendrickson, Rosen, & Aune, 2011).

### **Coping and Acculturative Stress**

According to Berry's (1997) stress coping model, individuals explore different strategies to cope with their difficulties during the acculturation process. He found that when the coping strategies used are unsuitable for the current culture (Western culture vs. non-Western culture), the struggle results in acculturative stress. Wei et al. (2011) examined the effect of forbearance coping on acculturative stress among Chinese students. Forbearance coping is a commonly-used coping strategy among those of this ethnic group since minimization or concealment of problems or concerns is encouraged in order to sustain social harmony without "losing face" in collectivistic cultures (Wei et al., 2011). Wei et al. (2011) found that the use of forbearance coping positively correlates with psychological distress.

Yan and Berliner (2015) discussed a coping strategy commonly-used by Chinese students. They were found to address problems or cope with stress with emotion-focused coping strategies (e.g. endurance), rather than problem-focused coping (e.g., seeking help from counselors or other mental health professionals) (Yan & Berliner, 2015). Similarly, Wang et al.

(2012) found that students' problem-solving ability is strongly associated with their culture or coping strategies learned before acculturation.

On the contrary, Ra (2015) examined types of coping strategies for managing acculturative stress among Asian international students. Her study found a mediation effect between acculturation and acculturative stress when participants ( $n = 220$ ) used task-oriented, emotion-oriented, or avoidance-oriented coping strategies. The results of her study show that the more students used task-oriented coping strategies, the less they reported acculturative stress in the adjusting stage for the acculturation process of those who study in the US.

### **Acculturative Stress Scale for Chinese students (ASSCS)**

Bai (2015) developed a 32-item scale that specifically measures the acculturative stress level of Chinese students. This scale was developed based on two resources: Acculturative Stress Scale for International Students (ASSIS; Sanhu & Asrabadi, 1998) and Acculturative Hassels Scale for Chinese Students (AHSCS; Pan et al., 2010).

ASSIS is a 36-item scale that measures the acculturative stress for international students. The scale consists of seven subscales, which include perceived discrimination, homesickness, perceived hate/rejection, fear, stress due to change/culture shock, and guilt. Previous research validated the strength of this scale, which include high internal consistency reliability ranging from 0.92 to 0.94 (Wei et al, 2012). However, ASSIS does not include academic stressor, which have been identified as a great challenge for international students.

AHSCS consists of 17 items that are factored into four subscales, including language deficiency, academic work, cultural difference, and social interaction. The scale has satisfactory internal reliability with .88 Cronbach's alpha. However, the scale was developed in Hong Kong, which might not be applicable to other Chinese students who do not live in that region. In

addition, an important domain of acculturative stress – perceived discrimination – was not studied.

ASSCS demonstrated satisfying psychometric characteristics in its five-factor factorial analysis, which is supported by previous literature. The five factors include language insufficiency, social isolation, perceived discrimination, academic pressure, and guilt toward family. In the development of ASSCS, Bai (2015) analyzed the acculturative stress reported by a total of 267 students. She found that when students are overwhelmed by acculturative stress, mental health problems arise. Therefore, researchers can use ASSCS in two ways. First, researchers could use this scale as a diagnostic tool for mental health professionals to measure an individual's stress level in assistance of clinical diagnosis. Second, it can be implemented by mental health professionals for assessing Chinese students and thus raise their awareness of mental health issues and self-care. Compared to ASSIS and AHSCS, this scale is culturally sensitive to Chinese culture, which reduces its construct bias and improves the validity of the scale. Given the context of this study, ASSCS is the most appropriate instrument for this examination. By using this scale, the study contributes to the current literature, evaluation of the scale, and improvement of its psychometric properties.

### **Research Questions and Hypotheses**

**Research Question 1:** Does acculturative stress differ by student characteristics such as age, gender, home region, marital status, length of stay, and funding resources in the US?

**Hypothesis 1.1** Younger Chinese students may experience less acculturative stress.

**Hypothesis 1.2** There is no gender difference in the level of acculturative stress.

**Hypothesis 1.3** Mainland Chinese students experience the same level of acculturative stress as students from other regions.

**Hypothesis 1.4** Students who are in a significant relationship or marriage experience less acculturative stress as opposed to those who are single.

**Hypothesis 1.5** Chinese students with family funding will report less acculturative stress as opposed to those who have other funding resources (e.g., scholarship, self-support, and other)

**Hypothesis 1.6** Students who lived in the US for five years or more will report less acculturative stress as opposed to those with less than five years in length of stay.

**Research Question 2:** What are the relationships between acculturative stress, English proficiency, social support, and coping strategies of Chinese students?

**Hypothesis 2.1** English proficiency negatively correlates with acculturative stress.

**Hypothesis 2.2** Social support negatively correlates with acculturative stress.

**Hypothesis 2.3** Positive coping strategies negatively correlate with acculturative stress.

**Research Question 3:** What are the significant variables that predict acculturative stress controlling for age, gender, home region, marital status, source of funding, and length of stay?

**Hypothesis 3** With age, gender, home region, marital status, source of funding controlled, social support negatively correlates with acculturative stress.

### **Chapter Summary**

For Chinese students, academic pressures, language difficulties, lack of support, discrimination and homesickness are the potential predictors of acculturative stress (Wei et al., 2007). These factors are identified during the assimilation process of acculturation (Berry, 1997). In a recent research, a relationship has been found between English proficiency and acculturative stress (Wei et al., 2012), social support and acculturative stress (Bertram, Poulakis, & Kumar, 2013), as well as coping and acculturative stress (Wang et al., 2012; Wei et al, 2011; Yan &

Berliner, 2013). However, these studies used the ASSIS (ASSIS; Sandhu & Asrabadi, 1994) instrument, which did not include academic stressors. As previously discussed, academic stressors cause academic failure and negatively influence academic performance. Limited literature was found using the more culturally competent scale (ASSCS; Bai, 2016) to measure the acculturative stress of Chinese students in the United States. Wang et al. (2012) studied social support and coping strategies among Chinese students; however, only limited research focused on analyzing the relationships between acculturative stress, English proficiency, social support, and coping strategies among Chinese students.

## **Chapter 3: Research Methodology**

### **Research Design**

This study employed quantitative research methods to examine the relationships between multiple independent variables (English proficiency, social support, and coping strategies) and the dependent variable (acculturative stress). Utilizing a quantitative research method allowed the researcher to gather cross-sectional information from a larger sample of the population of interest, which is adequate and preferred for the exploration of the complex relationships among the three dependent variables of acculturative stress – English proficiency, social support and coping strategies.

This study used a survey method for data collection because of its efficiency and effectiveness in collecting quantitative data (Creswell, 2009). This quantitative research allows the researcher to explore the variables measured and to test against an identified theory (Creswell, 2009). This chapter acknowledges the survey method used for data collection. Furthermore, this research design guided the researcher in all required steps to explore the variables measured and tested against the hypotheses.

### **Context of the Study**

The research study took place at a large public research institution located in the Southwest region of the US, which offers on-campus residency for international students. This institution has 431 Chinese international students, of which 270 are females and 161 are males. A total of 373 (Female = 236, Male = 137) students came from Mainland China, a total of 27 students came from Hong Kong (Female = 14, Male = 13), and 31 (Female = 20, Male = 22) students came from Taiwan. The total number of Macao students enrolled were unknown.

## Sampling and Participants

Participation invitations were sent by the Office of International Students and Scholars (OISS) to 431 undergraduate Chinese students who were studying at the university in 2018. This quantitative research study gathered data from 169 Chinese students who were registered as full-time F-1 students at the research site. The overall return rate of the survey was approximately 39.2%.

