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## Bicultural Identity Integration and Individual Resilience as Moderators of Acculturation Stress and Psychological Wellbeing of Asian Bicultural Immigrants

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BICULTURAL IDENTITY INTEGRATION AND INDIVIDUAL RESILIENCE AS  
MODERATORS OF ACCULTURATION STRESS AND PSYCHOLOGICAL  
WELLBEING OF ASIAN BICULTURAL IMMIGRANTS

by

Hartini Abdul Rahman

A dissertation submitted to the Graduate College  
in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
Counselor Education and Counseling Psychology  
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August 2017

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Hartini Abdul Rahman, Ph.D.

Western Michigan University, 2017

This research builds upon scholarship that explores the unique immigration-related experiences of self-identified Asian bicultural immigrants born in and outside of the United States of America (USA), complementing other research on immigrants in the country. Previous research suggests immigrants experience multiple challenges that contribute to acculturation stress, which in turn takes a toll on their psychological wellbeing. This study aims to examine the impact of personal and socio-cultural factors on the psychological wellbeing of Asian and Asian American bicultural individuals. Based on the existing biculturalism literature, it was hypothesized that the strength of identification with both cultures (heritage/origin and mainstream/host cultures) is positively related to levels of psychological wellbeing and negatively related with levels of psychological distress. It was also hypothesized that when faced with stressful events, the presence of high individual resilience is positively related to higher levels of psychological wellbeing. Additionally, a relationship between acculturation stress, bicultural identity integration, resilience, and psychological wellbeing was anticipated based on current literature.

In this study, a series of correlational and hierarchical multiple linear regression analyses were employed to test the influence of immigrant generational status, acculturation stress, bicultural identity integration, and individual resilience on the psychological wellbeing of 156

self-identified bicultural Asian and Asian American students and affiliated members of a university in the Midwest region of the United States. The study also sought to determine if bicultural identity integration and individual resilience moderated the relationship between acculturation stress and psychological wellbeing. Finally, the study examined whether resilience was associated with bicultural identity integration across the two immigrant samples.

Results indicated that between foreign-born and U.S.-born individuals, foreign-born individuals reported greater acculturation stress and significantly lower psychological wellbeing compared to U.S.-born sample in this study. The relationship between acculturation stress and psychological wellbeing was found to be inversely related—as acculturation stress increased, psychological wellbeing declined. Meanwhile, resilience and bicultural identity integration (harmony and blendedness) were found to be predictive of higher psychological wellbeing. As resilience, BII-harmony, and BII-blendedness increase, psychological wellbeing also increases. However, there were no differences in the strength of the relationship between psychological wellbeing, resilience, and BII-blendedness across generational statuses. Additionally, perceptions of BII-harmony strongly affected the psychological wellbeing, but only among foreign-born immigrants.

Although resilience and bicultural identity integration (harmony and blendedness) did not moderate the relationship between acculturation stress and psychological wellbeing, the results revealed a positive relationship between bicultural identity integration and individual resilience. Limitations of the study are discussed and implications for future research and practice are explored.

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Hartini Abdul Rahman

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## TABLE OF CONTENTS

ACKNOWLEDGMENTS .....	ii
LIST OF TABLES .....	x
LIST OF FIGURES .....	xii
CHAPTER	
I. INTRODUCTION .....	1
Background.....	2
Significance of the Study.....	6
Purpose of the Research.....	7
Research Questions and Hypotheses .....	8
Descriptive Questions.....	8
Inferential Questions.....	9
Research Assumptions.....	11
Limitations and Delimitations of the Study.....	12
Summary of Chapter I and Organization of the Study .....	14
II. REVIEW OF RELATED LITERATURE .....	16
Asian Immigrants.....	17
Acculturation .....	19
Unidimensional Assimilation Model.....	20
Bilinear, Multidimensional Models of Acculturation.....	21
Biculturalism and Bicultural Identity .....	23

## Table of Contents—Continued

CHAPTER		
	Theory of Bicultural Identity Integration .....	26
	Measurement of Bicultural Identity Integration .....	27
	Research Findings on Bicultural Identity Integration.....	29
	Acculturation Stress.....	32
	Generation Status, Acculturation Stress, and Mental Health.....	36
	Individual Resilience .....	37
	Immigrant Resilience.....	39
	Measures of Individual Resilience.....	40
	Psychological Wellbeing .....	44
	Psychological Wellbeing of Immigrants.....	47
	Theoretical Framework.....	47
	Predictive/Independent Variables .....	49
	Demographic Information .....	49
	Acculturative Stress .....	50
	Control Variables.....	50
	Moderating Variables .....	51
	Bicultural Identity Integration .....	51
	Resilience.....	51
	Outcome/Dependent Variable.....	51
III.	METHODOLOGY .....	54



## Table of Contents—Continued

CHAPTER		
	Participants .....	54
	Instrumentation .....	60
	Bicultural Identity Integration Scale-Version 2.....	61
	Riverside Acculturation Stress Inventory.....	63
	The 14-Item Resilience Scale .....	64
	Ryff Scales of Psychological Wellbeing .....	66
	Demographic and Cultural/Ethnic Identification Questionnaire .....	68
	Recruitment Procedures.....	69
	Research Design .....	70
	Rationale for the Research Design.....	71
	Data Collection Procedure.....	71
	Data Analysis.....	72
	Preliminary Analyses.....	72
	Descriptive Statistics and Multivariate Correlations .....	73
	Main Analyses .....	73
	Summary.....	75
IV. RESULTS .....		77
	Purpose of the Research.....	77
	Preliminary Analyses.....	77
	Descriptive Statistics and Findings.....	82

## Table of Contents—Continued

### CHAPTER

Descriptive Research Question 1: Demographic Characteristics of Bicultural Individuals .....	85
Descriptive Research Question 2: Bicultural Individuals' Rating on Acculturation Stress.....	87
Descriptive Research Question 3: Bicultural Individuals' Current Psychological Wellbeing .....	88
Descriptive Research Question 4a: Bicultural Individuals' Bicultural Identity Integration .....	89
Descriptive Research Question 4b: Bicultural Individuals' Levels of Resilience.....	90
Inferential Statistics and Findings.....	91
Inferential Research Question 1: Generational Status and Psychological Wellbeing? .....	91
Inferential Research Question 2: Acculturation Stress, Psychological Wellbeing, and Generational Status as a Moderating Variable.....	92
Inferential Research Question 3: Bicultural Identity Integration, Psychological Wellbeing, and Generational Status as a Moderating Variable.....	94
Inferential Research Question 4: Resilience, Psychological Wellbeing, and Generational Status as a Moderating Variable.....	100
Inferential Research Question 5: Bicultural Identity Integration as a Moderating Variable for Acculturation Stress and Psychological Wellbeing .....	102
Inferential Research Question 6: Resilience as a Moderating Variable for Acculturation Stress and Psychological Wellbeing .....	108
Inferential Research Question 7: Resilience and Bicultural Identity Integration .....	110

Table of Contents—Continued

CHAPTER	
	Summary ..... 112
V. DISCUSSION.....	115
	Purpose of the Research..... 115
	Research Questions..... 116
	Hypotheses..... 117
	Preliminary Analyses Review..... 118
	Descriptive Statistics..... 118
	Demographic Characteristics..... 118
	Acculturation Stress..... 119
	Psychological Wellbeing ..... 121
	Bicultural Identity Integration ..... 122
	Resilience..... 123
	Inferential Statistics ..... 123
	Generational Status and Psychological Wellbeing..... 123
	Acculturation Stress and Psychological Wellbeing..... 123
	Bicultural Identity Integration and Psychological Wellbeing ..... 124
	Resilience and Psychological Wellbeing..... 125
	Resilience and Bicultural Identity Integration..... 125
	Hypotheses Testing..... 126
	Hypothesis 1 ..... 126

## Table of Contents—Continued

CHAPTER	
	Hypothesis 2 ..... 127
	Hypothesis 3 ..... 128
	Summary of Discussion ..... 128
	Limitations ..... 131
	Recommendations for Future Research ..... 133
	Implications of the Study ..... 134
	Implications for Mental Health Professionals ..... 134
	Implications for Training ..... 136
	Implications for Researchers ..... 137
	Implications for U.S. College Counseling Centers ..... 137
	Conclusion ..... 138
REFERENCES	..... 139
APPENDICES	..... 163
	A. Letter of Approval from Human Subjects Institutional Review Board ..... 163
	B. Script for Initial Contact with International Admissions and Services ..... 165
	C. Participant Invitation ..... 168
	D. Consent Document ..... 170
	E. Debriefing Statement ..... 174
	F. Riverside Acculturative Stress Inventory (RASI) Permission to Use ..... 176
	G. Resilience Scale (RS-14) Licensing Agreement ..... 179

Table of Contents—Continued

APPENDICES

H. Bicultural Identity Integration Scale (BIIS-2) Permission to Use .....	182
I. Ryff's Scale of Psychological Wellbeing (SPWB) Permission to Use .....	184
J. Demographic Questionnaire .....	188

## LIST OF TABLES

1. Demographic Characteristics Within Sample (N = 156) .....	56
2. Self-Ascribed Ethnicity.....	59
3. Self-Ascribed Ethnic/Racial Group Identification of Biracial Participants .....	59
4. Country of Birth.....	60
5. Summary of Descriptive Research Questions, Instruments, and Statistical Analyses .....	73
6. Summary of Inferential Research Questions, Instruments, and Statistical Analyses .....	74
7. Descriptive Statistics for Key Study Variables for Overall Sample.....	83
8. Descriptive Statistics on Acculturation Stress, Harmony, Blendedness, Resilience, and Psychological Wellbeing for Foreign-born and U.S.-born Samples and Overall Participants.....	84
9. Demographic Characteristics of Foreign-born, U.S.-born, and Overall Participants .....	86
10. Frequencies and Percentages for the Resilience (RS-14) Scale.....	90
11. Pearson Correlations Among the Five Scales.....	93
12. Pearson Correlations Between Psychological Wellbeing (SPWB-total), Acculturation Stress (RASI-total), and Generational Status (Foreign-born vs. U.S.-born) .....	94
13. Results of the Regression of Psychological Wellbeing (SPWB-total) on Acculturation Stress (RASI-total), Generational Status (Foreign-born vs U.S.-born), and the Interaction Effect.....	94
14. Pearson Correlations Between Psychological Wellbeing (SPWB-total), Harmony, and Generational Status (Foreign-born vs. U.S.-born) .....	97
15. Results of the Regression of Psychological Wellbeing (SPWB-total) on Harmony, Generational Status (Foreign-born vs. U.S.-born), and the Interaction Effect .....	97
16. Pearson Correlations Between Psychological Wellbeing (SPWB-total), Blendedness, and Generational Status (Foreign-born vs. U.S.-born) .....	99

List of Tables—Continued

17. Results of the Regression of Psychological Wellbeing (SPWB-total) on Blendedness, Generational Status (Foreign-born vs. U.S.-born), and the Interaction Effect.....	100
18. Pearson Correlations Between Psychological Wellbeing (SPWB-total), Resilience (RASI-total), and Generational Status (Foreign-born vs. U.S.-born).....	102
19. Results of the Regression of Psychological Wellbeing (SPWB-total) on Resilience (RASI-total), and Generational Status (Foreign-born vs U.S.-born).....	102
20. Pearson Correlations Between Psychological Wellbeing (SPWB-total), Acculturation Stress (RASI-total), and Harmony.....	104
21. Results of the Regression of Psychological Wellbeing (SPWB-total) on Acculturation Stress (RASI-total), Harmony, and the Interaction Effect.....	105
22. Pearson Correlations Between Psychological Wellbeing (SPWB-total), Acculturation Stress (RASI-total), and Blendedness.....	107
23. Results of the Regression of Psychological Wellbeing (SPWB-total) on Acculturation Stress (RASI-total), Blendedness, and the Interaction Effect.....	107
24. Pearson Correlations Between Psychological Wellbeing (SPWB-total), Acculturation Stress (RASI-total), and Resilience (Log10 Transformed RS).....	109
25. Results of the Regression of Psychological Wellbeing (SPWB-total) on Acculturation Stress (RASI-total), Resilience (Log10 Transformed RS), and the Interaction Effect.....	110
26. Pearson Correlations Between Resilience (Log10 Transformed RS), Harmony, and Blendedness.....	111
27. Results of the Multiple Regression of Resilience on Harmony and Blendedness Subscales.....	112

## LIST OF FIGURES

1. Conceptual model for the associations between acculturation stress, psychological wellbeing, bicultural identity integration, and resilience. .... 52
2. Hypothesized moderating model of bicultural identity integration and resilience on acculturative stress and psychological wellbeing. .... 53
3. Frequency histogram with superimposed normal curve for RS total. .... 81
4. Frequency histogram with superimposed normal curve of log10 transformed RS total scores following re-reflection. .... 82
5. Simple slopes for the regression of psychological wellbeing (SPWB-total) on Harmony (mean-centered) for Foreign-born and U.S.-born immigrants. .... 97



## CHAPTER I

### INTRODUCTION

This dissertation focuses on understanding the process of acculturation and psychological aspects of immigration, particularly the adaptation of self-identified bicultural immigrants to the U.S. mainstream culture. *Bicultural individuals* in this research refer to persons who have been exposed and internalized two cultural orientations (Benet-Martínez, 2012; Benet-Martínez & Haritatos, 2005; Nguyen & Benet-Martínez, 2007, 2010) as a result of immigration. Literature suggests a broad array of outcomes that follow the immigration process. Some immigrants adjusted relatively easily, while others struggle to learn rules, roles, and norms as they internalize the cultural, moral, and social rules of conduct that govern their new social setting. This study is specifically interested in the interplay of personal and socio-cultural forces, which may lead to a relatively easy adjustment for some immigrants, but may cause enormous hurdles and impediments for others. With the dramatic increase in immigration to the United States in recent years (U.S. Census, 2009; 2011; 2016), psychologists are called upon to respond to the psychological needs of this culturally diverse population (APA, 2012). The study aims to contribute to the existing knowledge base of the psychological wellbeing of adult Asian bicultural individuals born in the United States and those born outside of the United States, complementing other research on immigrants in the United States.

This chapter addresses gaps in the current counseling psychology literature specifically on issues pertaining to bicultural immigrants' psychological wellbeing, as well as the purpose of this dissertation research, its research questions, limitations of the current research study, and a summary of preceding chapters of this dissertation.

## **Background**

Immigration has been a prominent part of the U.S. history, and has involved a number of different groups and individuals. Currently, the United States has more immigrants arriving than any other nation in the world (Segal, Elliot, & Mayadas, 2010). In the year 2014, the U.S. immigrant population was estimated to be greater than 42.4 million (13.3%) of the total U.S. population of 318.9 million. The steady increase of new immigrants into the nation has had a substantial impact on the ethnic and racial composition of the U.S. population (Suarez-Orozco, 2007), resulting in culturally diverse populations. Currently, the total population of U.S. immigrants and their U.S.-born children is estimated at 81 million people (26%) of the overall U.S. population (U.S. Census, 2014).

Of this population, approximately 30% of the nation's immigration population is of Asian descent, thereby making the Asian population the second largest group of immigrants (after Latin America) in the nation. In 2014, the top five countries of origin for Asian immigrants were China, the Philippines, India, Vietnam, and Korea. Within the Asian immigrant population, South Eastern Asia accounted for the largest share of the total Asian immigrant population (4.2 million/ 32.6%), followed by Eastern Asia (4 million/31.0%), South Central Asia (3.5 million/27.7%), and Western Asia (1.1 million/8.3%). Asian immigrants are projected to grow and become the largest foreign-born group by the year 2055, according to Pew Research Center estimates (Pew Research Center, 2016).

The migration motivations and demographic characteristics of Asian immigrants have varied considerably over time and by country of origin, from employment and educational opportunities, family reunification, and humanitarian protection. When they arrive in the United States, immigrants bring along diverse histories, narratives and cultural ideologies (Berry, 2005)

that may fit well or clash with the nation's general population. As the number of immigrants from the Asian region is expected to continue growing, research is needed to understand how they adapt to U.S. society, and the acculturation-related problems they may encounter during the immigration process.

*Acculturation* refers to the dynamic process immigrant individuals and their families experience as they adapt to the culture of the new society (in this research context, the U.S. mainstream culture). Cross-cultural literature suggests immigrants face a number of challenges and adversities following the immigration process, including discrimination, racism, acculturation difficulties, language barriers, cultural conflicts, economic insecurity, employment difficulties, interruption and/or disruption of family ties and other types of systemic oppression (Benet-Martínez & Haritatos, 2005; Berry et al., 1987; Gil, Vega, & Dimas, 1994; Lee, Choe, Kim, & Ngo, 2000; Smart & Smart, 1995; Ward & Kennedy, 1999; Williams & Berry, 1991). These additional stressors in the United States are likely new and unfamiliar to the immigrant, as these challenges are often different than those faced in the immigrant's country of origin. Attempting to navigate these additional stressors while simultaneously managing daily life challenges in a new cultural environment can be daunting and may contribute to significant stress, which in turn has been associated with physical and mental health problems such as depression and anxiety. Previous research revealed that Asians experience more acculturation-related stress than their European counterparts, presumably due to Asians experiencing greater cultural differences than similarities with the U.S. mainstream culture (Kaul, 2001).

Cross-cultural scholars have recognized the dynamic nature of the acculturation process involves changes in the values, behaviors, perceptions, and attitudes of immigrants as they continue to be exposed, interact, and internalize aspects of the new culture, which can result in

biculturalism or the acquisition of two (or more) cultures (Benet-Martínez & Haritatos, 2005). An individual may have different preferences for responding, acquiring, and retaining cultural identities: assimilation, bicultural (integration), separation (rejection), or marginalization (deculturation) (Berry, 1980; Berry 2003). Multiple studies have indicated that the integrated (bicultural) identity is associated with more desirable psychological outcomes (Abu-Rayya, 2006; Berry et al., 1989; Darya, 2007; Krishnan & Berry, 1992; Pfafferott & Brown, 2006; Sayegh & Lastry, 1993; Shpiegelman, 2007).

Existing literature on acculturation suggests having an integrated approach to acculturation and attaining a bicultural identity may contribute to the attainment of greater psychological wellbeing; however, there is little research exploring variances among those within the group (i.e., differences among self-identified biculturals) (Hyunh, Nguyen, & Benet-Martínez, 2011). Bicultural individuals face the challenge of negotiating between multiple and sometimes conflicting cultural identities and value systems in their daily interactions. Scholars indicate that successful socio-cultural adjustment of bicultural immigrants is contingent on their socio-cultural competence, perceived similarity, and attitude towards the new society's culture (e.g., Furnham & Bochner, 1982; Phinney, Horenczyk, Liebkind & Vedder, 2001). Less is known about the psychological processes involved for the acculturating individual. Benet-Martínez, Leu, Lee, and Morris (2002) proposed a construct of bicultural identity integration (BII) that serves as a framework for understanding the individual's subjective experience as he or she internalizes and manages dual cultural orientations. BII captures the degree to which bicultural individuals see their cultural identities as compatible and integrated, or as oppositional and difficult to integrate. BII is comprised of two separate and distinct components: (1) blendedness: the degree of dissociation versus overlap between the two cultural orientations, and

(2) harmony: the degree of perceived tension or clash versus compatibility between the two cultures. Benet-Martínez and Haritatos (2005) postulated that individuals with bicultural identities could have any combination of high or low blendedness, and high or low harmony. The BII harmony and blendedness concepts are helpful in understanding how bicultural individuals perceive and manage their dual cultural identities. For example, bicultural individuals' mode of integrating their cultural identities affects their reactions to culture-specific stimuli, which could be accommodating or opposing (Benet-Martínez & Haritatos, 2005). Bicultural identity integration has been linked to positive psychological and sociocultural adjustments.

Despite the hardships associated with acculturation and the immigration process, some immigrants have been found to be resilient and to utilize various strategies to survive or thrive in the face of acculturation stress, including relying on relationships for support, internal and external resources, and problem-solving. Paradoxical findings indicate that in many cases, recent immigrants to the United States have significant health and mental health advantages as compared to their U.S.-born counterparts (Portes & Rumbaut, 2001; Suárez-Orozco & Suárez-Orozco, 2001). While programs have been developed to foster resilience in the general population, very little is known about immigrant resilience at the individual level, and the existence of support to facilitate these capacities within immigrant individuals.

To date, no single study has simultaneously examined the influence of bicultural identity integration and individual resilience on the psychological wellbeing of immigrants in the United States. Also, as a field that places great emphasis on multiculturalism and social justice, counseling psychology has yet to include studies on biculturation, which involves the renegotiation of cultural identities (Benet-Martínez et al., 2002) in understanding the lives, challenges, strengths, and psychological wellbeing of immigrants. Despite their growing

presence and significance on U.S. campuses, immigrants have been relatively unexplored in the counseling psychology literature. Additionally, limited empirical research exists on working with specific immigrant groups in counseling and clinical contexts (APA, 2012).

This study contributes to the literature by incorporating acculturative stress, bicultural identity integration, individual resilience and psychological wellbeing constructs within the same study. While previous studies have examined some combination of these variables (e.g., Nguyen & Benet-Martínez, 2007, 2013), none have included all variables simultaneously; thus, the current understanding of bicultural identity factors and resilience factors may be underdeveloped. Ultimately, it is believed that Asian immigrants' acculturation experiences do not occur in a vacuum. Instead, these experiences occur and affect psychological wellbeing simultaneously. Therefore, including these factors within the same study likely best approximates Asian immigrants' cultural and psychological adjustment experiences.

### **Significance of the Study**

This study sought to increase the knowledge on the acculturation experiences of bicultural immigrants in the United States. It employed the emerging concepts of bicultural identity formation and integration (Benet-Martínez et. al., 2002; 2006) and resilience as potential moderators of immigrants' wellbeing. This study expands the understanding of psychological processes underlying the immigration experience and formation of an integrated bicultural identity, and offers practical implications for the socio-cultural adjustment and wellbeing of Asian bicultural individuals as well.

Results from the study should encourage further understanding the experiences of bicultural individuals from a strengths-based perspective. A better understanding of factors associated with the promotion of positive cultural adjustment and psychological wellbeing

among Asian immigrants and their families will allow mental health practitioners to be more cognizant and resourceful in their work with this population. The field of mental health may also benefit from this study by the additional knowledge on the role of resilience and how it can be brought into the professional environment. In sum, researchers, practitioners, and U.S. educational institutions may benefit from understanding the complexities surrounding the immigration experience of this increasing population.

### **Purpose of the Research**

In this study, the plausibility of bicultural identity integration and resilience were tested as potential moderators of Asian immigrants' psychological wellbeing. This study aimed to extend prior research on immigration psychological wellbeing and its relation to acculturation stress by focusing on bicultural identity integration and individual resilience of Asian immigrants. More specifically, this study examined the relationships between personal and immigrant characteristics, acculturation stress, level of biculturation, resilience, and psychological wellbeing of self-identified bicultural individuals from Asian backgrounds pursuing their academic degree in institutions of higher learning in the United States. Personal characteristics are divided into demographic information about the respondent (i.e., country of origin, education level, gender, immigrant generational status.) and information about the respondent's acculturation stress. The examination of demographic data is important to identify characteristics and factors contributing to significant differences in the psychological wellbeing and adjustment of bicultural immigrants. The second part of the study attempted to identify factors that moderate the effect of acculturation stress in bicultural individuals' psychological wellbeing. The predictor variables are background (i.e., demographic) information and acculturation stress. The moderating variables are perceived levels of resilience and bicultural

identity integration (i.e., harmony and blendedness), and the outcome variable is the perceived level of psychological wellbeing. The third part of this study aimed to identify whether bicultural identity integration and individual resilience might function as protective factors of psychological wellbeing during times of stress. A series of correlational and hierarchical regression analyses allowed for an understanding of the associative relationship between acculturation stress, harmony and blendedness components of bicultural identity integration, and psychological wellbeing.

This study considers the following research questions: Does an integrated identity moderate the relationship between acculturation stress and psychological wellbeing? Does individual resilience moderate the relationship between acculturation stress and mental health outcomes? Integrated bicultural identity was explored in the context of *cultural blendedness* and *cultural harmony* as described by Hyunh et al. (2011). It was hypothesized that levels of adherence to both the heritage and the second cultural values are positively related to levels of psychological wellbeing and negatively related with levels of psychological distress in self-identified bicultural individuals. It was also hypothesized that when faced with stressful events, levels of individual resilience responses are positively related with levels of psychological wellbeing and negatively related to psychological distress in self-identified bicultural individuals. Specific research questions and hypotheses are detailed in the next section.

## **Research Questions and Hypotheses**

### **Descriptive Questions**

1. What are the demographic and individual characteristics of bicultural individuals in this study?
2. How do bicultural individuals in this study rate on acculturation stress?



3. What is the status of psychological wellbeing of bicultural individuals in this study?
4. What are bicultural individuals' levels of resilience and bicultural identity integration?

### **Inferential Questions**

1. Does immigrant generational status influence psychological wellbeing?

In relation to Research Question 1, it was assumed that there are significant differences in the level of psychological wellbeing between immigrant generational status (i.e., foreign-born and U.S.-born).

2. How does acculturation stress influence bicultural immigrant's psychological wellbeing?
  - 2a. Does generational status moderate the relationship between acculturation stress and psychological wellbeing?

In relation to Research Question 2, it was assumed that acculturation stress is related to bicultural immigrants' psychological wellbeing. Specifically, it was predicted that higher levels of stressful events related to the acculturation process would be associated with lower levels of psychological wellbeing among bicultural immigrants, and (2a) the multivariate relationship between psychological wellbeing and acculturation stress would differ across generational status.

3. Does bicultural identity integration (consisting of harmony and blendedness) influence psychological wellbeing?
  - 3a. Does generational status moderate the relationship between harmony and psychological wellbeing and the relationship between blendedness and psychological wellbeing?

In regard to Research Question 3, it was assumed that bicultural identity integration (i.e., blendedness and harmony) would be associated with psychological wellbeing. More specifically, it was predicted that having a stronger sense of compatibility (i.e., high harmony) between two

cultural orientations lowers the individual's susceptibility to negative psychological wellbeing in the presence of acculturation stress, and (3b) that the multivariate relationship between psychological wellbeing and bicultural identity integration would differ across generational status.

4. Does resilience influence psychological wellbeing?

4a. Does generational status moderate the relationship between resilience and psychological wellbeing?

In relation to Research Question 4, it was assumed that individual resilience would moderate the impact of stressful life events, helping the individual to maintain good levels of psychological wellbeing in face of such events. More specifically, it was assumed that resilience would be associated with psychological wellbeing. Specifically, it was predicted that bicultural immigrants' reported resilience would be associated with higher psychological wellbeing, and (4a) the multivariate relationship between psychological wellbeing and resilience would differ across generational status.

5. Does bicultural identity integration (harmony and blendedness) moderate the relationship between acculturation stress and psychological wellbeing?

H1: Harmony will moderate the association between acculturation stress and psychological wellbeing. More specifically, it was predicted that having a stronger sense of compatibility (i.e., high harmony) between two cultural identities lowers individual susceptibility to low psychological wellbeing in the presence of acculturation stress.

H2: Blendedness will moderate the association between acculturation stress and psychological wellbeing. More specifically, it was predicted that having a stronger

sense of overlap (i.e., high blendedness) between two cultural identities lowers individual susceptibility to low psychological wellbeing in the presence of acculturation stress.

6. Does resilience moderate the relationship between acculturation stress and psychological wellbeing?

H3: Resilience will moderate the association between acculturation stress and psychological wellbeing. More specifically, it was predicted that having a higher level of resilience lowers individual susceptibility to low psychological wellbeing in the presence of acculturation stress.

7. To what extent, if any, is resilience correlated with bicultural identity integration?

In relation to Research Question 7, it was assumed that individual resilience is associated with the formation and integration of bicultural identity. More specifically we predicted individual resilience is related to the harmony and blendedness components of bicultural identity integration in a positive direction.

### **Research Assumptions**

The following assumptions were made during the implementation of the study:

1. Participants will be able to understand the survey instruments;
2. Participants will have the ability to answer in a trustworthy manner, and social desirability would have no statistically significant effect on their responses; and
3. Although participants are not homogeneous in their country of birth/country of origin, they consisted of university community members recruited from the Midwest region, within the same age range and academic levels.

## **Limitations and Delimitations of the Study**

There are a few key limitations to this study that should be acknowledged. At the outset, *immigrants* are defined in this paper as foreign nationals who enter the United States with the intent to study or reside here permanently, as well as those individuals who are U.S.-born with at least one immigrant parent. Therefore, the immigrant population of primary interest in this study combines nativity status, immigrant status, and generational status. For nativity status, only those who are foreign-born and U.S.-born with at least one foreign-born parent are included. For immigration status, those who are temporary and humanitarian migrants are excluded, and with regards to generational status, only first- and second-generation immigrants are included.

This study examined a sample of immigrants in a specific geographical location. Therefore, findings may not be generalized to immigrants in other geographic locations in the United States or representative of immigrants in other receiving societies in other countries. The heterogeneity of the wider immigrant population is acknowledged. Because of the wide range of origins of immigrants to the United States, it is beyond the scope of this dissertation project to represent every immigrant group.

## **Operational Definition of Terms**

Several terms will be used throughout this study.

*Acculturation stress*: A physiological and psychological state brought about by culture-specific stressors rooted in the process of acculturation that differs from other types of stress. Acculturation stress often results in a particular set of stress behaviors that includes anxiety, depression, identity confusion, feelings of marginality and alienation, increased psychosomatic symptoms, and identity confusion (Mejía & McCarthy, 2010).

*Biculturation*: Refers to bicultural individuals' experience of the process of adapting to two cultures, allowing for the possibility of individuals having two cultures simultaneously.

*Bicultural individual(s)*: Those persons who have been extensively exposed to two different cultures and may have internalized, or developed, two cultural knowledge systems as a result of cross-cultural exposure. In this study, the term *bicultural individuals* refers to immigrants and their families; specifically, individuals who are foreign-born, naturalized U.S. citizens, and U.S. citizens who were born to at least one non-American parent (used interchangeably with bicultural immigrants).

*Bicultural identity integration*: A framework for understanding the individual subjective experience of one's mainstream and culture of origin/heritage cultural identities, capturing the degree to which bicultural individuals see their dual cultural identities as compatible versus oppositional, blended versus conflicting, and can integrate their various aspects into a cohesive sense of self. In this study, two distinct bicultural identity integration concepts; harmony and blendedness were (Benet-Martínez et al., 2002).

*Culture of Origin/Culture of Heritage*: Cultural orientation of Asia and/or Asian countries.

*Mainstream Culture/Host Society*: Western-based, U.S. American cultural orientation, history and traditions.

*Demographic information*: Personal variables which include gender, education, marital status, immigrant generational status, and ethnic identification.

*Resilience*: A dynamic personal characteristic that moderates the negative impact of stress and promotes positive adaptation to future adversities (Luthar, 2006).

*Immigrant*: Individuals born abroad to non-U.S. citizen parents (used interchangeably with *first generation* and *foreign-born*) and their U.S.-born offspring.

*Immigrant generational status*: Refers to the number of generations the bicultural individual's family has been in the United States. For example, 1.5-generation individuals are born and raised outside of the United States and immigrate during childhood or adolescence, with both parents born outside of the United States; third-generation or higher when both individuals and their parents are born in the United States.

*First-generation*: Individuals born and raised abroad to non-U.S. citizen parents and immigrate to the United States in their adult lives (used interchangeably with *foreign-born* and *immigrant*).

*Foreign-born*: Refers to persons with no U.S. citizenship at birth. This population includes naturalized citizens, lawful permanent residents, and persons on certain temporary visas, including international students (used interchangeably with *immigrant* and *first generation*)

*Second-generation*: Individuals born, raised and educated in the United States, with one or both of their parents born outside the United States. At present, all second-generation immigrant adults and children are regarded as U.S. citizens as mandated by the 14<sup>th</sup> Amendment of 1868 (APA, 2012) (used interchangeably with *U.S.-born immigrants*).

*Psychological wellbeing*: Immigrants' subjective appraisals of their mental wellbeing within six dimensions: self-acceptance, autonomy, environmental mastery, personal growth, positive relationships, and purpose in life.

### **Summary of Chapter I and Organization of the Study**

In the preceding pages, critical issues related to bicultural immigrants' experiences in their host country were reviewed. Key findings include: (1) immigrants experience multiple

challenges of acculturation that contribute to acculturation stress, and (2) little is known on which factors may facilitate positive adjustment of immigrants in the receiving country. It is clear that additional research is needed to fill the gap on having a thorough understanding of the experiences of bicultural individuals. While the available literature demonstrates the need to explore the psychology of acculturation, it also demonstrates that there is still a gap in the literature on factors that may affect the adjustment of bicultural individuals.

The rest of this dissertation is organized in the following manner: Chapter II reviews the literature relevant to this study, including the research existing in the areas of biculturation, theories of acculturation, theory of bicultural identity formation, psychological resilience, and immigrants' psychological wellbeing. Chapter III describes the research design, the rationale for the specific methods, and the procedures by which this study was conducted. Chapter IV reports the findings that emerged from data collected for this study, and Chapter V presents the summary of the study, discussion of results, limitations of the research, and implications for further studies. The final chapter suggests directions for future research and implications for policy and practice to fill existing knowledge gaps to better serve the needs of bicultural immigrants.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

*International migration* can be defined as a process of going from one country, region, or place of residence to settle in another. The duration of this new settlement varies, but for the purpose of this research study, the focus is on individuals who relocate either semi-permanently or permanently to another country. Within the United States, immigration has been a cornerstone of the history of the nation. With the exception of Native American and Alaskan Native populations, most residents in the United States have their family roots in immigration. The process of immigration is complex and typically involves three stages: (1) *pre-migration* – the decision and preparation to move, (2) *migration* – the physical relocation of individuals from one place to another, and (3) *post-migration* – the incorporation of the immigrant within the social and cultural framework of the new society. An individual's immigration experience can look very different from another's depending on legal and social circumstances (Steiner, 2009). There are various types of immigrants (e.g., skilled workers, sojourners, families, refugees, asylum seekers, or undocumented) following their different reasons (e.g., educational, economic, familial, social, political, or environmental) for migrating and acculturating to a new socio-cultural environment. The immigration process itself could also be a factor affecting settlement and adaptation of immigrants to their new environment (Ruiz & Padilla, 1977).

As the number of bicultural immigrants from the Asia region is expected to continue grow, more research is needed to understand how these individuals adapt to the U.S. American society, and the problems they may encounter in the process. Changing patterns of migration to the United States pose new challenges to the delivery of mental health services to immigrants (APA, 2012).



The immigrant population has been considered a vulnerable group due to increased risk for poor physical, psychological, and social health outcomes, and inadequate mental health care (APA, 2012). Addressing the psychological needs of immigrant populations and the task of preventing, recognizing, and appropriately treating mental health problems such as anxiety and depression is complicated for immigrants and refugees because of the heterogeneity of this group and differences in language, culture, patterns of seeking help, and ways of coping. The unique aspect of the immigrant population, particularly the impact of the variation of culture and languages within the population on their acculturation experiences, needs to be carefully considered. Thus, this research project attempts to gain more understanding of the acculturative process at the individual level. This information may help inform counseling psychologists on effective ways to promote better adaptation and wellbeing of bicultural individuals in general, and of those on college campuses more specifically.

This chapter discusses related literature in regards to Asian immigrants, acculturation, bicultural identity integration, resilience, and psychological wellbeing. Specifically, this chapter presents arguments for the inclusion of immigrant literature in counseling psychology, empirical research on acculturation stress, bicultural identity development, resilience, and immigrant psychological wellbeing. This chapter concludes with a summary of the related literature review, synthesis, and critique of the existing literature.

