EFFECTS OF ACCULTURATION AND ACCULTURATIVE STRESS ON SECOND-GENERATION LATINO/A ADOLESCENTS’ AND EMERGING ADULTS’ WELL-BEING

A thesis submitted in partial fulfillment of the requirements
For the degree of Master of Arts in Psychology,
Clinical Psychology
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May 2013
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DEDICATION

“The beautiful thing about education is that no one can take it away from you.”

-B.B. King

I dedicate this thesis to my family for their endless love and support. Mom and Dad, I am truly grateful for the opportunities you have provided me with. To my big brothers, Robbie and Gagan, I am so blessed to be your little sister. Thank you for all of your encouragement and guidance.
ACKNOWLEDGMENT

I would like to thank my committee members for guiding me through this process:

To Dr. Janet Oh, you have provided me with tremendous amounts of encouragement and guidance. With all your help, I have acquired so much knowledge and skills in regards to research. I could not have done this project without you. I am truly grateful for your confidence in me.

To Dr. Jill Razani, you have been so helpful and encouraging through this project. Working with you in our clinic has been more inspiring than you know; it has really engaged my interest in treatment for depression and anxiety. Thank you so much for your supervision, and for your support and feedback on this project.

To Dr. Scott W. Plunkett, thank you so much for your time and efforts through this process. I truly appreciate your immense organization and attention to detail. Thank you for always being so generous, and reminding us to “enjoy life”.

Additionally, I would like to thank the members of the Linguistic Minority Development Research Lab, thank you for all your help and hard work. I couldn’t have asked for better lab mates! I would especially like to thank my graduate partner, Eunice Rhee for being there in my many moments of crisis. Your friendship and support has made this process a pleasant one.
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ABSTRACT

EFFECTS OF ACCULTURATION AND ACCULTURATIVE STRESS ON SECOND-GENERATION LATINO/A ADOLESCENTS’ AND EMERGING ADULTS’ WELL-BEING

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The purposes of this study were to examine (1) the relationship between mainstream and heritage acculturative stress and psychological well-being in second-generation Latino/a adolescents and emerging adults, (2) whether acculturation will moderate this relationship, and (3) to explore developmental differences among adolescents and emerging adults. Self-report data were collected from 138 second-generation Latino/a adolescents (mean age 14.02 years) and 244 second-generation Latino/a emerging adults (mean age 18.57 years). Participants completed the Vancouver Index of Acculturation (Ryder, Alde, & Paulhus, 2000), the Multidimensional Acculturative Stress Index (Rodriguez, Myers, Mira, Flores, & Garcia-Hernandez, 2002), and the Profile of Mood States-Adolescent Version (Terry, Lane, Lane, & Keohane, 1999). Multiple regressions were run to test the effects of acculturative stress on psychological well-being and to test if acculturation moderated this association, separately by developmental period. The results indicate that among emerging adults, heritage acculturative stress did significantly predict psychological well-being. However,
heritage acculturative stress did not significantly predict adolescents’ psychological well-being and acculturation did not moderate these associations. Additionally, mainstream acculturative stress did not significantly predict either adolescents’ or emerging adults’ psychological well-being, and acculturation did not moderate these associations. Findings of the current study can help mental health professionals better understand and treat second-generation immigrant background youth.
CHAPTER I
INTRODUCTION

Statement of the Problem

Immigration from Latin American countries has made Latino/as the largest minority group and the fastest growing sociodemographic group in the United States (U.S. Census Bureau, 2010). Census data indicate that the Latino/a population has grown from 35.3 million to 50.5 million over the past decade (Passel, Cohn, & Lopez, 2011). Latino/as make up about 18% of youth, age 16 to 25 years old, in the United States (Pew Hispanic Center, 2009). Of these youth, 34% are first-generation (foreign-born), 37% are second-generation (the first U.S. born generation), and 29% are third-generation or higher (U.S. born with U.S. born parents; Pew Hispanic Center, 2009). With the largest subpopulation of Latino/a youth being second-generation or higher, it is important to enhance our understanding of this population.

Many studies comparing first- and second-generation immigrants have pointed to a troubling occurrence known as the “immigrant paradox”. This phenomenon suggests that first-generation immigrants do better than second-generation immigrants in a number of areas, including mental health (e.g., Vega, Sribney, Aguilar-Gaxiola, & Kolody, 2004), academic achievement (e.g., Rhodes, Milburn, & Suárez-Orozco, 2009), and substance abuse problems (e.g., Bacio, Mays, & Lau, 2013; Coll & Marks, 2011). In particular, among Latino/a populations, second-generation immigrants have been found to have higher rates of psychiatric disorders and mental health problems in comparison to first-generation immigrants (Alegría et al., 2007; Escobar, Hoyos Nervi, & Gara, 2000). More specifically, second-generation Latino/as report higher rates of depression and anxiety.
disorders than first-generation immigrants (Alegría et al., 2007).