*Table 1 Participant Demographics*

Demographic Variable	Categories	n	%
<i>Age</i>	18 - 24	96	70.1%
	> 24	41	29.9%
<i>Gender</i>	Female	95	69.3%
	Male	41	29.9%
	Missing	1	0.7%
<i>Home Region</i>	Mainland	119	86.9%
	Other Regions	18	13.1%
<i>Marital Status</i>	Single	85	62%
	In Relationship/Marriage	52	38%
<i>Length of Stay</i>	Less than 1 year	24	17.5%
	2 - 4 years	59	43.1%
	≥ 5 years	54	39.4%
<i>Relative/Family in US</i>	Yes	42	30.7%
	No	95	69.3%
<i>Source of Funding</i>	Family	102	78.8%
	Other	29	77.4%
<i>Living Situation</i>	On campus	31	22.6%
	Off campus	106	77.4%

Incomplete questionnaires (n = 32) were excluded from data analysis. As a result, data from 137 participants were included for data analysis. Responses of the completed surveys had 95 women (69.3%) and 41 men (29.9%). Of those participants, 119 (86.9%) were from Mainland

China, 5 (3.6%) from Hong Kong, 3 (2.2%) from Macao, and 10 (7.3%) from Taiwan. In examining participants' average length of stay in the US, 24 (17.5%) had stayed less than one year, 59 (43.1%) had stayed between two to four years, and 54 (39.4%) had stayed more than five years. Table 1 presents the demographic characteristics of the participants.

### **Instrumentation**

This study used four previously established questionnaires as the tools of collecting data. These questionnaires include the Acculturative Stress Scale for Chinese Students (ASSCS; Bai, 2014), the Perceived English Proficiency Scale (PEPS; Wei, Wang, & Ku, 2012), the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988), and the Problem-Focused Coping Strategies Questionnaire (Heppner et al., 1995).

**Acculturative Stress Scale for Chinese Students.** Based on a previous study on Chinese students, Bai (2015) developed a scale to measure Chinese students' Acculturative Stress, known as ASSCS. The ASSCS is 32-items, 5-point Likert scale designed to measure the acculturation stress among Chinese students in the US. Each question has five possible responses from 1 "very unsatisfied" to 5 "very satisfied" (ASSCS, Bai, 2015). The rationale to use ASSCS as the measurement of this study is based on the following considerations: 1) it is specifically designed for Chinese students, and 2) the previous study has proved it to be a reliable measure (Bai, 2015). The survey has five subscales, which are Language insufficiency, Social isolation, Perceived discrimination, Academic pressure, and Guilt toward family. The ASSCS scale had a 0.94 Cronbach's Alpha reliability, which means this scale has a very high level of internal consistency (Bai, 2014). Criterion-related validity was tested based on using ASSCS to predict students' depression and life satisfaction (Bai, 2014). In addition, this scale was designed to specifically

study Chinese students, who are the targeted population of this study. Therefore, the researcher chose to use ASSCS to measure Chinese undergraduate students' acculturative stress.

**Perceived English Proficiency Scale.** The Perceived English Proficiency Scale (PEPS) is a 5-item measure to assess participants' self-perceived English proficiency. This scale includes the following areas: listening, speaking, reading, writing, accent, pronunciation, and overall English (Wei, Wang, & Ku, 2012). Each question has a 5-point Likert scale interval level ranging from 1 (very poor) to 5 (very good). In addition, students' TOFEL scores were gathered to examine students' English proficiency. Both PEPS and TOFEL scores closely relate to this research study. PEPS is a scale specifically designed to test self-perceived English proficiency with high reliability of 0.89 Cronbach's Alpha (Wei, Wang, & Ku, 2012), whereas TOFEL scores indicate students' English Proficiency. Therefore, the PEPS and TOFEL scores were used to evaluate English proficiency of the participants.

**Multidimensional Scale of Perceived Social Support.** The Multidimensional Scale of Perceived Social Support (MSPSS) is a 12-item scale, which measures the participants' perceptions of social support from significant others, friends, and family (Zimet, Dahlem, Zimet, & Farley, 1988). This questionnaire includes three constructs (Significant others, friends, and family), with four items each that measure the perceived social support. This Likert scale consists of response choices ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*). A higher score indicates higher perceived social support. This questionnaire was chosen because the subscales includes the perception of students' support from significant others, family, and friends, as these are the central support for international students. The MSPSS measures the social support that may relate to acculturative stress and had a high level of reliability with 0.91 Cronbach's Alpha (Zimet, Dahlem, Zimet, & Farley, 1988).

**Perceived Coping Strategies Questionnaire.** Coping strategies were measured by the Problem-Focused Style of Coping (Heppner et al., 1995). This questionnaire is an 18-item, 5-point Likert scale with five possible responses ranging from 1 (*almost never*) to 5 (*almost all of the time*), which indicates how often participants engage in the described coping activity. Three subscales include Reflective, Suppressive, and Reactive Style of Coping. Reflective Style of Coping (7 items) focuses on planning and exploring causal relationships and systematic steps as a way to cope with stressful situations. Suppressive Style of Coping (6 items) shows tendency to avoid coping activities and deny problems. Reactive Style of Coping (5 items) is defined as tendency to have negative emotional responses due to distortion, impulsivity, and cognitive confusion. A higher score indicates a greater utilization of reflective (score range: 5-35), suppressive (score range: 5-30), or reactive (score range: 5-25) styles of coping. The Cronbach's alphas for the aforementioned three subscales were .77, .76, and .73, respectively among college students (Heppner et al., 1995). This study uses the Problem-Focused Style of Coping to examine ways international students cope with stressful situations, and how these three styles of coping relate to acculturative stress.

### **Data Collection**

Non-probability sampling was used to recruit the participants of this study. Non-probability sampling is a method in which the investigator does not know the probability of each population element included in the sample (Rubin & Babbie, 2014). Non-probability is a suitable choice of sampling method for this study because it increases the anonymity between the researcher and participants. Under non-probability, participants are selected through convenience sampling allowing the survey to be sent to the targeted population, which best serves the purposes of the study. The goal of this study is to examine the mean difference, the relationship,

and the predicted outcomes between the studied variables (demographics, English proficiency, social support, coping strategies), and dependent variable (acculturative stress), with no intent to generalize the results beyond the sample to a larger population.

### **Ethical Considerations**

This study collected data through an online survey link created in Qualtrics. The researcher distributed the questionnaire with an anonymous survey link through the OISS of the university and Chinese students WeChat group. Reminder emails and notifications were distributed two weeks after the initial distribution in order to increase the number of the participants. Completed surveys were collected one month after initial distribution. The first section of the questionnaire informed the participants about the confidentiality of their responses and their anonymous identities; students gave consent to participate in this study as they proceeded.

This study strictly follows all four ethical guidelines of research activities with human subjects. They include 1) voluntary participation, 2) informed consent, 3) anonymity, and 4) confidentiality. First, participation was voluntary, which means their participation in this research was through their own will. They had the opportunity to withdraw from this research at any time. Second, the informed consent form was included on the first page of the survey. It included all the information about the survey following research ethical guidelines. By clicking the “start” button and proceeding with the survey, participants gave consent to participate in this research. Third, the survey link was obtained from Qualtrics and was sent out to all respondents anonymously, which prevented the researcher from identifying any given response with the corresponding participant. Fourth, there is no identifiable information on any response, and all responses are confidential. Data results are stored on a password protected computer and storage.

Data collected were not shared with any other personnel. In addition, the researcher of this study has participated in the ethical training of all required modules for the requirement of social sciences. The researcher has also participated in the Collaborative Institutional Training Initiative (CITI) and acquired the CITI certificate, which enables the researcher conduct the data collection and analysis to ensure that all the procedures followed IRB regulations.

## **Studied Variables**

### **Independent Variables**

The independent variables of this research study were the participants' self-reported demographic information, as indicated in Table 1. The independent variables of the study were selected due to their prevalence in previous research. The independent variables of this study include demographic variables, which involve age, gender, home region, marital status, source of funding, and length of stay.

In addition, English proficiency (perceived language skills and TOFEL scores), social support (significant others, friends, and family), and coping strategies (reflective, suppressive, and reactive coping strategies) were other independent variables used when examining their correlational relationships with acculturative stress. English proficiency includes participants' perceived language proficiency in speaking, writing, reading, and overall level of English skill. Social support is measured by students' self-perceived support from significant others, family, and friends. Coping strategies are measure by students' reflective, suppressive, and reactive ways of coping. The purpose of selecting these independent variables is to validate previous literature and explore new findings. Categories of studied independent variables were recoded to perform data analysis.