### **Asian Immigrants**

The modern immigration wave from Asia is nearly a half century old and has pushed the total population of Asian Americans—foreign-born and U.S-born adults and children—to a record of 20.3 million in 2014, or 5.8% of the total U.S. population, up from less than 1% in 1965 (U.S. Census Bureau, 2014). Asians are currently the second largest group of immigrants in

the United States, and represent a heterogeneous group with marked within- and between-group variations on a number of characteristics including countries of origin, cultures, languages, religion, and the sociocultural and socioeconomic conditions of these countries and their nationals (Takeuchi et al., 2007). While these groups share much in common, they also have a range of differences in demographic characteristics, beliefs and perspectives on life in the United States. Among immigrants from the Asian region to the United States, immigrants from South East Asian (e.g., Malaysia, Thailand, Vietnam) and East Asian (e.g., China, Japan, Taiwan) countries are the fastest growing immigration group, followed by South Central Asia (e.g., India, Pakistan, Bangladesh), Western Asia (e.g., Palestine, Kuwait) and other Asian countries (U.S. Census Bureau, 2014). The majority of Asian immigrants are from Chinese, Filipino, Indian, Vietnamese, Korean, and Japanese nationalities, which account for about 85% of the total Asian immigrant population in the United States. About 74% of Asian American adults are foreign-born (i.e., born outside of the United States). When questioned about their immigrant identity, a small portion (14%) say they describe themselves most often as American. Meanwhile, far more identify themselves by country of origin (62%) and only 1 in 5 describe themselves most often as Asian or Asian American (19%) (Pew Center, 2016).

Other than family reunification and employment opportunities, education is another significant motivation for immigration among Asians. International individuals from the Asian region tend to compose the largest percentage of international students in U.S. institutions of higher learning (Institute of International Education, 2016). Because the number of bicultural Asian and Asian American college students is expected to continue to grow, research is needed on contributing factors to the adjustment and academic achievement of these biculturals.

Previous research focused on college students' mental health have found that Asian immigrants have higher levels of depressive symptoms than do their U.S.-born Asian counterparts (Sue, Sue, & Takeuchi, 1995); however, community-based research has found Asian immigrants have lower rates of depression than U.S.-born Asians (Takeuchi, Cheung, Lin, et al., 1998, Takeuchi & Uehara, 1996). The inconsistent findings about Asian mental health creates an additional challenge for mental health practitioners and college counseling centers, particularly in determining whether the services currently in place can adequately meet the needs of diverse Asian and Asian American groups.

The current research focused on biculturals born in Asia and those who are U.S.-born with at least one of their parents born and migrated from the Asian region. The utility of a bicultural identity and individual resilience factors model of mental health was tested with a sample of self-identified bicultural individuals with Asian heritage in a Midwest, U.S. college environment.

In sum, Asian immigrants and their descendants vary in their cultures of heritage, reactions and acculturation strategies as they adjust to the U.S. culture, and their reasons for immigrating. Recognizing the significant variations that exists within the Asian immigrant population, it is important to recognize that individuals in this population may have more in common with someone from either of their cultures than another bicultural person (e.g., Malay-American). This may also mean that there may not be an Asian community that one may automatically have the most common cultural experience with.

### **Acculturation**

*Acculturation*, defined in this paper as the cultural changes and adaptation among immigrants and their immediate descendants (Berry, Phinney, Sam, & Vedder, 2006a, 2006b),

has been identified as an important correlate of immigrants' health and wellbeing. This has occurred primarily through both theoretical exploration and empirical research efforts (Zane & Mak, 2003). There are now two competing perspectives, unidimensional (e.g., Gordon, 1964) and multidimensional models, which have been conceptualized and used to explain how individuals navigate and negotiate their identification with both their culture of origin and the culture of their host country.

### **Unidimensional Assimilation Model**

According to the unidimensional assimilation model (Gordon, 1964), immigrants move along a linear continuum, wherein one point refers to the maintenance of the immigrant culture of origin/heritage, and the other to the adoption of the host/second culture. The midpoint on this continuum is biculturalism, in which immigrants both retain some features of their culture of heritage, and adopt elements of the host culture. This model assumes that biculturalism is a transition phase and that over time, immigrants will completely assimilate to the host culture (LaFromboise, Coleman, & Gerton, 1993). According to this perspective, adjustment to the host culture is accompanied by a weakening of the ties to one's heritage culture over time (Abe-Kim, Okazaki, & Goto, 2001). This model implies a one-way change process in which immigrants are assumed to assimilate and be immersed into the host society. This model also assumes that acculturation of immigrants to the host society is needed to improve their physical and mental wellbeing (Rudmin, 2010). A major criticism of this model is that it assumes a mutual exclusion of the two cultural identities, whereas evidence exists that many minorities can preserve both identities simultaneously, or not identify with either (Kang, 2006; Nguyen & von Eye, 2002). The model has also been criticized for excluding the changes experienced by the host society

with the presence, interaction, and assimilation of immigrants into the culture (Sayegh & Lasry, 1993).

### **Bilinear, Multidimensional Models of Acculturation**

Criticisms of the unidimensional assimilation model led to the development of contemporary, complex, multidimensional and bidirectional models of acculturation, which view the process of acculturation to the host culture and culture of heritage to be fairly independent of each other (e.g., Berry, 1980; Cuellar, Arnold, & Maldonado 1995; LaFramboise, et al., 1993). According to Berry (1980, 1990, 2003), in the process of acculturation, immigrants are faced with two primary choices: (1) to preserve identification with their culture of origin or (2) to identify with the host culture. The decision-making process can be stressful. In negotiating this decision, the group or individual can make one of four choices: (1) *assimilate*- identify mostly with the host culture; (2) *integrate*- identify with the host culture while retaining a high level of identification with the culture of origin; (3) *separate*- identify only with the culture of origin; or (4) *marginalize*- choose to maintain ties with neither the culture of origin nor the dominant host culture. Within this framework, individuals may keep many aspects of their original culture even when adopting characteristics of their host culture (Abe-Kim et al., 2001).

Compared to the unidimensional model, the bidimensional model recognizes multicultural societies, and embraces both individuals with bicultural identities and people who do not identify with either culture. Most researchers concur that the bidimensional approach to acculturation provides more flexibility and possible outcomes, and is a more useful model for describing differences in acculturation strategies and cultural identification (Berry, 2003; Lee, Sobal, & Frongillo, 2000; Nguyen & Benet-Martínez, 2007; Ong, Fuller-Rowell, & Phinney, 2010; Phinney, 1996; Phinney & Devich-Navarro, 1997; Rodriguez, Schwartz, & Whitbourne,

2010). Similar to the unidimensional model, however, the early bidimensional acculturation models have been criticized for not highlighting the interactive nature of the immigrants and the host culture (Bourhis, Moise, Perrault, & Senecal, 1997).

From a social justice standpoint, both types of acculturation models failed to consider important aspects such as the effect of acculturation on the acculturating individuals and the receiving society, the formation and re-negotiation of cultural identities, the context of oppression within the receiving culture, social discrimination and social stigma, and the wide variation that exists within the acculturating groups. In addition, it may be erroneous to assume that all acculturating individuals have a desire to assimilate to the host culture (Rudmin, 2010).

More recent acculturation scholars have attempted to emphasize the multidimensionality of the acculturation experience by highlighting concepts such as cultural awareness and ethnic loyalty, behavioral changes, socio-cognitive changes, personal characteristics, individual differences, and personality characteristics (e.g., Birman, 1994; 1998; Birman & Trickett, 2001; Cuellar, Arnold, & Maldonado, 1995; Keefe & Padilla, 1987), as well as by developing better ways of empirically measuring acculturation (Zane & Mak, 2003).

Highlighting the importance of intercultural contact, Padilla and Perez (2003) suggested understanding immigrants' cultural adaptation by critically examining social cognition, cultural competence, social identity, social dominance, and social stigma. Berry (2005) expanded his initial acculturation framework and postulated that especially in culturally plural societies such as the United States and Canada, acculturation and cultural changes continue long after the initial contact between the immigrants and the members of the host culture. These may include adopting social interactions of each group, learning each other's languages, and sharing each

other's food preferences (Berry, 2005). While these adaptations may be easy for the groups in contact, they may also cause cultural conflict or acculturative stress for the new immigrants.

Previous research on Asian American acculturation demonstrated bilinear acculturation process, supporting the idea that Asian Americans are able to operate from two cultural orientations simultaneously (Miller, 2007; 2010). Scholars have proposed that the acculturation process varies across generational status; the first-generation's acculturation process reflects the unidimensional acculturation, and the second-generation's acculturation process reflects the bilinear acculturation process (Tsai, Ying, & Lee, 2000). In a recent cross-validation study, Miller (2010) tested within-group variation in the Asian American population by testing the moderating influence of generational status and the assumptions regarding the linear direction of the acculturation process. Miller's (2010) study demonstrated evidence for bilinear acculturation processes for both generations; however first- and second-generation Asian Americans differ in their engagement in culture-specific behavior.

### **Biculturalism and Bicultural Identity**

Western-based ethnic identity theories suggest that the ethnic identity development of U.S. ethnic minority groups (e.g., Asian Americans) includes the process of incorporating the dominant culture (e.g., the U.S. mainstream culture) into their culture of heritage. Ethnic identity theories posit that the final stage of this process is characterized by the attainment of biculturation through the integration of both the heritage and the mainstream cultures. Biculturation allows for individuals to adhere to both cultures and may result in a healthier psychological adaptation than attempting complete assimilation (LaFromboise et al., 1993). Similarly, both first- and second-generation immigrants experience this process of cultural identity reformation and negotiation, and may benefit from having an integrated cultural identity.

The perceived ability to successfully navigate and negotiate the process of biculturalization is referred to as *bicultural efficacy* (LaFromboise et al., 1993; Miller, 2007).

Empirically, integration, also referred to as *biculturalism*, is the most widely endorsed and used strategy by bicultural immigrants in North America, for example, Indian immigrants in the United States (Krishnan & Berry, 1992), first generation Portuguese, Hungarians, and Koreans in Canada (Berry et al., 1989), and Lebanese in Canada (Sayegh & Lastry, 1993). Biculturalism within the bidimensional context refers to identification and participation in both cultures of origin/heritage and the new/host culture. Biculturalism has been defined as a "dynamic and fluid existence influenced by varying social contexts" (Gutter, 2003, p. 6) and is thought to develop as a person has frequent contact with two or more cultures. Because culture is based on social construction, it is changeable and can be "borrowed, blended, rediscovered, and reinterpreted" (Nagel, 1994, p. 162). As an individual comes into contact with different cultures, these contacts with various cultures interact with the self and can result in biculturalism. Little is known, however, about how biculturals manage and negotiate their dual cultural identities. The acculturation literature suggests that there are significant variations in how bicultural individuals manage their dual identities, particularly their perceptions on how the receiving and heritage cultures can be integrated.

Research studies that incorporate this bidimensional framework show substantial evidence supporting the reliability and validity of this bidirectional model of acculturation. These studies also demonstrate that the bidirectional model predicts a greater number of relevant, desirable outcomes when compared to the unidimensional model (Ryder, Allen, & Paulhus, 2000; Tsai, Ying, & Lee, 2000). Attaining an integrated or bicultural identity and the presence of individual characteristics such as a high personal resilience (Aroina & Norris, 2000; Turner,



2001, Wagnild & Young, 1993) is assumed to be a protective buffer against the adverse effects of acculturation stress (Bacallao & Smokowski, 2009; Suarez-Orozco & Suarez-Orozco, 2001).

Research involving socio-cognitive experimental studies show that individuals who preserve both cultural identities in the process of acculturation move between their two cultural identities by switching their cultural frame (Hong et al., 2000; Walsh, 2011). For example, Benet-Martínez et al. (2002) studied Chinese Americans who reported high engagement in both cultures (i.e., host and heritage). They found that these individuals behaved in a way that was consistent with their culture of origin (e.g., attributed an ambiguous social event to external factors) after being primed with Chinese icons, and they displayed behaviors consistent with the Western cultural background (e.g., made internal attributions to the same event) after being primed with American icons. This study demonstrated that individuals who engage in the activities of one culture while maintaining an identity and relationships in another show the best outcomes in a number of mental health domains, such as self-esteem, positive relations with others, and a sense of wellbeing (Abu-Rayya, 2006; Darya, 2007; Pfafferott & Brown, 2006; Shpiegelman, 2007). The two identities (i.e., host culture and culture of origin) are presumed to remain independent of each other, and the activation of each culture is context-dependent (Hong et al., 2000).

Studies have found a range of ways in which a person may identify with multiple cultures (Phinney & Devich-Navarro, 1997), and that acculturation strategies are closely linked to the strength of identification with an individual's respective cultures (Nguyen & Benet-Martínez, 2007). For example, biculturals who identify strongly with both their heritage and host cultures are considered integrated, while those who do not identify very strongly with either culture are viewed as marginalized. Biculturals who strongly identify with only one of their two cultures can

be seen as assimilated or separated. Therefore, being able to retain both the original culture, as well as establishing a close tie to the host culture, leads to better psychological and sociocultural adaptation (Berry et al., 2006a; Nguyen & Benet-Martínez, 2007, 2010). Biculturals are likely to be well adjusted because they have competence in navigating their dual cultures (LaFromboise et al., 1993) and may have social support networks from both cultures (Mok, Morris, Benet-Martínez, & Karakitapoglu-Aygun, 2007). It was expected that most of the participants in this study would be integrated biculturals who highly identify with their two cultures, although there may be some variability in the strength of their identification. Although integrated biculturals identify with both of their two cultures, the strength of their identification may be stronger towards one culture than the other.

### **Theory of Bicultural Identity Integration**

Although research has shown that most acculturating individuals use the integration/biculturalism strategy, and despite the acknowledged importance of biculturalism and multiculturalism in society, there is little research exploring variances among those within that group (i.e., differences among biculturals; Benet-Martínez & Haritatos, 2005). Such bicultural individuals face the challenge of negotiating between multiple, and sometimes conflicting, cultural identities and value systems in their everyday lives.

Benet-Martínez and her colleagues (2002) proposed a construct of an integrated bicultural identity, which provides a framework for understanding the individual's subjective experience of managing dual-cultural orientations. Bicultural identity integration (BII; Benet-Martínez et al., 2002) "captures the degree to which bicultural individuals see their identities as compatible and integrated (high BII) or as oppositional and difficult to integrate (low BII)" (p. 9). The construct of bicultural identity integration applies to any individuals who have been

exposed and internalized two cultural frameworks, including immigrants, sojourners, refugees, ethnic minorities, indigenous people, those in inter-ethnic relationships, and mixed-ethnic individuals (Benet-Martinez et al., 2002; Berry, 2003; Padilla 1994).

Consequently, Benet-Martínez and Haritatos (2005) updated the BII conceptualization and posited that it comprises two different and psychometrically independent components: (1) *cultural blendedness* (versus compartmentalization) – the degree of dissociation versus overlap between the two cultural orientations (e.g., "I see myself as a Chinese in the United States" vs. "I am a Chinese-American"); and (2) *cultural harmony* (versus conflict) – the degree of perceived conflict or clash versus compatibility between the two cultural orientations (e.g., "I feel trapped between the two cultures," "I do not see conflict between the Chinese and American ways of doing things"). For bicultural individuals, cultural blendedness is the subjective distance between two cultural orientations, which varies among people. Cultural blendedness and cultural harmony are psychometrically independent components and are related to different important contextual and personality variables (Hyunh, 2009). Specifically, lower ratings on blendedness are linked to personality and performance-related challenges, whereas lower harmony may stem from other personality traits and strains that are largely interpersonal in nature (Benet-Martínez & Haritatos, 2005). The authors posited that bicultural individuals could have any combination of high or low blendedness and high or low harmony.

### **Measurement of Bicultural Identity Integration**

Early research on bicultural identity integration has built upon the Bicultural Identity Integration Scale – Pilot version (BIIS-P) instrument, which is comprised of short vignettes that bicultural individuals rate on a 5-point Likert-type scale (1 = definitely not true, 5 = definitely true) with regard to how much it reflects their bicultural identity experiences. This measure was

used in the first study of BII (Benet-Martínez et al., 2002) to assess the perceived compartmentalization (lack of blending) and conflict (lack of harmony) between two cultures in a multi-statement paragraph. According to Benet-Martínez et al. (2002, 2006), although this measure has high face validity with respondents, it confounds the two components of BII, cultural blendedness and harmony, by requiring participants to rate a statement that contains both of these elements. According to the authors, the methodological challenges limit the ability to accurately assess participants' experience (e.g., distinguishing low blendedness vs. harmony).

Subsequently, Benet-Martínez and Haritatos (2005) developed the Bicultural Identity Integration Scale -Version 1 (BIIS-1), an 8-item measure of BII with separate 4-item subscales of cultural blendedness and cultural harmony that place bicultural individuals on a continuum according to the extent of their experiences of conflict and the distance between their two identities. These items are rated on a 5-point Likert-type scale (1 = strongly disagree, 5 = strongly agree). The measure was normed in a sample of 65 first-generation immigrant Chinese American undergraduates from a large university on the West Coast of the United States. In this sample, correlation analysis showed that individuals with a high bicultural identity integration scored higher than those with a low bicultural identity integration in regards to their English proficiency and identification with American culture, which implies that immigrants' competence in the mainstream culture is an important part of bicultural identity development. Although the BIIS-1 is adequately internally consistent ( $\alpha$  blendedness = 0.69,  $\alpha$  harmony = 0.74; Benet-Martínez & Haritatos, 2005), the authors reported concerns related to the instrument's reported reliability and whether the items fully conceptualize the BII.

Most recently, Huynh (2009) improved the measurement of BII with the development of the Bicultural Identity Integration Scale – Version 2 (BIIS-2). With goals of expanding the

measurement of BII and applying the BII theory to an ethnically diverse sample of bicultural individuals, Huynh (2009) generated survey items using qualitative data using open-ended essays written by self-identified bicultural college students. The 45 items of the BIIS-2 were administered to an ethnically diverse sample of more than 1,000 self-identified bicultural Latino/a and Asian American college students. The updated BIIS-2 consists of 19 items rated on a 5-point Likert-type scale (1 = strongly disagree, 5 = strongly agree). These items yield reliable (blendedness vs. compartmentalization  $\alpha = 0.86$  for 9 items; harmony vs. conflict  $\alpha = 0.81$  for 10 items) and stable ( $N = 240$ ;  $M = 6.93$  days.  $SD = 0.90$  days; Time 1 and Time 2 correlations:  $0.74 < r < 0.78$ ) scores across the two ethnic groups. Results from both exploratory and confirmatory factor analyses suggest that the BIIS-2 is comprised of separate blendedness and harmony components. To conclude, the BIIS-2 showed measurement invariance for two ethnic groups (i.e., Asian American and Latino) and two generational groups (i.e., first- and second-generation) in this study. To date, the BIIS-2 has demonstrated better psychometric properties than previous versions, a reliable and valid BII measure that is content comprehensive, yet still practical and feasible to administer.

### **Research Findings on Bicultural Identity Integration**

Since the development of the BIIS measure, it has been used in researching Mexican-American bicultural undergraduate students who had stayed in the United States for at least 5 years (Miramontez, Benet-Martínez, & Nguyen, 2008), mainland Chinese immigrants to Hong Kong (Chen, Benet-Martínez, & Bond, 2008), and former Soviet Union (FSU) immigrants to the United States (Zyuban & Samstag, 2009). In all of these studies, the BIIS scores were associated with similar and expected outcomes, such as perceiving one's cultural groups as compatible and

closely aligned (Miramontez et al., 2008), adjusting well psychologically (Chen et al., 2008), and tolerating differences and negotiating conflicting demands (Zyuban & Samstag, 2009).

According to Benet-Martínez and Haritatos (2005), individuals who report *high* bicultural identity integration are described as comfortable with both of their cultural identities, and as incorporating both cultures into a cohesive sense of self. They show competency in both cultures and modify their behavior according to the cultural demands of the situation. Such theorizing has found support in empirical literature (e.g., Birman, 1994; Chuang, 1999; Hong, Morris, Chiu, & Benet-Martínez, 2000). In a study of Chinese individuals who report high acculturation to both the culture of origin and the host culture, Hong et al. (2000) examined cultural frame-switching using a task in which participants interpreted cartoons of interactions between a single fish and a group of fish. They found that Chinese cultural icons seemed to prime the beliefs in the group as a causal agent inherent to Chinese culture, and with American cultural icons, the individual agency belief characteristic of American culture. The authors suggested that these findings translate into social interactions as well. For example, when a Chinese-American bicultural individual enters a traditional Chinese setting, his or her Chinese social constructs are activated as a function of the images he or she encounters. When the same individual is surrounded by a mainstream American setting, his or her American social constructs come to the foreground.

In contrast, individuals with a *low* bicultural identity integration perceive their two cultures as conflicting and mutually exclusive, and they experience internal tension as a result of subjectively incompatible demands (Benet-Martínez & Haritatos, 2005). Consequently, these individuals keep the two cultural identities dissociated and compartmentalized. For example, Phinney and Devich-Navarro (1997) used questionnaires and interviews to study how Mexican-American and African-American high school students handled their two cultures. Analysis of the

results identified three distinct types of identification patterns, each of which had specific correlates: (1) *blended* (those who identified with both cultures), (2) *alternating* (those who identified with both cultures but had stronger ties with the ethnic culture), and (3) *separated* identities (those who reported identifying only with the ethnic culture). Whereas the first two groups of adolescents reported feeling "bicultural," the respondents from the third group refused the term "bicultural." Moreover, they reported perceiving their two cultures as conflicting and best dealt with by keeping them separate. These individuals were also more likely to report negative feelings toward mainstream society and other minority groups, experiences of discrimination, and being excluded. In sum, a bicultural individuals' mode of integrating cultural identities depends on their identification patterns, which then affects their reactions (accommodating or opposing) to culturally-specific stimuli.

As the studies reviewed above suggest, while the integration acculturation strategy is believed to be the most beneficial, not all immigrants seem to develop competency in two cultures (e.g., Bochner, 1982; Gil, Vega, & Dimas, 1994). In addition, these studies demonstrated the process of integrating two cultures can be perceived as very stressful, thus preventing the internalization of two cultures (e.g., Rogier, Cortes & Malgady, 1991). These findings call for the investigation of the individual or sociocultural antecedents that could explain the reasons that a given individual finds it easy to become bicultural, while another perceives developing this quality as threatening and chooses to resort to other acculturation strategies.

In summary, recent research on acculturation demonstrates that contrary to previously held beliefs regarding the unidirectionality of the acculturation process, acculturating individuals have multiple options relating to the negotiation of their cultural identities. Studies show that among these options, the most psychologically beneficial acculturation strategy is the integration

of different cultural demands. However, not all immigrants complete the bicultural integration process with ease. As studies show, some acculturating individuals experience difficulty in consolidating both cultures into a cohesive sense of self (Gil et al., 1994; Phinney & DeVich-Navarro, 1997; Vivero & Jenkins, 1999) and often feel as if they should choose one culture. These findings call for an examination of the psychological and sociocultural factors that allow for a smooth integration of different cultural demands. To date, no existing literature fully captures biculturalism and the process of attaining a bicultural identity.

### **Acculturation Stress**

In the process of learning to adapt to the new culture, biculturals often experience substantial stress, which researchers label as *acculturative stress* (Smart & Smart, 1995; Williams & Berry, 1991). The complexities of immigration and navigating cultural differences can be daunting and stressful; thus, bicultural individuals are assumed to experience stressors related to both the pushes and pulls of acculturation. Acculturation stressors may include social (e.g., learning new social norms and interacting with culturally diverse individuals; Ward & Kennedy, 1999), familial (e.g., culture-specific intergenerational conflict; Lee, Choe, Kim, & Ngo, 2000), and environmental (e.g., lack of cultural diversity in community; Benet-Martínez & Haritatos, 2005; Berry et al., 1987).

From a psychological perspective, immigrants experience cultural change across a number of life domains (e.g., language, ethnic and cultural identification, cognition, emotional expression, and affiliation preferences) as a result of continuous exposure to a second culture (e.g., the mainstream culture of the host society). The continuous exposure and interaction with the second culture forces immigrants to navigate and negotiate two (or more) cultural frameworks simultaneously, which may contribute to additional stress and identity confusion,



notably when immigrants experience incongruent cultural values and experiences, language difficulties, and discrimination (Gil et al., 1994). Additional stressors are often related to employment difficulties, racism, economic hardships, reduced or loss of social status/professionalism, and interruption of family ties, and are likely to have an adverse impact on immigrants' psychological wellbeing and adaptation to the United States.

Research demonstrates that non-White, non-Western and non-European immigrants experience more discrimination than other immigrant groups, because of greater cultural, political, economic and phenotypic differences between immigrants and the dominant cultural group of the receiving/host country, particularly among Asian, Mexican and Arab descent populations. The receiving/host nation's sociopolitical climate and preference for certain immigrant groups and skin color have been suggested as causing differences in acculturation experiences among different immigrant groups (Bourhis et al., 1997). For example, children of immigrants who arrived as children or adolescents, or those who were born in the United States (second-generation), have been found to be highly acculturated compared to their first-generation parents, yet, may not be accepted as full members of the receiving society, suggesting that acculturative stressors and discrimination remain salient beyond the first-generation (Suárez-Orozco, Suárez-Orozco, & Todorova, 2008). It is noteworthy to mention that acculturation may become an issue for some but not for all second-generation immigrants. However, for visible minority immigrants, acculturation stressors may continue to have an impact beyond the second-generation. Researchers have pointed to the concept of perpetual foreigner stereotype wherein members of the ethnic minority group will always be seen as "the other" in White Anglo Saxon-dominant societies such as the United States (Devos & Banaji, 2005). In other words, they will

always be viewed as “less American” than European Americans, contributing to feeling excluded from the mainstream society.

Research indicates varying amounts of time are needed for the immigrant to adapt to the host country's language and customs, and some individuals may never do so. For example, adult immigrants, especially those arriving as older adults, may experience the more difficulty related to acculturation or unwillingness in adopting cultural practices, values, and identification with the receiving/host society (Schwartz et al., 2006). In contrast, the children of immigrants (i.e., second-generation) are likely to acculturate more quickly than their parents (Portes & Rumbaut, 2006) as they are born, socialized, and educated in the United States. Yet, they may feel caught between the conflicting values of their parents and peers, or experience conflict between their values and those of their less acculturated parents (Padilla et al., 1986). Such conflicting expectations can create family tension or intergenerational conflict.

Previous immigrant-focused studies highlight a common barrier faced by first-generation immigrants; that is, the inability to speak the host nation's native language, which affects communication, availability or advancement of job opportunities, and access to education or healthcare. These challenges all contribute to acculturation stress. For non-European biculturals in the United States, difficulties with English language may limit their opportunities to express themselves clearly, thus impacting career and socio-economic status mobility. Attaining English language proficiency enables biculturals to move outside their immediate social circles to expand opportunities for employment and other social and economic resources (Takeuchi et al., 2007). Biculturals who arrive as older adults may have difficulty learning English and fewer opportunities to develop social relationships, as compared to biculturals arriving as children (i.e., 1.5-generation) or born and raised in the United States.

Interestingly, recent studies demonstrated presence of acculturative stress among younger biculturals with low native/ethnic language proficiency (e.g. Lueck & Wilson, 2010). In their study of the impact of social and linguistic factors among a nationally representative sample of 2,095 Asian immigrants and Asian Americans, Lueck and Wilson (2010) identified predictors of acculturative stress in the population, including English proficiency, native language proficiency, discrimination, family cohesion, and the context of migration exit. This finding supports an earlier study by Berry and Kostovcik (1983) who found multilingualism and experience in culturally diverse environment correlated with lower acculturative stress.

The challenge to cope with psychosocial difficulties and problems of resettlement may affect individual immigrants and families, causing intergenerational conflicts, poor school performance, and/or difficulties negotiating dual cultural orientations, which is linked to a number of psychosocial outcomes related to mental health and sociocultural adaptation (Berry & Sam, 1996; LaFromboise, Coleman & Gerton, 1993, Samuel, 2009). These stressors may pose a risk for poor adaptation and psychological outcomes such as depression and anxiety for this population (Choi et al., 2008; Suarez-Morales & Lopez, 2009). For example, in a study examining acculturation stress among South Asian women in Canada, Samuel (2009) identified emerging themes in her study including intergenerational conflict, discrimination, and depression. A study examining acculturation stress among Asian immigrant elders (i.e., Chinese, Filipino, Indian, Japanese, Korean, and Vietnamese descents) revealed that depression is prevalent among urban Asian immigrant elders (Mui & Kang, 2006). Nearly half of the 407 participants endorsed depression symptoms, which were related to the elders' perception of cultural conflict between themselves and their adult children and a longer stay in the United States.

## **Generation Status, Acculturation Stress, and Mental Health**

Studies show the impact of acculturation stress on mental health varies by immigrant generation status. In particular, studies of first- and second-generation immigrant children have shown that first-generation immigrants tend to report better overall mental and physical health compared to second- and third-generation individuals (Sam, Vedder, Ward, & Horenczyk, 2006), despite literature highlighting the negative consequences of immigration and acculturation stress.

While much research is directed at finding negative consequences of acculturation and immigration, there is limited research examining factors that may promote a more desirable outcome such as successful adaptation, thriving, and an overall positive psychological wellbeing of immigrants. The impact of acculturative stress and adaptation has been shown to vary by socio-demographic and acculturation-related variables (e.g., generational status, gender, education, income, length of stay in the host country, reasons for immigration, similarity of host and original countries, and willingness in the decision to migrate), and may determine the extent of positive wellbeing and distress for immigrants (Arcia, Skinner, Baily, & Correa, 2001; Bourhis, Mois'e, Perreault, & Senecal, 1997; Constantine, Okazaki, & Utsey, 2004; Montreuil & Bourhis, 2001; Portes & Rumbaut, 2006; Schwartz, Pantin, Sullivan, & Szapocznik, 2006).

The process of successful immigrant adaptation to U.S. society may be associated with less acculturative stress, language competency, higher psychological wellbeing, and a more integrated sense of cultural identity. Additionally, research suggests that non-demographic characteristics might also be as important, especially constructs such as bicultural identity integration (Benet-Martínez & Haritatos, 2005) and resilience factors. Little is known about their relative importance to demographic variables. Because personal characteristics contribute to immigrants' psychological wellbeing, research designed to explicate how specific constructs such

as bicultural identity integration and resilience contribute to immigrants' success is relevant and needed. There is also limited information regarding how bicultural individuals perceive their individual resilience and bicultural identity, as they continue to be exposed and negotiate their cultural identities.

Based on these findings, it was expected that acculturative stressors such as perceived discrimination, language skills, work/employment related challenges, intercultural relations, and cultural isolation would be negatively related to psychological wellbeing. In addition, it was hypothesized that personal and socio-cultural factors such as bicultural identity integration and resilience would buffer the effects of acculturation stress on biculturals' psychological wellbeing.

### **Individual Resilience**

As previously mentioned, the presence of individual resilience may have an impact on bicultural immigrants' adaptation and acculturation process. Scholars of psychological resilience have sought to understand why some people can withstand or thrive on the pressure of adversity compared to others. Loosely defined, *resilience* is the ability to "bounce back" following adversity such as social and developmental barriers (Windle, 1999).

Within the field of psychology, resilience has been researched, defined, conceptualized, theorized, and operationalized from multiple perspectives, and resilience has been considered as a protective factor (Rutter, 1987; Werner, 1993; Werner & Smith, 1992), a trait (Anthony & Cohler, 1987), a process or outcome of adaptation (Bonanno, 2004; Masten, Best, & Garmezy, 1990; Reich, Zautra & Hall, 2010; Ungar, 2008) or pattern of life course development (Luthar, Cicchetti, & Becker, 2000; Wagnild & Young, 1990, 1993). It was also questioned whether resilience is a narrow or a broad concept, multifaceted, unidimensional, short-term, or long-term. From the existing literature, most definitions are based on the two core concepts of positive

adaptation and adversity. For example, resilient adults are found to have the ability to adapt successfully to stress and adversity (Hardy, Concato, & Gill, 2004). Resilience is associated with many positive characteristics among middle-aged and older adults, including forgiveness (Broyles, 2005), morale (Wagnild & Young, 1993), purpose in life, sense of coherence, self-transcendence (Nygren et al., 2005), and self-efficacy (Caltabiano & Caltabiano, 2006). Resilience has also been inversely associated with psychological distress (Arnetz et al. (2013), depression (Wagnild, 2009; Wagnild & Young, 1993), perceived stress (March, 2004), and anxiety (Humphreys, 2003). However, it should be noted that adversity might manifest differently and with varying degrees (e.g., any hardship versus traumatic events). Some researchers demonstrated that resilience definitions and conceptualizations may differ across cultures. For example, Ungar (2008) cautioned against discounting the sociocultural context of the individual and proposed an eco-systemic conceptualization of resilience, which recognizes the influence of societal and cultural contexts that have an impact on the individual's resilience. Nonetheless, researchers agreed that resilience connotes inner strength, competence, optimism, flexibility, and the ability to cope when faced with challenges effectively.

The existing theories and conceptualizations of resilience are focused more on the strengths rather than shortcomings, as well as understanding healthy development despite high-risk exposure. Personal characteristic and environmental, social resources are thought to moderate the negative effects of stress and promote positive outcomes despite risks (Masten, 1994).

Given the range of the meaning of the term over the years, resilience is defined in the current study as a personal characteristic that moderates the negative impact of stress, adversity, tragedy, and threats, and promotes positive adaptation (Luthar, 2006). This perspective allows

for the understanding that resilience is a dynamic process, can be learned and developed, and that a person can always be exposed to new stressors and respond each time differently. Hence, an individual may be considered resilient at times or in certain situations, but may be less resilient at other times or in other circumstances (Masten & Wright, 2010; Reich, Zautra & Hall, 2010).

Resilient individuals are able to view adversities as challenging, but inevitable and manageable.

Turner (2001) further identified characteristics of resilience, including: (a) the ability to think positively of oneself, (b) capacity to find sources for emotional support, (c) having a sense of humor, (d) having a sense of direction or mission (purpose), (e) the ability to develop and sustain relationships, (f) intellectual capacity, and (g) hope, optimism and initiative.

### **Immigrant Resilience**

Migration and immigration research indicates immigrants face multiple challenges when they arrive and resettle in a new country (Berry, 1997). Resilience is a construct that underlies a strength-based view of adaptation to stressful conditions such as the immigration and acculturation processes. Strength-based interpretations of immigrant groups have been very limited in the psychology literature, which have largely been dominated by deficit-models. As such, resilience literature and empirical studies focused directly on immigrants are limited (e.g., Christopher, 2000).

Although there is very little research focused on resilience within immigrant populations, several internal factors have been suggested as positive correlates of immigrants' psychological wellbeing. For example, in a study examining demographic correlates of psychological distress and psychological wellbeing among 6,082 older African-American and black Caribbean adults, Lincoln et al. (2010) found happiness, life satisfaction, and self-rated mental health were

positively correlated to psychological wellbeing. The researchers further highlighted the need for increased research focusing on within-group differences.

In this research study, it was expected that higher levels of individual resilience would moderate or buffer the impact of acculturation stress and promote a more positive psychological wellbeing among self-identified bicultural immigrants. Individuals with a moderate-high to high resilience will respond positively to acculturation stress and demonstrate positive psychological functioning.

### **Measures of Individual Resilience**

Due to various theories, definitions, and conceptualization of resilience, various scales have been developed to measure resilience. These scales include the Brief Resilience Scale (BRS), the Connor-Davidson Resilience Scale (CD-RISC), the Brief Resilience Coping Scale (BRCS), the Resilience Scale for Adult (RSA), and the True Resilience Scale (RS). Most existing scales never directly measure resilience, have focused on resilience within the context of the individual, and have excluded the external forces and socio-cultural orientation from which the individual functions. A review of existing resilience measures revealed two resilience measures that attempted to measure psychological resilience as a construct, and not factors or resources that have been associated with resilience: (a) the Brief Resilience Scale (BRS: Smith et al., 2008) and (b) the True Resilience Scale (RS: Wagnild & Young, 1993). Both measures yield good psychometric properties.

The Brief Resilience Scale (BRS) was designed as an outcome measure to assess the ability to bounce back from stress (Smith et al., 2008). The BRS includes 6 items that are rated on a 5-point Likert scale with responses ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The scale includes an equal number of positively and negatively worded items to reduce



the effect of positive response bias. The BRS was tested on four separate samples (sample 1: undergraduate students, sample 2: 64 undergraduate students, sample 3: 112 cardiac rehabilitation patients, and sample 4: 20 women with fibromyalgia and 30 healthy women) to establish its convergent and predictive discriminative validity. The questionnaires for each sample were not identical, but measured the same constructs. A factor analysis for each of the samples revealed a one-factor solution accounting for 55 to 67% of the variance. Cronbach's alpha ranged from .80 to .91. Test-retest reliability was .69 after one month and .62 after three months. The BRS showed convergent validity with another measure of resilience and measures of coping, personal relationships, and related constructs (Smith et al., 2008).