Research has suggested that poor acculturation and acculturative stress are risk factors for poor mental health and the development of psychopathology among Latino/a immigrants (Falcon & Tucker, 2000; Hovey & Magaña, 2002). Rodriguez, Myers, Mira, Flores, and Garcia-Hernandez (2002) suggest that later-generation immigrants and more highly acculturated adults experience higher levels of acculturative stress. These levels of acculturative stress arise from experiencing both mainstream and heritage acculturative pressures (Rodriguez et al., 2002). Previous research with acculturative stress has mainly focused on those pressures that arise from learning how to effectively understand the mainstream language and culture. However, Rodriguez et al. found that second-generation immigrants are also experiencing acculturative pressures related to their heritage culture, including maintenance of Spanish language and Latino/a culture. Therefore, the aim of the current study is to assess the heritage and mainstream pressures second-generation Latino/a 9th grade high school students and freshmen college students feel in relation to acculturation and whether such stresses can have a significant impact on individuals’ subjective well-being. The current study is the first study to look at these relationships in comparable samples of adolescents and emerging adults.

**Purpose**

The purposes of this study follow:

1. Take a multidimensional approach to examine the relationship between mainstream and heritage acculturative stress and psychological well-being in second-generation Latino/a adolescents and emerging adults.
2. To examine if level of mainstream and heritage acculturation moderates the relationship between acculturative stress and psychological well-being.

3. To explore developmental differences by examining separate models for adolescents and emerging adults to see if the relationship between variables is similar.

The results of this study could potentially benefit mental health professionals’ understanding and treatment of immigrant background youth. It may also facilitate future research in this area.

Definitions

1. **Latino/a**: The term Latino/a was operationally defined as an individual of birth or ancestry (parental birth of origin) from a Latin American country. For the purpose of this study, parental birth of origin was identified by participants’ self-report.

2. **First generation** was operationally defined as an individual who is foreign born and later immigrated to the United States (Fry & Passel, 2009).

3. **Second generation** was operationally defined as the first born generation in the United States with at least one foreign-born parent (Fry & Passel, 2009).

4. **Acculturation** is the process that occurs when different cultural groups come into continuous contact with one another and subsequently generate shifts in original cultural patterns of either or both groups (Redfield, Linton, & Herskovits, 1936).

5. **Acculturative stress** stems from the process of acculturation and occurs when these cultural changes cause pressures and psychological impact for individuals (Smart & Smart, 1995). Acculturative stress includes struggles due to language disparities, cultural incongruences, and cultural self-consciousness (Gil, Vega, & Dimas, 1994).
6. *Mainstream acculturative stress* is characterized by the pressures originating from American culture and English language competency (Rodriguez et al., 2002).

7. *Heritage acculturative stress* is characterized by the pressures originating from heritage culture maintenance and heritage language (Spanish in this case) competency (Rodriguez et al., 2002).

8. *Adolescence* refers to the stage of development (ages 12-17) that begins with the onset of puberty and ends at maturity (*The American Heritage College Dictionary*, 3rd ed.). This stage of development is characterized by socialization and identity development (Arnett, 2004). For the purpose of the current study, adolescents were restricted to 9th grade high school students (ages 13-15).

9. *Emerging adulthood* refers to the stage of development (ages 18-29) that is between adolescence and adulthood, where an individual is no longer an adolescent but has not fully taken on adult roles (e.g., marriage, parenthood, and career; Tanner & Arnett, 2009). This stage of development is characterized by identity exploration (their own identity and their identity within the context of society), and emerging adults often experience increased psychological stress (Arnett, 2011). It is important to note that not all emerging adults are college students and for the purpose of the current study, emerging adults were restricted to freshmen college students (ages 18-21).

**Research Hypotheses**

Based on the review of literature in Chapter 2, the following research hypotheses were developed:

1. Adolescents’ and emerging adults’ acculturative stress will be negatively associated with psychological well-being (i.e., depression and tension).
2. Adolescents’ and emerging adults’ heritage acculturation will moderate the negative association between heritage acculturative stress and psychological well-being. Specifically, it is predicted that the association will be stronger for lower levels of heritage acculturation.