## **Dependent Variables**

The dependent variable is the acculturative stress. The ASSCS was used to measure acculturative stress of Chinese students in terms of their self-reported acculturative stress from language insufficiency, social isolation, perceived discrimination, academic pressure, and guilt toward family in home country.

## **Data Analysis**

Collected data were analyzed using IBM SPSS Statistics version 25. Before the performance of data analysis and calculation of the subscales, the first step was to handle missing data. According to Cheema (2014), replaced missing values is one of the missing data-handling methods. In the responses of 137 participants, mean imputation, or marginal mean imputation, was used to replace missing values because the effect of other variables will not be influenced. Second, the researcher checked the skewness and kurtosis to ensure normal distribution ( $\pm 2.00$ ). Third, the researcher ensured the statistical significance alpha level was set to 0.05.

Independent sample *t* test and one-way ANOVA were used to examine the hypotheses from the first research question. To address the first research question five *t*-tests were performed to test the hypotheses 1.1 to 1.5, and a one-way ANOVA was conducted to test the hypothesis 1.6. The means and standard deviations of the total reported acculturative stress score and scores of each subscales (Language insufficiency, Social isolation, Perceived discrimination, Academic pressure, and Guilt toward family) were compared with by age, gender, home region, marital status, source of funding, and length of stay.

To address the second research question, the Spearman and Pearson correlation analysis was used to find the strength and direction of relationships between Acculturative Stress and the three dependent variables of English proficiency, Social support, and Coping strategies. The first

step was to check for linearity by examining the scatter plot followed by calculation of the Pearson's correlation coefficient ( $r$ ) for continuous variables and Spearman's ( $\rho$ ) for categorical variable.

Controlling for the demographics of age, gender, home region, marital status, source of funding, and length of stay to test the predictive power of each dependent variable of English proficiency, Social Support, and Coping Strategies, a hierarchical linear regression was conducted to address the third research question. The independent variables studied were entered into the first block to control for their influence on the model, which include participants' age, gender, home region, marital status, source of funding, and length of stay. Other factors may be effective to the outcome variable; however, the independent variable used in the first block had previous literature support. More importantly, the focus of this study was degree of relationship among acculturative stress, English proficiency, social support, and coping strategies. The second block includes TOFEL score and perceived English Proficiency. The third block includes Social support subscales and Coping strategies subscales. The regression model used examined the adjusted R-square change in order to increase the predictive power and  $F$  value change for the purpose of measuring whether the variables in block 3 significantly improved the predicted outcome.

### **Chapter Summary**

Chapter 3 described the research design for this study, which focused on the context of the study and the rationale for its participation selection, sampling, and instruments used. The chapter also outlined the procedure implemented for data collection as well as ethical consideration. This chapter concluded with data analysis in order to measure the mean

differences, relationships, and regression among all tested variables. In Chapter 4, results of the study will be explained.

## Chapter 4: Results

Data analysis assisted the researcher in obtaining salient findings. This chapter reports the main findings by the order of three research questions with tables for illustration. The data was obtained from SPSS reports. This chapter answered the following questions:

**Research Question 1:** Does acculturative stress differ by student characteristics such as age, gender, home region, marital status, length of stay, and funding resources in the US?

**Research Question 2:** What is the relationship between acculturative stress, English proficiency, social support, and coping strategies of Chinese students?

**Research Question 3:** What are the significant variables that predict acculturative stress controlling for age, gender, home region, marital status, source of funding, and length of stay?

### First Research Question

For the first research question, the researcher hypothesized that participants' acculturative stress would not differ by students' age, gender, home region, and length of stay. The researcher also hypothesized that participants' acculturative stress would differ by students' marital status and source of funding. The first research question asked if there were any differences in acculturative stress between these student characteristics. To address the first research question, independent-variable *t*-test, and one-way analysis of variance (ANOVA) were performed to examine the differences on levels of acculturative stress based on their age, gender, home region, marital status, source of funding, and length of stay. For the second research question, the Pearson and Spearman correlation analysis was conducted to examine the relationship between studied variables. To address the third research question, hierarchical linear regression was conducted to examine how studied variables predict acculturative stress when demographic variables are controlled.

### Hypothesis 1.1

An independent-sample *t*-test was conducted to evaluate the hypothesis that there is no difference in students' overall acculturative stress in the comparison of the mean between students who are younger than 24 years old as opposed to students who are 24 years of age or older. The test showed insignificant mean difference in acculturative stress by age,  $t(135) = -1.026$ ,  $p = .307$ , which supports the research hypothesis (see Table 2). Students who are older than 24 years old ( $M = 96.00$ ,  $SD = 28.42$ ) on the average reported similar acculturative stress than those who are younger than 24 years old ( $M = 90.41$ ,  $SD = 29.54$ ). The 95% confidence interval for the difference in means was quite wide, ranging from -16.37 to 5.19. Cohen's *d* that measures the effect size indicated a small effect size ( $d = 0.19$ ). Table 2 shows the distribution for the two groups.

*Table 2 Acculturative Stress by Age*

Dependent Variables	<i>d</i>	<i>t</i>	df	<i>p</i>
Language insufficiency	.244	-1.32	135	.19
Social isolation	.182	-.97	135	.33
Perceived discrimination	.009	.05	135	.96
Academic pressure	.06	-.32	135	.75
Guilt toward family	.32	-1.72	135	.09
Total acculturative stress	.192	-1.03	135	.31

### Hypothesis 1.2

An independent-sample *t*-test was conducted to evaluate the hypothesis that there is no difference in the comparison of the mean between students who are male as opposed to female. The test found insignificant mean difference in acculturative stress between male and female students,  $t(135) = -.364$ ,  $p = .716$ , and the results confirmed the research hypothesis (see Table

3). Students who are female on the average reported similar overall acculturative stress than those who are male. The 95% confidence interval for the difference in means was quite wide, ranging from -12.86 to 8.86. Cohen's *d* indicated a small effect size ( $d = 0.09$ ).

*Table 3 Acculturative Stress by Gender*

Dependent Variables	<i>d</i>	<i>t</i>	df	<i>p</i>
Language insufficiency	.012	-.06	134	.95
Social isolation	.143	-.75	134	.45
Perceived discrimination	.185	-.99	134	.33
Academic pressure	.205	1.11	134	.27
Guilt toward family	.068	-.36	134	.72
Total acculturative stress	.068	-.36	134	.72

### **Hypothesis 1.3**

An independent-sample *t*-test was conducted to evaluate the hypothesis that there is no difference in the comparison of the mean between students who came from Mainland China as opposed to students who came from Hong Kong, Macao, and Taiwan. The test showed an insignificant relationship, and the results confirmed the research hypothesis. Between students from Mainland China and other regions, there was no statistical significant mean difference in acculturative stress related to language insufficiency,  $t(135) = -1.699$ ,  $p = .092$ ; social isolation,  $t(19.14) = -1.47$ ,  $p = .158$ ; perceived discrimination,  $t(135) = 1.12$ ,  $p = .267$ ; academic pressure  $t(19.14) = -1.07$ ,  $p = .297$ ; and guilt toward family,  $t(135) = .635$ ,  $p = .526$ . The 95% confidence interval for the difference in means was quite wide, ranging from -1.12 to .68. Cohen's *d* indicated a small effect size ( $d = 0.26$ ). Table 4 shows the distribution for the two groups.

*Table 4 Acculturative Stress by Home Region*

Dependent Variables	d	t	df	p
Language insufficiency	.393	-1.699	135	.092
Social isolation	.426	-1.47	19.14	.158
Perceived discrimination	.280	1.116	135	.267
Academic pressure	.301	-1.07	19.71	.297
Guilt toward family	.169	.635	135	.526
Total acculturative stress	.256	-1.061	135	.297

#### **Hypothesis 1.4**

An independent-sample *t*-test was conducted to evaluate the hypothesis that there is significant difference in acculturative stress when comparing the mean between students who are single as opposed to those who are in a significant relationship or married. The test was significant in students' academic pressure,  $t(117.03) = 1.98$ ,  $p = .04$ , which supported the research hypothesis (see Table 5).