According to the authors, the BRS aimed to measure resilience by addressing the theoretical definition of resilience rather than looking at the factors and resources that help establish resilience (Smith et al., 2008). Such a measure is highly desirable; however, a couple of limitations remain called into question. First, the authors chose to focus on a narrow definition of resilience and, like their predecessors, ultimately measured only a certain aspect of the construct: recovery, or the ability to cope with difficulties. Second, the BRS focuses solely on factors within the individual and does not assess how an individual's sociocultural environment might assist with the process of bouncing back. Therefore, it is a measure of individual resilience only. While the BRS is a valid and reliable measure, it only identifies a part of the construct of resilience. However, the development of the scale marks a major step in the attempt to measure resilience, capturing an essential aspect of the resilience definition.

Based on a grounded-theory approach, the Resilience Scale (RS) was developed to measure the multidimensional aspects of psychological resilience. It is a measure of the capacity to endure life stressors and to thrive and make meaning from challenges. The researchers' main

goal was to develop a straightforward and direct way of identifying overall resilience, based on a qualitative study of older women in 1987 and the available literature up to that time (Wagnild & Young, 1990, 1993). The initial RS included 50 items that are rated on a 7-point Likert scale with responses ranging from 1 = Strongly Disagree to 7 = Strongly Agree, with each item derived from a verbatim statement from the initial 24 older women. The scale was reduced to 25 items following preliminary analysis, to reflect five characteristics of resilience and was pretested in 1988. The five identified characteristics, termed the Resilience Core are: (1) perseverance, (2) equanimity, (3) purpose, (4) self-reliance, and (5) existential aloneness/authenticity.

The RS scores range from 25 to 175. Scores greater than 145 indicate moderately high to high resilience, 121 to 145 indicate moderate resilience, and scores below 121 indicate low resilience. Wagnild and Young (1993) suggested two distinct factors in the scale: (1) *personal competence* (17 items) - measures self-reliance, independence, determination, invincibility, mastery, resourcefulness and perseverance, and (2) *acceptance of self and life* (8 items) - measures adaptability, balance, flexibility and a balanced perspective on life. According to the researchers, the scale has been applied to a variety of samples including undergraduate and graduate students, caregivers of spouses with Alzheimer's disease, first-time mothers returning to work, and residents in public housing, and has consistently yielded acceptable and moderately high reliability coefficients (0.73 to 0.91) (Wagnild & Young, 1993).

The reliability and validity of the Resilience Scale were examined further in a sample of 810 middle-aged and older adults, 48% of whom were male. The measures of validity included depression, morale, and life satisfaction. As hypothesized by the researchers, resilience was

positively associated with morale and life satisfaction, and negatively with depression. Internal consistency reliability continued to be acceptable (alpha coefficient = .91).

At present, a shortened version of the RS is available and measures similar psychological concept. The 14-Item Resilience Scale (RS-14; Wagnild, 2009) consists 14 items from the original scale, with a Cronbach's alpha of .93. Concurrently, the RS-14 is strongly correlated with the RS-25 ( $r = .97, p < .001$ ) and moderately correlated with depressive symptoms ( $r = -.41$ ) and life satisfaction ( $r = .37$ ) (Wagnild, 2009).

Since the development of the Resilience Scale in 1993, the utility and application of the RS have expanded to other populations of interest including children, adolescents, and middle-aged women in the United States and internationally. Wagnild (2009), in her review of 12 completed studies utilizing the RS, revealed that the RS has good psychometric properties, is an appropriate measure of resilience across age groups (16 to 103 years) and cultures, is positively correlated with psychological wellbeing and purpose in life, and is inversely associated with depression, stress, and anxiety.

To date, only a small number of studies have utilized the Resilience Scale with immigrants to the United States. Christopher (2000) studied the relationship of demographic variables, life satisfaction, and psychological wellbeing to resilience among 100 adult Irish immigrants to the United States. On average, they were 24 years old when they emigrated, and their average length of stay in the United States was 6 years. According to this study, resilience, as measured by the RS, was positively associated with the psychological wellbeing of immigrants in the study. A recent research study on Iraqi refugees and non-Iraqi Arab immigrants by Arnetz et al. (2013) revealed refugees' resilience is associated with less trauma-related psychological distress. The study examined a cross-sectional sample of 75 Iraqi refugees

and 53 non-Iraqi Arab adult immigrants in Michigan to determine if resilience (as measured by the translated RS 8-item Arabic version) is a protective factor for psychological distress and PTSD among individuals exposed to refugees and immigrants from a similar culture. The study demonstrated resilience was a significant inverse predictor of psychological distress but not for PTSD.

Wagnild's Resilience Scale was the first instrument developed to measure resilience and one of the most widely used scales of resilience in the United States and internationally. Both versions, long (RS-25 with 25 items) and short (RS-14 with 14 items), of the instrument have good psychometric properties and have been applied to a wide variety of age groups and have been translated into other languages (e.g., Japanese, Swedish, Nigerian, Spanish, Russian, and Portuguese).

In sum, both the original RS and its short version have good validity and reliability in measuring individual resilience as a dynamic human capacity rather than as a protective factor. Other strengths of this measure include ease of use (i.e., 6<sup>th</sup>-grade readability), applicability to age groups ranging from adolescents to the elderly, and the constructs focus on positive psychological qualities rather than deficits (Wagnild, 2009). Based on these psychometric and additional qualities, the RS-14 was selected to be included in the study.

### **Psychological Wellbeing**

Wellbeing has been extensively researched in the field of social and positive psychology, as both schools of psychology emphasize the importance of attending to positive human aspects and the concept of wellbeing in defining and conceptualizing mental health. A primary focus on wellbeing is in contrast to the earlier focus on human deficits within the psychology field. The study of psychological wellbeing seeks to define characteristics of wellbeing regarding effective

psychological functioning and experience of an individual (Ryff & Keyes, 1995). Psychological wellbeing is one of the components of subjective wellbeing. Subjective wellbeing is comprised of two components: (1) emotional wellbeing (i.e., feeling good) and (2) effective functioning (Huppert, 2009). Emotional wellbeing includes life satisfaction and the presence of positive and negative emotions. Effective functioning is characterized by both social and psychological wellbeing. Social wellbeing is a measurement of positive social functioning, while psychological wellbeing is an assessment of effective personal functioning. The two aspects of effective functioning have been demonstrated to be correlated, but empirically distinct.

Prominent scholars in the study of psychological wellbeing (e.g., Ryan & Desi, 2001; Ryff, 1989; Ryff & Keyes, 1995) have pointed to the multidimensionality of wellbeing and have identified important implications for the conceptualization and measurement of psychological wellbeing. Ryff (1989) argued that early research on wellbeing was insufficient and largely translated to “happiness.” Ryan and Desi (2001) furthered this argument, maintaining that wellbeing is not best explained by hedonic conceptions and not limited to happiness alone. Proponents of this perspective assert that sustaining wellbeing does not require individuals to feel good all the time, and regarded painful experiences as a normal component of life. Instead, Ryff and colleagues theorized that wellbeing, or positive mental health, requires the presence of both hedonic and eudemonic components; that is, the combination of feeling good and functioning effectively. They further developed a theoretically and empirically based scale that highlighted the major features of psychological wellbeing (Ryff & Keyes, 1995).

Ryff and Keyes (1995) identified six dimensions of psychological wellbeing that describe an individual's sense of effective psychological functioning. The six core dimensions include: (1) self-acceptance, (2) autonomy, (3) environmental mastery, (4) personal growth, (5) positive

relationships, and (6) purpose in life. *Self-acceptance* is characterized by self-actualization, maturity, acceptance of multiple positive and negative experiences of one's life, and acceptance of one's past life. *Autonomy* is characterized by self-determination, independence, and being non-conforming to social pressures and conventions. Individuals with *environmental mastery* believe themselves to be competent, active agents, and therefore able to exert control over their environment to meet their needs. *Personal growth* is characterized by a continued sense of self-awareness of one's potential, and openness to experiences that foster such awareness. *Positive relations with others* is characterized by the presence of warm, satisfying, trusting and intimate interpersonal relationships. *Purpose of life* is characterized by the possession of long-term life goals, beliefs, and direction in life, which serve to provide a sense of meaning in life.

Ryff and Keyes's (1995) conceptualization and measurement of psychological wellbeing helps capture individuals' subjective evaluations of their past, present, and future selves. In addition to happiness and contentment, the scale captures the multidimensional aspects of effective functioning that contribute to a more sustained wellbeing. Following Ryff and Keyes's (1995) conceptualization of wellbeing, other positive psychology advocates have attempted to identify and expand on the elements of wellbeing. For example, Seligman (2002, 2011) proposed five elements of wellbeing or authentic happiness, including: (1) positive emotion, (2) engagement, (3) relationships, (4) meaning, and (5) accomplishment (PERMA). Diener et al. (2010) introduced the construct of *flourishing*, which includes purpose in life, positive relationships, engagement, competence, self-esteem, optimism, and contributing to the wellbeing of others. In conclusion, various definitions and scales of wellbeing exist, derived from a variety of theoretical and empirical perspectives on psychological wellbeing; however, there is no current agreement on which should be used in research or to inform policy.

The present study utilized Ryff and Keyes's (1995) conceptualization of psychological wellbeing regarding the internal experience of the respondents and their perception of their lives. More specifically, this research focused on participants' subjective appraisals of their mental wellbeing according to Ryff and Keyes's (1995) six domains of functioning.

### **Psychological Wellbeing of Immigrants**

Immigration studies indicate individuals and families face multiple challenges when they immigrate to a new country (Berry, 1997; Furnham & Bochner, 1986). These challenges have an impact on their psychological wellbeing, but some are found to be resilient and well nevertheless. Additionally, research has shown resilient individuals utilize adaptive or healthy coping strategies when faced with adversity and therefore are less vulnerable to psychological distress (Cicchetti & Garmezy, 1993; Higgins, 1994; Turner, 2001). Although research has been conducted on acculturative stress, coping strategies, and immigrants' psychopathology, little research exists that has examined the relationship regarding their integrated identities and resilient characteristics as factors promoting their psychological wellbeing.

### **Theoretical Framework**

Based on the review of existing literature, it is evident that more scholarly work is needed to understand the bicultural experiences of immigrants and their families, specifically on factors that may contribute to their psychological wellbeing. Although previous research indicates that the immigrant experience is not one without significant acculturative stressors, there is evidence that some immigrants acculturate better than others. It therefore might be beneficial to look at the immigrant experience from a strengths-based perspective.

In this dissertation study, the relationship between acculturative stress and psychological wellbeing was examined, as well as the potential buffering effects of bicultural identity

integration and individual resilience. The study focused on bicultural immigrants from the Far East Asian region because prior research has revealed differences between Asian subgroups on multiple dimensions, including cultural traditions and historical experiences. Based on existing theory and empirical research, it was predicted that acculturative stress would be negatively associated with psychological wellbeing. Additionally, higher levels of individual resilience and a more integrated bicultural identity were expected to reduce the adverse effects of acculturative stress on psychological wellbeing.

The conceptual framework guiding this dissertation study is an adaptation and extension of the stress-health outcome framework, which has been employed in research on immigrant health (Holmes & Rahe, 1967). This framework is often used to describe a significant link between immigration experience (stress) and increased level of mental health problems such as depression and anxiety (outcome) in various immigrant populations (Lin, Ye, & Ensel, 1999; Yeh & Inose, 2002). Developed by Holmes and Rahe (1967), this framework theorizes a link between stress and illness. Specifically, the theoretical premise of the stress-health model is that stressors, personal strategies or resources, and environmental or social resources significantly predict the individual's mental health outcomes. This model considers acculturative stress as a risk factor, and coping resources and coping strategies as resource factors.

The present study offers insight into how people sustain positive emotions and demonstrate adaptive responses under stressful conditions. Such information would be valuable in identifying specific resources and strategies to facilitate successful adaptation of immigrants into new environments. In contrast to existing stress-health literature, which has primarily focused on mental health outcomes (e.g., psychological distress, anxiety, depression), this research sought to determine whether the stress-health paradigm could be extended to positive



dimensions of wellbeing; that is, feeling good and functioning well (Huppert, 2009). Moreover, this study conceptualizes and quantifies the meaning of cultural adaptation, particularly from a psychological or mental health perspective among bicultural immigrants.

As applied to this study, this stress-health theory indicates the independent variables of this study (i.e., demographic variables and acculturative stress) will influence the dependent variables (i.e., state of psychological wellbeing of immigrants), moderated by individual resilience and integration of a bicultural identity.

The present study utilizes a strengths-based approach to ascertain the association between acculturative stress, resilience, bicultural identity integration and wellbeing in a large, multiethnic sample of first and second-generation immigrant college students. Whereas many prior studies have used unidimensional models of acculturation and single indicators of wellbeing, the current researcher attempted to operationalize these constructs multidimensionally. In this study, acculturation is operationalized using an expanded bidimensional model, which includes identification and attainment of a dual cultural orientation.

### **Predictive/Independent Variables**

#### **Demographic Information**

The relationship between immigration-based acculturation and biculturalization experience, acculturative stress, bicultural identity integration, resilience and psychological wellbeing may differ among various demographic subgroups of bicultural individuals. When this happens, a prediction equation developed from the total group of bicultural individuals may result in systematic over- or under-prediction for different subgroups. Some demographic information relevant for inclusion in this study includes age at immigration, gender, the length of stay, generational status, and culture of origin/heritage.

Findings from previous research suggest that demographic variables, such as gender, age, marital status, country of origin, and length of stay in an English-speaking country can influence the experience of acculturative stress and depression (Constantine, Okazaki, & Utsey, 2004; Lee, Sobal, & Frongillo, 2000; Yeh & Inose, 2003). To identify possible covariance of demographic variables that may later need to be controlled in the moderation regression analyses, an analysis of within-group differences on gender, age, marital status, and immigrant generational status was performed. No hypothesis was formulated for these effects, since this analysis was completed to facilitate subsequent correlational and regression analyses.

### **Acculturative Stress**

Bicultural individuals are likely to face cultural challenges such as acculturation stress in addition to the typical challenges of their time of life, for example, emerging adulthood.

Examining the role of acculturative stress in relationship to acculturation and psychosocial functioning may contribute to the understanding of immigrants' health and wellbeing. Thus, one of the primary goals of this study was to test factors that would help moderate the association between acculturative stress and psychological wellbeing. Examining the role of moderating variables may help to better understand the pathway between acculturation and mental health.

Acculturative stress, in particular, may help to explain how acculturation may be related to both positive and negative psychosocial functioning.

### **Control Variables**

In addition to key predictive variables, control variables were included for demographic and background characteristics important in predicting psychological wellbeing of bicultural individuals. Controls utilized in this study include a multiracial identifier to help account for

heterogeneity in racial and ethnic identification and experience among those who identify as bicultural, gender, country of origin, and generational status.

### **Moderating Variables**

#### **Bicultural Identity Integration**

In the present study, it was expected that a more integrated bicultural identity would moderate or buffer the impact of acculturative stress and promote a more positive psychological wellbeing among self-identified bicultural immigrants. There are two separate components in bicultural identity integration: BII-harmony and BII-blendedness. It was expected that higher levels of BII-harmony and BII-blendedness would moderate the associations between acculturative stress and psychological wellbeing. More specifically, it was expected that individuals with a moderate-high to high bicultural identity integration would be more comfortable with both of their cultural identities, have a more cohesive sense of self, respond more positively to acculturation stress, demonstrate positive psychological functioning and affect, and have fewer psychological symptoms.

#### **Resilience**

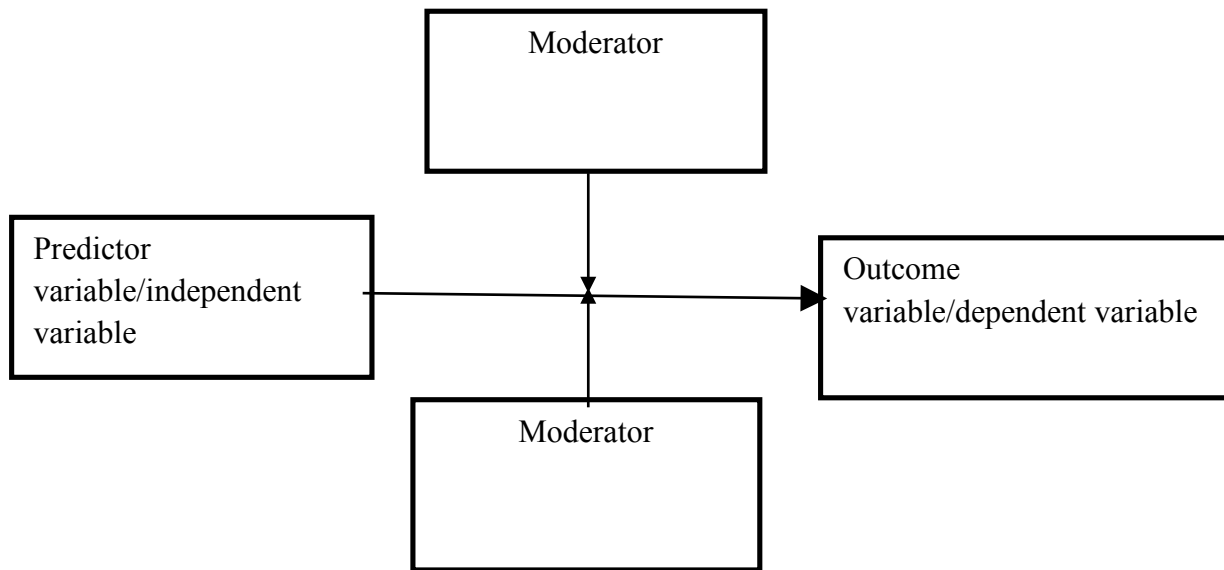
In this study, it was expected that higher levels of individual resilience would moderate or buffer the impact of acculturative stress and promote a more positive psychological wellbeing among self-identified bicultural immigrants. It was expected that individuals with a moderate-high to high resilience would respond more positively to acculturation stress, demonstrate positive psychological functioning and affect, and have fewer psychological symptoms.

### **Outcome/Dependent Variable**

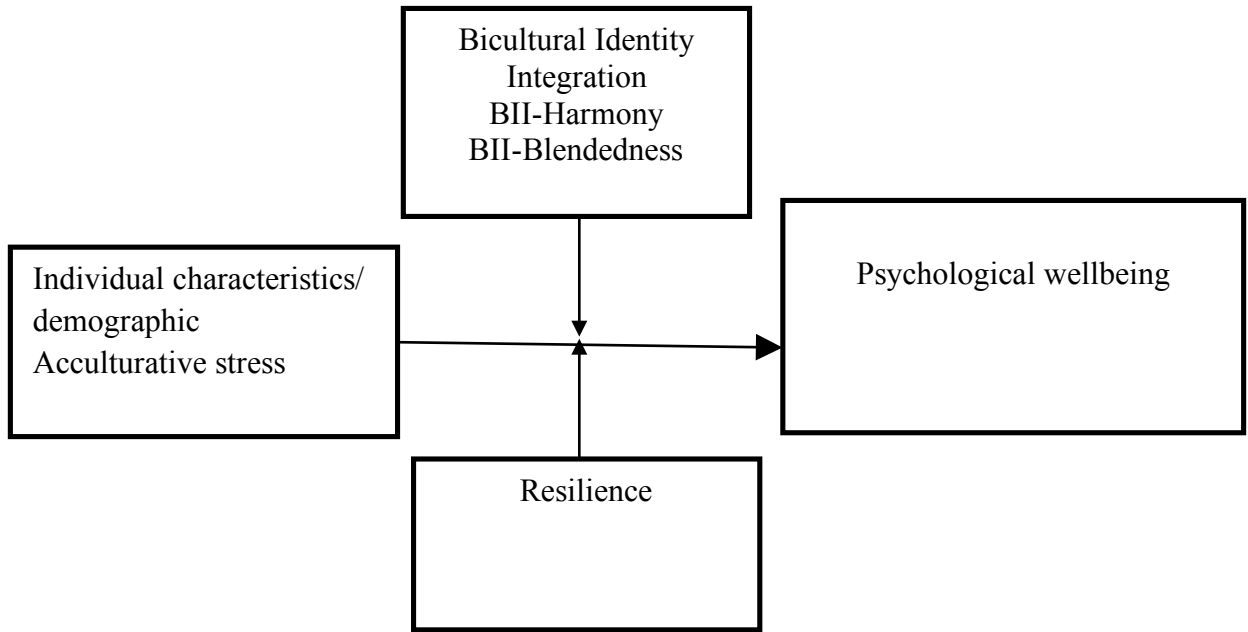
Berry (2003) argued that mental health practitioners have a tendency to pathologize the acculturation process and outcomes by focusing only on negative outcomes such as

psychological distress. Berry (2003) contended that practitioners tend to overlook evidence that suggests there are many resilient individuals who are able to cope with stressful acculturation experiences and find opportunities to fulfill their goals through their experiences. As an outcome variable, psychological wellbeing is conceptualized as consisting of two separate but important domains of functioning: (1) positive affect and (2) effective psychological functioning (Ryff & Keyes, 1995).

To further illustrate the relationships between variables in this study, the conceptual model for the associations among acculturation stress, psychological wellbeing, bicultural identity integration, and resilience is shown in Figure 1. Figure 2 illustrates the hypothesized moderating model of the variables.



*Figure 1.* Conceptual model for the associations between acculturation stress, psychological wellbeing, bicultural identity integration, and resilience.



*Figure 2.* Hypothesized moderating model of bicultural identity integration and resilience on acculturative stress and psychological wellbeing.

## CHAPTER III

### METHODOLOGY

The purpose of this study was to gain additional insight about the experiences of bicultural individuals, and specifically to examine the relationship between acculturation stress, individual resilience, bicultural identity integration and psychological wellbeing in bicultural individuals. The term *bicultural* is used to include individuals and families who may have lived in the United States for a period of time (in this study, 2 years or more), but maintain a distinct cultural heritage in addition to an American identity, such as Hispanic/Latino Americans, Asian and Pacific Islander Americans, and Caribbean Americans, and/or main cultures from their respective countries. This chapter outlines information about the participants, instrumentation, recruitment and data collection procedures, design, and statistical analyses used to examine the research questions and hypotheses of this study.

#### **Participants**

Participants for this study, approved by the Human Subjects Institutional Review Board (see Appendix A) were self-identified Asian American and Asian international students, recent alumni, and their accompanying family members from a large Midwest university in the United States. This study focused on self-identified bicultural individuals who have been exposed to two or more cultures as a result of immigration to the United States. Included in this population are first-generation immigrants (i.e., individuals who were born in foreign countries to non-American parents, and whose immigrant statuses may include naturalized citizens, permanent residents, and /or temporary statuses, for example, F-1 or J-1 visa), and second-generation immigrants (i.e., individuals who were born in the United States to at least one foreign-born parent).

A total of 248 people accessed the survey for the study. Ninety-two people did not complete the survey for unknown reasons, leaving 156 people who served as the sample for the study. Demographic information collected is presented in Table 1.

Participants of this study ranged in age from 18 to 46 years of age with a mean age of 26 ( $SD = 5.96$ ). In analyses focused on age, participants were grouped according to approximate developmental similarity, as well as sample frequency. Three age categories were created, each thought to encompass distinct life stages (i.e., 17 to 24 years (32.8%), 25 to 44 years (65.7%), and 45 to 64 years (1.5%). Participants were asked to indicate their age at immigration (if applicable). Their responses ranged from less than 1 year to 37 years, with a mean age at immigration of 27.06 years ( $SD = 6.01$ ). In analyses focused on age at immigration, participants were grouped according to approximate developmental similarity, as well as sample frequency. Four age categories were created, each thought to encompass distinct life stages (i.e., before age 1 to 4 years (11.5%), 5 to 16 years (15.3%), 17 to 24 years (51.9%), and 25 to 44 years (1.5%).

One hundred and five respondents (67.3%) indicated they are first-generation, 26 respondents (16.7%) indicated they are 1.5-generation, and 25 respondents (16%) indicated they are second-generation immigrants. For analysis purposes, respondents indicating first- and 1.5-generation statuses were combined into the Foreign-born category, which totaled to 131 (84%). The 25 respondents indicating second-generation status were included in the U.S.-born category.

One hundred and fifteen (73.7%) participants reported their current status as students, 10 (6.4%) identified as staff members, 22 (14.1%) identified as alumni, 8 (5.1%) as community members, and 1 (0.6%) identified as other. Eighty-eight participants identified their gender as female (56.4%) and 68 (43.6%) identified as male. No participants indicated their gender as not listed. Of the 156 respondents, 118 (75.6%) indicated they were single, 26 (16.7%) married, 11

(7.1%) partnered but not married, and 1 (0.6%) reported being separated. Fifty-nine respondents (37.8%) indicated they have college degrees, 52 respondents (33.3%) graduate/post-graduate degrees, 36 (23.1%) some college, and 9 (5.8%) indicated their highest level of education completed to date was high-school or less.

Ninety-eight respondents (62.8%) identified their ethnicity as Asian (non-Chinese) descent, 41 (26.3%) identified as Asian (Chinese) descent, and 17 (10.9%) identified as ethnically diverse. No participants identified as African, European, or Latin descent.

Table 1

*Demographic Characteristics Within Sample (N = 156)*

<b>Continuous Variables</b>	<b>N</b>	<b>Range</b>	<b>M</b>	<b>SD</b>
Age	156	18-46	26.21	5.96
Age at immigration (foreign-born only)	131	0-37	27.06	6.01
<b>Categorical Variables</b>	<b>f</b>	<b>%</b>		
Age (foreign-born)				
17-24	43	32.8		
25-44	86	65.7		
45-64	2	1.5		
Total	131	100.0		
Age (U.S.-born)				
17-24	20	80.0		
25-44	5	20.0		
Total	25	100.0		
Age at immigration (foreign-born only)				
Before age 1-4	15	11.5		
5-16	20	15.3		
17-24	68	51.9		
25-44	28	21.3		
Total	131	100.0		



Table 1—Continued

<b>Categorical Variables</b>	<i>f</i>	%
Generational status, all categories		
First-generation	105	67.3
1.5-generation	26	16.7
Second-generation	25	16.0
Total	156	100.0
Generational status, first and 1.5 combined		
Foreign-born	131	84.0
U.S.-born	25	16.0
Total	156	100.0
Status		
Student	115	73.7
Staff member	10	6.4
Alumni	22	14.1
Community member	8	5.1
Other	1	0.6
Total	156	100.0
Gender		
Female	88	56.4
Male	68	43.6
Total	156	100.0
Marital status		
Single	118	75.6
Partnered, not married	11	7.1
Married	26	16.7
Separated	1	0.6
Total	156	100.0
Education		
High school or less	9	5.8
Some college	36	23.1
College degree	59	37.8
Graduate/post-graduate	52	33.3
Total	156	100.0

Table 1—Continued

Categorical Variables	<i>f</i>	%
Ethnicity		
African descent	0	0.0
Asian (non-Chinese) descent	98	62.8
Asian (Chinese) descent	41	26.3
Ethnically diverse	17	10.9
Total	156	100.0

Following the question on ethnicity, participants were encouraged to fill in a label they use to describe themselves from an ethnicity standpoint. Specifically, participants were prompted to fill in a response on Q9-D: “In my own words, I prefer to think of my ethnicity as: \_\_\_\_\_ (For example: Chinese-Indonesian American or Vietnamese, etc.)” Table 2 presents each self-reported ethnicity and the frequency with which it appeared in the data. As demonstrated in Table 2, variations exist in how participants self-identified ethnically. A large number of respondents self-identified with two or more cultures.

Consequently, participants who identified as biracial/multiracial were encouraged to fill in which ethnic/racial group that they identified with the most (see Table 3). Specifically, participants were prompted to fill in a response on Q10-D: “If you are biracial/multiracial, which ethnic/racial/culture group do you identify with the most?” About one-third of the respondents identified as biracial/multiracial ( $n = 51$ ), and variation existed on their level of group/cultural identification (see Table 3). Three respondents, for example, stated that their cultures could not be separated, 11 identified as Asian, 7 identified as multiracial, and 1 identified as biracial.

Table 2

*Self-Ascribed Ethnicity*

<b>Label</b>	<b><i>f</i></b>	<b>Label</b>	<b><i>f</i></b>
American-Asian	1	Malay	9
Asian	14	Malay American	4
Asian American	3	Malay Malaysian	2
Asian Melanesian	1	Malaysian	14
Asian/Pacific Islander	1	Malaysian Chinese	3
Chinese	19	Malaysian Hindu	1
Chinese American	6	Malaysian Indian	3
Chinese Indonesian	1	Malaysian Japanese	1
Chinese Malaysian	4	Malaysian Kadazan	1
Asian-Indian	2	Malaysian-American	3
Filipino American	1	Multiethnic	3
Indian	11	Multiracial	8
Indian American	3	South Asian Indian	1
Indian-Bengali	1	South East Asian	2
Indian-Dravidian	1	South Korean	2
Indian Malaysian	2	Taidam	3
Indonesian American	1	Taiwanese	2
Japanese	7	Thai	3
Japanese American	2	Thai with Chinese descent	1
Japanese Malay-Malaysian	1	Vietnamese	6
Korean American	3	Vietnamese American	1

Table 3

*Self-Ascribed Ethnic/Racial Group Identification of Biracial Participants*

<b>Label</b>	<b><i>f</i></b>	<b>Label</b>	<b><i>f</i></b>
American	1	Korean	1
Asian	11	Malay	5
Biracial	1	Malaysian	4
Both, can't separate	3	Malaysian Indian	3
Chinese	6	Multiracial	7
Indian	6	Vietnamese	2
Kadazan/Chinese	1	Not/Applicable/Not Biracial	105

Respondents in this study were born in 14 different countries. The top four countries of birth in this study are Malaysia (46), followed by China (31), United States of America (25), and India (19). A summary of respondents' country of birth is provided in Table 4.

Table 4

*Country of Birth*

<b>Country of Origin/Birth</b>	<b><i>f</i></b>	<b>Country of Origin/Birth</b>	<b><i>f</i></b>
Bangladesh	1	Philippines	2
Canada	2	Singapore	1
China	31	South Korea	4
India	19	Taiwan	3
Indonesia	4	Thailand	4
Japan	8	United States of America	25
Malaysia	46	Vietnam	6

**Instrumentation**

This study used existing instruments and modifications, with permission from original authors when required, in order to more precisely answer the intended research questions. Measures included in this dissertation all have adequate to strong reliability and validity, and have all been used in previous studies on bicultural individuals and/or non-American populations. The web-based, online administration of this study's survey consisted of an 11-question demographic questionnaire designed by the student researcher, a modified version of the Bicultural Identity Integration Scale–Version 2 (BIIS-2; Huynh, 2009), the Riverside Acculturation Stress Instrument (RASI; Benet-Martínez, 2003a), the Ryff Scales of Psychological Wellbeing (SPWB; Ryff, 1995), and the 14-Item Resilience Scale (RS-14; Wagnild & Young, 1993). When the survey was accessed, the consent form appeared first, followed by the BIIS-2, the RASI, the SPWB, the RS-14, and finally the demographic questionnaire.

## **Bicultural Identity Integration Scale-Version 2**

Bicultural identity integration was measured using the Bicultural Identity Integration Scale-Version 2 (Hyunh, 2009). The BIIS-2 is a 19-item self-report measure used to assess bicultural individuals' perceived relationship between the two cultures they belong to (Nguyen & Benet-Martinez, 2007). Additionally, the BIIS-2 also yields two subscales, Cultural Harmony and Cultural Blendedness. BII-Harmony captures participants' perception of the degree of harmony versus tension or clash between their two cultural orientations. BII-Blendedness captures participants' perception of the degree of overlap versus dissociation or distance between their two cultural orientations. Participants rate their agreement with each item on a scale that ranged from 1 = strongly disagree to 5 = strongly agree. Items from this measure include statements such as, "I feel connected to the American culture and Asian culture at the same time," "I feel like someone moving between two cultures," and "I am simply someone who is either from the American culture or from the Asian culture."

The earlier versions of the BIIS (BIIS-P, BIIS-1) developed by Benet-Martínez and Haritatos (2005) have been used in many acculturation-related studies focused on Asian and Asian American individuals. However, the authors reported several psychometric concerns related to the earlier BIIS versions. Through a series of scale development and validation studies, Hyunh (2009) refined the BIIS to make it more applicable to biculturals from diverse ethnicities. Items were generated using qualitative data (i.e., open-ended essays written by self-identified bicultural college students) and evaluated by pilot testers and subject-matter experts. Forty-five items of the BIIS-2 were administered to an ethnically diverse group of more than 1,000 self-identified bicultural Asian and Latino/a American college students (about half of them were women, 55.5%), and the mean age of the sample was 19.3 years. A majority of participants were

either first- (34.6%,  $M = 10.6$  years in the United States) or second-generation (55.9%) Americans. The updated BIIS-2 items yield reliable (blendedness vs. compartmentalization  $\alpha = 0.86$  for 9 items; harmony vs. conflict  $\alpha = 0.81$  for 10 items) and stable ( $n = 240$ ;  $M = 6.93$  days,  $SD = 0.90$  days; Time 1 and Time 2 correlations:  $0.74 < r < 0.78$ ) scores across ethnic groups. Results from both exploratory and confirmatory factor analyses suggest the BIIS-2 is comprised of separate blendedness and harmony components, as well as measurement invariance for two ethnic groups (Asian American and Latino) and two generational groups (first- and second-generation).

The BIIS-2 (Hyunh, 2009) was utilized for this study primarily because it specifically measures participants' subjective experiences (i.e., perceptions and feelings) about the relationship between their different cultural identities. In addition, the BIIS-2 demonstrates better psychometric properties, being a reliable and valid measure of bicultural identity integration, when compared to its earlier versions (the BIIS-P and BIIS-1; Benet-Martínez & Haritatos, 2005) that is both content comprehensive yet still practical to administer.

For this study, means and standard deviations for each BIIS subscale (i.e., Harmony and Blendedness) were reported as a way to describe participants' bicultural identity integration, as well as to understand how the scores compare to people in general. The Harmony and Blendedness subscales were also used in the preliminary analysis to detect group differences according to immigrant generational status. To address the central research questions of the current study, Harmony and Blendedness were correlated with SPWB to establish to what degree and in what direction bicultural identity integration was related to Psychological Wellbeing.

## **Riverside Acculturation Stress Inventory**

The Riverside Acculturative Stress Inventory (RASI; Benet-Martínez, 2003a) is a 15-item, Likert-type scale, developed to provide a brief but comprehensive multidimensional, theory-driven measure of acculturation stress that reflected the interpersonal, intellectual, professional and structural pressures associated with acculturation stress (Gil et al., 1994). Additionally, the RASI represents culture-related challenges in the following five life domains: language skills, work challenges, intercultural relations, discrimination, and cultural/ethnic makeup of the community. Each item is answered using a Likert-type scale that ranges from 1 = strongly disagree to 5 = strongly agree. Items from this measure include statements such as, “I feel pressure that what I do will be seen as representative of Asian people’s abilities,” “It bothers me that I have an accent,” and “I have been treated rudely or unfairly because of my Asian background”.

Internal consistency estimates for the Language Skills (RASI-LS), Discrimination (RASI-D), Intercultural Relations (RASI-IR), Cultural Isolation (RASI-CI), and Work Challenges (RASI-WC) subscales were .84, .80, .75, .68, and .68, respectively (Benet-Martínez & Haritatos, 2005). The average subscale correlation for the RASI was .23 ( $r$  range = .04 - .52), which supports the assertion that the proposed domains were distinct, but related components of a broader acculturation stress construct.