3. Adolescents’ and emerging adults’ mainstream acculturation will moderate the negative association between mainstream acculturative stress and psychological well-being. Specifically, it is predicted that the association will be stronger for lower levels of mainstream acculturation.

Assumptions

This research study was based upon certain assumptions. First, it was assumed that all participants took part in the study voluntarily. Although emerging adult participants attain course credit for their participation, they have the option of completing alternative assignments. Second, it was assumed that participants were able to read and understand the survey items since they were all born in the United States and enrolled in public education. Next, participants were expected to answer all survey items completely and truthfully. Also, it was assumed that the measures used in the study were appropriate for second-generation Latino/a adolescents and emerging adults as they were previously used in other studies with Latino/a adults and had adequate reliability and validity (Huynh, Howell, & Benet-Martínez, 2009; Rodriguez et al., 2002). Lastly, it was assumed that no errors were made while coding, entering, and analyzing data; training and spot-checking procedures were undertaken to ensure accuracy.
CHAPTER II

REVIEW OF LITERATURE

Acculturation is the process that occurs when different cultural groups come into continuous contact with one another and subsequently generate shifts in original cultural patterns of either or both groups (Redfield et al., 1936). These shifts may occur in attitudes, behaviors, values, and a sense of cultural identity (Ryder et al., 2000). Previously, acculturation was seen as assimilation to the mainstream culture, in which immigrants would give up their heritage culture and adopt the mainstream culture (Gordon, 1964). This unidimensional approach characterizes acculturation as one continuum, ranging from high heritage acculturation to high mainstream acculturation. However, a bidimensional approach to acculturation has also been considered (Berry, 1980). In this approach, acculturation is viewed as having two distinct continua: (1) low to high heritage acculturation, and (2) low to high mainstream acculturation. This bidimensional framework identifies four types of acculturation: (a) assimilation - individuals who are motivated to assimilate to the mainstream culture and have low heritage culture identification, (b) separation - individuals who are motivated to separate from the mainstream culture and have high heritage culture identification, (c) integration - individuals who have integrated to both cultures, maintaining both high mainstream and high heritage culture identification, and (d) marginalization - individuals who lack maintenance and identification with either mainstream or heritage culture (Berry, 2003). Given that the two dimensions are associated with different outcomes, the bidimensional approach may provide better insight into the study of acculturation on mental health. Research utilizing the bidimensional approach generally supports that cultural integration
is associated with better mental health outcomes for individuals, including better depression outcomes, whereas cultural marginalization has been associated with negative mental health outcomes (Berry, 1997; Berry & Sam, 1997). Cultural assimilation and separation have been associated with moderate effects on mental health (Berry, 1997; 2005). Moreover, acculturation preferences have been associated with levels of stress: generally the pursuit of integration has been found to be the least stressful, whereas the pursuit of marginalization is found to be the most stressful (Berry, 1997). The pursuits of separation and assimilation of culture are met with intermediate levels of stress (Berry, 1997).

Additionally, acculturative stress has been found to contribute to mental health.

*Acculturative stress* stems from the process of cultural change and occurs when these changes cause pressures for individuals. It has been defined as the psychological impact of adjusting to a different culture (Smart & Smart, 1995). Acculturative stress includes struggles due to language disparities, cultural incongruences, and cultural self-consciousness (Gil et al., 1994). Further, these language disparities and cultural incongruences may include pressures from mainstream and heritage language as well as cultural expectations (Rodriguez et al., 2002). Previous research has long identified lack of English language proficiency as a known risk factor for elevated levels of acculturative stress (Smart & Smart, 1995). However, Spanish language proficiency may be a supplementary source of acculturative stress among Latino/a immigrants (Rodriguez et al., 2002). Specifically, later-generation Latino/a immigrants may encounter pressures from people of their country of origin to maintain their heritage culture, both through the maintenance of Spanish language and Latin American culture.
Acculturative stress has long been thought to decrease as levels of acculturation increase; with the core belief that acculturative stress is at its highest when initially adjusting to a new culture. Rodriguez et al. (2002) suggested that acculturation is an ongoing process, which allows for both first generation immigrants and later generation immigrants to experience acculturative stress. Acculturative stresses among first-generation immigrants have been found to be associated with negative outcomes such as depression (Berry, 1997; 2005), suicidal ideation (Hovey & King, 1996), and altogether poor mental health (Hovey & Magaña, 2002). It has also been negatively related to psychiatric outcomes among second-generation college students (Crockett et al., 2007). Fuertes and Westbrook (1996) found that recently-immigrated college students encounter significantly more acculturative stress than those who immigrated at an earlier age; suggesting that acculturative stress is more apparent when first adjusting to a new culture. However, these studies did not consider the different types of acculturative stressors that relate to pressures from both the mainstream and heritage cultures, such as those in a bidimensional approach (Rodriguez et al., 2002).