*Table 5 Marital Status and Acculturative Stress*

Dependent Variables	d	t	df	p
Language insufficiency	.314	1.80	135	.07
Social isolation	.275	1.55	135	.12
Perceived discrimination	.139	.78	135	.44
Academic pressure	.353	1.98	135	.05*
Guilt toward family	.108	.62	135	.54
Total acculturative stress	.299	1.70	135	.09

\* $p < .05$

Students who are single ( $M = 12.13$ ,  $SD = 4.93$ ) on the average reported more

acculturative stress than those in a significant relationship or married ( $M = 52, SD = 10.48$ ). The difference in means of the 95% confidence interval for ranged from .00 to 3.31. Cohen's  $d$  indicated a small to medium effect size ( $d = 0.299$ ).

### Hypothesis 1.5

An independent-sample  $t$ -test was conducted to evaluate the hypothesis that there is a difference in the comparison of the mean between students who receive funding from family as opposed to students who receive other type of funding. The results were counter to the research hypothesis, which had a statistical significance,  $t(135) = -2.13, p < .05$ . Students who received funding from family ( $M = 16.86, SD = 6.88$ ) on the average reported less acculturative stress than those who receives funding from other sources ( $M = 19.99, SD = 7.65$ ). The 95% confidence interval for the difference in means was quite wide, ranging from -6.05 to -.217. Cohen's  $d$  indicated a medium effect size ( $d = 0.331$ ) between two different source of funding (see Table 6).

*Table 6 Source of Funding and Acculturative Stress by Funding Resources*

Dependent Variables	$d$	$t$	df	$p$
Language insufficiency	.182	-.84	135	.40
Social isolation	.291	-1.44	135	.15
Perceived discrimination	.431	-2.13	135	.04*
Academic pressure	.352	-1.83	135	.07
Guilt toward family	.116	.56	135	.58
Total acculturative stress	.331	-1.63	135	.11

\* $p < .05$

## Hypothesis 1.6

A one-way analysis of variance was conducted to test the mean difference in acculturative stress among three different time range in the length of stay among Chinese students. The three options in length of stay on the survey were one year or less, two to four years, and greater or equal to five years. ANOVA results showed no statistically significant difference between the three groups in language insufficiency,  $F(2, 134) = .300, p = .741$ ; social isolation,  $F(2, 134) = .110, p = .896$ ; perceived discrimination,  $F(2, 134) = .148, p = .863$ ; academic pressure,  $F(2, 134) = .122, p = .885$ ; and guilt toward family  $F(2, 134) = .057, p = .944$ . This contradicted with the research hypothesis. A Tukey post-hoc test revealed no statistically significant difference between the acculturative stress and length of stay, as assessed by  $\eta$  square indicated the total acculturative stress accounting for ( $\eta^2 = .002$ ) of the variance of the dependent variable (see Table 7).

*Table 7 Length of Stay and Acculturative Stress*

DV	$\leq 1$ year		2-4 years		$\geq 5$ years		<i>p</i>	$\eta^2$
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Language insufficiency	30.21	7.83	28.36	10.08	28.72	10.61	.741	.004
Social isolation	25.67	7.41	24.72	10.08	24.71	8.69	.896	.002
Perceived discrimination	17.96	6.80	17.15	7.88	17.74	6.52	.863	.002
Academic pressure	11.53	3.86	11.29	4.91	11.74	5.10	.885	.002
Guilt toward family	9.17	3.25	9.29	3.81	9.48	4.65	.944	.001
Total acculturative stress	94.55	25.31	90.81	30.94	92.09	29.22	.867	.002

## Second Research Question

Correlation coefficients were computed among the four self-report scales. To address the second research question, Spearman and Pearson correlation were performed to examine the relationship between acculturative stress and TOFEL score, perceived English proficiency, social support, and coping strategies, respectively (see Table 8).

*Table 8 Correlation Coefficients between Acculturative Stress and Studied Variables*

Variable	Language Insufficiency	Social Isolation	Perceived Discrimination	Academic Pressure	Guilt toward Family	Total
English Proficiency						
1. TOFEL	-.449**	-.336**	-.088	-.426**	-1.90	-.401**
2. Perceived English	-.455**	-.236**	-.103	-.236**	-.188*	-.317**
Social Support						
3. Sig. Other	-.062	-.117	-.083	-.180*	.002	-.107
4. Family	-.053	-.015	-.082	-.107	.035	-.055
5. Friend	-.018	-.1	-.143	-.144	-.028	-.100
Coping						
6. Reflective	.054	.106	.131	.063	.159	.116
7. Suppressive	-.534**	-.419**	-.375**	-.578**	-.420**	-.556**
8. Reactive	-.466**	-.372**	-.345**	-.390**	-.286**	-.461**

\* $p < .05$ , \*\*  $p < .001$

### Hypothesis 2.1

For hypothesis 2.1, the results from Spearman ( $\rho$ ) indicated that students with higher level of TOFEL score had a significantly lower overall level of acculturative stress, Spearman's  $\rho = .401$ ,  $p < 0.01$  (see Table 9).

A Spearman's rank-order correlation was conducted and the results revealed a significantly moderate negative correlation between acculturative stress and English proficiency. The results showed that the amount of overall perceived English proficiency ( $r_s = .344$ ,  $p < .001$ ) was significantly correlated with the overall acculturative stress and TOFEL scores were

significantly correlated with overall acculturative stress ( $r_s = .401, p < .001$ ). Furthermore, the relationship between perceived English proficiency with each acculturative stress subscales were measured. Students' acculturative stress from language insufficiency ( $r_s = -.465, p < .001$ ), social isolation, ( $r_s = -.218, p < .01$ ), academic pressure ( $r_s = -.292, p < .001$ ), and guilt toward family ( $r_s = -.238, p < .01$ ) are significantly correlated with the overall perceived English proficiency. Moreover, students' acculturative stress from language insufficiency ( $r_s = -.449, p < .001$ ), social isolation, ( $r_s = -.336, p < .001$ ), and academic pressure ( $r_s = -.426, p < .001$ ) are significantly correlated with the overall perceived English proficiency. On the contrary, the overall perceived English proficiency and students' acculturative stress in perceived discrimination had no correlation with their perceived English proficiency ( $r_s = -.103, p > .05$ ). Also, no significant relationship was found between the TOFEL scores and acculturation stress, perceived discrimination, and guilt toward family.

*Table 9 Correlations between English Proficiency and Acculturative Stress*

Measure	Language Insufficiency	Social Isolation	Perceived Discrimination	Academic Pressure	Guilt toward Family	Total
TOFEL	-.449**	-.336**	-.088	-.426**	-1.90	-.401**
Sig (2-tail)	.000	.001	.409	.000	.073	.000
Perceived English Proficiency	-.465**	-.218**	-.126	-.292**	-.238*	-.344**
Sig (2-tail)	.000	.010	.142	.001	.005	.000

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

## **Hypothesis 2.2**

A Pearson correlation was conducted to measure the relationship between acculturative stress and social support. The results showed that the amount of overall social support from significant others, family, and friends was not significantly correlated with the overall

acculturative stress ( $r = -.097, p = .262$ ). However, when individually examining the relationship between each subscale of acculturative stress and social support, some significant results are identified. Students' acculturative stress from academic pressure is significantly correlated with the support from significant others ( $r = -.180, p = .035$ ), meaning students with significant others are more likely to have less acculturative stress from academic pressure (see Table 10).