Several limitations have been noted about the RASI measure, including the exploratory nature of the analysis and limited sample size in the original study. Several researchers have attempted to validate the RASI with larger samples. In Chen, Benet-Martínez, and Bond’s (2008) study of three distinct types of biculturals (i.e., Mainland Chinese immigrants in Hong Kong, Filipino domestic workers in Hong Kong, and Hong Kong and Mainland Chinese college

students), RASI scores demonstrated total score internal consistency estimates ranging from .79 to .87, and theory-consistent relationships with scores on measures of bicultural identity integration ( $r$  range = -.24 to -.31) and psychological adjustment ( $r$  range = -.26 to -.56). Meanwhile, in Miller, Kim, and Benet-Martínez's (2011) three separate studies with diverse samples of Asian Americans ( $N = 793$ ), RASI scores demonstrated internal consistency estimates ranging from .83 to .85 for total RASI scores, and from .63 to .87 for subscale scores. Test-retest reliability estimates over a 3-week period were .87 for RASI total scores, and ranged from .69 to .89 for subscale scores. Results from these studies suggest RASI scores are reliable and valid indicators of acculturation stress.

The RASI was chosen for use in this study for several important reasons. In addition to being a brief (i.e., reduced participant burden), as well as non-ethnic specific (i.e., is usable with diverse populations), the RASI was specifically chosen because of the way it addresses the multidimensionality of acculturation stress. Because the RASI does not focus solely on challenges with second culture or culture-of-origin issues, it is more in line with the notion that stress can come from experience with either culture (Miller et al., 2011). Also, this instrument's focus on culture-specific work challenges has relevance for immigrants and culturally diverse populations, and therefore appropriate for this study's population of interest. Only the total scores are included in the statistical analyses.

### **The 14-Item Resilience Scale**

Individual resilience in this study was measured using the 14-item Resilience Scale (RS-14; Wagnild, 2011). The RS-14 was developed by retaining the most reliable items (i.e., items 2, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 18, 21, and 23) from the original 25-item Resilience Scale (RS-25; Wagnild & Young, 1993). The Cronbach's alpha for the RS-14 was .93. The original RS was



developed to measure the multidimensional aspects of psychological resilience, based on a study of people who demonstrated effective coping following significant negative life events (e.g., loss) in their lives (Wagnild & Young, 1990, 1993). It is a measure of the capacity to endure life stressors, and to thrive and make meaning from challenges. The authors identified five essential characteristics of resilience: (1) perseverance, (2) equanimity, (3) meaningfulness, (4) self-reliant, and (5) existential aloneness, which function as the conceptual framework of the RS. The RS-14 utilizes a Likert-type response format ranging from 1 = strongly disagree to 7 = strongly agree. Item responses are summed, and total scores range from 14 to 98, with higher scores indicating higher levels of resilience. Items from this measure include statements such as, “I usually manage one way or another,” “I am determined,” and “My life has meaning.”

More research has been conducted with the RS than the RS-14. Available data suggest that the two versions are highly correlated ( $r = .97, p < .0001$ ; Wagnild, 2011). The RS 14 is strongly correlated with the RS ( $r = .97, p < .001$ ), and moderately correlated with depressive symptoms ( $r = -.41$ ) and life satisfaction ( $r = .37$ ) (Wagnild, 2011). Since the development of the Resilience Scale in 1993, the utility and application of the RS have expanded to other populations of interest, including children, adolescents, and middle-aged women in the U.S. and internationally. At the time of this study, the RS had been translated to other languages including Japanese, Swedish, Nigerian, Spanish, Russian, and Portuguese.

The RS-14 was specifically selected for this study for several important reasons. In addition to being a simple (i.e., it requires a 6th-grade readability), as well as appropriate (i.e., applicable to age groups ranging from adolescents to the elderly), the RS-14 was chosen because it measures individual resilience as a dynamic human capacity rather than as a protective factor. Additionally, the constructs focus on positive psychological qualities, rather than deficits

(Wagnild, 2009). Although both the long-version (RS) and the short-version (RS-14) have good psychometric properties, the RS-14 was chosen to reduce participant burden when used in combination with the other scales in this study. Only the total scores will be included in the statistical analyses.

### **Ryff Scales of Psychological Wellbeing**

For the current study, Psychological Wellbeing was operationalized by the integration of dimensions included in the Scales of Psychological Wellbeing (SPWB; Ryff, 1989a). Ryff's theoretical definition and dimensions were drawn from theories of life span development, positive psychological functioning, and concepts of mental health (e.g., Maslow's (1968) theory of self-actualization, Erickson's (1959) psychosocial stages, Roger's (1961) fully-functioning person, Jung's (1971/1933) development of individuation). Ryff conceptualized psychological wellbeing as consisting of six dimensions: (1) independence and self-determination (autonomy), (2) ability to manage one's life (environmental mastery), (3) being open to new experiences (personal growth), (4) satisfying, quality relationships (positive relations with others), (5) believing that one's life is meaningful (purpose in life), and (6) a positive attitude towards oneself and one's previous experiences (self-acceptance) (Ryff, 1989a; 1989b; Ryff & Keyes, 1995). The self-report scales were designed to assess an individual's wellbeing at a specific point of time within these six dimensions. The multidimensional structure of psychological wellbeing as measured by the Ryff inventory has been tested and validated on a nationally representative sample of English-speaking adults aged 25 and older (Ryff & Keyes, 1995).

Ryff's initial scale development began by establishing definitional descriptions of each of the six dimensions, each highlighting different aspects of positive functioning. Items were derived from their theoretical formulations (see Ryff, 1989a). In Ryff's (1989b) initial validation

study, each dimension was operationalized with a 20-item scale. The scales were given to a participant sample of 321 adults of varying ages. Participants rated themselves based on a 6-point scale ranging from *strongly agree* to *strongly disagree*. The internal consistency coefficients for the scales were as follows: (a) self- acceptance, .93; (b) positive relations with others, .91; (c) autonomy, .86; (d) environmental mastery, .90; (e) purpose in life, .90; and (f) personal growth, .87. Test-retest reliability coefficient was derived from a subsample of 117 respondents over a 6-week period. Coefficients ranged between .81 and .88 for each dimension. In another study, the internal consistency reliability coefficients were .78 for autonomy, .77 for environmental mastery, .74 for personal growth, .83 for positive relationships with others, .76 for purpose in life, and .79 for self-acceptance. Test-retest reliability coefficients, over 8 weeks, ranged from .74 to .84 (Cenkseven, 2004). Concurrent validity information shows acceptable levels of correlations of the SPWB with other measures of affect and wellbeing such as the Life Satisfaction Index (LSI), the Self-Esteem Scale (SE) and the Affect Balance Scale (ABS), which were developed prior to the SPWB. The SPWB, therefore, appears to be a valid measure of psychological wellbeing when compared with other existing measures of psychological wellbeing.

At present, there are four validated versions of the SPWB, which have been extensively used in variety of samples and settings. The longest version consists of 84 items (14 per scale) used by Ryff and her colleagues at the University of Wisconsin-Madison. The 54-item (9 per scale) is used in the Wisconsin Longitudinal Study. The 42-item (7 per scale) is used in the Midlife in the United States (MIDUS II) study. Finally, the shortest version, developed for national telephone surveys, consists of 18 items (3 per scale), and is used in a variety of large-scale national and international surveys. Items from each scale (dimension) are mixed into one

continuous self-report instrument, and participants respond using a 6-point format: (1) strongly disagree, (2) moderately disagree, (3) slightly disagree, (4) slightly agree, (5) moderately agree, and (6) strongly agree. Higher scores on each of the scales (dimensions) indicate higher levels of wellbeing on that dimension (e.g., self-acceptance). Responses to negatively scored items (-) are reversed in the final scoring system so that high scores imply high self-ratings on the dimension being assessed.

The 42-item (7 items per scale) SPWB version was chosen for this study for several important reasons. The internal consistency coefficients subscales of this version range between .70 and .78. In addition to being relatively short and simple (as compared to other available versions), it is also theoretically grounded and addresses the multidimensionality of psychological wellbeing. It is appropriate for a wide range of ages (e.g., ages 19 to 84 years), and is a well-known scale that has been used in studies exploring the psychological wellbeing of minority populations (e.g., Iwamoto & Liu; Ryff, Keyes, & Hughes, 2003, 2004). Items from this measure include statements such as, “I have a sense that I have developed a lot as a person over time,” “I often feel overwhelmed by my responsibilities,” and “Some people wander aimlessly through life, but I am not one of them.”

### **Demographic and Cultural/Ethnic Identification Questionnaire**

The demographic and cultural identification questionnaire consisted of a total of 11 questions. The questions pertained to participants’ generational status, country of birth, age, age at time of immigration (if applicable), highest level of education, gender, marital status, country of origin/birth, and ethnicity/self-ascribed ethnicity labels. Participants were able to name their ethnicity (e.g., “In my own words, I prefer to think of my ethnicity as \_\_\_\_\_”), and identify which ethnic group(s) they identify with if they identified as biracial or multiracial (e.g., “Which

ethnic/racial group(s) do you identify with most?”). The prompts and choices could potentially be useful to the study’s aim of further understanding the cultural identification of bicultural individuals, as well as describing the sample of the study.

### **Recruitment Procedures**

This study focused on self-identified bicultural individuals who have been exposed to two or more cultures as a result of immigration to the United States. Included in this population are first-generation immigrants (i.e., individuals who were born in foreign countries to non-American parents and whose immigrant statuses may include naturalized citizens, permanent residents and/or temporary statuses, for example, F-1 or J-1 visa), and second-generation immigrants (i.e., individuals who were born in the United States to at least one foreign-born parent).

Data were collected via an online survey, which was hosted by a private website company named QuestionPro.com. The online survey and procedures were reviewed by HSIRB, and the study was approved on February 22, 2016. Permission was given to recruit for participants via email with the assistance of the Office of International Students and Scholars (ISS) Program Specialist who randomly sent cover emails to international students who met the study inclusion criteria of age 18 and above; whose country of origin is included in the Asian region; who have stayed in the United States for a minimum of 2 years; and who have access to a computer, tablet, or smartphone with internet access. Campus and community organizations serving international students and bicultural/biracial students were also approached to assist with recruitment of the study. Participants were recruited during the summer and fall semesters of 2016.

The recruitment email is shown in Appendix C. The email contained general information about the study, contact information for the student researcher, a clickable link to the survey, and a password to access the survey. Those who were interested in participating were able to click on the link and enter the password. The opening page contained the consent document which explained the details of the survey, including information regarding the: (1) research, (2) researcher, (3) potential risks, (4) benefits, (5) confidentiality, (6) contact information, and (7) the right to discontinue participation (see Appendix D). If a participant wished to continue, she or he clicked the “I Agree” button and thus accepted the terms of participation. She or he was then directed to the survey for completion. A participant who read over the consent document but opted to not participate had the option to click the “Exit Survey” button to leave the survey.

QuestionPro.com privately and securely maintained the response data collected. Upon completion of the survey, participants were shown a debriefing page. This page: (a) thanked the participant for completing the survey, (b) displayed the student researcher’s name and contact information for the last time, and (c) gave the participant an option to participate in an Amazon.com gift card drawing. If participants were interested, they clicked on a link that took them to a separate survey page where they could provide their name and email address. Email addresses collected for the gift card drawing were stored in a separate location apart from the collected data as a way to ensure anonymity of survey responses. If a participant was not interested in the drawing, they could click “Exit Survey” and were directed to another and final thank you page. Ninety participants left email addresses to be eligible for the drawing.

### **Research Design**

This study utilized a non-randomized, cross-sectional descriptive survey method to examine the experiences of self-identified bicultural individuals in U.S. institutions of higher

learning. The research questions were addressed through a demographic questionnaire and a series of survey measures with the participants. These questions sought to determine the salient bicultural dimensions for bicultural individuals through the lens of their heritage backgrounds and their responses to acculturation stress. Participants were also asked to rate their resilience in addition to gathering their perception on their psychological wellbeing.

### **Rationale for the Research Design**

The descriptive design for this study utilized online survey methodology. The total questionnaire in the study was comprised of 99 items designed to garner quantitative and descriptive data. In descriptive studies, questionnaires are considered appropriate research instruments because they can measure attitudes, opinions, behaviors, and life circumstances (Worthen, Sanders, & Fitzpatrick, 1997). The study examined data from a questionnaire distributed to those who self-identified as bicultural individuals to advance understanding of the specific experiences associated with biculturalism, individual resilience, psychological wellbeing, and acculturation stress.

### **Data Collection Procedure**

Data was collected using QuestionPro.com. All instruments were loaded into QuestionPro.com for ease of survey administration. Participant consent (see Appendix D) was obtained prior to data collection. The informed consent statement included a description of the study, the purpose of the study, eligibility criteria, risks, benefits, and study participants' rights. Submission of the measures further implied consent from the participant. Subjects completed the measures on a computer, tablet, or smartphone at a location and time that was comfortable and convenient for them. Background information was collected for descriptive statistics and to help inform the interpretation of the analysis of the data. Completion of the measures took

approximately 10 minutes. If needed, the subjects could pause the survey at any time to take a break. Upon completion of the survey, subjects were provided with an option to participate in a random drawing of one of three Amazon.com gift cards valued at \$125, \$75, and \$50 each by clicking on a link that will bring them to a separate, survey. The participants were asked to provide their names and email address in order to participate in the drawing. Their information is kept separately and not tied to their responses on the survey. Collected email addresses of interested participants were entered to an online random generator (RandomPicker.com). Selected winners were contacted and gift cards were emailed. QuestionPro.com guarantees anonymity and that the data are stored on a password protected computer, thus ensuring confidentiality for the participant completing the survey.

### **Data Analysis**

This study utilized an exploratory, non-experimental, cross-sectional design. Data was collected using online self-report questionnaires. The variables included in this study are Acculturation Stress, Resilience, Bicultural Identity Integration, and Psychological Wellbeing.

### **Preliminary Analyses**

Given the research questions, a correlational research design was appropriate. Given that Status (i.e., student, faculty, staff member alumni, community member, and other), Immigrant Generational Status, Age, Age at Immigration, Gender, Ethnicity, and Education are nominal variables, frequencies and percentages were calculated for the entire sample. Data cleaning and screening were performed on the variables. Following this, variables were evaluated for normality. Finally, once the data cleaning and screening processes were completed, descriptive statistics (i.e., means, standard deviations, and ranges) were calculated for all applicable demographic variables.



## Descriptive Statistics and Multivariate Correlations

A collection of appropriate statistical tests was tabulated on data collected from the survey to address the research questions. These tests include means, standard deviations, and internal consistency estimates from the study sample. Multivariate correlations among study variables were also calculated.

### Main Analyses

In order to test the research questions and hypotheses, a series of correlational and multiple hierarchical regression analyses were conducted. A summary of variables, research questions, and statistical analyses for each research question is included in Tables 5 and 6.

Table 5

#### *Summary of Descriptive Research Questions, Instruments, and Statistical Analyses*

<b>Variable Type / Name</b>	<b>Research Question</b>	<b>Instrument</b>	<b>Statistical Analysis</b>
Independent Variable: Demographic (D)	Descriptive Research Question 1: What are the demographic and individual characteristics of bicultural individuals in this study?	Demographic Questions	Descriptive Statistics
Independent Variable: Acculturation Stress	Descriptive Research Question 2: How do bicultural individuals rate on Acculturation Stress?	RASI	Descriptive Statistics
Dependent Variable Psychological Wellbeing	Descriptive Research Question 3: What is the status of Psychological Wellbeing of bicultural individuals in this study?	SPWB	Descriptive Statistics
Dependent Variables: Bicultural Identity Integration	Descriptive Research Question 4: What are bicultural individuals' levels of Resilience and current bicultural identity integration?	BIIS-2 (Harmony, Blendedness)	Descriptive Statistics
Resilience		RS-14	

Table 6

*Summary of Inferential Research Questions, Instruments, and Statistical Analyses*

<b>Variable Name/Type</b>	<b>Research Question</b>	<b>Instrument</b>	<b>Statistical Analysis</b>
DV: Psychological Wellbeing IV: Generation Status	1. Does immigrant Generational Status influence Psychological Wellbeing?	SPWB	<i>t</i> -test
DV: Psychological Wellbeing IV: Acculturation Stress	2. Does Acculturation Stress influence Psychological Wellbeing? 2a. Does Generational Status <u>moderate</u> the relationship between Acculturation Stress and Psychological Wellbeing?	RASI SPWB	Correlational analysis Regression analysis
DV: Psychological Wellbeing IV: BII-Harmony, BII Blendedness	3. Does bicultural identity integration (consisting of Harmony and Blendedness) influence Psychological Wellbeing? 3a. Does Generational Status <u>moderate</u> the relationship between Harmony and Psychological Wellbeing and the relationship between Blendedness and Psychological Wellbeing?	BIIS-2 SPWB	Correlational analysis Regression analysis
DV: Psychological Wellbeing IV: Resilience	4. Does resilience influence Psychological Wellbeing? 4a. Does Generational Status <u>moderate</u> the relationship between Resilience and Psychological Wellbeing?	RS-14 SPWB	Correlational analysis Regression analysis

Table 6—Continued

Variable Name/Type	Research Question	Instrument	Statistical Analysis
DV: Psychological Wellbeing	5. Does bicultural identity integration (Harmony and Blendedness) <u>moderate</u> the relationship between Acculturation Stress and Psychological Wellbeing?	RASI	Correlational analysis
IV: BII-Harmony, BII-Blendedness, Acculturation Stress		SPWB	Regression analysis
	H1: Harmony will moderate the association between Acculturation Stress and Psychological Wellbeing. More specifically, it was predicted that having a stronger sense of compatibility (high Harmony) between two cultural identities lowers the individual's susceptibility to low Psychological Wellbeing in the presence of Acculturation Stress.	BIIS-2	
	H2: Blendedness will moderate the association between Acculturation Stress and Psychological Wellbeing. More specifically, it was predicted that having a stronger sense of overlap (high Blendedness) between two cultural identities lowers the individual's susceptibility to low Psychological Wellbeing in the presence of Acculturation Stress.		
DV: Psychological Wellbeing	6. Does Resilience moderate the relationship between Acculturation Stress and Psychological Wellbeing?	RASI	Multiple correlation analysis
IV: Acculturation Stress, Resilience		SPWB	Hierarchical multiple regression analysis
	H3: Resilience will moderate the association between Acculturation Stress and Psychological Wellbeing. More specifically, it was predicted that having a higher level of Resilience lowers the individual's susceptibility to low Psychological Wellbeing in the presence of Acculturation Stress.	RS-14	
DV: Resilience	7. To what extent, if any, does Resilience influence bicultural identity integration?	RS-14	Multiple correlation analysis
IV: BII-Harmony, BII-Blendedness		BIIS-2	Hierarchical multiple regression analysis

### Summary

This chapter outlined information regarding participants, instrumentation, recruitment and data collection procedures, research design, research questions and hypotheses, and

statistical analyses of this study. Several instruments were employed to measure aspects of bicultural identity integration (i.e., the BIIS-2), individual resilience (i.e., the RS-14), acculturation stress (i.e., the RASI), and psychological wellbeing (i.e., the SPWB), along with demographic questionnaires (see Appendix J). A total of 248 participants initiated the survey, and 156 completed surveys were included in this study. Data were described by means and standard deviations, and subsequent analyses were analyzed using IBM SPSS Statistics. Results are presented in the next chapter.

## CHAPTER IV

### RESULTS

This chapter begins with a brief review of the purpose of the study. Then, the preliminary analyses are discussed. Following the preliminary analyses, descriptive statistics, including means and standard deviations of each measure, are discussed. Finally, hypothesis testing and research questions are described and analyzed, and a summary of findings is presented.

#### **Purpose of the Research**

The purpose of this study was to examine the associations of acculturation stress, individual resilience, bicultural identity integration, and psychological wellbeing of self-identified bicultural individuals. By studying a sample of self-identified bicultural Asian and Asian American individuals at a mid-western college campus, researchers may be able to assist with the promotion of psychological wellbeing among bicultural immigrants by encouraging factors that may buffer the effects of acculturation and immigration related stress. The overarching research questions are based on the previous acculturation research on immigrants with dual cultural orientations. Additional research questions are based on current literature suggesting there is a connection between acculturation stress, bicultural identity integration, resilience, and psychological wellbeing factors.

#### **Preliminary Analyses**

Before analyzing the data to answer research questions, the variables of interest were screened and examined for completion and outliers through IBM SPSS after being transferred electronically from the online survey program, QuestionPro.com. As indicated in Chapter III, a total of 248 participants accessed the survey and gave consent for use of their data. Participants were given the option to opt-out of the survey at the informed consent page, and subsequently

given space to indicate why. No participants utilized this option. A total of 156 participants completed the survey and their data were included in the analyses. Each question asked was required to be answered in order to move forward through the survey. Participants who chose to discontinue ( $n = 92$ ) simply did not answer a single question of the survey beyond clicking “Yes” to the consent document.

Several variables were recoded based on specific scale scoring methods that required score reversal. Variables were given meaningful names, and variable definitions were checked carefully and corrected where necessary. After reverse-scoring items as necessary, instrument subscale and full-scale scores were calculated so that all variables needed in subsequent analyses were available. Variables of Harmony and Blendedness were created from the subscales of the Bicultural Identity Integration Scale—Version 2 (BIIS-2). Additional variables were also created from the full-scale scores and the Work Challenges (WC), Language Skills (LS), Intercultural Relations (IR), Discrimination (D), and Cultural Isolation (CI) subscales on the Riverside Acculturation Stress Inventory (RASI). Finally, full-scale scores on the Scales of Psychological Well-Being (SPWB), as well as six SPWB subscale scores: Autonomy (SPWB-A), Environmental Mastery (EM), Personal Growth (SPWB-PG), Positive Relations with Others (SPWB-PR), Purpose in Life (SPWB-PL), and Self-Acceptance (SPWB-SA), and full-scale scores on the Resilience Scale (RS) were also utilized to create variables. Scores on BII-Harmony, BII-Blendedness, and the RASI (subscales and full-scale) could range in value from 1 to 5. Scores on the SPWB (subscales and full-scale) could range from 1 to 6. Scores on the RS could range from 1 to 7. Actual ranges on these variables are described later in this chapter in Table 7. For all variables, higher scores indicate greater amounts of the attribute.

Demographic variables available for analysis were Status (i.e., student, faculty, staff member, alumni, community member, other), Immigrant Generational Status (recoded into two categories—Foreign-born and U.S.-born), Current Age, Age at Immigration, Gender, Ethnicity (i.e., African descent, European descent, Latin descent, Asian non-Chinese descent, Asian Chinese descent, ethnically diverse), and Education (high school or less, some college, college degree, graduate/post-graduate). Some additional demographic information (e.g., country of origin, most-identified ethnic/racial group for self-identified biracial/multiracial individuals) was collected using open-ended survey questions.

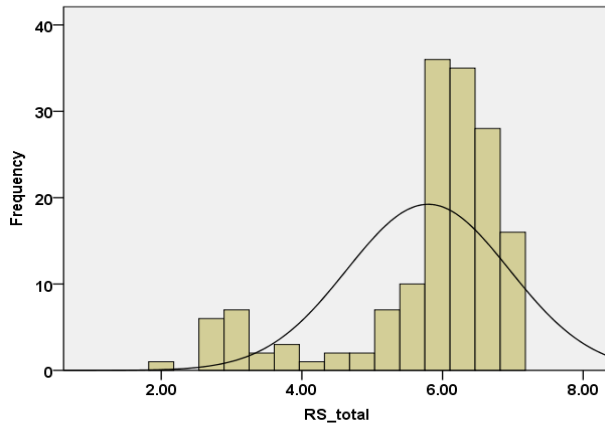
Participants were encouraged to endorse each ethnicity in their ethnic backgrounds. This gave participants freedom to express who they are from an ethnic/cultural standpoint. Because each participant was given this opportunity, a wide variety of cultural and ethnic identity responses were recorded. Given this wide variety and small sizes of ethnic subgroups, it would not have been useful to make comparisons across all groups given the low statistical power.

Data cleaning and screening was performed on study variables in the manner and sequence recommended by Tabachnick and Fidell (2013). First, frequency distributions were generated for all instrument subscale and full-scale scores to identify any out-of-range or other inaccurate values. None were found. Variables were next screened for univariate outliers by standardizing scores on all variables and screening for values of  $z$  in excess of  $\pm 3.3$  ( $p < .001$  in a normal distribution). There were no univariate outliers. The data were then screened for multivariate outliers. Individual research participants can provide unremarkable scores on each of several variables, yet, show a statistically aberrant pattern of scores across those variables—these are multivariate outliers. Multivariate outliers can be indicative of random or careless responding. The Mahalanobis  $D$  statistic was used to screen for multivariate outliers. This

statistic provides a measure of the degree to which each case's pattern of scores across a series of variables deviates from the average pattern of the rest of the sample. The  $D$  statistic was calculated using scores on Harmony, Blendedness, RASI-total, SPWB-total, and RS. The resulting values were evaluated for significance against the chi-square distribution using  $df = 5$  (the number of variables used in calculating  $D$ ) and a stringent level of significance ( $p < .001$ ). There were no multivariate outliers.

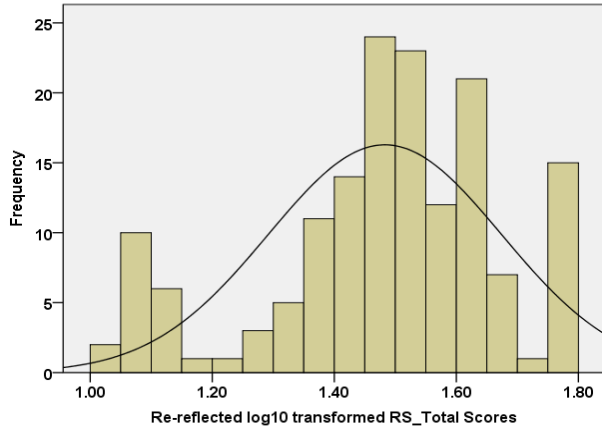
Study variables were next evaluated for normality. This was done both visually by examining frequency histograms, and statistically by calculating values of skewness and kurtosis. Values of skewness and kurtosis were evaluated against the benchmark values of +1.0 recommended by Meyers, Gamst, and Guarino (2006). By that standard, one variable (RS total) displayed excessive negative skewness and was also excessively leptokurtic (skewness = -1.646, kurtosis = 1.899). Those distribution characteristics were confirmed visually by the variable's frequency histogram. For the multiple regression analyses used to address some of the study's research questions, it was important that dependent variables be normally distributed. Although normally distributed independent variables are also desirable since this can alleviate other problems in the analysis, such as heteroscedasticity and nonlinearity, it is not necessary that independent variables be normally distributed. For instance, binary variables can serve as independent variables in multiple regression analysis. RS scores were to be used as a dependent variable in one analysis, and so an attempt was made to improve the shape of that distribution. Figure 3 shows the frequency histogram for RS total scores with a superimposed normal curve.





*Figure 3.* Frequency histogram with superimposed normal curve for RS total.

Square-root and log10 transformations were both applied to RS total scores in an attempt to normalize the distribution. The log10 transform was found to be the more effective of the two. This transformation, however, has the effect of reflecting the scores; that is, low raw scores became high transformed scores and high raw scores became low transformed scores. Score reflections are problematic because they are non-intuitive, it was expected that high scores would reflect larger amounts of the attribute. Reflected scores violate this expectation. Additionally, the reflected scores have the effect of reversing the signs of correlations involving the affected variables, Keeping track of these reversals can be challenging. Tabachnick and Fidell (2013) recommended re-reflecting the transformed scores to avoid this problem. Re-reflection is performed by subtracting transformed scores from a value equal to the largest transformed score plus 1. Following the log10 transform and re-reflection of RS total scores, skewness =  $-.752$  and kurtosis =  $.148$ , well within the benchmark values of  $\pm 1.0$  for skewness and kurtosis. Figure 4 shows a frequency histogram of the re-reflected log10 transformed RS total variable. Although score values on the transformed variable do not resemble score values on the original variable, the transformed variable is easily interpreted by recalling that smaller scores represent less of the attribute (Resilience) and larger scores represent more of the attribute.



*Figure 4.* Frequency histogram with superimposed normal curve of log10 transformed RS total scores following re-reflection.

For the purpose of this study, group differences in scores on the RASI, BIIS-2, RS-14, and SPWB were examined based on participant demographics (i.e., age, gender, and immigrant generational status). This step was performed as a way to determine if demographic variables should be incorporated into subsequent analyses. Results of the preliminary analysis demonstrated no significant age, gender, or immigration generational status group differences were found in participants' scores on the RASI, BIIS-2, RS-14, and SPWB.

### **Descriptive Statistics and Findings**

Table 7 provides descriptive statistics for scores on all instruments used in the study and summarizes data for several of the study's descriptive research questions on Acculturation Stress (RASI full-scale and subscales; Research Question 2), Psychological Wellbeing (SPWB full-scale and subscales; Research Question 3), current bicultural identity integration (Harmony and Blendedness subscales of the BIIS-2; Research Question 4a), and Resilience (RS-14; Research Question 4b). The study's internal consistency coefficients (Cronbach's alpha) for Harmony, Blendedness, RASI-TOT, RS-TOT and SPWB-TOT are also included in Table 7. Table 8 provides descriptive statistics on all instruments used in the study for foreign-born and U.S.-born samples, and the overall sample.

Table 7

*Descriptive Statistics for Key Study Variables for Overall Sample*

	<i>N</i>	Minimum	Maximum	<i>M</i>	<i>SD</i>	Skewness	Kurtosis	$\alpha$
Harmony	156	1.50	4.50	3.95	0.83	-0.54	-0.31	0.87
Blendedness	156	2.56	4.44	4.29	0.70	-0.35	-0.25	0.83
RASI Total	156	1.07	5.00	2.86	0.84	0.13	-0.48	0.88
RASI-WC	156	1.00	5.00	3.21	1.19	-0.05	-1.20	0.78
RASI-LS	156	1.00	5.00	2.34	1.21	0.72	-0.63	0.81
RASI-IR	156	1.00	5.00	2.74	1.13	0.35	-0.66	0.73
RASI-D	156	1.00	5.00	3.00	1.14	0.12	-0.96	0.80
RASI-CI	156	1.00	5.00	3.21	1.19	-0.05	-1.20	0.69
SPWB Total	156	2.74	5.62	4.52	0.71	-0.46	-0.95	0.94
SPWB-A	156	1.71	5.71	4.05	0.82	-0.44	0.19	0.68
SPWB-EM	156	1.71	5.71	4.20	0.99	-0.42	-0.88	0.81
SPWB-PG	156	3.00	6.00	4.94	0.79	-0.71	-0.53	0.78
SPWB-PR	156	2.14	6.00	4.74	0.81	-0.28	-0.43	0.72
SPWB-P	156	2.57	6.00	4.73	0.78	-0.59	-0.46	0.67
SPWB-SA	156	1.71	6.00	4.48	1.05	-0.52	-0.43	0.84
RS-14 Total	156	2.00	7.00	5.80	1.16	-1.65	1.90	0.96

*Note.*  $\alpha$  included in the table is for the present sample.

Table 8

*Descriptive Statistics on Acculturation Stress, Harmony, Blendedness, Resilience, and Psychological Wellbeing for Foreign-born and U.S.-born Samples and Overall Participants*

Variables	Generational Status Groups										Overall				
	Foreign-born					U.S.-born									
	<i>n</i>	Min	Max	<i>M</i>	<i>SD</i>	<i>n</i>	Min	Max	<i>M</i>	<i>SD</i>	<i>N</i>	Min	Max	<i>M</i>	<i>SD</i>
RASI-Total	131	1.07	5.00	2.95*	0.82	25	1.33	3.93	2.36	0.79	156	1.07	5.00	2.86	0.84
RASI-WC	131	1.00	5.00	3.38	0.10	25	1.33	5.00	2.31	0.22	156	1.07	5.00	3.21	1.19
RASI-LS	131	1.00	5.00	2.50	0.11	25	1.33	2.33	1.51	0.09	156	1.07	5.00	2.34	1.21
RASI-IR	131	1.00	5.00	2.81	0.10	25	1.33	4.67	2.39	0.23	156	1.07	5.00	2.74	1.13
RASI-D	131	1.00	5.00	3.08	0.09	25	1.33	5.00	2.61	0.27	156	1.07	5.00	3.00	1.14
RASI-CI	131	1.00	5.00	3.38	0.10	25	1.33	5.00	2.31	0.22	156	1.07	5.00	3.20	1.19
Harmony	131	1.50	4.30	3.88	0.79	25	2.20	4.50	4.32*	0.96	156	1.50	4.50	3.95	0.83
Blendedness	131	2.56	4.44	4.21	0.70	25	3.56	4.44	4.70*	0.58	156	2.56	4.44	4.28	0.70
RS-Total	131	2.00	7.00	5.68	1.22	25	5.36	7.00	6.39*	0.39	156	2.00	7.00	5.80	1.16
RS-Total (Log10)	131	1.00	1.78	1.46	0.20	25	1.36	1.78	1.58*	0.10	156	1.00	1.78	1.48	0.19
SPWB	131	2.74	5.62	4.45	0.72	25	3.62	5.38	4.92*	0.51	156	2.74	5.62	4.52	0.71

*Note.* RS-Total scores are reported in raw score form. RS-Total (log10) are log10 transformed and re-reflected so that higher values reflected higher amounts of Resilience. (\*) reflects the higher mean scores between the two sample groups.

### **Descriptive Research Question 1: Demographic Characteristics of Bicultural Individuals**

Overall, participants of this study were largely comprised of culturally heterogeneous Asian and Asian American students (74%), with a mean age of 26 ( $SD = 5.96$ ). One hundred and thirty-one participants were born in an Asian country, and 25 were born in the United States. On average, those born outside of the United States indicated they immigrated to the United States at 27 years old. Eighty-eight participants identified their gender as female (56.4%) and 68 (43.6%) identified as male. The majority of participants reported single relationship status (76%), and 38% reported having college degrees.

The majority of participants identified their ethnicity as Asian (non-Chinese) descent, followed by those who identified ethnically as Chinese (26%). About 21% of participants identified as biracial, and the top four participants' country of birth in this study are Malaysia (46), followed by China (31), United States of America (25), and India (19).

Participants of this study were largely comprised of first-generation individuals (foreign-born and migrated to the United States as an adult) at approximately 67%. Seventeen percent identified as 1.5-generation (foreign-born and migrated to the United States as a child), and 16% were born in the United States, with at least one parent born in an Asian country (second-generation immigrants). For analyses purposes, first- and 1.5-generation participants were combined into the Foreign-born category. The decision to combine data from participants representing three generational status groups into two groups (Foreign-born generation 1 and 1.5 vs. U.S.-born generation 2) was empirically based. Preliminary analyses involving comparisons of generations 1 and 1.5 failed to reveal any significant differences between these two generational status groups on any of the dependent variables used in the study. Table 9 summarizes participants' demographic characteristics and addresses Research Question 1.

Table 9

*Demographic Characteristics of Foreign-born, U.S.-born, and Overall Participants*

Variables		Foreign-born		U.S.-born		Overall	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Age	17-24	43	32.8	20	80.0	63	40.4
	24-44	86	65.6	5	20.0	91	58.3
	45-64	2	1.5	0	0.0	2	1.3
	Total	131	100.0	25	100.0	156	100.0
Age at Immigration (Foreign-born only)	Before age 1- 4	15	11.5	—	—	—	—
	5-16	20	15.3	—	—	—	—
	17-24	68	51.9	—	—	—	—
	25-44	28	21.3	—	—	—	—
	Total	131	100.0	—	—	—	—
Gender	Female	70	53.4	18	72.0	88	56.4
	Male	61	46.6	7	28.0	68	43.6
	Total	131	100	25	100.0	156	100
University Status	Student	91	69.5	24	96.0	115	73.7
	Staff Member	10	7.6	0	0.0	10	6.4
	Alumni	22	16.8	0	0.0	22	14.1
	Community Member	7	5.3	1	4.0	8	5.1
	Other	1	0.8	0	0.0	1	0.6
	Total	131	100.0	25	100.0	156	100.0
Marital Status	Single	96	73.3	22	88.0	118	75.6
	Partnered, Unmarried	10	7.6	1	4.0	11	7.1
	Married	24	18.3	2	8.0	26	16.7
	Separated	1	0.8	0	0.0	1	0.6
	Total	131	100.0	25	100.0	156	100.0
Education Status	High School or Less	9	6.9	0	0.0	9	5.8
	Some College	20	15.3	16	64.0	36	23.1
	College Degree	50	38.2	9	36.0	59	37.8
	Graduate/Post Grad	52	39.7	0	0.0	52	33.3
	Total	131	100.0	25	100.0	156	100.0
Ethnicity	Asian (non-Chinese)	83	63.4	15	60.0	98	62.8
	Asian (Chinese)	39	29.8	2	8.0	41	26.3
	Ethnically Diverse	8	6.1	6	24.0	14	9.0
	Total	131	100.0	25	100.0	156	100.0

## **Descriptive Research Question 2: Bicultural Individuals' Rating on Acculturation Stress**

Acculturation Stress was assessed using the RASI (see Table 7). Raw scores were used to calculate means and standard deviations of Total Acculturation Stress (i.e., RASI-Total), the five subscales (i.e., RASI-WC, RASI-LS, RASI-IR, RASI-D, and RASI-CI) (see Table 7). Both frequency and distress for this scale were based on a 1 to 5 Likert-type scale. Higher scores indicated higher frequency of the given construct and higher levels of acculturation-related distress. The mean score for the current sample of overall Acculturation Stress (RASI-Total) was ( $M = 2.86, SD = .84$ ). Participants reported moderate Acculturation Stress levels. Participants tended to score highest on three of the Acculturation Stress subscales, RASI-WC ( $M = 3.21, SD = 1.19$ ), RASI-D ( $M = 3.00, SD = 1.14$ ), and RASI-CI ( $M = 3.21; SD = 1.19$ ). More specifically, participants reported moderate levels of Work Challenges, Discrimination, and Cultural Isolation. Conversely, participants scored lowest on RASI-LS ( $M = 2.34; SD = 1.21$ ). This suggests participants generally did not report higher levels of distress related to their Language Skills. Similarly, participants did not report high distress related to their Intercultural Relations ( $M = 2.74; SD = 1.13$ ).