Recent research has suggested that later-generation immigrant adults experience acculturative stress due to pressures from their heritage culture whereas more recently immigrated individuals may experience acculturative stress due to mainstream acculturative pressures (Rodriguez et al., 2002). However, research has yet to examine the impact of mainstream and heritage culture pressures in second-generation immigrants. Further, little research has been done to examine the effects of acculturative stress on adolescents’ and emerging adults’ psychological well-being. Therefore, the purpose of the current study is to take a developmental approach to examine the impact
of acculturation and acculturative stress on psychological well-being among second-generation Latino/a adolescents and emerging adults.

Previous research examining acculturative stress in Latino/a adolescents has found it to be associated with high levels of depressive symptoms (Torres Stone, Rivera, & Berdahl, 2004; Roberts & Sobhan, 1992). During adolescence, the processes of identity development and socialization are heightened (Arnett, 2004; Phinney, 1992); adolescents are acquiring societal behavior, perceptions, values, and attitudes (Phinney 1992; Umaña-Taylor, Alfaro, Bámaca, & Guimond, 2009) and exploring aspects of personal and cultural identity including, physical and sexual identity, occupational goals, religious beliefs, and ethnic background (Erikson, 1968; Marcia, 1966). During the processes of socialization and identity development the association with heritage and mainstream cultures is likely to be explored. The process of identity development is ongoing and certain aspects may be reevaluated and altered through adulthood (Arnett, 2000).

Emerging adulthood is characterized as the period between adolescence and adulthood, where individuals are no longer adolescents but have not yet fully taken on adult roles (e.g., marriage, parenthood, and stable full-time work; Arnett, 2011). During this stage, many individuals experience shifts in their environment (e.g. going to college, moving out of parents’ home), and social expectations (e.g., becoming financially stable, developing career goals). Research suggests that during this time individuals are expanding their identity formation in areas of love, work, and world-views (Arnett, 2000). Additionally, emerging adulthood is characterized by instability and sensitivity to emotional stimuli (Tanner & Arnett, 2009). As emerging adults encounter these shifts,
they are likely to experience more stress than during adolescence, and the way in which they adapt during this stage predicts future psychological well-being (Hill, Jackson, Roberts, Lapsley, & Brandenberger, 2011). With this distinct developmental period of identity exploration and the heightened prevalence of mental health problems during these stages, it is important to examine these distinct developmental periods and note shifts in their acculturation, and acculturative stress processes during these stages.

**Theoretical Model**

Based on previous research, the current study will examine the bidimensional aspects of acculturation and acculturative stress and their roles in adolescents’ and emerging adults’ psychological well-being. Therefore, the current study proposes the model shown in Figure 1. It is proposed that adolescents’ and emerging adults’ levels of acculturative stress will be negatively associated with psychological well-being and that acculturation and developmental period will moderate this effect. Specifically, it is predicted that the association will be stronger for emerging adults than adolescents, and that the association will be stronger for lower levels of acculturation.
CHAPTER III

METHODOLOGY

Procedures

Adolescents were recruited through a Los Angeles public high school with a high Latino/a population (> 80%). Los Angeles Unified School District permission was attained prior to recruitment. Adolescents were recruited through 9th grade English and History classes. A description of the study was provided, and the adolescents were asked to take home screening questionnaires, which included parental consent and adolescent assent forms. Upon completion, those adolescents who qualified for the study were given questionnaire packets consisting of two one-time paper and pencil surveys and 14 daily surveys. The packet was given to the students at school. The initial one-time paper survey was completed at school; the survey included basic background and demographic information. The subsequent one-time paper survey was to be completed at home and returned the next day; the survey included the acculturation measure, the acculturative stress measure, as well as other measures not included in the current study. The 14 daily surveys consisted of the measure of psychological well-being among other measures; these daily surveys were to be completed at home. For the first day of participation, adolescents were asked to fill out the take home survey along with their first daily survey, and then to enclose both surveys in an envelope (provided) and return the envelope to a box placed in their high school classroom the next morning. For the following 13 days, adolescents were asked to complete one daily survey each evening and return it to the box the following day. Daily surveys were collected from their classrooms every two to three days and date stamped. Adolescents were paid in cash after completion of surveys
was assessed: $20 for completing all one-time surveys, $10 per each week if completed at least 4 surveys per week, and an additional $10 if they completed at least 10 of the total 14 daily surveys.