*Table 10 Correlations between Social Support and Acculturative Stress*

Measure	Language Insufficiency	Social Isolation	Perceived Discrimination	Academic Pressure	Guilt toward Family
1. Significant others Sig. (2-tailed)	-.062 .469	-.117 .175	-.083 .334	-.180 0.35*	.002 .984
2. Family Sig. (2-tailed)	-.063 .537	-.015 .860	-.082 .34	-.107 .215	.035 .682
3. Friends Sig. (2-tailed)	.018 .836	-.100 .246	-.143 .095	-.144 .092	-.028 .744
4. Sum Mean Sig. (2-tailed)	-.052 .546	-.085 .324	-.111 .198	-.161 .061	.006 .947

\* $p < .05$

### **Hypothesis 2.3**

Another Pearson correlation was conducted to measure the direction and strength of the relationship between acculturative stress and three types of coping strategies. The results showed that suppressive strategies were significantly correlated with acculturative stress related to language insufficiency ( $r = -.534, p = .000$ ), social isolation, ( $r = -.419, p = .000$ ), perceived discrimination ( $r = -.375, p = .000$ ), academic pressure ( $r = -.578, p = .000$ ), and guilt toward family ( $r = -.420, p = .000$ ). Furthermore, the use of a reactive coping strategy was significantly correlated with language insufficiency ( $r = -.466, p = .000$ ), social isolation, ( $r = -.372, p = .000$ ), perceived discrimination ( $r = -.345, p = .000$ ), academic pressure ( $r = -.390, p = .000$ ), and guilt

toward family ( $r = -.286, p = .000$ ). Students who used suppressive and reactive coping strategies had higher levels of language insufficiency, social isolation, perceived discrimination, academic pressure, and guilt toward family. However, no significant relationship was found between reflective coping strategies and acculturative stress (See Table 10).

*Table 11 Correlations between Coping Strategies and Acculturative Stress*

Measure	Language Insufficiency	Social Isolation	Perceived Discrimination	Academic Pressure	Guilt toward Family
1. Reflective Sig. (2-tailed)	0.54 .528	.106 .217	.131 .126	.063 .465	.159 .064
2. Suppressive Sig. (2-tailed)	-.534** .000	-.419** .000	-.375** .000	-.578** .000	-.420** .000
3. Reactive Sig. (2-tailed)	-.466** .000	-.372** .000	-.345** .000	-.390** .000	-.286** .000

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

### **Third Research Question**

In order to address the third research question, a hierarchical linear regression analysis was conducted to further analyze the relationship between acculturative stress for Chinese students and their English proficiency, social support, and coping strategies controlling for age, gender, home region, marital status, source of funding, and length of stay. Student characteristics and a set of independent variables including English proficiency, social support, and coping strategies were entered into the predictive equation in a hierarchical order. This was done with the intention to examine the R-squared change (adjusted R-squared), a measure of the increase in predictive power (R squared) when holding independent variable constant, resulting from the inclusion of a new predictor (or block of predictors). Significance of  $F$  value change, a measure of whether the final model significantly improves the ability to predict the outcome variable of

acculturative stress, was examined with an additional set of variables introduced. For all tests, the alpha level for statistical significance was set at 0.05.

### Hypothesis 3

A three level hierarchical linear regression was conducted with acculturative stress as the dependent variable. The sub scale of acculturative stress (language insufficiency, social isolation, perceived discrimination, academic pressure, guilt toward family, and the sum of acculturative stress from sub scales) was individually examined. Selected demographic variables were entered at stage one of the regression to control for age, gender, home region, marital status, source of funding, and length of stay. The perceived English proficiency variables (speaking, writing, reading, and overall fluency) were entered at stage two. Stage three includes social support variables (significant others, family, friends) and coping strategy variables (reflective, suppressive, reactive). Intercorrelations between the linear regression variables and the regression statistics presented in Table 12.

*Table 12 Results of Hierarchical Regression Predicting Acculturative Stress*

	R <sup>2</sup>	ΔR <sup>2</sup>	Sig. F Change	Variables	β	p
Step 1	.071	.004	.393	Age	.144	.248
				Gender	-.005	.963
				Home Region	.137	.207
				Marital Status	-.169	.125
				Source of Funding	.007	.954
				Length of Stay	-.066	.588
Step 2	.255	.139	.020	Age	.137	.269
				Gender	.000	.997
				Home Region	.053	.621
				Marital Status	-.122	.253
				Length of Stay	.019	.881
				Source of Funding	-.026	.817
				Perceived Eng. Pro. TOFEL	.163 -.185	.491 .159

Step 3	.488	.358	.000	Age	.184	.111
				Gender	.130	.185
				Home Region	.018	.846
				Marital Status	-.190	.070
				Length of Stay	-.190	.559
				Source of Funding	-.001	.994
				English Proficiency	.277	.229
				TOFEL	-.120	.303
				Significant others	.290	.105
				Family	.203	.261
				Friends	-.445	.014*
				Reflective	-.058	.590
				Suppressive	-.322	.050*
				Reactive	-.186	.276

\* $p < .05$

The hierarchical linear regression revealed that at stage one, student characteristics such as age, gender, home region, marital status, source of funding, and length of stay did not account for a significant amount of variance in acculturative stress ( $R^2 = 7.1\%$ ). Introducing the English Proficiency variables explained an additional 13.9% of variation in acculturative stress. Finally adding social support and coping strategy variables to the regression model explained an additional 35.8% of the variation in acculturative stress resulting in a significant change in  $R^2$ . When social support and coping strategies were included in stage three of the regression model, neither demographic characteristics nor English proficiency were significant predictors of acculturative stress. The results of the linear regression showed that the most important predictors of acculturative stress were suppressive coping strategies ( $\beta = -0.445, t = -1.944, p < .05$ ) and support from friends ( $\beta = -0.322, t = -2.510, p < .05$ ), which both uniquely explained 69.8% of the variation in satisfaction. When the score of perceived support from friends and suppressive style of coping increase by one standard deviation, there would be a 0.448 standard deviation decrease in the score of acculturative stress.

## Chapter Summary

This chapter presented the data analysis results with report. *T*-test, ANOVA, correlation, and hierarchical linear regressions were conducted in data analysis to address the research questions proposed in this study. Key findings revealed that Chinese students' marital status and source of funding play a role in the level of acculturative stress. Furthermore, the linear correlational analysis revealed that students' overall perceived English proficiency and TOFEL scores were significantly and negatively correlated with the overall level of acculturative stress related to language insufficiency, social isolation, perceived acculturative stress, academic pressure, and guilt toward family. The correlation analysis also revealed that the level of social support from significant others negatively correlated with acculturative stress in regards to academic pressure. The score of coping strategies (suppressive and reactive) was another indicator for acculturative stress. The next chapter will discuss the implications, future research, and how the results could help institutional leaders and mental health professionals to improve the educational experience of international students.

## **Chapter 5: Discussion**

This study examined the relationship between international students' level of acculturative stress as related to their perceived and actual English proficiency. This study examined the differences within Chinese students' demographic information in acculturative stress. In addition, this study explored the relationship between English proficiency, social support, coping strategies, and acculturative stress. This study also evaluated the outcome of variables in acculturative stress, controlling for the predictor variables at varying hierarchical levels. This chapter discusses the findings, the implications, the limitations of the study and suggestions for future studies.

### **Interpretations and Future Studies**

#### **Interpretation 1**

The results of the first research question suggest that differences in students' age, gender, and home region did not have a significant impact on the acculturative stress of international students. Furthermore, Chinese students who are single, do not receive funding from family, and newly arrived, experienced a significant higher level of acculturative stress than those who have social support from significant others and receiving funding from family. The higher level of acculturative stress based on their marital status and source of funding were revealed in academic pressure and perceived discrimination, respectively.

This finding confirmed previous research that included age, gender and home regions as independent variables. Similar with the demographic information in their participants, Bai's (2016) study on social support and acculturative stress included age, gender, and home region in the demographic information. The results of this study are consistent with Bai's finding that these factors do not have a significant impact on the acculturative stress of international students.

One possible reason is the homogeneity in the population of this study. Berry (1997) also stated that gender influences the acculturation process; however, the effect of acculturation depends on individual differences in terms of relative status and differential treatment in the two cultures. Future studies may explore an individual's SES in both cultures.