Foreign-born ( $n = 131$ ) and U.S.-born ( $n = 25$ ) participants were compared on Acculturation Stress using an independent-samples  $t$ -test. Levene's test for homogeneity of variances indicated no significant violation of that statistical assumption. Foreign-born participants showed significantly higher levels of Acculturation Stress ( $M = 2.95, SD = 0.82$ ) than did U.S.-born participants ( $M = 2.36, SD = 0.79$ ),  $t(154) = 3.33, p < .001$  (two-tailed). Table 8 summarizes the Acculturation Stress score comparison between Foreign-born and U.S.-born participants. More specifically, Foreign-born participants reported moderate-high distress levels related to Work Challenges, Cultural Isolation, and Discrimination. U.S.-born participants

reported Discrimination as their highest acculturation stressors, followed by Work Challenges and Cultural Isolation.

### **Descriptive Research Question 3: Bicultural Individuals' Current Psychological Wellbeing**

The SPWB was used to measure Psychological Wellbeing (see Table 7). The SPWB contains six domains that were developed to describe a person's level of psychological wellbeing. Scores were based on a 1 to 6 Likert-type scale. Higher scores are indicative of higher levels of Psychological Wellbeing. The mean score for the current sample for overall Psychological Wellbeing (SPWB) was ( $M = 4.52$ ;  $SD = 0.71$ ). Participants reported moderate-high Psychological Wellbeing. Participants tended to score highest on three of the Psychological Wellbeing subscales, SPWB-PG ( $M = 4.94$ ;  $SD = 0.79$ ), SPWB-PR ( $M = 4.74$ ;  $SD = 0.81$ ) and SPWB-P ( $M = 4.73$ ;  $SD = 0.78$ ). More specifically, participants reported moderate-high levels of Personal Growth, Positive Relations with Others, and Purpose in Life.

Foreign-born ( $n = 131$ ) and U.S.-born participants ( $n = 25$ ) were compared on psychological wellbeing using an independent samples  $t$ -test. A significant Levene's test of homogeneity of variances,  $F(1, 154) = 10.73$ ,  $p < .001$ , indicated that Welch's robust  $t$ -test should be used in place of Student's  $t$ -test. Table 8 summarizes the Psychological Wellbeing score comparison between foreign-born and U.S.-born participants. Foreign-born participants displayed significantly lower SPWB-Total scores ( $M = 4.45$ ,  $SD = 0.72$ ) than U.S.-born participants ( $M = 4.92$ ,  $SD = 0.51$ ),  $t(44.67) = 3.93$ ,  $p < .001$  (two-tailed).



#### **Descriptive Research Question 4a: Bicultural Individuals' Bicultural Identity Integration**

Bicultural identity integration was measured using the BIIS-2 (see Table 7). The BIIS-2 is comprised of two separate components: Harmony and Blendedness. Harmony measures the degree of compatibility between participants' two cultural orientations (e.g., Asian and American cultures). Blendedness measures the degree of overlap between the two cultural orientations. Scores were based on a 1 to 5 Likert-type scale. Higher scores on both Harmony and Blendedness are indicative of higher levels of bicultural identity integration. The authors of the scale posited that bicultural individuals could have any combination of high or low Blendedness or high or low Harmony. The mean score for the current sample of Harmony was ( $M = 3.95$ ;  $SD = 0.83$ ) and ( $M = 4.29$ ;  $SD = 0.70$ ) for Blendedness. More specifically, participants indicated moderate bicultural identity integration, and a higher rating of Blendedness than Harmony.

Foreign-born ( $n = 131$ ) and U.S.-born participants ( $n = 25$ ) were compared on Harmony and Blendedness in separate independent-samples  $t$ -tests. Levene's tests of homogeneity of variance did not indicate any significant violations of that statistical assumption for each of the variables. Table 8 summarizes the Harmony and Blendedness score comparison between Foreign-born and U.S.-born participants. Foreign-born participants showed significantly lower Harmony ( $M = 3.88$ ,  $SD = 0.79$ ) than did U.S.-born participants ( $M = 4.32$ ,  $SD = 0.96$ ),  $t(154) = 2.47$ ,  $p = .014$  (two-tailed). Foreign-born participants also showed significantly lower Blendedness ( $M = 4.21$ ,  $SD = 0.70$ ) than did U.S.-born participants ( $M = 4.70$ ,  $SD = 0.58$ ),  $t(154) = 3.30$ ,  $p = .001$  (two-tailed).

#### Descriptive Research Question 4b: Bicultural Individuals' Levels of Resilience

The RS was used to measure individual Resilience (see Table 7). Scores were based on a 1 to 7 Likert-type scale. Higher scores are indicative of higher levels of Resilience. The mean score for the current sample of overall Resilience was ( $M = 5.80$ ;  $SD = 1.16$ ). Wagnild (2014) provided a scoring range for the Resilience scores. Using this scoring range, the frequencies and percentages for participants are presented in Table 10 below. About 83% (130) of total participants indicated moderate to high Resilience levels, and about 13% (20) participants indicated low to very low Resilience levels.

Table 10

#### *Frequencies and Percentages for the Resilience (RS-14) Scale*

<b>Score Range</b>	<b><i>f</i></b>	<b>%</b>	<b>Score Category</b>
91 – 98	44	28.21	High
82 – 90	65	41.67	Moderate High
74 – 81	21	13.46	Moderate
65 – 73	6	3.85	Low End
57 – 64	1	0.64	Low
14 - 56	19	12.18	Very Low
Total	156	100	

*Note.* Adapted from (Wagnild, 2014).

Foreign-born ( $n = 131$ ) and U.S.-born participants ( $n = 25$ ) were compared on Resilience using an independent-samples  $t$ -test. Since raw scores on the RS-Total dependent variable used in measuring Resilience were strongly skewed and unsuited to a  $t$ -test, log<sub>10</sub> transformed and re-reflected scores served as the dependent variable in this analysis. Levene's test of homogeneity of variance,  $F(1, 154) = 7.15$ ,  $p = .008$ , indicated violation of the homogeneity of variance assumption, so Welch's robust  $t$ -test was used in place of Student's  $t$ -test. Table 8 summarizes the Resilience score comparison between Foreign-born and U.S.-born participants. The

comparison found that Foreign-born participants ( $M = 1.46$ ,  $SD = 0.20$ ) showed significantly lower Resilience than did U.S.-born participants ( $M = 1.58$ ,  $SD = 0.10$ ),  $t(64.92) = 4.53$ ,  $p < .001$  (two-tailed).

### **Inferential Statistics and Findings**

#### **Inferential Research Question 1: Generational Status and Psychological Wellbeing?**

In several subsequent research questions, generational status (Foreign-born vs. U.S.-born) was investigated as a variable that might moderate relationships between Psychological Wellbeing and several other variables. Inferential Research Question 1 read as follows: *Does Generational Status influence Psychological Wellbeing?* In order to better understand Generational Status as a potential moderator variable, an independent samples  $t$ -test was used to determine if immigrant Generational Status was related to Psychological Wellbeing. The grouping variable for this  $t$ -test was Generational Status (Foreign-born vs. U.S.-born), and the dependent variable was Psychological Wellbeing (measured using SPWB-total scores). SPWB-total was previously screened for outliers. The distribution of scores on SPWB-total was found to provide a reasonable approximation to the normal curve; however, Levene's test of homogeneity of variance was significant ( $p < .001$ ), indicating a violation of that statistical assumption for the  $t$ -test. Consequently, the analysis was performed using Welch's  $t$ -test, which is robust to heterogeneous variances. Results of the analysis showed that Generational Status is related to Psychological Wellbeing. Foreign-born immigrants showed significantly lower Psychological Wellbeing ( $n = 131$ ,  $M = 4.45$ ,  $SD = 0.72$ ) than U.S.-born immigrants ( $n = 25$ ,  $M = 4.92$ ,  $SD = 0.51$ ),  $t(44.67) = 3.93$ ,  $p < .001$ . This was a relatively strong effect, with Cohen's  $d = .75$ .

## **Inferential Research Question 2: Acculturation Stress, Psychological Wellbeing, and Generational Status as a Moderating Variable**

Inferential Research Question 2 reads as follows: *Does Acculturation Stress influence Psychological Wellbeing? Does Generational Status moderate the relationship between Acculturation Stress and Psychological Wellbeing?* Hierarchical multiple linear regression analysis was used to address this question. The dependent variable in the analysis was Psychological Wellbeing (measured by SPWB-total). Acculturation Stress (measured by RASI-total) and Generational Status (Foreign-born vs. U.S.-born) were entered as independent variables in Block 1. The Acculturation Stress x Generational Status interaction term was entered in Block 2. RASI-total scores were mean-centered. Some of the statistical assumptions of the analysis were established previously. SPWB-total scores were shown to approximate a normal distribution and the variable was screened for outliers. A scatterplot depicting the relationship between RASI-total and SPWB-total showed no indication of nonlinearity. Other assumptions were evaluated using the diagnostic tools available in the output of the regression analysis. Collinearity diagnostics revealed no variables with tolerance values approaching the .01 benchmark recommended by Meyers et al. (2013), no outliers were identified by casewise diagnostics, a frequency histogram of residuals showed scores were approximately normally distributed, and there was no indication of heteroscedasticity in the plot of residuals against predicted values.

Table 11 shows correlations between the variables in the analysis, while Table 12 shows the correlations between Psychological Wellbeing, Acculturation Stress, and Generational Status. The correlation between Psychological Wellbeing and Acculturation Stress was of moderate strength, negative, and statistically significant,  $r(156) = .49, p < .001$  (2-tailed), indicating that as Acculturation Stress increased, Psychological Wellbeing declined. The results of the multiple

regression analysis at Blocks 1 and 2 are shown in Table 13. Acculturation Stress, Generational Status, and the interaction effect explained 25.9% of the variance in Psychological Wellbeing,  $F(3, 152) = 17.67, p < .001$ , but almost none of this was contributed by the Acculturation Stress x Generational Status interaction effect. That contribution was not statistically significant, as there was very little increase in  $R^2$  from Block 1 ( $R^2 = .258$ ) to Block 2 ( $R^2 = .259$ ),  $F(1,152) = 0.14, p = .705$ . Generational Status did not moderate the relationship between Acculturation Stress and Psychological Wellbeing. Consequently, the focus turned to the main effects of Acculturation Stress and Generational Status at Block 1. Considered together, these variables explained 25.8% of the variance in Psychological Wellbeing,  $F(2, 153) = 26.59, p < .001$ . There was a significant main effect of Acculturation Stress; that is, Acculturation Stress explained significant variance in Psychological Wellbeing that was not accounted for by Generational Status,  $t = -6.40, p < .001$ . The main effect of Generational Status was not significant; that is, Generational Status did not explain significant variance in Psychological Wellbeing beyond that accounted for by Acculturation Stress,  $t = 1.72, p = .088$ .

Table 11

*Pearson Correlations Among the Five Scales*

	1	2	3	4	5
1. Harmony	—	.47**	-.46**	.41**	.51**
2. Blendedness		—	-.38**	.21**	.27**
3. Acculturation Stress			—	-.11	-.49**
4. Resilience				—	.46**
5. SPWB					—

*Note.*  $N = 156$  in all analyses

\*\*Correlation is significant at the 0.01 level (2-tailed).

Table 12

*Pearson Correlations Between Psychological Wellbeing (SPWB-total), Acculturation Stress (RASI-total), and Generational Status (Foreign-born vs. U.S.-born)*

	1	2	3
1. SPWB-total	1	-.49**	.24**
2. Acculturation Stress		1	-.26**
3. Generational Status			1

*Note.* \*\* Correlation is significant at the 0.01 level (2-tailed).  
Generational Status was coded 1 = Foreign-born and 2 = U.S.-born.  
N = 156.

Table 13

*Results of the Regression of Psychological Wellbeing (SPWB-total) on Acculturation Stress (RASI-total), Generational Status (Foreign-born vs U.S.-born), and the Interaction Effect*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.244	.169		25.141	.000
	Acculturation Stress	-.392	.061	-.461	-6.400	.000
	Generational Status	.239	.139	.124	1.717	.088
2	(Constant)	4.218	.183		23.089	.000
	Acculturation Stress	-.467	.208	-.551	-2.242	.026
	Generational Status	.266	.157	.138	1.698	.092
	Stress x Gen Status	.066	.174	.097	.379	.705

*Note.* The dependent variable was SPWB-total. Generational Status was coded 1 = Foreign-born, 2 = U.S.-born. A priori statistical power available to support the reported significance tests was estimated using G\*Power (Version 3.1.9.2). In all power analyses,  $\alpha = .05$  and population effect strength was assumed to be medium (Cohen's  $f^2 = .15$ ). For  $R^2$  in model 2,  $1 - \beta = .98$ . For the change in  $R^2$  from model 1 to model 2,  $1 - \beta > .99$ . For  $R^2$  in model 1,  $1 - \beta > .99$ . For the tests of the regression coefficients in model 1,  $1 - \beta > .99$ .

### **Inferential Research Question 3: Bicultural Identity Integration, Psychological Wellbeing, and Generational Status as a Moderating Variable**

Inferential Research Question 3 read as follows: *Does bicultural identity integration (consisting of Harmony and Blendedness) influence Psychological Wellbeing? Does Generational Status moderate the relationship between Harmony, Blendedness, and*

*Psychological Wellbeing?* The sections below present the results from analyses used to explore these questions.

**Psychological wellbeing, harmony, and generational status.** Hierarchical multiple linear regression analysis was used to address the first portion of Research Question 3 pertaining to the potential moderating influence of Generational Status on the relationship between Harmony and Psychological Wellbeing. The dependent variable in the analysis was Psychological Wellbeing (measured by SPWB-total). Harmony (measured by the Harmony subscale of the BIIS-2) and Generational Status (Foreign-born vs. U.S.-born) were entered as independent variables in Block 1. The Harmony x Generational Status interaction term was entered in Block 2. Harmony scores were mean-centered. Some of the statistical assumptions of the analysis were established previously: SPWB-total scores were shown to approximate a normal distribution and the variable was screened for outliers. A scatterplot between Harmony and SPWB-total showed no indication of nonlinearity. Other assumptions were evaluated using the diagnostic tools available in the output of the regression analysis. Collinearity diagnostics revealed no variables with tolerance values approaching the .01 benchmark, no outliers were identified, residuals were normally distributed, and there were no indications of heteroscedasticity.

Table 14 shows correlations between the variables in the analysis. The correlation between Psychological Wellbeing and Harmony was strong, positive, and statistically significant,  $r(154) = .51, p < .001$  (2-tailed), indicating that as the Harmony component of bicultural identity integration increased, Psychological Wellbeing also increased. The results of the multiple regression analysis at Blocks 1 and 2 are shown in Table 15. Harmony, Generational Status, and the interaction effect explained 30.5% of the variance in Psychological Wellbeing,

$F(3, 152) = 22.28, p < .001$ , and 2% of this total was contributed by the Harmony x Generational Status interaction effect. That contribution was small, but statistically significant:  $R^2$  increased from .286 at Block 1 to  $R^2 = .305$  at Block 2,  $F(1, 152) = 4.32, p = .039$ . *Interaction!*<sup>(C)</sup> software (Version 1.2.2211) by Daniel Soper (<http://www.danielsoper.com/Interaction>) was used to explore this interaction effect. The statistically significant Harmony x Generational Status interaction effect means that the relationship between Harmony and Psychological Wellbeing is different for the two generational groups. Figure 5 captures this effect by graphing the simple slopes; that is, the regression lines of Psychological Wellbeing on Harmony for Foreign-born and U.S.-born immigrants. The unstandardized simple slope for Foreign-born immigrants was .48,  $t = 7.20, p < .001$ , and the unstandardized simple slope for U.S.-born immigrants was .18,  $t = 1.43, p = .16$ . Compared to Foreign-born immigrants, the Psychological Wellbeing of U.S.-born immigrants is less dependent on perceptions of Harmony; their Psychological Wellbeing remains fairly high and changes relatively little as a function of perceived Harmony. The Psychological Wellbeing of Foreign-born immigrants, however, is more strongly affected by perceptions of Harmony. Psychological Wellbeing is high when perceived Harmony is strong, but Psychological Wellbeing declines rapidly as perceptions of Harmony decline. Simple bivariate correlations between Harmony and Psychological Wellbeing (SPWB-total) provided another perspective on this effect. The correlation between Harmony and Psychological Wellbeing among Foreign-born immigrants was strongly and significantly positive,  $r(129) = .52, p < .001$ ; among U.S.-born immigrants, the correlation was of moderate strength and not statistically significant,  $r(23) = .34, p = .094$ .



Table 14

*Pearson Correlations Between Psychological Wellbeing (SPWB-total), Harmony, and Generational Status (Foreign-born vs. U.S.-born)*

	1	2	3
1. SPWB-total	—	.51**	.24**
2. Harmony		—	.20*
3. Generational Status			—

Note. \*\* Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

N = 156.

Table 15

*Results of the Regression of Psychological Wellbeing (SPWB-total) on Harmony, Generational Status (Foreign-born vs. U.S.-born), and the Interaction Effect*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.189	.163		25.646	.000
	Harmony	.415	.060	.485	6.964	.000
	Generational Status	.287	.134	.149	2.133	.035
2	(Constant)	4.111	.166		24.791	.000
	Harmony	.778	.184	.909	4.224	.000
	Generational Status	.369	.139	.191	2.658	.009
	Harmony x Gen Status	-.298	.144	-.456	-2.078	.039

Note. The dependent variable was SPWB-total. Generational Status was coded 1 = Foreign-born and 2 = U.S.-born.

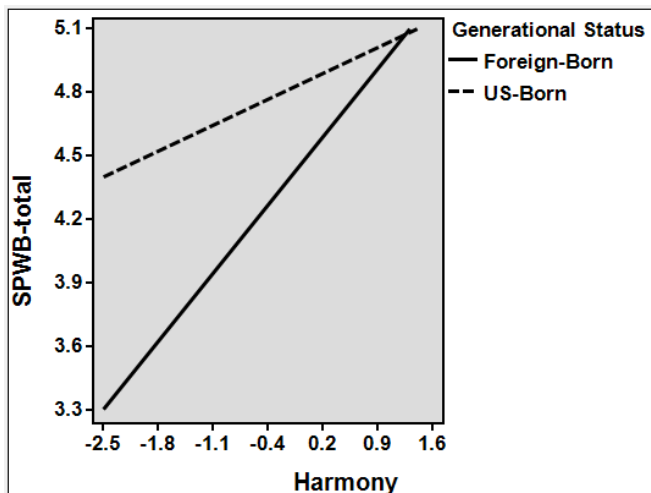


Figure 5. Simple slopes for the regression of psychological wellbeing (SPWB-total) on Harmony (mean-centered) for Foreign-born and U.S.-born immigrants.

**Psychological wellbeing, blendedness, and generational status.** Hierarchical multiple linear regression analysis was used to address the second portion of Research Question 3 pertaining to the potential moderating influence of Generational Status on the relationship between Blendedness and Psychological Wellbeing. The dependent variable in the analysis was Psychological Wellbeing (measured by SPWB-total). Blendedness (measured by the Blendedness subscale of the BIIS-2) and Generational Status (Foreign-born vs. U.S.-born) were entered as independent variables in Block 1. The Blendedness x Generational Status interaction term was entered in Block 2. Blendedness scores were mean-centered. Some of the statistical assumptions of the analysis were established previously. SPWB-total scores were shown to approximate a normal distribution and the variable was screened for outliers. A scatterplot between Blendedness and SPWB-total showed no indication of nonlinearity. Other assumptions were evaluated using the diagnostic tools available in the output of the regression analysis. Collinearity diagnostics revealed no variables with tolerance values approaching the .01 benchmark, no outliers were identified, residuals were normally distributed, and there were no indications of heteroscedasticity.

Table 16 shows correlations between the variables in the analysis. The correlation between Psychological Wellbeing and Blendedness was of moderate strength, positive, and statistically significant,  $r(154) = .27, p = .001$  (2-tailed), indicating that as Blendedness increased, Psychological Wellbeing also increased. The results of the multiple regression analysis at Blocks 1 and 2 are shown in Table 17. Blendedness, Generational Status, and the interaction effect explained 10.4% of the variance in Psychological Wellbeing,  $F(3, 152) = 5.87, p = .001$ , but only 0.1% of this total was contributed by the Blendedness x Generational Status interaction effect. That contribution was not statistically significant:  $R^2$  increased only from  $R^2 =$

.103 at Block 1 to  $R^2 = .104$  at Block 2. That change was not significant,  $F(1, 152) = 0.06, p = .811$ , indicating that Generational Status did not moderate the relationship between Blendedness and Psychological Wellbeing. Consequently, the focus turned to the main effects of Blendedness and Generational Status at Block 1. Considered together, these variables explained 10.3% of the variance in Psychological Wellbeing,  $F(2, 153) = 8.83, p < .001$ . There was a significant main effect of Blendedness; that is, Blendedness explained significant unique variance in Psychological Wellbeing,  $t = 2.75, p = .007$ . The main effect of Generational Status was also significant; that is, Generational Status explained significant additional variance in Psychological Wellbeing beyond that accounted for by Blendedness,  $t = 2.37, p = .019$ .

Table 16

*Pearson Correlations Between Psychological Wellbeing (SPWB-total), Blendedness, and Generational Status (Foreign-born vs. U.S.-born)*

	1	2	3
1. SPWB-total	—	.27**	.25**
2. Blendedness		—	.20*
3. Generational Status			—

*Note.* \*\* Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

$N = 156$ .

Table 17

*Results of the Regression of Psychological Wellbeing (SPWB-total) on Blendedness, Generational Status (Foreign-born vs. U.S.-born), and the Interaction Effect*

Model		Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.102	.185		22.116	.000
	Blendedness	.220	.080	.218	2.747	.007
	Generational Status	.362	.153	.188	2.367	.019
2	(Constant)	4.123	.206		19.977	.000
	Blendedness	.152	.295	.150	.514	.608
	Generational Status	.340	.179	.176	1.903	.059
	Blendedness x Gen Status	.061	.256	.073	.239	.811

*Note.* The dependent variable was SPWB-total. Generational Status was coded 1 = Foreign-born and 2 = U.S.-born.

#### **Inferential Research Question 4: Resilience, Psychological Wellbeing, and Generational Status as a Moderating Variable**

Inferential Research Question read as follows: *Does Resilience influence Psychological Wellbeing? Does Generational Status moderate the relationship between Resilience and Psychological Wellbeing?* Hierarchical multiple linear regression analysis was used to address these questions. The dependent variable in the analysis was Psychological Wellbeing (measured by SPWB-total). Resilience (measured by log10 transformed RS scores) and Generational Status (Foreign-born vs. U.S.-born) were entered as independent variables in Block 1. The Resilience x Generational Status interaction term was entered in Block 2. Resilience scores were mean-centered. Some of the statistical assumptions of the analysis were established previously. SPWB-total scores were shown to approximate a normal distribution and the variable was screened for outliers. A scatterplot between Resilience and SPWB-total showed no indication of nonlinearity. Other assumptions were evaluated using the diagnostic tools available in the output of the regression analysis. Collinearity diagnostics revealed no variables with tolerance values

approaching the .01 benchmark, no outliers were identified, residuals were normally distributed, and there were no indications of heteroscedasticity.

Table 18 shows correlations between the variables in the analysis. The correlation between Psychological Wellbeing and Resilience was strong, positive, and statistically significant,  $r(154) = .48, p < .001$  (2-tailed), indicating that as Resilience increased, Psychological Wellbeing also increased. The results of the multiple regression analysis at Blocks 1 and 2 are shown in Table 19. Resilience, Generational Status, and the interaction effect explained 25.4% of the variance in Psychological Wellbeing,  $F(3, 152) = 17.26, p < .001$ , but only 0.5% of this total was contributed by the Resilience x Generational Status interaction effect. That contribution was not statistically significant:  $R^2$  increased from .249 at Block 1 to  $R^2 = .254$  at Block 2,  $F(1, 152) = 1.01, p = .317$ . Generational Status did not moderate the relationship between Resilience and Psychological Wellbeing. Consequently, the focus turned to the main effects of Resilience and Generational Status at Block 1. Considered together, these variables explained 24.9% of the variance in Psychological Wellbeing,  $F(2, 153) = 25.39, p < .001$ . There was a significant main effect of Resilience; that is, Resilience explained significant unique variance in Psychological Wellbeing beyond that explained by Generational Status,  $t = 6.22, p < .001$ . The main effect of Generational Status approached, but did not reach statistical significance, that is, Generational Status failed to explain significant unique variance in Psychological Wellbeing beyond that accounted for by Resilience,  $t = 1.93, p = .055$ .

Table 18

*Pearson Correlations Between Psychological Wellbeing (SPWB-total), Resilience (RASI-total), and Generational Status (Foreign-born vs. U.S.-born)*

	1	2	3
1. SPWB-total	—	.48**	.24**
2. Resilience		—	.23**
3. Generational Status			—

*Note.* \*\*Correlation is significant at the 0.01 level (2-tailed).  
Generational Status was coded 1 = Foreign-born, 2 = U.S.-born.  
N=156.

Table 19

*Results of the Regression of Psychological Wellbeing (SPWB-total) on Resilience (RASI-total), and Generational Status (Foreign-born vs U.S.-born)*

Model		Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.210	.169		24.949	.000
	Resilience	1.666	.268	.448	6.221	.000
	Generational Status	.268	.139	.139	1.930	.055
2	(Constant)	4.332	.208		20.867	.000
	Resilience	.331	1.357	.089	.244	.808
	Generational Status	.146	.185	.076	.789	.432
	Resilience x Gen Status	1.275	1.271	.385	1.003	.317

*Note.* The dependent variable was SPWB-total. Generational Status was coded 1 = Foreign-born, 2 = U.S.-born.

### **Inferential Research Question 5: Bicultural Identity Integration as a Moderating Variable for Acculturation Stress and Psychological Wellbeing**

**Hypothesis 1.** Inferential Research Question 5 read as follows: *Does bicultural identity integration (Harmony and Blendedness) moderate the relationship between Acculturation Stress and Psychological Wellbeing?* Hypothesis 1 stated that Harmony would moderate the association between Acculturation Stress and Psychological Wellbeing. More specifically, it was predicted that having a stronger sense of compatibility (high Harmony) between two cultural identities

lowers the individual's susceptibility to low Psychological Wellbeing in the presence of Acculturation Stress.

Hierarchical multiple linear regression analysis was used to address the first part of Research Question 5 pertaining to the potential moderating influence of Harmony on the relationship between Acculturation Stress and Psychological Wellbeing. The dependent variable in the analysis was Psychological Wellbeing (measured by SPWB-total). Acculturation Stress (measured by RASI-total) and Harmony (from the BIIS-2) were entered as independent variables in Block 1. The Acculturation Stress x Harmony interaction term was entered in Block 2. Scores on Acculturation Stress and Harmony were mean-centered. Some of the statistical assumptions of the analysis were established previously. SPWB-total scores were shown to approximate a normal distribution and the variable was screened for outliers. Scatterplots between Acculturation Stress and SPWB-total and between Harmony and SPWB-total showed no indications of nonlinearity. Other assumptions were evaluated using the diagnostic tools available in the output of the regression analysis. Collinearity diagnostics revealed no variables with tolerance values approaching the .01 benchmark, no outliers were identified, residuals were normally distributed, and there were no indications of heteroscedasticity.

Table 20 shows correlations between the variables in the analysis. The correlation between Psychological Wellbeing and Acculturation Stress was strong, negative, and statistically significant,  $r(154) = -.49, p < .001$  (2-tailed), indicating that as Acculturation Stress increased, Psychological Wellbeing decreased. The results of the multiple regression analysis at Blocks 1 and 2 are shown in Table 21. Acculturation Stress, Harmony, and the interaction effect explained 34.9% of the variance in Psychological Wellbeing,  $F(3, 152) = 27.12, p < .001$ , but only 0.4% of this total was contributed by the Acculturation Stress x Harmony interaction effect. That

contribution was not statistically significant, as it increased  $R^2$  from .348 at Block 1 to  $R^2 = .349$  at Block 2,  $F(1, 152) = 0.11, p = .747$ . Harmony did not moderate the relationship between Acculturation Stress and Psychological Wellbeing. Consequently, the focus turned to the main effects of Acculturation Stress and Harmony at Block 1. Considered together, these variables explained 34.8% of the variance in Psychological Wellbeing,  $F(2, 153) = 40.86, p < .001$ . There was a significant main effect of Acculturation Stress; that is, Acculturation Stress explained significant unique variance in Psychological Wellbeing beyond that explained by Harmony,  $t = -4.43, p < .001$ . The main effect of Harmony was also statistically significant; that is, Harmony explained significant unique variance in Psychological Wellbeing beyond that accounted for by Acculturation Stress,  $t = 4.95, p < .001$ .

Table 20

*Pearson Correlations Between Psychological Wellbeing (SPWB-total), Acculturation Stress (RASI-total), and Harmony*

	1	2	3
1. SPWB-total	—	-.49**	.51**
2. Acculturation Stress		—	-.46**
3. Harmony			—

*Note.* \*\*Correlation is significant at the 0.01 level (2-tailed).  
 $N = 156$ .



Table 21

*Results of the Regression of Psychological Wellbeing (SPWB-total) on Acculturation Stress (RASI-total), Harmony, and the Interaction Effect*

Model		Unstandardized Coefficients		Standardized	<i>t</i>	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	4.522	.046		97.849	.000
	Acculturation Stress	-.277	.062	-.326	-4.433	.000
	Harmony	.312	.063	.364	4.954	.000
2	(Constant)	4.529	.052		87.758	.000
	Acculturation Stress	-.281	.064	-.331	-4.384	.000
	Harmony	.309	.064	.361	4.835	.000
	Stress x Harmony	.023	.071	.022	.324	.747

*Note.* Dependent Variable: SPWB\_total

**Hypothesis 2.** Hypothesis 2 for Research Question 5 stated that Blendedness would moderate the association between Acculturation Stress and Psychological Wellbeing. More specifically, it was predicted that having a stronger sense of overlap (high Blendedness) between two cultural identities lowers the individual's susceptibility to low Psychological Wellbeing in the presence of Acculturation Stress.

Hierarchical multiple linear regression analysis was used to address the second portion of Research Question 5 pertaining to the potential moderating influence of Blendedness on the relationship between Acculturation Stress and Psychological Wellbeing. The dependent variable in the analysis was Psychological Wellbeing (measured by SPWB-total). Acculturation Stress (measured by RASI-total) and Blendedness (from the BIIS-2) were entered as independent variables in Block 1. The Acculturation Stress x Blendedness interaction term was entered in Block 2. Scores on Acculturation Stress and Blendedness were mean-centered. Some of the statistical assumptions of the analysis were established previously. SPWB-total scores were

shown to approximate a normal distribution and the variable was screened for outliers. Scatterplots between Acculturation Stress and SPWB-total and between Blendedness and SPWB-total showed no indications of nonlinearity. Other assumptions were evaluated using the diagnostic tools available in the output of the regression analysis. Collinearity diagnostics revealed no variables with tolerance values approaching the .01 benchmark, no outliers were identified, residuals were normally distributed, and there were no indications of heteroscedasticity.

Table 22 shows correlations between the variables in the analysis. The correlation between Psychological Wellbeing and Acculturation Stress was established in the preceding analysis to be strong, negative, and statistically significant,  $r(154) = -.49, p < .001$  (2-tailed), indicating that as Acculturation Stress increased, Psychological Wellbeing decreased. Blendedness was moderately correlated with Psychological Wellbeing,  $r(154) = .266, p = .001$  (2-tailed). The results of the multiple regression analysis at Blocks 1 and 2 are shown in Table 23. Acculturation Stress, Blendedness, and the interaction effect explained 26.3% of the variance in Psychological Wellbeing,  $F(3, 152) = 18.04, p < .001$ , but only 1.2% of this total was contributed by the Acculturation Stress x Blendedness interaction effect. That contribution was not statistically significant, as it increased  $R^2$  from .251 at Block 1 to  $R^2 = .263$  at Block 2,  $F(1, 152) = 2.39, p = .124$ . Blendedness did not moderate the relationship between Acculturation Stress and Psychological Wellbeing. Consequently, the focus turned to the main effects of Acculturation Stress and Blendedness at Block 1. Considered together, these variables explained 25.1% of the variance in Psychological Wellbeing,  $F(2, 153) = 25.63, p < .001$ . There was a significant main effect of acculturation stress; that is, Acculturation Stress explained significant unique variance in Psychological Wellbeing beyond that explained by Blendedness,  $t = -6.07, p$

< .001. The main effect of Blendedness was not statistically significant; that is, Blendedness did not explain significant variance in Psychological Wellbeing beyond that accounted for by Acculturation Stress,  $t = 1.23, p = .222$ .

Table 22

*Pearson Correlations Between Psychological Wellbeing (SPWB-total), Acculturation Stress (RASI-total), and Blendedness*

	1	2	3
1. SPWB-total	—	-.49**	.27**
2. Acculturation Stress		—	-.38**
3. Blendedness			—

Note. \*\*Correlation is significant at the 0.01 level (2-tailed).  
N = 156.

Table 23

*Results of the Regression of Psychological Wellbeing (SPWB-total) on Acculturation Stress (RASI-total), Blendedness, and the Interaction Effect*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.522	.050		91.279	.000
	Acculturation Stress	-.389	.064	-.459	-6.069	.000
	Blendedness	.093	.076	.093	1.226	.222
2	(Constant)	4.549	.052		86.855	.000
	Acculturation Stress	-.406	.065	-.479	-6.271	.000
	Blendedness	.093	.076	.092	1.226	.222
	Stress x Blendedness	.123	.080	.109	1.545	.124

Note. The dependent variable was SPWB-total.

### **Inferential Research Question 6: Resilience as a Moderating Variable for Acculturation Stress and Psychological Wellbeing**

Inferential Research Question 6 read as follows: *Does Resilience moderate the relationship between Acculturation Stress and Psychological Wellbeing?* This led to the third hypothesis of the study: Resilience would moderate the association between Acculturation Stress and Psychological Wellbeing. More specifically, it was predicted that having a higher level of resilience lowers the individual's susceptibility to low Psychological Wellbeing in the presence of Acculturation Stress.

Hierarchical multiple linear regression analysis was used to address Research Question 6. The dependent variable in the analysis was Psychological Wellbeing (measured by SPWB-total). Acculturation Stress (measured by RASI-total scores) and Resilience (measured by log<sub>10</sub> transformed RS scores) were entered as independent variables in Block 1. The Acculturation Stress x Resilience interaction term was entered in Block 2. Scores on Acculturation Stress and Resilience were mean-centered. Some of the statistical assumptions of the analysis were established previously. SPWB-total scores were shown to approximate a normal distribution and the variable was screened for outliers. Scatterplots between Acculturation Stress and SPWB-total and between Resilience and SPWB-total showed no indications of nonlinearity. Other assumptions were evaluated using the diagnostic tools available in the output of the regression analysis. Collinearity diagnostics revealed no variables with tolerance values approaching the .01 benchmark, no outliers were identified, residuals were normally distributed, and there were no indications of heteroscedasticity.