Marital status and source of funding were not addressed in the analyzed literature review; these factors are important to Chinese students in becoming part of their support system. The results showed that a lack of support from significant others/spouses affects students' academic achievement outcomes. Schools and programs may provide opportunities for Chinese students to attend more organizational social gatherings or organize more cultural activities on campus. In addition, source of funding is another significant factor for acculturative stress related to perceived discrimination. This could be due to the fact that when students do not feel financially supported from their parents, the level of self-efficacy decreases because they may experience a lack of funding to accomplish tasks that require financial support (e.g., rent, transportation, daily expenses, etc.). The support that married students have received from their spouses who held F-2 visa helped students overcome difficulties in the host country. However, supporting F-2 visa may require lots of funding and it may not be ideal. These family members of married students may also have different challenges in surviving in the United States. Therefore, institutions might consider providing international students more on-campus job opportunities to strengthen their sources of funding in order to alleviate acculturative stress, and future studies should further explore the rationale behind employment status of these students.

## **Interpretation 2**

In addressing the second research question, the results indicated that the higher the level of perceived English proficiency and TOFEL score, the more likely for Chinese students to

experience a lower level of acculturative stress related to language insufficiency, social isolation, and academic pressure.

Moreover, results were not significant when examining the relationship between social support and each cultural composition of acculturative stress. The mean for the total amount of social support is positively correlated with acculturative stress in terms of language insufficiency, social isolation, perceived discrimination, and academic pressure. However, when analyzing each subscale of social support individually, it was found that the amount of social support from significant others has a significant positive relationship with acculturative stress related to academic pressure. This result echoed with the finding of research question 1.4 that students with support from significant others/spouses reported less academic pressure.

A significant relationship was also found between coping strategies and acculturative stress. The results indicated that Chinese students who used suppressive and reactive coping strategies are more likely to experience a higher level of acculturative stress related to language insufficiency, social isolation, perceived discrimination, academic pressure, and guilt toward family. Students who used reflective coping strategies are more likely to experience with a lower level of acculturative stress. The results from the study were significant, which may indicate that the students may need to be informed about problem-focused coping in problematic situations during their acculturation process. This could mean psycho-education about seeking help from friends, faculty, staff, counselors, or mental health professionals (Yan & Berliner, 2015). In addition, it is important for students to know the ineffectiveness of avoidance oriented or emotion-focused coping strategies (forbearing, endurance, etc.) (Ra, 2015; Yan & Berliner, 2015; Wei et al., 2012).

The results of this study also confirm Berry's (1997) theory on the effect of coping on acculturative stress. He stated that coping strategies mediate the link between acculturative stress and reaction to such stress. The role of social support has been supported by his model as well as previous literature that more social support results in lower acculturative stress. The results of this study were not as statistically significant as expected in regards to the effect of social support from significant others, family, and friends on acculturative stress; one reason may be the small sample size. Future research could use probability sampling in data collection, and design research questions or methodology that are not yet explored.

### **Interpretation 3**

The results of the third research question revealed the relationship between the studied variables when other predictors were controlled. Perceived support from friends and use of suppressive coping strategies were the only significant predictors of acculturative stress. This means that social support from friends is important to Chinese students' cultural acculturation. Such support from friends may enhance students' daily communication and activities whether on- or off-campus, especially when coping with hardships. With sufficient support from friends, students can experience a lower level of acculturative stress, which could yield a better experience in their acculturation process.

Bai's (2016) research shows that the perceived social support from school reported by international students served as the only significant predictor of acculturative stress when age, length of stay, English proficiency and academic achievement are controlled. The perceived social support from higher education institutions includes both tangible support and moral support, which include support from friends as well as culturally environment and facilities. Therefore, the results indicate the significant importance of social support from friends for

Chinese students. In future studies, real age and TOFEL scores should be used as ratio variables. Moreover, scales used were in English language because of the differences in their written native language. Future studies can be developed in the original languages of international students. In addition, researchers could use a mixed method or a qualitative study in analyzing the deeper levels of acculturative stress using Berry's (1997) acculturation model. Future studies could also examine the depression and anxiety among international students using the ASSCS. This may eventually help future studies to implement more effective interventions for acculturative stress among the international students.

### **Implications for Practice**

The goal of this study was to increase the awareness and knowledge about the challenges international students face and further enhance the practice of university administrators, mental health practitioners, and social services. International students often struggle with course registration due to lack of awareness and understanding of the program requirements and class expectations. These challenges could be caused by their language insufficiency or lack of information received from the program or university. In addition to these academic difficulties, they also lack an understanding of the rules and regulations of U.S. institutions as well as the legal system in the US. Without significant assistance, they may fail to follow certain rules and regulations in the new environment they live in. Negligence may be found in extreme situations where there is a lack of social support and "shyness" to seek out help. Therefore, identifying and clarifying these expectations can minimize academic stress. In addition to more education and support for Chinese students, more empathy from faculty and staff can increase the perceived support students receive from institutions. It is necessary that faculty ensure that international

students understand the expectations for assignments and learning activities inside and outside classrooms.

Second, the results of this study call for strengthening mental health professionals' understanding of international students, Chinese in particular. They must be aware that suppressive and reactive coping strategies are very likely to result in higher levels of acculturative stress related to language insufficiency, social isolation, perceived discrimination, academic pressure, and guilt toward family. Mental health issues such as depression and anxiety can also be predicted by a higher level of acculturative stress. In addition, this could lead to developing supportive local social networks for international students to improve their social connectedness within the community. Schools may offer students lists of resources such as local/school events, restaurants, job/internship opportunities readily available for these students. Encouraging international students to develop their social network beyond students from their countries of origin may help to reduce the negative effects of acculturative stress.

International students experience a series of challenges as they pursue their studies in the United States. Their acculturation stress level is not only correlated with their pre-acculturation factors, but also their post acculturation factors (Berry, 1997). Using Bai's acculturative stress scale (Bai, 2015), this study contributed to research in social work as well as in the area of cultural adaptation. With this finding, colleges and universities can implement certain programs to prevent or alleviate stress related to acculturation. For example, workshops can be organized to enhance international students' English skills in addition to the language courses they are required to take. This new finding could be accounted for by the different experience of being an international student since there are other variables that could have potential effect on the dependent variables such as immigration history, school satisfaction, and social environment.

### **Limitations of the Study**

While it could be meaningful to examine the relationship, compare means, and explore more impacts of variables on acculturative stress, several limitations of the study are recognized. First, it is undeniable that quantitative data analysis can be conducted analyzing a large number of participants, which increases the external generalizability of the findings. However, such a study in social science research has its limitations due to the nature of the study on human behavior.

Second, although convenience sampling targets a large number of samples, this type of non-probability sampling does not ensure representativeness. In addition, confidence intervals and margins of error cannot be calculated.

Third, the quantitative research generalizability may be a weakness to this study. Solorzano and Yosso (2002) stated that marginalized population within a society are underrepresented. In this study, the voice of populations from other regions in Asia who also speak Chinese is unheard. They may have a different cultural background and understanding of acculturative stress.

The researcher obtained the number of students by gender and home region from OISS when analyzing the response rates. As a result, the response rates within this study were calculated to show generalizability of the results. Students from Mainland China represents 86.5% of the overall studied population, and they had a 86.9% response rate in the study. Students from Hong Kong represents 6.3% of the overall studied population, and they had a 3.6% response rate. Students from Taiwan represents 7.2% of the overall studied population, and they had a 7.3% response rate. Since the total number of students from Macao was unknown, the response rate was not calculated. The response rates increase the representativeness of the results

on a larger scale, which increased strengths on the generalizability of results for students from Mainland China and Taiwan.

Fourth, behavior that cannot be coded into numeric expression may produce inaccuracy of participants' answers. Moreover, students' perception of the Likert scale questionnaire choices may be different. For example, "almost never" and "almost all of the time" may convey different frequency of behaviors between two distinct individuals. Therefore, the contextual details of this quantitative data is insufficient.

Fifth, data collection was initiated at the end of the academic semester in Fall 2017. When the second emails were sent to participants, the participant pool included the newly enrolled Chinese students of Spring 2018. Therefore, it skewed the response rate of this study.

Lastly, correlational tests allow for examining the relationship between meaningful quantifiable variables and categorical variables; however, the limitation in a correlational design must be mentioned. Correlational studies examine the influence between variables; however, it cannot be determined as causation. The results could be implemented as a guide for future research.

### **Conclusion**

With the Chinese student population increase in U.S. institutions across the country, acculturative problems arise and may lead to difficulties in the process of acculturation, which include language insufficiency, social isolation, perceived discrimination, academic pressure, and guilt toward family.