Table 24 shows correlations between the variables in the analysis. The correlation between Psychological Wellbeing and Acculturation Stress was established previously to be strong, negative, and statistically significant,  $r(154) = -.49, p < .001$  (2-tailed), indicating that as

Acculturation Stress increased, Psychological Wellbeing decreased. Resilience was also strongly correlated with Psychological Wellbeing,  $r(154) = .48, p = .001$  (2-tailed). The results of the multiple regression analysis at Blocks 1 and 2 are shown in Table 25. Acculturation Stress, Resilience, and the interaction effect explained 42.9% of the variance in Psychological Wellbeing,  $F(3, 152) = 38.08, p < .001$ , but almost none of this total was contributed by the Acculturation Stress x Resilience interaction effect. That contribution was not statistically significant, as there was no increase in  $R^2$  from Block 1 ( $R^2 = .429$ ) to Block 2 ( $R^2 = .429$ ),  $F(1, 152) = 0.08, p = .777$ . Resilience did not moderate the relationship between Acculturation Stress and Psychological Wellbeing. Consequently, the focus turned to the main effects of Acculturation Stress and Resilience at Block 1. Considered together, these variables explained 42.9% of the variance in Psychological Wellbeing,  $F(2, 152) = 38.08, p < .001$ . There was a significant main effect of Acculturation stress; that is, Acculturation Stress explained significant unique variance in Psychological Wellbeing beyond that explained by Resilience,  $t = -7.28, p < .001$ . The main effect of Resilience was also statistically significant; that is, Resilience explained significant variance in Psychological Wellbeing that was not accounted for by Acculturation Stress,  $t = 7.04, p < .001$ .

Table 24

*Pearson Correlations Between Psychological Wellbeing (SPWB-total), Acculturation Stress (RASI-total), and Resilience (Log10 Transformed RS)*

	1	2	3
1. SPWB-total	—	-.49**	.48**
2. Acculturation Stress		—	-.11
3. Resilience			—

*Note.* \*\*Correlation is significant at the 0.01 level (2-tailed).  
 $N = 156$ .

Table 25

*Results of the Regression of Psychological Wellbeing (SPWB-total) on Acculturation Stress (RASI-total), Resilience (Log10 Transformed RS), and the Interaction Effect*

Model		Unstandardized Coefficients		Standardized	<i>t</i>	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	4.522	.043		104.523	.000
	Stress	-.380	.052	-.447	-7.280	.000
	Resilience	1.609	.228	.433	7.042	.000
2	(Constant)	4.523	.044		103.668	.000
	Stress	-.380	.052	-.448	-7.261	.000
	Resilience	1.602	.230	.431	6.961	.000
	Stress x Resilience	.076	.269	.018	.284	.777

*Note.* The dependent variable was SPWB-total.

### **Inferential Research Question 7: Resilience and Bicultural Identity Integration**

Inferential Research Question 7 read as follows: *Does Resilience influence bicultural identity integration among bicultural immigrants?* An ordinary multiple linear regression analysis was used to address Research Question 7. The dependent variable in the analysis was Resilience (measured using log10 transformed RS scores). Independent variables in the analysis were the two components of bicultural identity integration: Harmony and Blendedness (measured by BIIS-2). The multiple correlation from this analysis measured the strength of the relationship between resilience and bicultural identity integration to address Research Question 7. Some of the statistical assumptions of the analysis were established previously. Log10 transformed RS scores provided a reasonable fit to the normal distribution, as did raw scores on Harmony and Blendedness. Scatterplots did not suggest any nonlinear relationships among the variables. Other statistical assumptions were evaluated using diagnostic tools provided the regression analysis. Collinearity diagnostics revealed no variables with tolerance values

approaching the .01 benchmark, no outliers were identified, residuals were normally distributed, and there were no indications of heteroscedasticity.

Table 26 shows correlations between the variables in the analysis. Resilience was significantly and positively correlated with bicultural identity integration, measured by the Harmony and Blendedness subscales of the BIIS-2. The multiple regression analysis indicated that the Harmony and Blendedness components of bicultural identity integration explained 17.0% of the variance in RS scores,  $F(2, 153) = 15.647, p < .001$ . This can also be interpreted as indicating that a statistically significant 17% of the variance in bicultural identity integration was explained by Resilience. Since Resilience was positively correlated with both Harmony and Blendedness, it can be stated that Resilience is directly related to bicultural identity integration; that is, as Resilience increases, so does bicultural identity integration.

Table 26

*Pearson Correlations Between Resilience (Log10 Transformed RS), Harmony, and Blendedness*

	1	2	3
1. Resilience	—	-.41**	.22**
2. Harmony		—	.47**
3. Blendedness			—

*Note.* \*\*Correlation is significant at the 0.01 level (2-tailed).  
*N* = 156.

Table 27 summarizes the regression model and provides tests of the regression coefficients. That table shows that the biggest share of the multivariate relationship between Resilience and the BIIS-2 subscales Harmony and Blendedness can be attributed to the relationship between Resilience and Harmony. Harmony explained significant unique variance in Resilience,  $t = 4.69, p < .001$ . Relatively little of the multivariate relationship between Resilience and the BIIS-2 subscales Harmony and Blendedness can be attributed to the relationship between

Resilience and Blendedness. Blendedness failed to explain significant unique variance in resilience,  $t = 0.47$ ,  $p = .636$ .

Table 27

*Results of the Multiple Regression of Resilience on Harmony and Blendedness Subscales*

Model		Unstandardized Coefficients		Standardized	<i>t</i>	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	1.080	.092		11.749	.000
	Harmony	.090	.019	.392	4.694	.000
	Blendedness	.011	.023	.040	.474	.636

*Note.* The dependent variable was RS.

**Summary**

This chapter presented the results of descriptive statistics and the statistical analyses that were conducted to answer research questions and hypotheses for this current study. A total of 156 (88 women and 68 men) self-identified bicultural Asian and Asian Americans were included in the analyses of this study. Participants consisted of university students and affiliated members of the university with a mean age of 26.21 ( $SD = 5.96$ ). Participants came from a variety of Asian ethnic backgrounds and of these individuals, 105 (67.3%) identified as first-generation immigrants, 26 (16.7%) as 1.5-generation immigrants, and 25 (16.0%) as second-generation immigrants. Participants were assigned to either a foreign-born (those who were born in an Asian country and immigrated to the United States, including first- and 1.5-generation individuals) or U.S.-born (those who were born in the United States second-generation) samples.

Participants in this study reported an overall moderate Acculturation Stress level, moderate-high levels of Psychological Wellbeing, moderate-high levels of Bicultural Identity integration (Harmony and Blendedness), and moderate-high Resilience levels. Between Foreign-born and U.S.-born samples, foreign-born participants reported greater Acculturation Stress,



lower Psychological Wellbeing, lower Resilience, and low bicultural identity integration compared to the U.S.-born sample in this study.

Generational Status was found to be related to Psychological Wellbeing. The Foreign-born sample showed significantly lower psychological wellbeing than the U.S.-born sample in this study. The correlation between Psychological Wellbeing and Acculturation Stress was of moderate strength, negative, and statistically significant, indicating that as Acculturation Stress increased, Psychological Wellbeing declined. Results of a multiple regression analysis indicate that Generational Status did not moderate the relationship between Acculturation Stress and Psychological Wellbeing.

Results of a correlational analysis show the correlation between Psychological Wellbeing and Harmony was strong, positive, and statistically significant, indicating that as Harmony increased, Psychological Wellbeing also increased. Results of a multiple regression analysis demonstrated Harmony, Generational Status and the interaction effect explained 30.5% of the variance in Psychological Wellbeing. Compared to the Foreign-born sample, the Psychological Wellbeing of the U.S.-born sample is less dependent on perceptions of Harmony. The Psychological Wellbeing of the Foreign-born sample, however, is more strongly affected by perceptions of Harmony.

Results of a correlational analysis show the correlation between Psychological Wellbeing and Blendedness was of moderate strength, positive, and statistically significant, indicating that as Blendedness increased, Psychological Wellbeing also increased. Results of a multiple regression analysis indicate that Generational Status did not moderate the relationship between Blendedness and Psychological Wellbeing.

Results of a correlational analysis show the correlation between Psychological Wellbeing and Resilience was strong, positive, and statistically significant, indicating that as Resilience increased, Psychological Wellbeing also increased. Results of multiple regression analysis indicate that Generational Status did not moderate the relationship between Resilience and Psychological Wellbeing.

As previously mentioned, the correlation between Psychological Wellbeing and Acculturation Stress was strong, negative, and statistically significant, indicating that as Acculturation Stress increased, Psychological Wellbeing decreased. Results of a multiple regression analysis indicate that Harmony did not moderate the relationship between acculturation Stress and Psychological Wellbeing; therefore, Hypothesis 1 was not supported. In addition, results of a multiple regression analysis indicate that Blendedness did not moderate the relationship between Acculturation Stress and Psychological Wellbeing; therefore, Hypothesis 2 was not supported. Further, results of a multiple regression analysis indicate that Resilience did not moderate the relationship between Acculturation Stress and Psychological Wellbeing; therefore, Hypothesis 3 was not supported.

Finally, results of a correlational analysis indicate that bicultural identity integration (Harmony and Blendedness) both showed significant correlations with Resilience in a positive direction. The multiple regression analysis demonstrated that Harmony and Blendedness explained 17.0% of the variance in the RS scores. Therefore, Resilience is directly related to bicultural identity integration; as Resilience increases, so does bicultural identity integration.

The results of all research questions and hypotheses are further discussed and connected to previous literature in the following chapter.

## CHAPTER V

### DISCUSSION

As an aide to the reader, the final chapter of this dissertation provides a brief overview of the study, including a statement of the purpose of the study, and the research questions and hypotheses involved. The majority of the chapter is, however, devoted to a summary and discussion of the study results, particularly as they relate to the role of resilience and bicultural identity integration on bicultural individuals' psychological wellbeing. The discussion and limitations are used to provide an understanding of the implications for future research and application of the information learned. To conclude, the chapter is summarized, including highlights of the significance of the study.

#### **Purpose of the Research**

The overall purpose of this study was to identify and further understand key factors that may contribute to the psychological wellbeing of bicultural individuals. More specifically, the study examined the association of acculturation stress, individual resilience, and bicultural identity integration to the psychological wellbeing of self-identified bicultural individuals. The findings from this study may be able to assist with the promotion of psychological wellbeing among bicultural immigrants, as additional information was gained on factors that may buffer the negative effects of acculturation and immigration-related stress.

The overarching research questions of this study are based on previous acculturation research on immigrants who have internalized dual cultural orientations. The study's additional research questions are based on current literature suggesting there is a connection between acculturation stress, bicultural identity integration, resilience, and psychological wellbeing factors. The assumption of this study was that better understanding of the personal and socio-

cultural identity variables that influence bicultural individuals' psychological wellbeing could provide key information for policy decisions the design of practical interventions that will strengthen the development of supports and infrastructure for bicultural individuals on college campuses.

### **Research Questions**

This study explored four descriptive research questions, stated as follows:

1. What are the demographic and individual characteristics of bicultural individuals in this study?
2. How do bicultural individuals in this study rate on acculturation stress?
3. What is the status of psychological wellbeing of bicultural individuals in this study?
4. What are bicultural individuals' levels of resilience and bicultural identity integration?

In addition to descriptive questions, the research also explored the following seven inferential research questions:

1. Does immigrant generational status influence psychological wellbeing?
2. How does acculturation stress influence bicultural immigrant's psychological wellbeing?
  - 2a. Does generational status moderate the relationship between acculturation stress and psychological wellbeing?
3. Does bicultural identity integration (consisting of harmony and blendedness) influence psychological wellbeing?
  - 3a. Does generational status moderate the relationship between harmony and psychological wellbeing and the relationship between blendedness and psychological wellbeing?
4. Does resilience influence psychological wellbeing?

- 4a. Does generational status moderate the relationship between resilience and psychological wellbeing?
5. Does bicultural identity integration (harmony and blendedness) moderate the relationship between acculturation stress and psychological wellbeing?
6. Does resilience moderate the relationship between acculturation stress and psychological wellbeing?
7. To what extent, if any, is resilience correlated with bicultural identity integration?

### **Hypotheses**

Three hypotheses were formulated for this study. For all three hypotheses, the predicted measures were: (1) individual resilience, (2) bicultural identity integration (harmony), and (3) bicultural identity integration (blendedness).

1. Harmony will moderate the association between acculturation stress and psychological wellbeing. More specifically, it was predicted that having a stronger sense of compatibility (i.e., high harmony) between two cultural identities lowers individual susceptibility to low psychological wellbeing in the presence of acculturation stress.
2. Blendedness will moderate the association between acculturation stress and psychological wellbeing. More specifically, it was predicted that having a stronger sense of overlap (i.e., high blendedness) between two cultural identities lowers individual susceptibility to low psychological wellbeing in the presence of acculturation stress.
3. Resilience will moderate the association between acculturation stress and psychological wellbeing. More specifically, it was predicted that having a higher level of resilience lowers individual susceptibility to low psychological wellbeing in the presence of acculturation stress.

In the following sections of this chapter, the main findings are reviewed for each question and hypothesis, followed by a discussion of these findings and an analysis of the implications of these findings for future studies. Several suggestions are made concerning the relevance of these findings for mental health service delivery, future immigrant-related research, and practice on U.S. college campuses.

### **Preliminary Analyses Review**

From the 248 students who accessed the online survey, 156 students completed the survey, while 92 did not complete the survey beyond the consent page for unknown reasons. The response rate was calculated at 23.96%. It was possible that participants who chose not to continue participation beyond the consent page did so due to: (a) not fulfilling one or more criteria for eligibility (e.g., bicultural and immigration status, time spent in the United States was less than 2 years, or did not identify as Asian or Asian American), or (b) no longer being interested in continuing the survey due to the estimated completion time, survey length, or content of survey. Only data from the 156 completed surveys were included in the analyses.

### **Descriptive Statistics**

#### **Demographic Characteristics**

The United States serves as host country to many immigrants, including Asian immigrants and their families. Many Asian Americans were born outside of the United States, which results in cultural and linguistic diversity within this population (U.S. Census Bureau, 2016). As such, self-identified bicultural individuals who participated in this study were from a diverse population representing approximately 14 nations, including the United States. They, therefore, were heterogeneous, have varied backgrounds, and reported various countries of birth and citizenship including Malaysia, Indonesia, China, India, Vietnam, and Thailand.

Among the 156 participants, about 74% (115) identified as students. The rest identified as staff members (10), alumni (22), community members (8), and one participant identified as other. It was rather surprising to discover that although this study's primary targeted participants were college students, the research garnered interest and participation from other campus-affiliated individuals, including self-identified bicultural staff, alumni, and community members. One possible explanation is the research and recruitment information may have been disseminated through word of mouth by participants who have completed the research survey, or by those with access to the recruitment email distribution or the recruitment flyer, all of which were beyond the researcher's control.

The participants of this study were largely comprised of first-generation individuals (foreign-born and migrated to the United States as an adult) at approximately 67%. Seventeen percent identified as 1.5-generation (foreign-born and migrated to the United States as a child), and 16% were born in the United States, with at least one parent born in an Asian country (second-generation immigrants). For analyses purposes, first- and 1.5-generation participants were combined into the Foreign-born category. The decision to combine data from participants representing three generational status groups into two groups (foreign-born generations 1 and 1.5- vs. U.S.-born generation 2) was empirically based; preliminary analyses involving comparisons of generations 1 and 1.5 did not reveal any significant differences between these two generational status groups on any of the dependent variables used in the study.

### **Acculturation Stress**

The RASI scale, which was used to measure acculturative stress in this study, represents culture-related challenges experienced in the interpersonal, intellectual, professional, and structural domains. *Work challenges* address cultural-specific difficulty in the employment

setting, including having to work harder than other minorities and non-immigrants. *Language skills* address difficulty with work/academic and social engagement challenges related to English/native language proficiency and having an accent (in English or native language). *Cultural isolation* addresses challenges related to limited contact and exposure to a multicultural environment, including people from similar ethnicities. *Discrimination* addresses challenges related to feeling discriminated/mistreated by the mainstream society because of one's ethnicity. Finally, *intercultural relations* address challenges related to difficult social engagement with individuals from both (heritage and mainstream) cultures.

Participants in this study reported moderate levels of acculturation stress in general and indicated moderate-high stress levels related to work challenges, cultural isolation, and discrimination. More specifically, foreign-born participants reported higher levels of acculturation stress compared to U.S.-born participants. Foreign-born participants reported moderate-high distress levels related to work challenges, cultural isolation, and discrimination. U.S.-born reported discrimination as their highest acculturation stressor, followed by work challenges, and cultural isolation. Participants from both categories reported lower distress levels related to language skills.

Interestingly, foreign-born participants in this study reported the lowest source of acculturation stress related to their language skills, which is inconsistent with previous immigrant-focused studies that highlighted challenges surrounding language barriers (e.g., Castro & Murray, 2010; Kang, 2006). For example, Castro and Murray (2010) identified English language competence as a leading challenge for immigrant adults in the United States. Part of the inconsistency can be attributed to the unique characteristics of the foreign-born sample in the study. For example, some form of mastery of the English language is essential to obtaining



college admission or employment in the U.S. context. Therefore, the respondents would have a relatively strong command of the English language prior to their arrival in the United States, even if English was not their primary language. This language challenge is therefore greatly minimized in this context, as the learning of English language has to be achieved prior to migration or start of educational studies (for the foreign-born participants in this study).

As mentioned in the preceding chapter, not all second-generation immigrants experience direct acculturation-related stress in their lives. For example, pre-immigration, legal, and linguistic challenges related to the host culture likely do not apply to those born in the United States (Portes & Rumbaut, 2001). However, for visible minority individuals such as Asian Americans, acculturation-related challenges such as prejudice and discrimination may continue beyond the second generation. As reflected in the current study's findings, discrimination has been reported as their highest source of acculturation-related stressors, consistent with previous research (e.g., Lee, 2005; Yoo & Lee, 2008). Although they were born in the United States and English is their first language, second-generations may be asked about their "origin," that is, "Where are you (really) from?" or being complimented on their English linguistic fluency, which, may further distance their identification with their culture of heritage. Overall, compared to foreign-born immigrants, U.S.-born individuals tend to be more attuned to issues of race and class, and may become more aware to signs of discrimination, which may have a negative impact on their psychological wellbeing.

### **Psychological Wellbeing**

Participants in this study reported moderate-high levels of psychological wellbeing, with the highest ratings on personal growth, positive relations with others, and purpose in life. Across immigrant generation status, U.S.-born participants reported an overall greater psychological

wellbeing compared to foreign-born participants. This finding supports the earlier assumption that bicultural participants in this study would report moderate to high levels of psychological wellbeing, and is consistent with prior findings reporting second-generation immigrants tend to have higher levels of psychological wellbeing compared to new immigrants who may be less acculturated to the new culture (i.e., U.S. culture). The presence of higher culture-related stressors may directly impact new immigrants' adjustment to the new environment, which in turn affects their levels of positive psychological wellbeing. The differences in levels of psychological wellbeing between biculturals may also be influenced by different socio-cultural factors such as early socialization experiences, education, family dynamics, and multicultural contact experienced by members of each immigrant group.

### **Bicultural Identity Integration**

Overall, participants in this study reported moderate to moderate-high ratings of bicultural identity integration. This finding supports the earlier assumption that bicultural participants in this study would be integrated biculturals who highly identify with their two cultural orientations. Specifically, participants reported higher levels of overlap (blendedness) between their two cultural orientations, compared to their perceived compatibility (harmony) between their two cultural orientations. Between immigrant generations, U.S.-born participants reported higher ratings of bicultural identity integration (harmony and blendedness) compared to foreign-born participants. Findings are consistent with previous findings that individuals with higher blendedness tend to report lower psychological distress (higher psychological wellbeing) than those who keep their heritage and new cultural identities separate (e.g., Benet-Martinez et al., Chen et al., 2008; Schwartz & Zamboanga, 2008).

## **Resilience**

Overall, participants in this study reported high resilience levels. The average total Resilience scores were 5.80 ( $SD = 1.16$ ), demonstrating moderate-high resilience levels as being typical for bicultural individuals in this study. The findings of the study also indicate high resilience scores across all five domains of resilience: purpose, perseverance, self-reliance, equanimity, and authenticity. Between immigrant generations, U.S.-born participants reported higher overall resilience levels compared to foreign-born participants.

## **Inferential Statistics**

### **Generational Status and Psychological Wellbeing**

*Generational status* refers to the age or developmental status at which an immigrant relocates to a new country (Miller, 2010). Results of the analysis in this study showed that generational status is related to psychological wellbeing. Between immigrant generation status, foreign-born immigrants showed significantly lower psychological wellbeing than U.S.-born immigrants. This finding further supports previous scholarly assumptions that variation exists in the acculturation experience, cultural socialization, and impact of these experiences on physical and mental health across generational status (Miller, 2010; Miller et al., Kuo, 1995). In the subsequent analyses, the moderating influence of generational status was tested. Specifically, this study tested whether acculturation stress, resilience, and bicultural identity integration (i.e., harmony and blendedness) demonstrated different relationships with psychological wellbeing across generational status.

### **Acculturation Stress and Psychological Wellbeing**

For both Asian (foreign-born) and Asian American (U.S.-born) biculturals, acculturation stress was found to be significantly related to lower levels of psychological wellbeing.

Essentially, high acculturation stress was predictive of lower psychological wellbeing, which is consistent with prior research. However, immigrant generational status did not moderate the relationship between acculturation stress and psychological wellbeing. These interpersonal, intellectual, professional, and structural acculturative stressors ultimately strain an individual's mental and physical resources, and can lead to a substantial reduction in psychological wellbeing. Of the five acculturative domains, participants in this study indicated greater cultural-related challenges related to work/academic environment, discrimination, and the cultural makeup of their present community. The combination of these challenges may be unique to the geographical location of sample in the Midwest region of the United States.

### **Bicultural Identity Integration and Psychological Wellbeing**

For both Asian (foreign-born) and Asian American (U.S.-born) biculturals, bicultural identity integration (i.e., harmony and blendedness) were found to be predictive of higher psychological wellbeing. Attaining a higher integration of their dual cultural identities is associated with a greater sense of psychological wellbeing for Asian and Asian American biculturals in this study.

Between the two bicultural identity integration constructs, harmony (i.e., the perceived compatibility between two cultural identities) was found to be positively related to psychological wellbeing for the total participants. In addition, generation status was found to moderate the relationship between psychological wellbeing and harmony. Compared to the U.S.-born sample in this study, the perceived level of psychological wellbeing among the foreign-born individuals was more strongly influenced by perceptions of compatibility (vs. conflict) between their two cultural identities. In other words, foreign-born Asians' who have positive feelings and attitudes

towards their dual cultures tended to have better psychological adjustment than those who viewed their dual cultures as conflicting.

Blendedness (i.e., the perceived overlap between two cultural identities) was found to be significantly and positively related to psychological wellbeing for the total participants. Although the U.S.-born participants scored significantly higher than foreign-born participants on blendedness, generational status did not significantly buffer the relationship between blendedness and psychological wellbeing.

Overall, bicultural identity integration (i.e., harmony and blendedness) was found to be predictive of higher levels of psychological wellbeing for total participants, which is consistent with previous research findings (e.g., Benet-Martinez et al., 2002; Cheng et al., 2014; LaFromboise et al., 1993). The effects of blendedness on psychological wellbeing are similar across generational status, but not for harmony.

### **Resilience and Psychological Wellbeing**

For both Asian (foreign-born) and Asian American (U.S.-born) biculturals, resilience is found to be predictive of higher levels of psychological wellbeing. There was no difference, however, in the strength of the relationship between psychological wellbeing and resilience across generational status. Therefore, the presence of high resilience is associated with higher sense of psychological wellbeing for both Asian and Asian American biculturals in this study. This finding demonstrates the role of resilience in promoting positive adaptation to future adversities, which in turn increases the level of psychological wellbeing among biculturals.

### **Resilience and Bicultural Identity Integration**

Interestingly, both components of bicultural identity integration (i.e., harmony and blendedness) showed significant correlations with resilience in a positive direction. Results

demonstrated that high degree of compatibility (harmony) and blending between two cultural identities increases the degree of resilience in bicultural individuals. In addition, between the two components of bicultural identity integration, harmony explained significant unique variance in resilience, suggesting that the affective component of harmony may have significant positive influence on bicultural individuals' levels of individual resilience.

## **Hypotheses Testing**

### **Hypothesis 1**

In order to answer the research question, *Does bicultural identity integration (harmony and blendedness) moderate the relationship between acculturation stress and psychological wellbeing?* the following hypothesis was developed: *Harmony will moderate the association between acculturation stress and psychological wellbeing.* More specifically, it was predicted that having a stronger sense of compatibility (i.e., high harmony) between two cultural identities lowers individual susceptibility to low psychological wellbeing in the presence of acculturation stress.

Both acculturation stress and harmony were significantly associated with psychological wellbeing; that is, there were main effects of acculturation stress and harmony on psychological wellbeing. The focus of the research question and hypothesis, however, was on whether participants' harmony levels moderated the impact of acculturation stress on psychological wellbeing. Contrary to study hypothesis, the harmony aspect of bicultural identity integration did not moderate the relationship between acculturative stress and psychological wellbeing for the total sample participants. The strength of the negative relationship between acculturation stress and psychological wellbeing did not change significantly whether participants were of low, medium, or high harmony; therefore, Hypothesis 1 was not supported. Harmony is thus

positively related to psychological wellbeing (i.e., as levels of perceived compatibility between a bicultural individual's two cultural identities increases, so does psychological wellbeing), however, harmony does not significantly buffer the influence of acculturation stress on psychological wellbeing.

## **Hypothesis 2**

Hypothesis 2 was also developed to explore the moderating relationship of bicultural identity integration to acculturation stress and psychological wellbeing. The hypothesis read as follows: *Blendedness will moderate the association between acculturation stress and psychological wellbeing.* More specifically, it was predicted that having a stronger sense of overlap (i.e., high blendedness) between two cultural identities lowers individual susceptibility to low psychological wellbeing in the presence of acculturation stress.

Both acculturation stress and blendedness were significantly associated with psychological wellbeing; that is, there were main effects of acculturation stress and blendedness on psychological wellbeing. The focus of the research question and hypothesis, however, was on whether participants' blendedness levels *moderated* the impact of acculturation stress on wellbeing. Contrary to study hypothesis, the blendedness aspect of bicultural identity integration did not moderate the relationship between acculturative stress and psychological wellbeing for the total sample participants. The strength of the negative relationship between acculturation stress and psychological wellbeing did not change significantly whether participants were of low, medium, or high blendedness; therefore, Hypothesis 2 was not supported. Consequently, blendedness is positively related to psychological wellbeing, meaning that as levels of perceived overlap between a bicultural individual's two cultural identities increases, so does psychological

wellbeing; however, blendedness does not significantly buffer the influence of acculturation stress on psychological wellbeing.

### **Hypothesis 3**

Hypothesis 3 answered the research question: *Does resilience moderate the relationship between acculturation stress and psychological wellbeing?* The specific hypothesis read as follows: *Resilience will moderate the association between acculturation stress and psychological wellbeing.* More specifically, it was predicted that having a higher level of resilience lowers individual susceptibility to low psychological wellbeing in the presence of acculturation stress.

Both acculturation stress and resilience were significantly associated with psychological wellbeing; that is, there were main effects of acculturation stress and resilience on psychological wellbeing. The focus of the research question and hypothesis, however, was on whether participants' resilience levels *moderated* the impact of acculturation stress on wellbeing. Contrary to study hypothesis, resilience did not moderate the relationship between acculturative stress and psychological wellbeing for the total sample participants. The strength of the negative relationship between acculturation stress and psychological wellbeing did not change significantly whether participants were of low, medium, or high resilience; therefore Hypothesis 3 was not supported. Resilience is positively related to psychological wellbeing, that is, as levels of resilience increases, so does psychological wellbeing; however, resilience does not significantly buffer the influence of acculturation stress on psychological wellbeing.

### **Summary of Discussion**

This is the first study, to the researcher's knowledge, that incorporates both individual resilience and bicultural identity constructs in understanding the association between the acculturation stress and psychological wellbeing of bicultural individuals. Significant



relationships were found among study variables. More specifically, acculturation stress was found to be inversely related to psychological wellbeing; as acculturation stress increased, psychological wellbeing declined. Meanwhile, resilience and bicultural identity integration (i.e., harmony and blendedness) were found to be predictive of higher psychological wellbeing; as resilience, harmony, and blendedness increased, psychological wellbeing also increased. There were no differences in the strength of the relationship between psychological wellbeing, resilience, and bicultural identity integration across generational statuses.

Hypotheses that individual resilience and bicultural identity integration (i.e., harmony and blendedness) would moderate the relationship between acculturation stress and psychological wellbeing, such that the negative impact of acculturation stress on psychological wellbeing would be better managed or diminished for individuals with higher individual resilience and higher bicultural identity integration (i.e., harmony and blendedness) were also tested. Contrary to expectations, resilience and bicultural identity integration (i.e., harmony and blendedness) did not moderate the relationship between acculturation stress and psychological wellbeing. Rather, the negative correlation between acculturation stress and psychological wellbeing was approximately equal strength regardless of participants' BII or resilience.

The overall participants in this study demonstrated high levels of resilience, bicultural identity integration, and psychological wellbeing. Between immigrant generation status, U.S-born individuals reported lower acculturation stress, higher resilience, higher bicultural identity integration (i.e., harmony and blendedness), and higher psychological wellbeing compared to foreign-born individuals in this study.

Present findings can be partly explained by the different early socio-cultural experiences during normative years across these two immigrant generations. By definition, Asian and Asian

American biculturals have been exposed to and internalized two (or more) cultural orientations as a result of living in the United States; however, the length and context of the exposure, as well as the approach to internalizing both cultures may differ across generational statuses. For example, most foreign-born individuals were raised and exposed to only their culture(s) of origin prior to migration compared to their U.S.-born counterparts who were raised and exposed to two cultures (mainstream and heritage) simultaneously. These differences may influence different aspects of acculturation stress that are salient between these two groups. For example, foreign-born individuals may report difficulties related to the newly exposed culture (e.g., pressure to perform in the U.S. mainstream culture), whereas U.S.-born individuals may report stress associated with culture of origin difficulties (e.g., perceived discrimination by members of one's culture of origin, or difficulty with native language proficiency).

Ultimately, these results highlight the complexities and impact of culture-related factors on Asian and Asian American psychological wellbeing. These findings also demonstrate the role of resilience and bicultural identity integration in psychological wellbeing. Although resilience and bicultural identity integration were not found to have moderating influence on the relationship between acculturation stress and psychological wellbeing, the presence of higher resilience and an integrated bicultural identity contributes to positive psychological wellbeing. As such, enhancing biculturals' resilience and bicultural identity integration may promote sustained levels of psychological wellbeing as they continue to navigate life and future adversities. In addition, the study's findings demonstrate a positive relationship between individual resilience and bicultural identity integration. Finally, present findings also suggest that including personal (e.g., individual resilience) and cultural (e.g., bicultural identity integration)

factors in the model provides a better understanding of the acculturation experiences and psychological wellbeing of Asian and Asian American biculturals.

### **Limitations**

This study has some limitations. First, the samples were rather small, not randomly selected, and do not represent Asian immigrants at large or all descendants of the Asian populations. Nor do they represent all Asians in the United States. Given the convenience sampling (university students and affiliated members) and characteristics of the study sample, it was not possible to examine the appropriateness of the model across other important and relevant Asian subgroups such as ethnic groups (e.g., Hmong, Laotian, Okinawan), community-based sample, and immigration status (e.g., refugee, voluntary, involuntary). Because all data was collected in the Midwest region of the United States, the findings do not reflect variations that may exist in the acculturation process of Asian immigrants who reside in different U.S. regions.

Although a strength of this study is the inclusion on non-student affiliates, which reflects diversity in educational levels, stages in life, as well as generational status, it would have been ideal to have sufficient numbers of each sample to allow for meaningful group comparisons to be made. Additionally, the present study sample reported relatively high levels of resilience, harmony, and blendedness. This might limit the generalizability of present findings further, and may, in part, explain the non-significant relationship between resilience, bicultural identity integration, and psychological wellbeing for Asian and Asian American biculturals.

Although the measures selected for use in the present study have been used in other investigations of Asian and other immigrant populations, their validity has not yet been thoroughly established across different ethnic populations, much less across diverse Asian subgroups.

Because this study employed a quantitative, cross-sectional survey methodology, the findings are incomplete, limited to a specific moment in time, and provide no information on contextual factors to help aid interpretation of the results. Specifically, because cultural processes are dynamic in nature (Berry, 1995; Marcia, 1980), cultural orientation and related processes are constantly changing. Therefore, data in the present study is limited in its ability to capture cultural changes as experienced by Asian immigrants. In addition, the correlational data limits the causal direction of the results, and may ignore underlying causes or realities. For example, the process by which personal and cultural factors reduced or enhanced the promotion of psychological wellbeing, or the risk of psychological distress were not able to be determined. It is possible that acculturation stress may exacerbate perceptions of cultural identity conflict over time. Specifically, aspects of acculturation stress (e.g., discrimination, rejection) may highlight differences between individuals' two cultural identities, leading to the perception that the identities are disparate and conflicting, and as a result, contribute to lower levels of bicultural identity integration. Prior studies demonstrate the malleable nature of bicultural identity integration; therefore, bicultural identity integration levels may fluctuate based on one's acculturation experience (Cheng & Lee, 2013).

In this study, participants' self-identified generational status information was used to determine sample group assignment. Participants were assigned to either a foreign-born (first- and 1.5-generation individuals) or U.S.-born (second-generation) sample for methodological convenience. However, this method may result in overgeneralization of the first- and 1.5-generation immigrants' acculturation experiences (e.g., Oh & Min, 2011). Theoretically, first- and 1.5-generation share similar experiences of being born in a foreign country and have experienced some degree of socio-cultural experience in their country of birth prior to their

arrival in the United States. However, recent findings demonstrated unique acculturation experiences and challenges faced by 1.5 generation individuals related to their different roles within the immigrant diasporas (Miller, 2007; Park, 1999). For example, due to migrating at a young age, 1.5-generation individuals may acculturate faster than their first-generation counterparts due to having greater exposure to the U.S. culture through their education, peer interaction, and use of English language. Thus, due to their unique cultural experiences, it is possible that the 1.5-generation individuals share characteristics with both first- and second-generation (U.S.-born) individuals, while, also experiencing challenges unique to their life and cultural circumstances as well. Therefore, future studies should take into consideration their unique experiences and identifying the 1.5-generation as a distinct group, separate from the first-generation individuals.

### **Recommendations for Future Research**

Future research should be conducted in other parts of the United States and target specific Asian-subgroups to test the generalizability of the present findings across diverse Asian groups. In addition, future studies with a larger sample size, and subsequently wider and more diversified subgroups, could allow for exploration of more group differences. To increase confidence that the study findings were not sample specific, future research is needed to cross-validate present findings with other samples such as non-student Asian university staff members and community members. Finally, in order to fully capture the dynamic nature of cultural development, as well as the renegotiation process and its association with individual resilience, immigration experience, and psychological wellbeing, future research using a combination of qualitative and quantitative data (mixed methods) or longitudinal research design is recommended. Clearly,

there is need for more in-depth research in the area to better understand the psychological wellbeing of diverse Asian biculturals in the United States.

### **Implications of the Study**

The findings of this study provide a unique understanding, as well as support for previous research findings and theories of immigration process and challenges, resilience, and bicultural identity integration. Very few studies have examined how individual resilience and bicultural identity integration relate to psychological wellbeing. Implications for mental health professionals, training, and college counseling can be derived from such findings.

### **Implications for Mental Health Professionals**

Present findings provide implications for mental health professionals. As the U.S. Asian population continues to diversify, the need to understand the bicultural realities is becoming more important. Clinicians working in a number of settings may benefit from learning about the unique needs, challenges, and experiences bicultural individual face. The data from this study suggests that prevention efforts aimed at reducing acculturation stress in the Asian immigrant and Asian American population is essential and necessary.