This quantitative research study examined the factors that may have influenced the levels of acculturative stress of Chinese students such as English proficiency, social support, and coping strategies guided by Berry's (1997) acculturation models. The results of this study are

consistent with previous literature related to the negative correlation between social support, coping strategies, and acculturative stress. Moreover, the results provided new findings to the current literature on the importance of social support from students' significant others and financial support from their families.

Since English proficiency, social support from friends and healthy coping strategies are significant predictors of acculturative stress. It is important for U.S. institutions that welcome international students take responsibility in providing better services to them. These might include a counseling center, health services, cultural events, and career development. By helping to promote a better understanding of mental health professionals and creating a more welcoming and inclusive campus and community environment, international students will have more supportive and fruitful stay in the United States.

## Appendix A: Demographic Information

An Examination of Acculturative Stress, English Proficiency, Social Support, Coping Strategies Among Chinese International Students

Your completion of the questionnaire will indicate your consent to participate. All responses will be anonymous and confidential.

Instruction: Please select the one best answer, unless otherwise directed.

### Appendix A: Demographic Data

1. Age
  - a. < 18 years old
  - b. 18-19 years old
  - c. 20-21 years old
  - d. 22-23 years old
  - e. 23-24 years old
  - f. 25-26 years old
  - g. > 26 years old
2. Gender
  - a. Male
  - b. Female
  - c. Other
  - d. I prefer not to answer
3. Geographic Region
  - a. Northeast
  - b. Northwest
  - c. Southeast
  - d. Southwest
  - e. Central
  - f. Hong Kong
  - g. Macao
  - h. Taiwan
4. Sibling
  - a. Yes
  - b. no
5. Class Standing
  - a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior
  - e. ESL
6. Major:
  - a. Hospitality
  - b. Business

- c. Nursing
  - d. Science
  - e. Social Science
  - f. Mathematics
  - g. Liberal Arts
  - h. Fine Arts
  - i. Other
7. Marital Status
- a. Single
  - b. In a relationship
  - c. Married
  - d. Divorced
  - e. Widowed
8. Primary Language
- a. Mandarin Chinese
  - b. Regional Dialect
9. I am currently active in a Student organization
- a. Yes
  - b. No
10. How many languages can you speak or understand (including dialect)?
- a. 1
  - b. 2
  - c. 3
  - d. more than 3
11. Do you have other education experiences in the U.S. before the university you are in now?
- a. Yes
  - b. No
12. How long have you lived in the U.S.?
- a. Less than one year
  - b. One year
  - c. Two years
  - d. Three years
  - e. Four years
  - f. Five years
  - g. More than five years
13. What is your current GPA?
- a. 3.5-4.0
  - b. 3.0-3.49
  - c. 2.5-2.9
  - d. 2.0-2.49
  - e. 1.49-1.9
  - f. 1.5-1.9
  - g. 1.0-1.49
  - h. below 1.0

14. What is your TOFEL score (IBT)? (If you have taken several times, please indicate the top score)
- a. 100-120
  - b. 90-99
  - c. 80-89
  - d. 70-79
  - e. 60-69
  - f. 50-59
  - g. 40-49
  - h. 30-39
  - i. 20-29
  - j. 0-20
15. What is your IELTS score?
- a. 0-3
  - b. 4-6
  - c. 7-9
  - d. not applicable
16. Where do you live?
- a. On campus
  - b. Off campus
17. When did you first start to learn English?
- a. Pre-school
  - b. Elementary
  - c. Middle school
  - d. High school
  - e. After high school
18. In the U.S., how often do you speak English at home or with friends from home country?
- a. Rarely or none of the time
  - b. Some or little of the time
  - c. Occasionally or a moderate amount of time
  - d. All of the time
19. What is your current source of funding for your studies?
- a. Scholarship
  - b. Family funds
  - c. Self-support
  - d. Two of the above
  - e. All of the above
  - f. Other
20. Do you have relatives or family in the United States?
- a. Yes
  - b. No

## **Appendix B: Perceived English Proficiency Scale (PEPS; Wei, Wang, & Ku, 2012)**

- 1 = Very Poor
- 2 = Poor
- 3 = Average
- 4 = Good
- 5 = Very Good (Fluent)

1. How good are you at understanding spoken English?
2. How would you rate your English conversation ability?
3. How good are you in writing papers in English?
4. How good are you in reading your English books or articles?
5. Overall, how would you rate your English?

## Appendix C: Acculturative Stress Scale for Chinese Students (ASSCS; Bai, 2014)

- 1 = Never  
2-3 = Sometimes  
4-5 = Often  
6-7 = All the time

1. I hesitate to participate in class discussion and seminar.
2. My social circles shrank after I come to the U.S.
3. I feel that I receive unequal treatment.
4. I feel helpless.
5. I feel a lot of academic pressure.
6. I am treated differently because of my race.
7. It is hard for me to follow the lectures and conversations in classes.
8. I cannot express myself very well when using English.
9. I do not have many friends in the U.S.
10. I don't feel a sense of belonging (community) here.
11. People from some other ethnic groups show hatred toward me.
12. I worry about my parents.
13. I feel nervous to communicate in English.
14. I feel that others are biased toward me.
15. I often have to work overtime in order to catch up.
16. I feel bored here.
17. I feel that my people are discriminated against.
18. I feel frustrated that I am not able to participate in class discussions.
19. I feel guilty to leave my family and friends behind.
20. I am not used to the English way of thinking.
21. I have limited social life.
22. I feel angry that my people are considered inferior here.
23. I lack confidence when I have to do presentations in English.
24. The intensive study makes me sick.
25. I feel guilty that I cannot take care of my parents.
26. My vocabulary is so small that I always feel short of words.
27. I feel lonely in the U.S.
28. I feel some people don't associate with me because of my ethnicity.
29. It is a big pressure for me to publish academic paper in English.
30. I shy away from social situations due to my limited English.
31. I do not have new social network here.
32. Academic pressure has lowered the quality of my life.

**Appendix D: Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988)**

- 1 = Very strongly disagree
- 2 = Strongly disagree
- 3 = Mildly disagree
- 4 = Neutral
- 5 = Mildly agree
- 6 = Strongly agree
- 7 = Very strongly agree

1. My family really tries to help me.
2. I can get the emotional help and support I need from my family.
3. I can talk about my problems with my family.
4. My family is willing to help me make decisions.
5. I have friends with whom I can share my joys and sorrows.
6. I can talk about my problems with my friends.
7. My friends really try to help me.
8. I can count on my friends when things go wrong.
9. The international students center on campus is available when I need it.
10. I can talk about my problems with members in international students organization.
11. I trust university would offer me help when I need it.

## Appendix E: Problem-Focused Style of Coping (Heppner et al., 1995)

- 1 = Almost never
- 2 = Occasionally
- 3 = About half of the time
- 4 = Often
- 5 = Almost all of the time

1. I am not really sure what I think or believe about my problems
2. I don't sustain my actions long enough to really solve my problems
3. I think about ways that I solved similar problems in the past.
4. I identify the causes of my emotions, which help me identify and solve my problems
  
5. I feel so frustrated that I just give up doing any work on my problems at all
6. I consider the short-term and long-term consequences of each possible solution to my problems
7. I get preoccupied thinking about my problems and overemphasize some parts of them
8. I continue to feel uneasy about my problems, which tells me I need to do some more work.
9. My old feelings get in the way of solving current problems.
10. I spend my time doing unrelated chores and activities instead of acting on my problems.
11. I think ahead, which enables me to anticipate and prepare for problems before they rise
12. I think my problems through in a systematic way
13. I misread another person's motives and feelings without checking with the person to see if my conclusions are correct.
14. I get in touch with my feelings to identify and work on problems
15. I act too quickly, which makes my problems worse.
16. I have a difficult time concentrating on my problems (i.e. my mind wanders)
17. I have alternate plans for solving my problems in case my first attempt does not work.
18. I avoid even thinking about my problems.