From a social justice advocacy perspective, mental health professionals could extend their expertise to benefit this population by providing culturally sensitive consultation, outreach, prevention, and education efforts aimed at eliminating systemic and institutional forms of discrimination and other culture-related stressors. Such effort may promote reduction of individual experiences of acculturation-related stress.

Findings may also help inform mental health professionals in developing educational and community interventions for individuals with immigrant backgrounds that address

cultural/immigration-related stressors and also provide strategies for coping (e.g., strengthening individual resilience and connectedness building). Recognizing salient differences across generational status, mental health professionals could offer interventions that addresses specific stressors and coping strategies relevant to each generational status, taking into consideration immigrant contextual experiences, services, and support needed.

Findings from this research may inform the counseling practices of clinicians with bicultural clients. Counseling and psychotherapy can highlight the role of culture and resilience, and address bicultural identification in young adult biculturals to assist in exploring, identifying, and supporting their psychological wellbeing. The effectiveness of culturally sensitive clinical interventions may depend on clinicians' abilities to assess clients' experiences accurately. More specifically, clinicians may benefit from a thorough understanding of what being from a particular culture means to their clients. When working with bicultural individuals with Asian immigrant backgrounds, clinicians can assess and raise individuals' awareness of their level of resilience and bicultural identity integration using the RS-14 and the BIIS-2, in addition to assessing the availability of community resources that may be helpful for bicultural individuals. It is also important to assess for presence of role confusion, cultural identity struggles, and intergenerational conflict that may exacerbate acculturation-related stress among biculturals.

Utilizing a strengths-based approach, clinicians may explore individuals' sense of self, identity struggles and life experiences, and support bicultural individuals' understanding of the uniqueness and richness of their multicultural experiences. Therapy and initiatives that increase biculturals' perceptions of compatibility between their cultural identities and strengthen their resilience may result in higher bicultural identity integration and resilience levels, which in turn may also contribute to a more positive psychological wellbeing over time.

Additionally, it may also be helpful for clinicians to identify sources of bicultural identity integration such as community leaders, significant figures, or role models in the Asian/Asian American community (e.g., Asian immigrants and Asian Americans from preceding generations) to help facilitate confidence in their bicultural identity development. Thus, it is also important to explore the cultural connection and the socio-cultural environment the bicultural individual has access to, whether the environment would foster the Asian American integration, or further separate one culture over another. Being cognizant of this aspect may be helpful in the efforts of supporting individuals' development of a strong, meaningful identity and lifestyle.

Ultimately, when working with Asian American clients, regardless of generational status, it is important to consider the within-group diversity of this population and to assess and explore cultural domains of experience on more than one occasion, as the salience of this experience may change over time.

### **Implications for Training**

The present study's findings may also be useful for training and graduate programs in counseling psychology. As a field that emphasizes social justice and multicultural counseling, it is imperative that students be encouraged and exposed to educational and training opportunities related to immigrant issues and psychological wellbeing in general, and Asian immigrants and their families, specifically. Education and supervised training specifically focused on the provision of multiculturally sensitive and appropriate services, research efforts, and clinical practice for working with immigrants is necessary. Furthermore, recognizing the language and cultural diversity that exist among bicultural Asian individuals, students should also be encouraged to consider additional training or exposure beyond their training program in order to reduce language and cultural barriers with the population that there are interested in serving (e.g.,



learning a second or third language or selecting practicum sites that provides supervised mental health services to underserved populations including immigrants). Finally, practicing professionals and those involved in training should encourage such efforts, and enhance research and practice focused on identifying the needs and strengths of individuals and groups with immigrant backgrounds, and encourage interdisciplinary collaborations with other departments or community resources serving Asian and Asian Americans.

### **Implications for Researchers**

This study provides useful information for researchers interested in bicultural experience of immigrants. The data suggests that the subjective experience of being influenced by a particular culture varies across individuals. When assessing acculturation, bicultural identity, or other related variables, investigators must consider the possibility that similar responses to their instruments may not indicate that individuals within the cultural groups share identical acculturation experiences, bicultural identity, or resilience levels.

### **Implications for U.S. College Counseling Centers**

This study may offer useful information to university administration and counseling centers. The current literature highlights that bicultural immigrants are extremely diverse, and have varied acculturation stressors, bicultural identification, and resilience qualities. Understanding the personal and cultural factors influencing bicultural individuals would allow for educational institutions to provide better psychological, social, and academic structures to support the Asian bicultural community on campus. Finally, the results from this study offer education and counseling providers with greater understanding of the experiences of bicultural immigrants, and thereby help shape policies aimed at providing a more inclusive, culturally sensitive, and appropriate support services.

## **Conclusion**

This study contributes to an increased understanding of the acculturation stressors, bicultural identity integration, individual resilience, and psychological wellbeing of self-identified Asian/Asian American bicultural immigrants. The study findings underscore the importance of considering personal and cultural factors that may influence the acculturation stress and psychological wellbeing of bicultural immigrants. Based on the current study's findings, there is evidence of a relationship between acculturation stress, resilience, bicultural identity integration, and psychological wellbeing. Specifically, resilience, harmony, and blendedness components of the bicultural identity integration are positive contributors to higher psychological wellbeing among Asian and Asian Americans. Resilience and bicultural identity integration, however, were not found to have a moderating influence or buffer the negative effects of acculturation stress on psychological wellbeing. Despite these limitations, findings suggest that by including both personal factor (e.g., resilience) and cultural identity factors (e.g., bicultural identity integration), a more nuanced understanding of factors contributing to higher psychological wellbeing of Asian and Asian American biculturals can be attained. Incorporating both understanding of resilience and bicultural identity integration in clinical and outreach work with Asian and Asian American biculturals may in turn contribute to a more positive, meaningful and empowering outcome to this population.

## REFERENCES

- Abe-Kim, J., Okazaki, S., & Goto, S. G. (2001). Unidimensional versus multidimensional approaches to the assessment of acculturation for Asian American populations. *Cultural Diversity and Ethnic Minority Psychology, 7*(3), 232-246.
- Abu-Rayya, H. M. (2006). Acculturation and well-being among Arab-European mixed ethnic adolescents in Israel. *Journal of Adolescent Health, 39*(5), 745-751.
- Ahern, N. R., Kiehl, E. M., Sole, M. L., & Byers, J. (2006). A review of instruments measuring resilience. *Issues in Comprehensive Pediatric Nursing, 29*(2), 103-125.
- Akhtar, S. (1994). A third individuation: Immigration identity and the psychoanalytic process. *Journal of American Psychoanalytic Association, 43*, 1051-1084.
- Akhtar, S. (1999). *Immigration and identity: Turmoil, treatment and transformation*. Northvale, NJ: Aronson.
- Akin, A. (2008). The scales of psychological wellbeing: A study of validity and reliability. *Educational Sciences: Theory and Practice, 8*, 741-750.
- American Psychological Association. (2012). *Crossroads: The psychology of immigration in the new century*. Retrieved from <http://www.apa.org/topics/immigration/report.aspx>
- Anthony, E. J., & Cohler, B. J. (1987). *The invulnerable child*. New York, NY: Guilford Press.
- Arcia, E., Skinner, M., Baily, D., & Correa, V. (2001). Models of acculturation and health behaviors among Latino immigrants to the U.S. *Social Science Medicine, 53*(1), 41-53.
- Arnetz, J., Rofa, Y., Arnetz, B., Ventimiglia, M., & Jamil, H. (2013). Resilience as a protective factor against the development of psychopathology among refugees. *The Journal of Nervous and Mental Disease, 201*(3), 167-172.

- Aroina, K. J., & Norris, A. E. (2000). Resilience, stress and depression among Russian immigrants to Israel. *Western Journal of Nursing Research*, 22(1), 54-67.
- Bacallao, M. L. & Smokowski, P. R. (2009). Entre dos mundos/between two worlds: Bicultural development in context. *Journal of Primary Prevention*, 30, 421-451.  
doi:10.1007/s10935-009-0176-x
- Baron, M. R., & Matsuyama, Y. (1988). Symptoms of depression and psychological distress in United States and Japanese college students. *Journal of Social Psychology*, 128, 803-816.
- Benet-Martínez, V. (2003a). *The Riverside Acculturation Stress Inventory (RASI): Development and psychometric properties*. Technical Report, Department of Psychology, University of California at Riverside.
- Benet-Martínez, V. (2003b). *The Bicultural Identity Integration Scale –Version 1 (BIIS-1): Development and psychometric properties*. Technical Report, Department of Psychology, University of California at Riverside.
- Benet-Martínez, V. (2012). Multiculturalism: Cultural, personality, and social processes. In K. Deaux & M. Snyder (Eds.), *Handbook of personality and social psychology* (pp. 623-648). Oxford, United Kingdom: Oxford University Press.
- Benet-Martínez, V., & Haritatos, J. (2005). Bicultural identity integration (BII): Components and psychosocial antecedents. *Journal of Personality*, 73, 1015-1050. doi:10.1111/j.1467-6494.2005.00337.x
- Benet-Martínez, V., Lee, F., & Leu, J. (2006). Biculturalism and cognitive complexity: Expertise in cultural representations. *Journal of Cross-Cultural Psychology*, 37, 386-407.  
doi:10.1177/0022022106288476

- Benet-Martínez, V., Leu, J., Lee, F., & Morris, W. M. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural Psychology, 33*, 492-516.  
doi:10.1177/0022022102033005005
- Berry, J. W. (1980). Acculturation as varieties of adaption. In A. M. Padilla (Ed.), *Acculturation: Theory, models, and some new findings* (pp. 9-25). Boulder, CO: Westview Press.
- Berry, J. W. (1990). Psychology of acculturation: Understanding individuals moving between cultures. In R. W. Brislin (Ed.), *Applied Cross-Cultural Psychology* (pp. 232-253). Newbury Park, CA: SAGE Publications.
- Berry, J. W. (1997). Immigration, acculturation and adaptation. *Applied Psychology: An International Review, 46* (1), 5-34.
- Berry, J. W. (2003). Conceptual approaches to acculturation. In K. M. Chun, P. Balls Organista, & G. Marín (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (pp. 17-37). Washington, DC: American Psychological Association.  
doi:10.1037/10472-004
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations, 29*, 697–712. doi:10.1016/j.ijintrel.2005.07.013
- Berry, J. W., & Kostovcik, N. (1983). Psychological adaptation of Malaysian students in Canada. *Paper from the Third Asian Regional conference of IACCP.*
- Berry, J. W., & Sam, D. L. (1996). Acculturation and adaptation. In J. W. Berry, M. A. Segall, & C. Kagitubasi (Eds.), *Handbook of cross-cultural psychology: Social behaviors and application* (Vol. 3, pp. 291-326). Boston: Allyn & Bacon.

- Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review, 21*, 491-511.
- Berry, J. W., Kim, U., Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology, 38*, 185–206. doi:10.1111/j.1464-0597.1989.tb01208.x
- Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (2006a). Immigrant youth: Acculturation, identity, and adaptation. *Applied Psychology: An International Review, 55*, 303-332. doi: 10.1111/j.1464-0597.2006.00256.x
- Berry, J. W., & Annis, R. C. (1974). Acculturative stress. *Journal of Cross-cultural Psychology, 5*, 382-406.
- Berry, J. W., Phinney, J. S., Sam, D. L. & Vedder, P. (2006). *Immigrant youth in cultural transition: Acculturation, identity and adaptation across national contexts*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Berry, J. W., Kim, U., Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology: An International Review, 38*, 185-206.
- Birman, D. (1994). *Acculturation and human diversity in a multicultural society*. In E. J. Trickett, R. J. Watts & D. Birman (Eds.), (pp. 261-284). San Francisco, CA: Jossey-Bass.
- Birman, D. (1998). Biculturalism and perceived competence of Latino immigrant adolescents. *American Journal of Community Psychology, 26*, 335–354.
- Birman, D., & Trickett, E. J. (2001). The process of acculturation in first generation immigrants: A study of Soviet Jewish refugee adolescents and parents. *Journal of Cross-Cultural Psychology, 32*, 456–477.

- Bochner, S. (1982). *Cultures in contact: Studies in cross-cultural interaction*. Oxford: Pergamon.
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, *59*, 20-28.  
doi:10.1037/0003-066X.59.1.20
- Bourhis, R. Y., Moi'se, L. C., Perreault, S., & Senecal, S. (1997). Towards an interactive acculturation model: A social psychological approach. *International Journal of Psychology*, *32*(6), 369-386.
- Bradum, N. M. (1969). *The structure of psychological well-being*. Chicago, IL: Aldine Publishing Company.
- Broyles, L. C. (2005). *Resilience: Its relationships to forgiveness in older adults* (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses database. (Order No. 3177245)
- Burris, C. T., Branscombe, N. R., & Jackson, L. M. (2000). "For God and country:" Religion and the endorsement of national self-stereotypes. *Journal of Cross-Cultural Psychology*, *31*, 382-392.
- Caltabiano, M., & Caltabiano, N. (2006, November). *Resilience and health outcomes in the elderly*. Paper presented at the Proceedings of the 39th Annual Conference of the Australian Association of Gerontology, Sydney, Australia:  
<http://researchonline.jcu.edu.au/4271/>
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, *56*(2), 267-283.

- Chen, S. X., Benet-Martínez, V., & Bond, M. H. (2008). Bicultural identity, bilingualism, and psychological adjustment in multicultural societies: Immigration-based and globalization-based acculturation. *Journal of Personality* 76, 803-838. doi:10.1111/j.1467-6494.2008.00505.x
- Cheng, C.-Y., Lee, F., & Benet-Martínez, V. (2006). Assimilation and contrast effects in cultural frame switching: Bicultural identity integration and valence of cultural cues. *Journal of Cross-Cultural Psychology*, 37, 742-760. doi: 10.1177/0022022106292081
- Cheng, C.-Y., Lee, F., Benet-Martínez, V., & Hyunh, Q. L. (2014). Variations in multicultural experience: Influence of bicultural identity integration on socio-cognitive processes and outcomes. In V. Benet-Martínez & Y. Hong (Eds.), *The Oxford handbook of multicultural identity* (pp. 276-299). Oxford, UK: Oxford University Press. doi:10.1093/oxfordhb/9780199796694.001.0001
- Choi, Y., He, M., Harachi, T. W. (2008). Intergenerational cultural dissonance, parent-child conflict and bonding, and youth problem behaviors among Vietnamese and Cambodian immigrant families. *Journal of Youth Adolescence*, 37, 85-96.
- Christopher, K. A. (2000). Determinants of psychological well-being in Irish immigrants. *Western Journal of Nursing Research*, 22(2), 123-143.
- Chuang, Y. (1999). *Fusion: The primary model of bicultural competence and bicultural identity development in a Taiwanese American family lineage* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (Order No. 9901478)
- Chung, H., & Gale, J. (2009). Family functioning and self-differentiation: A cross-cultural examination. *Contemporary Family Therapy*, 31, 19-33. doi:10.1007/s10591-008-9080-4



- Cicchetti, D., & Garmezy, N. (1993). Prospects and promises in the study of resilience. *Development and Psychopathology*, 5(4), 497-502.
- Constantine, M. G., Okazaki, S., & Utsey, S. O. (2004). Self-concealment, social self-efficacy, acculturative stress, and depression in African, Asian, and Latin American international college students. *American Journal of Orthopsychiatry*, 74, 230-241.
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, 96, 608–630.
- Crockett, L. J., Iturbide, M. I., Torres Stone, R., McGinley, M. Raffaelli, M. & Carlo, G. (2007). Acculturative stress, social support, and coping: Relations to psychological adjustment among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology*, 13(4), 347-355. doi:10.1037/1099-9809.13.4.347
- Cross, W. E. (1995). The psychology of nigrescence: Revising the Cross model. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 93-112). Thousand Oaks, CA: SAGE Publications.
- Cuellar, I., Arnold, B., & Maldonado, R. (1995). Acculturation Rating Scale for Mexican Americans-II: A revision of the original ARSMA scale. *Hispanic Journal of Behavioral Sciences*, 17(3), 275-304.
- Darya, F. H. (2007). *Second-generation Iranian-Americans: The relationship between ethnic identity, acculturation, and psychological well-being* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (Order No. 3242155)
- Denhardt, J. & Denhardt, R. (2010). Building organizational resilience and adaptive management. In J. W. Reich, A. J. Zautra & J. S. Hall (Eds.), *Handbook of adult resilience* (pp. 333-349). New York, NY: Guilford Press.

- Derogatis, L. R. (1975). *Brief symptom inventory*. Baltimore, MD: Clinical Psychometric Research.
- Devos, T., & Banaji, M. R. (2005). American = white? *Journal of Personality and Social Psychology*, 88(3), 447-446.
- Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research*, 31(2), 103-157.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective wellbeing: Three decades of progress. *Psychological Bulletin*, 125, 276-302.
- Diener, E., Suh, E. & Oishi, S. (1997). Recent findings on subjective well-being. *Indian Journal of Clinical Psychology*, 24, 25-41.
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research*, 39, 247-266.
- Donnelly, T. T. (2002). Contextual analysis of coping: Implications for immigrants' mental health care. *Issues in Mental Health Nursing*, 23(7), 715-732.
- Engqvist, L. (2005). The mistreatment of covariate interaction terms in linear model analyses of behavioural and evolutionary ecology studies. *Animal Behavior*, 70, 967-971.
- Espiritu, Y. L. (1999). Gender and labor in Asian immigrant families. *American Behavioral Scientist*, 42, 628-627.
- Furnham, A., & Bochner, S. (1982). Social difficulty in a foreign culture: an empirical analysis of culture shock. In A. Furnham & S. Bochner (Eds.), *Cultures in contact: Studies in cross-cultural interaction* (pp. 161-198). Oxford: Pergamon.

- Garnezy, N., Masten, A.S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. *Child Development, 55*, 97-111. doi:10.2307/1129837
- Gil, A. G., Vega, W. A., & Dimas, J. M. (1994). Acculturative stress and personal adjustment among Hispanic adolescent boys. *Journal of Community Psychology, 22*(1), 43-54.
- Gordon, M. M. (1964). *Assimilation in American life*. New York: NY Oxford University Press.
- Gutter, B. T. (2003). *The construction and maintenance of bicultural competence: A phenomenological investigation and ecological perspective of African American women in the professions and executive management* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Order No. 3089566)
- Hancock, G. R., & Freeman, M. J. (2001). Power and sample size for the root mean square error of approximation of not close fit in structural equation modeling. *Educational and Psychological Measurement, 61*, 741-758.
- Hardy, S., Concato, J., & Gill, T. (2004). Resilience of community-dwelling older persons. *Journal of American Geriatrics Society, 52*, 257-262.
- Helms, J. E. (1995). An update of Helms' White and people of color racial identity models. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 181-198). Thousand Oaks, CA: SAGE Publications
- Higgins, G. O. (1994). *Resilient adults*. San Francisco, CA: Jossey-Bass.
- Hong, Y.-Y., Benet-Martínez, V., Chiu, C.-Y., & Morris, M. W. (2003). Boundaries of cultural influence: Construct activation as a mechanism for cultural differences in social perception. *Journal of Cross-Cultural Psychology, 34*, 453-464.

- Hong, Y.-Y., Morris, M. W., Chiu, C.-Y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist, 55*(7), 709-720. doi:10.1037/0003-066X.55.7.709
- Humphreys, J. (2003). Research in sheltered battered women. *Issues in Mental Health Nursing, 24*, 137–152.
- Huppert, F. A. (2009). Psychological well-being: Evidence regarding its causes and consequences. *Applied Psychology: Health and Well-being, 1*(2), 137-164
- Hurh, W. M., & Kim, K. C. (1990). Adaptation stages and mental health of Korean male immigrants in the United States. *International Migration Review, 24*(3), 456-479.
- Huynh, Q.-L. (2009). *Variations in biculturalism: Measurement, validity, mental and physical health/psycho-social correlates, and group differences of identity integration* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Order No. 3389664)
- Institute of International Education. (2016). *Top 25 places of origin of international students 2014/15-2015/16: Open Doors report on international educational exchange*. Retrieved from <http://www.iie.org/opendoors>
- Iwamasa, G. Y. & Kooreman, H. (1995). Brief symptom inventory scores of Asian, Asian-American, and European-American college students. *Cultural Diversity and Mental Health, 1*, 149-157.
- Iwamoto, D. K., & Liu, W. M. (2010). The impact of racial identity, ethnic identity, Asian values, and race-related stress on Asian Americans and Asian international college students' psychological well-being. *Journal of Counseling Psychology, 57*(1), 79-91. doi: 10.1037/a0017393

- Kang, S. (2006). Measurement of acculturation, scale formats, and language competence: Their implications for adjustment. *Journal of Cross-Cultural Psychology, 37*(6), 669-693.
- Karpel, M. A. (1986). *Family resources: The hidden partner in family therapy*. New York, NY: Guilford Press.
- Kaul, A. (2001). *Predictors of positive adaptation among international students in the United States* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Order No. 3029896)
- Keefe, S., & Padilla, A. M. (1987). *Chicano ethnicity*. Albuquerque, NM: University of New Mexico Press.
- Kline, R. B. (2006). *Principles and practices of structural equation modeling* (2nd ed). New York, NY: Guilford.
- Krishnan, A. & Berry, J. W. (1992). Acculturative stress and acculturation attitudes among Indian immigrants to the United States. *Psychology and Developing Societies, 4*(2), 187-212.
- LaFromboise, T., Coleman, H., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin, 114*, 395-412. doi: 10.1037/0033-2909.114.3.395
- Lee, J., Koeske, G. F., & Sales, E. (2004). Social support buffering of acculturative stress: A study of mental health symptoms among Korean international students. *International Journal of Intercultural Relations, 28*, 399-414.
- Lee, R. M., Choe, J., Kim, G., & Ngo, V. (2000). Construction of the Asian American Family Conflicts Scale. *Journal of Counseling Psychology, 47*, 211-222.

- Lee, S. K., Sobal, J., & Frongillo, E.A. (2000). Acculturation and health in Korean Americans. *Social Science, 51*(2), 159-173.
- Lincoln, K. D., Taylor, R. J., Chae, D. H., & Chatters, L. M. (2010). Demographic correlates of psychological well-being and distress among older African Americans and Caribbean Black adults. *Best Practices in Mental Health, 6*(1), 103–126.
- Lueck, K., & Wilson, M. (2010). Acculturative stress in Asian immigrants: The impact of social and linguistic factors. *International Journal of Intercultural Relations, 34*(1), 47.
- Luthar, S. S. (2006). Resilience in development: A synthesis of research across five decades. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology (Vol. 3), risk, disorder, and adaptation* (2nd ed., pp. 739– 795). New York, NY: Wiley.
- Luthar, S. S., & Cushing, G. (1999). Neighborhood influences and child development: A prospective study of substance abusers' offspring. *Development and Psychopathology, 11*, 763-784. doi:10.1017/S095457949900231X
- Macias, T. (2003). The changing structure of assimilation. *Social Science Quarterly, 84*, 946-957.
- MacKinnon, D. P. (2008). *An introduction to statistical mediation analysis*. New York, NY: Lawrence Erlbaum Associates.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*(3), 227-238.
- Masten, A. S., Best, K. J., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and psychopathology, 2*, 425-444.

- Masten, A. S., & Obradović, J. (2006). Competence and resilience in development. *Annals of the New York Academy of Sciences*, 1094, 13–27. doi:10.1196/annals.1376.003
- Masten, A. S., & O'Connor, M. J. (1989). Vulnerability, stress, and resilience in the early development of a high-risk child. *Journal of the American Academy of Child and Adolescent Psychiatry*, 28, 274-278. doi:10.1097/00004583-198903000-00021
- Masten, A. S., & Wright, M. O. (2010). Resilience over the lifespan: Developmental perspectives on resistance, recovery, and transformation. In J. W. Reich, A. J. Zautra, & J. S. Hall (Eds.) *Handbook of adult resilience: Concepts, methods, and applications* (pp. 213-237). New York, NY: John Wiley.
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research: Design and interpretation*. Thousand Oaks, CA: Sage.
- Miller, M. J. (2007). A bilinear multidimensional measurement model of Asian American acculturation and enculturation: Implications for counseling interventions. *Journal of Counseling Psychology*, 54, 118-131.
- Miller, M. J., Kim, J., & Benet-Martínez (2011). Validating the Riverside Acculturation Stress Inventory with Asian Americans. *Psychology Assessment*, 23(2), 300-310.
- Miramontez, D. R., Benet-Martínez, V., & Nguyen, A. M. (2008) Bicultural identity and self/group personality perceptions. *Self and Identity*, 7(4), 430-445.
- Mok, A., Morris, M., Benet-Martínez, V., & Karakitapoglu-Aygun, Z. (2007). Embracing American culture: Structures of social identity and social networks among first-generation biculturals. *Journal of Cross-Cultural Psychology*, 38, 629-635.
- Montreuil, A., & Bourhis, R. Y. (2001). Majority acculturation orientations toward "valued" and "devalued" immigrants. *Journal of Cross-Cultural Psychology*, 32(6), 698-719.

- Muecke, M. (1992). New paradigms for refugee health problems. *Social Science and Medicine*, 35(4), 515-523.
- Mui, A., & Kang, S. (2006). Acculturation stress and depression among Asian immigrant elders. *Social Work*, 51(3), 243-255.
- Nagel, J. (1994). Constructing ethnicity: Creating and recreating ethnic identity and culture. *Social Problems*, 41, 152-176
- Nguyen, A. M., & Benet-Martínez, V. (2007). Biculturalism unpacked: Components, individual differences, measurement, and outcomes. *Social and Personality Psychology Compass*, 1, 101-114.
- Nguyen, A. M. D., & Benet-Martínez, V. (2010). Multicultural identity: What it is and why it matters. In R. Crisp (Ed.), *The psychology of social and cultural diversity* (pp. 87-114). Hoboken, NJ: Wiley-Blackwell. Retrieved from [http://hssfaculty.fullerton.edu/psychology/amnguyen/Research\\_files/PSCD2010.pdf](http://hssfaculty.fullerton.edu/psychology/amnguyen/Research_files/PSCD2010.pdf)
- Nguyen, A. M. D., & Benet-Martínez, V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology*, 44(1), 122-159.
- Nguyen, H. H., & von Eye, A. (2002). The Acculturation Scale for Vietnamese Adolescents (ASVA): A bidimensional perspective. *International Journal of Behavioral Development*, 26, 202-213.
- Nguyen, A.M., & Benet-Martínez, V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology*. 44, 122-159.
- Nilsson, J. E., Butler, J., Shouse, S., & Joshi, C. (2008). The relationships among perfectionism, acculturation, and stress in Asian international students. *Journal of College Counseling*, 11(2), 147.



- Noh, S., & Kaspar, V. (2003). Perceived discrimination and depression: Moderating effects of coping, acculturation, and ethnic support. *American Journal of Public Health, 93*, 232–238.
- Ong, A. D., Fuller-Rowell, T. E., & Phinney, J. S. (2010). Measurement of ethnic identity: Recurrent and emergent issues. *Identity: An International Journal of Theory and Research, 10*, 39-49.
- Organista, P. B., Organista, K. C., & Kurasaki, K. (2003). The relationship between acculturation and ethnic minority mental health. In K. M. Chun, P. B. Organista, & G. Marin (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (pp. 139-161). Washington, DC: American Psychological Association.
- Padilla, A. M. (1994). *Hispanic psychology: Critical issues in theory and research*. Thousand Oaks, CA: SAGE Publications.
- Padilla, A. M. (2006). Bicultural social development. *Hispanic Journal of Behavioral Sciences, 28*, 467–497.
- Padilla, A. M. & Perez, W. (2003). Acculturation, social identity, and social cognition: A new perspective. *Hispanic Journal of Behavioral Science, 25*(1), 35-55.
- Park, K. (1999). I really do feel I'm 1.5: The construction of self and community by young Korean Americans. *Ameriasia Journal, 25*(1), 139-163.
- Park, S., Anastas, J., Shibusawa, T., & Nguyen, D. (2014). The impact of acculturation and acculturative stress on alcohol use across Asian immigrant subgroups. *Substance Use & Misuse, 49*(8), 922-31.

- Pawliuk, N., Grizenko, N., Chan- Yip, A., Gantous, P., Mathew, J., & Nguyen, D. (1996).  
Acculturation style and psychological functioning in children of immigrants. *American Journal of Orthopsychiatry*, 66(1), 111-121.
- Pfafferott, I. & Brown, R. (2006). Acculturation preferences of majority and minority adolescents in Germany in the context of society and family. *International Journal of Intercultural Relations*, 30(6), 703-717.
- Phinney, J. S. (1989). Stages of ethnic identity in minority group adolescents. *Journal of Early Adolescence*, 9, 34-39. doi:10.1177/0272431689091004
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin*, 108, 499-514. doi:10.1037/0033-2909.108.3.499
- Phinney, J. S. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with diverse groups. *Journal of Adolescent Research*, 7, 156-176. doi:10.1177/074355489272003
- Phinney, J. S. (1996). When we talk about American ethnic groups, what do we mean? *American Psychologist*, 51, 918-927.
- Phinney, J. S., & Devich-Navarro, M. (1997). Variations in bicultural identification among African American and Mexican American adolescents. *Journal of Research on Adolescence*, 7, 3-32. doi: 10.1207/s15327795jra0701\_2
- Portes, A., & Rumbaut, R. G. (2001). *Legacies: The story of immigrant second generation*. Berkeley, CA: University of California Press.
- Reich, W., Zautra, A. J., & Hall, J. S. (Eds.). (2010). *Handbook of adult resilience*. New York, NY: Guilford.
- Richardson, G. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, 58(3), 307-321

- Rodriguez, L., Schwartz, S. J., & Whitbourne, S. K. (2010). American identity revisited: The relation between national, ethnic, and personal identity in a multiethnic sample of emerging adults. *Journal of Adolescent Research, 25*, 324-349.
- Rogier, L. H., Cortes, R. S., & Malgady, R. G. (1991). Acculturation and mental health status among Hispanics. *American Psychologist, 46*, 585-597.
- Roytburd, L., & Friedlander, M. L. (2008). Predictors of Soviet Jewish refugees' acculturation: Differentiation of self and acculturative stress. *Cultural Diversity Ethnic Minority Psychology, 14*(1), 67-74. doi:10.1037/1099-9809.14.1.67.
- Rudmin, F. W. (2003). Critical history of the acculturation psychology of assimilation, separation, integration, and marginalization. *Review of General Psychology, 7*, 3-37.
- Rudmin, F. W. (2010). Steps towards the renovation of acculturation research paradigms: What scientists' personal experiences of migration might tell science. *Culture & Psychology, 16*(3), 299-312.
- Ruiz, R. A., & Padilla, A. M. (1977), Counseling Latinos. *The Personnel and Guidance Journal, 55*, 401-408. doi:10.1002/j.2164-4918.1977.tb05275.x
- Rumbaut, R. G., & Portes, A. (2001). *Ethnicities: Children of immigrants in America*. Berkeley, CA: University of California Press.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry, 57*(3), 316-331.
- Ryan, R. M., & Deci, E. L. (2001). To be happy or to be self-fulfilled: A review of research on hedonic and eudaimonic well-being. In S. Fiske (Ed.), *Annual Review of Psychology* (Vol. 52, pp. 141-166). Palo Alto, CA: Annual Reviews/ Inc.

- Ryder, A., Alden, L., & Paulhus, D. (2000). Is acculturation unidimensional or bidimensional? A head-to-head comparison in the prediction of personality, self-identity, and adjustment. *Journal of Personality and Social Psychology, 79*, 49–65.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological wellbeing. *Journal of Personality and Social Psychology, 57*, 1069-1081. doi:10.1073/0022-3514.57.6
- Ryff, C. D. (1995). Psychological wellbeing in adult life. *Current Directions in Psychological Science, 4*(4), 99-104.
- Ryff, C., & Keyes, C. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*, 719–727.
- Sam, D. L., Vedder, P., Ward, C., & Horenczyk, G. (2006). Psychological and sociocultural adaptation of immigrant youth. In J. W. Berry, J. S. Phinney, D. L. Sam, & P. Vedder (Eds.), *Immigrant youth in cultural transition: Acculturation, identity, and adaptation across national contexts* (pp. 117-141). Mahwah, NJ: Lawrence Erlbaum.
- Samuel, E. (2009). Acculturative stress: South Asian Immigrant Women's experiences in Canada's Atlantic provinces. *Journal of Immigrant and Refugee Studies, 7*(1), 16-34. doi: 10.1080/15562940802687207
- Sayegh, L. & Lasry, J. (1993). Immigrants' adaptation in Canada: Assimilation, acculturation, and orthogonal cultural identification. *Canadian Psychology/Psychologie Canadienne, 34*(1), 98-109. doi.org/10.1037/h0078777
- Schwartz, S. J., & Zamboanga, B. L. (2008). Testing Berry's model of acculturation: A confirmatory latent class approach. *Cultural Diversity and Ethnic Minority Psychology, 14*, 275–285. doi:10.1037/a0012818

- Schwartz, S. J., & Zamboanga, B. L. (2008). Testing Berry's model of acculturation: A confirmatory latent class approach. *Cultural Diversity and Ethnic Minority Psychology, 14*, 275–285.
- Schwartz, S. J., Pantin, H., Prado, G., Sullivan, S., & Szapocznik, J. (2006). Nativity and years in the receiving culture as markers of acculturation in ethnic enclaves. *Journal of Cross-Cultural Psychology, 37*, 345-353
- Seligman, M. (2011). *Flourish: A visionary new understanding of happiness and wellbeing*. New York, NY: Simon & Schuster.
- Seligman, M. E. P. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York, NY: Free Press.
- Shpiegelman, C. (2007). *Psychological adjustment and life satisfaction of Latino college students* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3255808)
- Smart, J. F., & Smart, D. W. (1995). Acculturative stress of Hispanics: Loss and challenge. *Journal of Counseling Development, 73*(4), 390-396.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief Resilience Scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine, 15*(3), 194-200.
- Steiner, N. (2009). *International migration and citizenship today*. New York, NY: Routledge.
- Suarez-Morales, L., & Lopez, B. (2009). The impact of acculturative stress and daily hassles on pre-adolescent psychological adjustment: Examining anxiety symptoms. *Journal of Primary Prevention, 30*, 335-349. doi: 10.1007/s10935-009-0175-y

- Suarez-Orozco, C., & Suarez-Orozco, M. (2001). *Children of immigrants*. Cambridge, MA: Harvard University Press.
- Suárez-Orozco, C., Suárez-Orozco, M. M., & Todorova, I. (2008). *Learning a new land: Immigrant students in American society*. Cambridge, MA: Harvard University Press.
- Suarez-Orozco, M. (2007). *Learning in the Global Era: International perspectives on globalization and education*. Berkley, CA: University of California Press.
- Sue, S., Sue, D. W., Sue, L., & Takeuchi, D. T. (1995). Psychopathology among Asian Americans: A model minority? *Cultural Diversity and Mental Health*, 1(39), 39-51.  
<https://doi.org/10.1177/1039856215609769>
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (3<sup>rd</sup> ed.). New York, NY: Harper Collins.
- Takeuchi, D. T., Alegria, M., Jackson, J. S., & Williams, D. R. (2007). Immigration and Mental Health: Diverse Findings in Asian, Black, and Latino Populations. *American Journal of Public Health*, 97(1), 11–12. doi:<http://doi.org/10.2105/AJPH.2006.103911>
- Takeuchi, D. T., Chung, R. C. Y., Lin, K. M. (1998). Lifetime and twelve-month prevalence rates of major depressive episodes and dysthymia among Chinese Americans in Los Angeles. *American Journal of Psychiatry*, 155, 1407–1414.
- Takeuchi, D. T. & Uehara, E. (1996). Ethnic minority mental health services: current research and future conceptual directions. In B. Lubotsky Levin & J. Pettila (Eds.) *Mental health services: A public health perspective* (pp. 63-80). New York, NY: Oxford University Press.
- Triandis, H. C. (1984). A theoretical framework for the more efficient construction of culture assimilators. *International Journal of Intercultural Relations*, 8, 301-330

- Tsai, J. L., Ying, Y., & Lee, P. A. (2000). The meaning of "being Chinese" and "being American": Variation among Chinese American young adults. *Journal of Cross- Cultural Psychology, 31*(3), 302-332.
- Turner, S. G. (2001). Resilience and social work practice: Three case studies. *Families in Society, 82*(5), 441-448.
- U.S. Census Bureau. (2009). *Nativity status and citizenship in the United States: 2009*. Retrieved from <http://www.census.gov/prod/2010pubs/acsbr09-16.pdf>
- U.S. Census Bureau. (2011). *Selected social characteristics in the United States: Foreign-born. 2011 American Community Survey 1-year estimates*. Retrieved from [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACs\\_11\\_1Yr\\_dp02&prodtype=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACs_11_1Yr_dp02&prodtype=table)
- U.S. Census Bureau. (2016). *Characteristics of the U.S. Population by Generational Status: 2014*. Retrieved from <http://census.gov/content/dam/Census/library/publications/2016/demo/P23-214.pdf>
- Ungar, M. (2008). Resilience across cultures. *British Journal of Social Work, 38*(2), 218-235 doi:10.1093/bjsw/bcl343
- Van Oudenhoven, J. P., Ward, C., & Masgoret, A.-M. (2006). Patterns of relations between immigrants and host societies. *International Journal of Intercultural Relations, 30*, 637–651.
- Vivero, V. N., & Jenkins, S. R. (1999). Existential hazards of the multicultural individual: Defining and understanding "cultural homelessness." *Cultural Diversity and Ethnic Minority Psychology, 5*(1), 6-26.