## Appendix F: IRB Approval Letter



### UNLV Social/Behavioral IRB - Exempt Review Exempt Notice

**DATE:** November 22, 2017

**TO:** Kathleen Bergquist  
**FROM:** Office of Research Integrity - Human Subjects

**PROTOCOL TITLE:** [1122687-1] Acculturative Stress, English Proficiency, Social Support, and Coping Strategies Among Chinese International Students

**ACTION:** DETERMINATION OF EXEMPT STATUS  
**EXEMPT DATE:** November 21, 2017  
**REVIEW CATEGORY:** Exemption category # 2

Thank you for your submission of New Project materials for this protocol. This memorandum is notification that the protocol referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46.101(b) and deemed exempt.

We will retain a copy of this correspondence with our records.

**PLEASE NOTE:**

Upon final determination of exempt status, the research team is responsible for conducting the research as stated in the exempt application reviewed by the ORI - HS and/or the IRB which shall include using the most recently submitted Informed Consent/Assent Forms (Information Sheet) and recruitment materials.

If your project involves paying research participants, it is recommended to contact Carisa Shaffer, ORI Program Coordinator at (702) 895-2794 to ensure compliance with the Policy for Incentives for Human Research Subjects.

Any changes to the application may cause this protocol to require a different level of IRB review. Should any changes need to be made, please submit a **Modification Form**. When the above-referenced protocol has been completed, please submit a **Continuing Review/Progress Completion report** to notify ORI - HS of its closure.

If you have questions, please contact the Office of Research Integrity - Human Subjects at [IRB@unlv.edu](mailto:IRB@unlv.edu) or call 702-895-2794. Please include your protocol title and IRBNet ID in all correspondence.

Office of Research Integrity - Human Subjects  
4505 Maryland Parkway . Box 451047 . Las Vegas, Nevada 89154-1047  
(702) 895-2794 . FAX: (702) 895-0805 . [IRB@unlv.edu](mailto:IRB@unlv.edu)

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## Curriculum Vitae

**Jiabao Zhang**

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May 2018

### EDUCATION

- 2015 - 2018 University of Nevada Las Vegas (UNLV), M.A  
Major: Social Work  
Thesis Advisor: Kathleen Bergquist, Ph.D., JD, LCSW  
Thesis: *Acculturative Stress, English Proficiency, Social Support, and Coping Strategies Among Chinese International Students*
- 2008 - 20015 University of Nevada Las Vegas, B.A.  
Major: Psychology

### EMPLOYMENT

- 08/2018 - Present **Social Work Intern**, Desert Behavioral Health
- Assists individual and group therapy sessions with client of different cultural background using CBT.
  - Provides basic skill training for 5 Chinese families in home-visits.
  - Analyzes data collected from client satisfaction surveys and completed 2 annual agency performance reports.
  - Creates community resource book and translated forms for agency.
  - Recruited three social work students from University of Nevada, Las Vegas (UNLV) for employment
- 08/2015 - Present **Graduate Research and Teaching Assistant**, UNLV
- Initiates one literature review process on treatment outcomes of substance use.
  - Transcribes 34 interviews for research studies on Internet use addiction and opioids use addiction.
  - Created handouts and assigned homework for students.
  - Conducted quantitative research based on Asian and Pacific Islander (APIA) students in the US.
  - Created, distributed, and collected questionnaires in Qualities.
  - Completed one data analysis using SPSS for APIA research.
  - Tutored 23 students enrolled in undergraduate and graduate level research courses.
  - Taught students on data analysis in face-to-face group settings.
- 08/2016 - 05/2017 **Social Work Intern**, Seven Hills Psychiatric Hospital
- Evaluated over 400 patients using agency psychosocial assessments for intake and progress report.
  - Co-facilitated 11 group therapy sessions of patients with different age, gender, ethnicity, mental status using CBT.

- Participated in weekly multidisciplinary treatment team with psychiatrists, nurses, and social workers.
- 12/2011 - 03/2013 **Office Assistant**, Office of International Scholar and Students
- Coordinated meetings and new scholar orientations for J-1 and H1-B scholars.
  - Recorded legal information into fsaATLAS.
  - Generated monthly international scholar SEVIS issuance report for the immigration specialist.

## **VOLUNTEER EXPERIENCES**

- 01/2018 **Women’s March Anniversary in Las Vegas**  
 10/2016 – 11/2017 **Crisis Intervention for October 1<sup>st</sup> Las Vegas Shooting**  
 08/2016 – 09/2017 **Bahai’i Community Program**  
 09/2014 – 08/2016 **Wishing Well Child and Family Therapy**  
 11/2016 **Project Homeless Connect**  
 10/2014 – 08/2015 **Huawei Chinese Academy**

## **HONORS AND AWARDS**

- 05/2017 **Health Resources and Services Administration Grant**  
 Department of Health and Human Services
- 04/2017 **Honorable Mention Award**  
 Awarded by Graduate and Professional Student Research Forum, UNLV
- 03/2017 **Social Work Department Travel Fund**  
 Awarded by School of Social Work, UNLV
- 08/2016 **UNLV Access Grant**  
 Awarded by Graduate College, UNLV
- 12/2016 **Graduate Student Research Travel Award**  
 Awarded by Graduate and Professional Student Association, UNLV

## **SPECIALIZED TRAINING**

- 04/2018 **Trauma-Focused Cognitive Behavioral Therapy Webinar**  
 03/2018 **Inter-Professional Education Training**  
 01/2018 **Southern Nevada Addictive Disorders Training Project**  
 10/2017 **SBIRT Training**  
 10/2017 **Acceptance Commitment Therapy Training**  
 04/2017 **Self-talk Suicide Awareness Training**  
 03/2017 **Green Dot Training**  
 03/2017 **Problem Gambling 101 Mainstream Programs Basic Training**  
 01/2017 **NVivo Software Training**  
 11/2016 **Trauma Informed Care Training**  
 07/2016 **Cardiopulmonary Resuscitation (CPR) Training**  
 09/2015 **FERPA compliance training**  
 08/2015 **Collaborative Institutional Training Initiative (CITI Program)**

## PROFESSIONAL AFFILIATIONS AND SERVICES

### Professional Organization Member

NASW

Southwestern Social Sciences Association

### Committee Member

Phi Alpha Honors Society (2016)

University Association of Social Work Students, MSW Representative (2015)

Raising Our Asian Rights, Director of Finance (2011)

Chinese Student and Scholar Association, Treasurer (2009)

## PUBLICATIONS

### MANUSCRIPTS IN PREPARATION/SUBMITTED FOR REVIEW

Bergquist, K., & **Zhang J.** (2017). *Doctor, Lawyer, Social Worker?: Exploring the Experiences of APIA Social Work Students*. Manuscript submitted to Journal of Social Work Education for publication.

## CONFERENCE PRESENTATIONS

### PAPERS

Bergquist, K. J., & **Zhang J.** (2017, April). Experiences and Perceptions of Asian and Pacific Islander American Social Work Students. Paper presented at the annual meeting of Southwestern Social Sciences Association. Austin, TX.

Bergquist, K. J., & **Zhang J.** (2017, January). Asian and Pacific Islander American Students' Experiences in Social Work Programs. Paper presented at the annual meeting of American Association of Behavioral and Social Sciences. Las Vegas, NV.

Bergquist, K. J., & **Zhang J.** (2015, December). Doctor, Lawyer, or Social Worker?: Exploring the Experiences of APIA Social Work Students. Paper presented at the annual meeting of Southwestern Social Sciences Association. Austin, TX.

### POSTERS

**Zhang J.** (2018, April). Acculturative Stress Among Chinese International Students. Poster Presented at Graduate Research Symposium 2018, University of Nevada, Las Vegas. Las Vegas, NV.

**Zhang J.** (2017, April). Experiences and Perceptions of APIA Social Work Students. Poster presented at Graduate and Professionals Student Association Research Forum, University of Nevada, Las Vegas. Las Vegas, NV.

Bergquist, K. J., & **Zhang J.** (2016, April). Doctor, Lawyer, or Social Worker?: Exploring the Experiences of APIA Social Work Students. Poster presented at Graduate Research Symposium 2016, University of Nevada, Las Vegas. Las Vegas, NV.