- Wagnild, G. (2009). A review of the Resilience Scale. *Journal of Nursing Measurement, 17*(2), 105-113.
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of resilience scale. *Journal of Nursing Measurement, 1*(2), 165-178.
- Walsh, M. (2011). *Cultural frame switching and cognitive performance*. Fresno, CA: Fresno State University Digitized Collections. Retrieved from <http://cdmweb.lib.csufresno.edu/cdm/ref/collection/thes/id/61658>.
- Ward, C., & Kennedy, A. (1994). Acculturation strategies, psychological adjustment, and sociocultural competence during cross-cultural transitions. *International Journal of Intercultural Relations, 18*(3), 329-343.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070. doi:10.1037/0022-3514.54.6.1063
- Werner, E. E. (1993) Risk, resilience, and recovery: Perspectives from the Kauai Longitudinal Study. *Development and Psychopathology, 5*, 503–15. doi:10.1017/S095457940000612X
- Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High-risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.
- Williams, C. L., & Berry, J. W. (1991). Primary prevention of acculturative stress among refugees: Application of psychological theory and practice. *American Psychologist, 46*, 632–641.
- Windle, G., Bennett, K., M., & Noyes, J. (20011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes, 9*(8), 1-18 doi:10.1186/1477-7525-9-8



- Wong, D. F. K. (2002). Stage-specific and culture-specific coping strategies used by mainland Chinese immigrants during resettlement in Hong Kong: A qualitative analysis. *Social Work Health and Mental Health*, 35(1/2), 479-499.
- Worthen, B. R., Sanders, J. R., & Fitzpatrick, J. L. (1997). *Program evaluation: Alternative approaches and practical guidelines*. (2nd ed.). White Plains, NY: Addison Wesley Longman.
- Xu, L., & Chi, I. (2013). Acculturative stress and depressive symptoms among Asian immigrants in the United States: The roles of social support and negative interaction. *Asian American Journal of Psychology*, 4(3), 217-226. doi:10.1037/a003016
- Ying, Y. J. (1996) Cultural orientation and psychological wellbeing in Chinese Americans. *American Journal of Community Psychology*, 23(6), 893-911.
- Yoo, H. C., & Lee, R. M. (2005). Ethnic identity and approach-type coping as moderators of the racial discrimination/well-being relation in Asian Americans. *Journal of Counseling Psychology*, 52, 497-506.
- Yoo, H. C. & Lee, R. M. (2008). Does ethnic identity buffer or exacerbate the effects of frequent racial discrimination on situational wellbeing of Asian Americans? *Journal of Counseling Psychology*, 55(1), 63-74.
- Zane, N., & Mak, W. (2003). Major approaches to the measurement of acculturation among ethnic minority populations: A content analysis and an alternative empirical strategy. In K. Chun, P. Balls Organista, & G. Marín (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (pp. 39–60). Washington, DC: American Psychological Association.

Zyuban, A. & Samstag, L. (2009). *Relationship between the level of differentiation of self, the quality of object relations and acculturation strategies* (Unpublished manuscript).

Brooklyn, NY: Department of Psychology, Long Island University.

Appendix A

Letter of Approval from Human Subjects Institutional Review Board

# WESTERN MICHIGAN UNIVERSITY



Human Subjects Institutional Review Board

Date: May 15, 2017

To: Joseph Morris, Principal Investigator  
Hartini Abdul-Rahman, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 16-02-16

This letter will serve as confirmation that the changes to your research project titled “Bicultural Identity Integration and Individual Resilience as Moderators of Acculturation Stress and Psychological Wellbeing of Immigrants” requested in your memo received May 12, 2017 (to revise the format of the original research questions of the study, which include (1) changing the order of the inferential research questions, (2) changing the wording of the inferential research questions to reflect research intention more accurately, (3) breaking one of the questions containing several variables into separate questions to improve reader’s understanding, and (4) adding three research hypotheses for the study) have been approved by the Human Subjects Institutional Review Board.

The conditions and the duration of this approval are specified in the Policies of Western Michigan University.

Please note that you may **only** conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

**Approval Termination:**

**February 21, 2018**

1903 W. Michigan Ave., Kalamazoo, MI 49008-5456

PHONE: (269) 387-8293 FAX: (269) 387-8276

CAMPUS SITE: 251 W. Walwood Hall

## Appendix B

Script for Initial Contact with International Admissions and Services

*This script will be used to contact selected Director of International Admissions and Services via e-mail. One phone contact attempt will be made approximately one week after initial e-mail is sent. If no person is reached and no message is left, a second attempt for phone contact will be made.*

Dear Dr./Mr./Ms. (Director of International Student Services)

My name is Hartini Abdul Rahman, and I am a counseling psychology doctoral student at Western Michigan University. I am contacting you in hopes of recruiting international students from Far East Asian countries to participate in my dissertation study. My research focuses on the association of bicultural identity integration, resilience, acculturative stress and psychological wellbeing of immigrants. The study will consist of collecting data using the Bicultural Identity Integration Scale, the Riverside Acculturative Stress Instrument, The Brief Resilience Scale, the 14-item Resilience Scale, the DSC-5 Level 1 Cross-Cutting Symptom Measure, the Flourishing Scale and the Scale of Positive and Negative Experiences. If you choose to share this opportunity with your students, please forward the attached invitation. As I am trying to track the number of invited participants, it would be greatly appreciated if you would copy me on the forwarded email to your students.

The participant invitation includes detailed information about the study as well as potential compensation for participation through drawings. Participation is expected to take 17-25 minutes. I will contact you within a week to answer any questions you may have regarding participation in my study. Feel free to contact me by e-mail or phone (269) 823-8281 if any questions arise before that time.

Sincerely,  
Hartini Abdul Rahman, M.A.

**Director of International Students who share participant invitation and copy researcher**

*This e-mail will be sent to all Directors who forwarded the invitation to participate to their students and copied the researcher to that e-mail.*

Dear Dr./Mr./Ms. (Director of International Student Services)

I want to express my gratitude for sharing my dissertation study invitation with your students. I appreciate the time you have taken in considering this as an opportunity for your students. I will contact you within a week to answer any questions that may come up, unless you feel comfortable without needing that contact in which case you can reply to this e-mail and inform me the phone call is not necessary. Feel free to contact me by e-mail or phone (269) 823-8281 if any questions arise before or after my call to you.

Sincerely,  
Hartini Abdul Rahman, M.A.

**Follow-up Phone Contact with Director**  
**[Director did not copy me on forwarded invitation to students]**

*This phone contact will be for Directors who did not, to the researcher's knowledge, forward the invitation to students.*

Hello Dr. /Mr./MS. (Director/Chair). My name is Hartini Abdul Rahman and I am a counseling psychology doctoral student at Western Michigan University. Approximately one week ago I contacted you via e-mail asking if you are willing to forward on my invitation to your international students to participate in my dissertation study. I am calling to confirm you have received my e-mail and to determine if you are willing to forward my invitation to your students as only a limited number of programs have been asked to participate. I would also like to answer any follow-up questions you may have regarding my research or the participation of your students. (Directors who agree to pass along invitation will be thanked for their time. Directors who decline to pass invitation will be thanked for their time).

**[Director copied researcher on forwarded invitation to students]**

Hello Dr. (Director). My name is Hartini Abdul Rahman and I am a counseling psychology doctoral student at Western Michigan University. Approximately one week ago I contacted you via e-mail asking if you are willing to forward my invitation to your international students to participate in my dissertation study. I wanted to extend my appreciation for you forwarding the invitation to your students and answer any questions you may have. (Directors will be thanked for their time after any questions are asked).

Appendix C  
Participant Invitation



Dear Student,

I am a doctoral candidate in the Counseling Psychology program at Western Michigan University, completing my dissertation under the supervision of Dr. Joseph Morris. I would like to invite you to participate in a research study on the **psychological wellbeing of bicultural individuals from Far-East Asian countries** – East Asia, South Asia, Southeast Asia. This study is important because, research has shown that bicultural individuals and families face significant acculturation challenges as they navigate two cultural worlds, and these experiences can have an impact on psychological wellbeing. Yet, little is known about how individuals handle such challenges, their resilience and bicultural identity integration. Therefore, the purpose of this study is to understand the association between bicultural identity integration, resilience, acculturation experience and psychological wellbeing of individuals who have been exposed to both the American culture and the Asian culture as a result of being an **international student/scholar** in the U.S., or becoming a **naturalized U.S. citizen**, or if you are **born in the U.S. to at least one non-American parent**.

An online survey has been designed to collect information on this topic and I am inviting you to participate.

Survey link: <http://biculturalism2016.questionpro.com> Password: **bicultural**

You are eligible to participate in this study if:

1. You are a man or woman of Asian heritage
2. You identify as bicultural
3. You are at least 18 years of age
4. International individuals: have stayed in the U.S. for two years minimum
5. American-born individuals: at least one of your parents was born in a country located in the Far East Asian region \*(Countries located in East Asia, South Asia and Southeast Asia)

Participation for this study is expected to take 10 minutes. Data will be collected anonymously and no information regarding names of specific program or participants will be collected. Participation is completely free and voluntary. Immediately following completion of the study questionnaire, you will be re-directed to a separate questionnaire to fill out contact information for a drawing for one of (3) Amazon.com gift cards valued at \$125, \$75, and \$50 each.

Regardless of whether or not you meet the criteria, please consider forwarding this message to others you know who do meet the criteria and may also be interested to participate. If you have any questions, please feel free to contact me by e-mail ([h4abdulr@wmich.edu](mailto:h4abdulr@wmich.edu)) or by phone (269) 823-8281. Thank you for your time and consideration.

If you are willing and eligible please click on this link or copy and paste into a web browser to begin the survey: <http://biculturalism2016.questionpro.com> Password: **bicultural**

Thank you for your assistance in this important endeavor.

Warm regards,

Hartini Abdul-Rahman, M.A.

Doctoral Candidate,

Dept. of Counselor Education and Counseling Psychology,

Western Michigan University

---

Appendix D  
Consent Document

Western Michigan University  
**Counselor Education/Counseling Psychology**

**Principal Investigator:** Dr. Joseph R. Morris, Ph.D.  
**Student Investigator:** Hartini Abdul-Rahman, M.A.  
**Title of Study:** Bicultural Identity Integration and Resilience as Moderators of Acculturation Stress and Psychological Wellbeing of Immigrants

You have been invited to participate in a research project titled "Bicultural Identity Integration and Resilience as Moderators of Acculturation Stress and Psychological Wellbeing of Bicultural Immigrants". This project will serve as Hartini Abdul-Rahman's dissertation study for the requirements of the Doctor of Philosophy degree in Counseling Psychology. This consent document will explain the purpose of this research project and will go over all of the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions if you need more clarification.

**What are we trying to find out in this study?**

This study aims to further the understanding of the perceived acculturation stress bicultural individuals experience, their bicultural identity, their resilience and the association with psychological wellbeing.

**Who can participate in this study?**

You are eligible to participate if you meet the following criteria:

- (1) Self-identifies as bicultural (individuals who have been exposed and internalized two cultural systems as a result of cross-cultural exposure), including foreign-born individuals, naturalized U.S. citizens and/or U.S. citizens who were born to at least one non-American parent.
- (2) Far-East Asian descent emerging adult students attending a culturally diverse university in the state of Michigan
- (3) At least one of your parents was born in a country located in the Far-East Asia region
- (4) Minimum age of 18
- (5) Minimum stay in the United States for foreign-born participants (e.g. international students) is two years.

**Where will this study take place?**

This study will be conducted solely online utilizing a QuestionPro survey to collect data.

**What is the time commitment for participating in this study?**

The time commitment for this study is approximately 15 minutes to complete an online survey.

**What will you be asked to do if you choose to participate in this study?**

You will be asked to complete an online survey consisting of 99 questions about your bicultural identity, acculturation stress experience, your individual resilience, and your psychological wellbeing. Once the survey is completed, you will be given the option to enter into a drawing for one of (3) Amazon.com gift cards valued at \$125, \$75, and \$50 each.

**What information is being measured during the study?**

This study will measure demographic data, bicultural identity integration, acculturation stress, resilience, and psychological wellbeing using the Bicultural Identity Integration Scale, the Riverside Acculturative Stress Instrument, the 14-item Resilience Scale, and the Ryff Scales of Psychological Well-Being.

**What are the risks of participating in this study and how will these risks be minimized?**

There are minimal risks expected for participation in this study. If you become distressed you may choose to discontinue participation at any time. To minimize fatigue, more time consuming questions were placed at the beginning of the survey.

All information collected on the questionnaire is anonymous and no identifying information will be collected in the study questionnaire including specific programs students attend.

**What are the benefits of participating in this study?**

Participants may also have a heightened level of awareness of their psychological wellbeing as a result of participating in this study. This study may assist the field of mental health in having a deeper understanding of immigrant resilience and bicultural identity, which may lead to more adjustment-related programming to promote psychological wellbeing of these individuals.

**Are there any costs associated with participating in this study?**

Other than time, there are no financial costs to you for participating in this study.

**Is there any compensation for participating in this study?**

There is no compensation to you for participating in this study; however, upon completion of this study you will have the option of entering a drawing for one of (3) Amazon.com gift cards valued at \$125, \$75, and \$50 each.

**Who will have access to the information collected during this study?**

Only the principal investigator and the student investigator will have access to your data collected during this study. No identifying information will be collected from you. Results of data collection may be used for publication or conference presentations in the future; however, all participant information collected will be anonymous.

An aggregate report will be available upon completion of the study and participants may contact the researchers to obtain this report.

**What if you want to stop participating in this study?**

You can choose to stop participating in the study at any time for any reason. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience NO consequences either academically or personally if you choose to withdraw from this study.

The investigator can also decide to stop your participation in the study without your consent.

Should you have any questions prior to or during the study, you can contact the primary investigator, Dr. Joseph R. Morris at 269-387-5112 or [joseph.morris@wmich.edu](mailto:joseph.morris@wmich.edu). The student investigator, Hartini Abdul-Rahman, can be contacted at 269-823-8281 or [hartini.abdulrahman@wmich.edu](mailto:hartini.abdulrahman@wmich.edu). You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions or problems arise during the course of the study.

This study was approved by the Western Michigan University Human Subjects Institutional Review Board (HSIRB) on (approval date). Please do not participate in this study after (approval termination date).

-----

Participating in this survey online indicates your consent for use of the answers you supply.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study. Please click “yes” if you agree. Please click “no” if you do not agree.

Survey Link: <http://enterprise.questionpro.com/t/ALuXoZTNTb>

PASSWORD: Bicultural\_2016

Appendix E  
Debriefing Statement

Thank you for participating in the study!

If you would like more information on this study or if you have other general questions, please feel free to email me at: [hartini.abdulrahman@wmich.edu](mailto:hartini.abdulrahman@wmich.edu)

If you are interested in participating in the drawing for one of three Amazon.com gift cards, please enter your name and email address after you click “yes” below. Your responses to the survey are stored separately from your email address to ensure your anonymity.

Thank you!

Hartini Abdul Rahman

Western Michigan University

Yes, I would like to enter the drawing

No, I am finished

Appendix F

Riverside Acculturative Stress Inventory (RASI) Permission to Use



# Re: Requesting Permission to Use Scale (RASI)

Hartini Binti Abdul Rahman

Tue 12/1/2015 1:23 PM

To: Veronica Benet-Martinez <veronica.benet@upf.edu>;

Dear Dr. Benet-Martinez,

Thank you for the permission and scale materials.

Take care.

Regards,

Hartini

----- Original Message -----

> From: "Veronica Benet-Martinez" <veronica.benet@upf.edu>

> To: "Hartini Abdul Rahman" <hartini.abdulrahman@wmich.edu>

> Sent: Tuesday, December 1, 2015 11:41:56 AM

> Subject: RE: Requesting Permission to Use Scale (RASI)

>

> Permission granted, and good luck!

>

> =====

>

> Veronica Benet-Martinez

> ICREA Research Professor

> Department of Political and Social Sciences

> Universitat Pompeu Fabra

> Ramon Trias Fargas 25-27 / Barcelona 08005 / Spain

>

> <http://www.icrea.cat/Web/ScientificStaff/Veronica-Benet-Martinez-518>

> <http://www.upf.edu/pdi/benet-martinez/>

> <http://scholar.google.com/citations?user=tI2CqJsAAAAJ&hl=en&oi=ao>

>

>

>

>

> -----Original Message-----

> From: Hartini Abdul Rahman [<mailto:hartini.abdulrahman@wmich.edu>]

> Sent: Tuesday, December 01, 2015 4:45 PM

> To: veronica.benet@upf.edu

> Subject: Requesting Permission to Use Scale (RASI)

>

> Dear Dr. Benet-Martínez,

>

> Please allow me to introduce myself. My name is Hartini Abdul-Rahman,

> a doctoral student in Counseling Psychology at Western Michigan

> University, Kalamazoo, MI. My dissertation is tentatively entitled

> "Bicultural identity integration and resilience as moderators of

> acculturation stress and psychological well-being of self-identified

> bicultural immigrants." The focus of this dissertation will be to

> understand self-identified bicultural individuals' acculturative

> experiences in negotiating two internalized cultures and the

> associations between demographics, resilience, bicultural identity,

> acculturation stress, and psychological well-being. Self-identified  
> bicultural individuals in US college campuses will serve as  
> participants. Additionally, the study will utilize an online survey  
> method. My goal is to conduct the study during the 2016 spring  
> academic term.  
>  
> The purpose of this correspondence is to gain your written permission  
> to use the Riverside Acculturation Stress Inventory (RASI) as one of  
> four instruments in this study. Since the study involves college  
> students from Asian countries (foreign-born and American-born), I am  
> also asking for permission to modify some of the wording of the  
> items in the scales so that they are applicable to this specific  
> population.  
>  
> As the RASI was used with college students, I do not anticipate  
> having to make any changes to the scale. I am asking for permission  
> to make changes to the working of the items if necessary. Should you  
> grant me permission to use the scales for my dissertation research,  
> I will gladly share my findings with you.  
>  
> In closing, I look forward to receiving your written response to my  
> request. Should you have any questions or need additional  
> information from me, I can be reached by email at  
> hartini.abdulrahman@wmich.edu or phone at (269) 823-8281. Thank you  
> for your consideration.  
>  
> Sincerely,  
>  
> Hartini Abdul-Rahman  
>  
>  
> --  
> Hartini Abdul-Rahman, MA  
> Doctoral Student, Counseling Psychology  
> Department of Counselor Education and Counseling Psychology Western  
> Michigan University hartini.abdulrahman@wmich.edu  
>

--  
Hartini Abdul-Rahman, MA  
Doctoral Student, Counseling Psychology  
Department of Counselor Education and Counseling Psychology  
Western Michigan University  
hartini.abdulrahman@wmich.edu

Appendix G

Resilience Scale (RS-14) Licensing Agreement

**INTELLECTUAL PROPERTY LICENSE AGREEMENT**  
**Students & Residents of Developing Countries**

This Intellectual Property License Agreement ("Agreement") is made and effective this **23 September 2015** ("Effective Date") by and between The Resilience Center, PLLP ("Licensor") and **Hartini Binti Abdul Rahman** ("Licensee").

Licensor has developed and licenses to users its Intellectual Property, marketed under the names "the Resilience Scale," "RS", "14-item Resilience Scale" and "RS14," and (the "Intellectual Property").

Licensee desires to use the Intellectual Property.

NOW, THEREFORE, in consideration of the mutual promises set forth herein, Licensor and Licensee agree as follows:

1. License.  
Licensor hereby grants to Licensee a 1-year, non-exclusive, limited license to use the Intellectual Property as set forth in this Agreement.
2. Restrictions.  
Licensee shall not modify, license or sublicense the Intellectual Property, or transfer or convey the Intellectual Property or any right in the Intellectual Property to anyone else without the prior written consent of Licensor. Licensee may make sufficient copies of the Intellectual Property and the related Scoring Sheets to measure the individual resilience of **up to 300** subjects, for non-commercial purposes only.
3. Fee.  
In consideration for the grant of the license and the use of the Intellectual Property, subject to the Restrictions above, Licensee agrees to pay Licensor the sum of **US\$75**.
4. Term.  
This license is valid for twelve months, starting at midnight on the Effective Date.
5. Termination.  
This license will terminate at midnight on the date twelve months after the Effective Date.
6. Warranty of Title.  
Licensor hereby represents and warrants to Licensee that Licensor is the owner of the Intellectual Property or otherwise has the right to grant to Licensee the rights set forth in this Agreement. In the event any breach or threatened breach of the foregoing representation and warranty, Licensee's sole remedy shall be to require Licensor to do one of the following: i) procure, at Licensor's expense, the right to use the Intellectual Property, ii) replace the Intellectual Property or any part thereof that is in breach and replace it with Intellectual Property of comparable functionality that does not cause any breach, or iii) refund to Licensee the full amount of the license fee upon the return of the Intellectual Property and all copies thereof to Licensor.
7. Warranty of Functionality.  
Licensor provides to Licensee the Intellectual Property "as is" with no direct or implied warranty.
8. Payment.  
Any payment shall be made in full prior to shipment. Any other amount owed by Licensee to Licensor pursuant to this Agreement shall be paid within thirty (30) days following invoice from Licensor. In the event any overdue amount owed by Licensee is not paid following ten (10) days written notice from Licensor, then in addition to any other amount due, Licensor may impose and Licensee shall pay a late payment charge at the rate of one percent (1%) per month on any overdue amount.
9. Taxes.  
In addition to all other amounts due hereunder, Licensee shall also pay to Licensor, or reimburse Licensor as appropriate, all amounts due for tax on the Intellectual Property that are measured directly by payments made by Licensee to Licensor. In no event shall Licensee be obligated to pay any tax paid on the income of Licensor or paid for Licensor's privilege of doing business.
10. Warranty Disclaimer.  
LICENSOR'S WARRANTIES SET FORTH IN THIS AGREEMENT ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

11. **Limitation of Liability.**  
Licensors shall not be responsible for, and shall not pay, any amount of incidental, consequential or other indirect damages, whether based on lost revenue or otherwise, regardless of whether Licensor was advised of the possibility of such losses in advance. In no event shall Licensor's liability hereunder exceed the amount of license fees paid by Licensee, regardless of whether Licensee's claim is based on contract, tort, strict liability, product liability, or otherwise.
12. **Support.**  
Licensor agrees to provide limited, e-mail-only support for issues and questions raised by the Licensee that are not answered in the current version of the *Resilience Scale User's Guide*, available on [www.resiliencescale.com](http://www.resiliencescale.com), limited to the Term of this Agreement. Licensor will determine which issues and questions are or are not answered in the current *User's Guide*.
13. **Notice.**  
**Any notice required by this Agreement or given in connection with it, shall be in writing and shall be given to the appropriate party by personal delivery or by certified mail, postage prepaid, or recognized overnight delivery services.**  
If to Licensor:  
The Resilience Center  
PO Box 313  
Worden, MT 59088-0313  
If to Licensee:  
Name: Hartini Binti Abdul Rahman  
2127 Arbor Circle West #103  
Ypsilanti, MI 48197  
United States
14. **Governing Law.**  
This Agreement shall be construed and enforced in accordance with the laws of the United States and the state of Montana. Licensee expressly consents to the exclusive forum, jurisdiction, and venue of the Courts of the State of Montana and the United States District Court for the District of Montana in any and all actions, disputes, or controversies relating to this Agreement.
15. **No Assignment.**  
Neither this Agreement nor any interest in this Agreement may be assigned by Licensee without the prior express written approval of Licensor.
16. **Final Agreement.**  
This Agreement terminates and supersedes all prior understandings or agreements on the subject matter hereof. This Agreement may be modified only by a further writing that is duly executed by both Parties.
17. **Severability.**  
If any term of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, then this Agreement, including all of the remaining terms, will remain in full force and effect as if such invalid or unenforceable term had never been included.
18. **Headings.**  
Headings used in this Agreement are provided for convenience only and shall not be used to construe meaning or intent.

IN WITNESS WHEREOF, the Parties hereto have duly caused this Agreement to be executed in its name on its behalf, all as of the day and year first above written.

Licensee	The Resilience Center
Signature:	
Printed Name: Hartini Binti Abdul Rahman	Gail M. Wagnild, PhD
Title: Student	Owner and CEO
Date: 23 September 2015	23 September 2015

## Appendix H

Bicultural Identity Integration Scale (BIIS-2) Permission to Use

## Requesting Permission to Use Scale (BIIS-2)

----- Original Message -----

> From: "Veronica Benet-Martinez" <veronica.benet@upf.edu>  
> To: "Hartini Abdul Rahman" <hartini.abdulrahman@wmich.edu>  
> Sent: Tuesday, December 1, 2015 11:41:56 AM  
> Subject: RE: Requesting Permission to Use Scale (BIIS-2)  
>  
> Permission granted, and good luck!

**Hartini Binti Abdul Rahman**

Tue 12/1/2015 10:45 AM

To: Quelam hyunh <Quelam.hyunh@csun.edu>; Veronica Benet-Martinez <veronica.benet@upf.edu>;

Dear Drs. Hyunh & Benet-Martinez,

Please allow me to introduce myself. My name is Hartini Abdul-Rahman, a doctoral student in Counseling Psychology at Western Michigan University, Kalamazoo, MI. My dissertation is tentatively entitled "Bicultural identity integration and resilience as moderators of acculturation stress and psychological well-being of self-identified bicultural immigrants." The focus of this dissertation will be to understand self-identified bicultural individuals' acculturative experiences in negotiating two internalized cultures and the associations between demographics, resilience, bicultural identity, acculturation stress, and psychological well-being. Self-identified bicultural individuals in US college campuses will serve as participants. Additionally, the study will utilize an online survey method. My goal is to conduct the study during the 2016 spring academic term.

The purpose of this correspondence is to gain your written permission to use the Bicultural Identity Integration -2 (BIIS-2) as one of four instruments in this study. Since the study involves college students from Asian countries (foreign-born and American-born), I am also asking for permission to modify some of the wording of the items in the scales so that they are applicable to this specific population.

As the BIIS-2 was used with college students, I do not anticipate having to make any changes to the scale. I am asking for permission to make changes to the working of the items if necessary. Should you grant me permission to use the scales for my dissertation research, I will gladly share my findings with you.

In closing, I will need the exact questions used in the BIIS-2 as they were not printed in the article by Hyunh, Q.L., Nguyen, A.M., & Benet-Martinez (2011). I look forward to receiving your written response to my request. Should you have any questions or need additional information from me, I can be reached by email at hartini.abdulrahman@wmich.edu or phone at (269) 823-8281. Thank you for your consideration.

Sincerely,

Hartini Abdul-Rahman, MA  
Doctoral Student, Counseling Psychology  
Department of Counselor Education and Counseling Psychology  
Western Michigan University  
hartini.abdulrahman@wmich.edu

## Appendix I

Ryff's Scale of Psychological Wellbeing (SPWB) Permission to Use



# Re: Requesting Permission to Use Scale (Ryff Scales of Psychological Wellbeing 42-items)

Hartini Binti Abdul Rahman

Tue 12/1/2015 2:53 PM

To: THERESA M BERRIE <berrie@wisc.edu>;

Dear Ms. Berrie,

Thank you for your email and prompt response to my request on the PWB scales. I really appreciate it.

Regards,

Hartini

----- Original Message -----

> From: "THERESA M BERRIE" <berrie@wisc.edu>

> To: "hartini abdulrahman" <hartini.abdulrahman@wmich.edu>

> Sent: Tuesday, December 1, 2015 1:40:52 PM

> Subject: RE: Requesting Permission to Use Scale (Ryff Scales of Psychological Wellbeing 42-items)

>

> Greetings,

>

> Thanks for your interest in the well-being scales. I am responding to  
> your request on behalf of Carol Ryff. You have her permission to use  
> the scales. They are attached in the following files (both are Word  
> 97-2003 documents):

>

> - "14 Item Instructions" lists all 14 items for each of the six  
> scales of well-being (14x6=84 items), and includes information about  
> shorter options, scoring, and psychometric properties, plus a list  
> of published studies using the scales. (See the publications by C.  
> D. Ryff if you need more background information about the scales.)

>

> - "14-item Questionnaire" is a formatted version of the full  
> instrument with all 84 items. (This file will need to be modified if  
> you choose a shorter length option- see the "14 Item Instructions"  
> for which questions to include. We do not have formatted shorter  
> instruments to send out.)

>

> Please note, Dr. Ryff strongly recommends that you NOT use the  
> ultra-short-form version (3 items per scale, 3x6=18 items). That  
> level of assessment has psychometric problems and does not do a good  
> job of covering the content of the six well-being constructs. If  
> length is a concern, the 7-item scale (7x6=42 items) is a far better  
> choice than the 3-item scale. The attached file called  
> "Psychological Well-Being Documentation" provides information about  
> the 7-item scale (starting on p. 6) used in MIDUS II (for  
> information about our MIDUS study, see <http://www.midus.wisc.edu/>).

>

> There is no charge to use the scales, but we do ask that you please  
> send us copies of any materials you may publish using the scales to  
> berrie@wisc.edu and cryff@wisc.edu.

>  
> Best wishes for your research,  
>  
> --  
> Theresa Berrie  
>  
> Administrative Assistant  
> UW-MADISON INSTITUTE ON AGING (IOA)  
> 2245 MSC, 1300 University Ave.  
> Madison, WI 53706-1532  
> Phone: 608-261-1493, 608-262-1818  
> Email: berrie@wisc.edu  
> Web: aging.wisc.edu  
>  
> -----Original Message-----  
> From: CAROL RYFF  
> Sent: Tuesday, December 01, 2015 9:58 AM  
> To: Hartini Abdul Rahman <hartini.abdulrahman@wmich.edu>  
> Cc: THERESA M BERRIE <berrie@wisc.edu>  
> Subject: RE: Requesting Permission to Use Scale (Ryff Scales of  
> Psychological Wellbeing 42-items)  
>  
> Thanks for your inquiry. We will send you information about the PWB  
> scales, including the 42-item version. People can do whatever they  
> want with the items, but you should recognize that modifying the  
> items means you will have lost connection to the large body of work  
> that has now grown up around these measures. I've attached a recent  
> review -- it reported 350 publications with the measures, but the  
> total amount now exceeds 500. The scales are well validated. It  
> does not make sense in my view to tinker with the items -- nor would  
> it make sense to modify items from well-validated, well-used  
> measures of depression, or personality traits, etc.  
>  
> Best wishes for your dissertation,  
> Carol Ryff  
>  
> -----Original Message-----  
> From: Hartini Abdul Rahman [<mailto:hartini.abdulrahman@wmich.edu>]  
> Sent: Tuesday, December 01, 2015 9:46 AM  
> To: CAROL RYFF <cryff@wisc.edu>  
> Subject: Requesting Permission to Use Scale (Ryff Scales of  
> Psychological Wellbeing 42-items)  
>  
>  
> Dear Dr. Ryff,  
>  
> Please allow me to introduce myself. My name is Hartini Abdul-Rahman,  
> a doctoral student in Counseling Psychology at Western Michigan  
> University, Kalamazoo, MI. My dissertation is tentatively entitled  
> "Bicultural identity integration and resilience as moderators of  
> acculturation stress and psychological well-being of self-identified  
> bicultural immigrants." The focus of this dissertation will be to  
> understand self-identified bicultural individuals' acculturative

> experiences in negotiating two internalized cultures and the  
> associations between demographics, resilience, bicultural identity,  
> acculturation stress, and psychological well-being. Self-identified  
> bicultural individuals in US college campuses will serve as  
> participants. Additionally, the study will utilize an online survey  
> method. My goal is to conduct the study during the 2016 spring  
> academic term.  
>  
> The purpose of this correspondence is to gain your written permission  
> to use the Ryff Scales of Psychological Well-being as one of four  
> instruments in this study. Specifically, I am interested in using  
> the 42-item version; which is the version used in MIDUS II. Since  
> the study involves college students from Asian countries  
> (foreign-born and American-born), I am also asking for permission to  
> modify some of the wording of the items in the scales so that they  
> are applicable to this specific population. I am also asking for  
> permission to make changes to the working of the items if necessary.  
> Should you grant me permission to use the scales for my dissertation  
> research; I will gladly share my findings with you.  
>  
> In closing, I would like to request an electronic master copy of the  
> 42 questions used in the MIDUS II study as they were not printed in  
> the article by Morozink et. Al (2010). I look forward to receiving  
> your written response to my request. Should you have any questions  
> or need additional information from me, I can be reached by email at  
> hartini.abdulrahman@wmich.edu or phone at (269) 823-8281. Thank you  
> for your consideration.  
>  
>  
>  
> Sincerely,  
>  
> Hartini Abdul-Rahman  
>  
>  
> --  
> Hartini Abdul-Rahman, MA  
> Doctoral Student, Counseling Psychology  
> Department of Counselor Education and Counseling Psychology Western  
> Michigan University hartini.abdulrahman@wmich.edu  
>

--  
Hartini Abdul-Rahman, MA  
Doctoral Student, Counseling Psychology  
Department of Counselor Education and Counseling Psychology  
Western Michigan University  
hartini.abdulrahman@wmich.edu

Appendix J  
Demographic Questionnaire

## Demographic Questionnaire

1. Please indicate your status/affiliation:
  - a. Student
  - b. Faculty
  - c. Staff member
  - d. Alumni
  - e. Community member
  - f. Other (e.g. family member of a student/faculty/staff)
2. Please indicate your generational status:
  - a. 1<sup>st</sup> generation = I was born in another country and came to the U.S. as an adult (18 years old and above)
  - b. 1.5 generation = I was born in another country and came to the U.S. as a child or adolescent)
  - c. 2<sup>nd</sup> generation = I was born in the U.S., and at least one of my parent was born in another country
3. Please enter your age in years (for example, if you are 20 years old: 20): \_\_\_\_\_
4. Please enter your age at immigration / first entered the USA (if applicable): \_\_\_\_\_
5. Please select your gender:
  - a. Woman
  - b. Man
  - c. My gender is not listed
6. Please indicate your marital status:
  - a. Single
  - b. Partnered, not married
  - c. Married
  - d. Separated
  - e. Divorced
  - f. Other – If you select this option, please describe your status: \_\_\_\_\_
7. Highest level of education completed to date:
  - a. High school or less
  - b. Some college
  - c. College degree
  - d. Graduate / post graduate
8. Country of origin/birth: \_\_\_\_\_
9. Your ethnicity is:
  - a. African descent
  - b. European descent
  - c. Latin descent
  - d. Asian (non-Chinese descent)
  - e. Asian (Chinese descent)
  - f. Ethnically diverse – If you select this option, please specify ethnics involved  
\_\_\_\_\_
10. In my own words, I prefer to think of my ethnicity as: (for example: Chinese-Indonesian American or Vietnamese, etc.)  
\_\_\_\_\_
11. If you are biracial/multiracial, which culture/ethnic/racial group do you identify with most?  
(Please type N/A if this question is not applicable to you)  
\_\_\_\_\_