Emerging adults were recruited through CSUN, a designated Hispanic-Serving Institution (HIS). Emerging Adults were prescreened for Latino/a ethnicity and second-generation status through the CSUN Sona psychology pool. The Sona pool is comprised of general education introductory psychology courses. Students who qualified for the study were provided with an online description of the study and a consent form. They were given a link to a website (psychsurveys.org) where they were able to fill out the one time questionnaires. Questionnaires included basic background and demographic information, the acculturation measure, the acculturative stress measure, as well as other measures not included in this study. An email reminder and link to the 14 daily surveys were sent to these individuals each day for two weeks. Upon completion, college participants were granted up to 10 credits: 2 credits for completing all one-time surveys and 4 credits for each week of daily surveys (completing at least 4 surveys per week). Typically, a student is awarded one credit for every 15 minutes of their time. All students are required to complete 10 credits or an alternative assignment in order to meet the research participation aspect of their course.

**Sample**

The sample included 138 adolescents transitioning into high school (9th grade students), and 244 emerging adults transitioning into college (freshmen). The high school sample consisted of students ranging in age from 13 to 15 years ($M_{age} = 14.02, SD = .42$; 45.5% female). The college sample consisted of students ranging in age from 18 to
21 ($M$ age = 18.57, $SD = .65$; 70.9% female). Participation was restricted to second-generation (US-born with foreign-born parents) Latino/a students, and adolescents and emerging adults were restricted to 9th grade and freshmen college students in order to focus on transitional years during these developmental periods.

**Measures**

Adolescents and emerging adults completed self-report measures. Demographic variables were measured using standard fact sheet items while other variables in the study were assessed using previously established self-report instruments.

**Acculturation.** The Vancouver Index of Acculturation (VIA; Ryder, Alde, & Paulhus, 2000) is a 20-item self-report measure that assesses heritage and mainstream dimensions of acculturation. Specifically, it examines the degree to which immigrants partake and identify with both their heritage and the mainstream culture. The measure includes three domains of acculturation: values, adherence to traditions, and social relationships. Participants are asked to rate each statement on a 5-point scale, with the following response choices: 1 = strongly disagree, 2 = disagree, 3 = neither, 4 = agree, 5 = strongly agree. Two subscales are calculated from the VIA items: heritage acculturation (10-items; e.g., “I would be willing to marry a person from my heritage culture”), and mainstream acculturation (10-items; e.g., “I would be willing to marry a white American person”). Higher subscale scores represented higher levels of identification with the culture represented. Cronbach alpha internal consistency coefficients were .90 for the heritage subscale, and .84 for the mainstream subscale (adolescents: .89 for heritage subscale, and .85 for mainstream subscale; emerging adults: .90 for heritage subscale, and .84 for mainstream subscale).
**Acculturative stress.** The Multidimensional Acculturative Stress Inventory (MASI; Rodriguez et al., 2002) is a 36-item self-report measure that assesses pressures among Latino/a immigrants living in the United States. These items deal with stressors related to acculturating to American culture and developing English competency, as well as pressures against acculturating and maintaining Spanish competency. Therefore, items reveal acculturative stress from both the heritage and the mainstream culture. Participants are first asked to verify whether statements reflect occurrences within the past three months; if they do, then participants are asked to rate each statement on a 5-point scale, with the following response choices: 1 = not at all stressful, 2 = a little stressful, 3 = somewhat stressful, 4 = very stressful, 5 = extremely stressful. If participants did not experience the event in the past 3 months, the item was scored as 0. Mean scores for each subscale were then calculated; higher scores suggested greater levels of acculturative stress. All four of the MASI subscales are utilized: (a) English Competency Pressures (e.g., “I don’t speak English or don’t speak it well”), (b) Pressures to Acculturate (e.g., “It bothers me when people pressure me to assimilate to the American ways of doing things”), (c) Spanish Competency Pressures (e.g., “I feel pressure to learn Spanish”), and (d) Pressures Against Acculturation (e.g., “It bothers me when people assume I speak Spanish”). Mainstream acculturative stress was calculated by averaging the mean scores of the English Competency Pressures and Pressures to Acculturate factors. Heritage acculturative stress was calculated by averaging the mean scores of the Spanish Competency Pressures and Pressures against Acculturating factors. The MASI and its subscales were highly reliable: MASI alpha = .93, Spanish Competency Pressures = .89, English Competency Pressures = .88, Pressure to Acculturate = .86, and Pressure Against
Acculturation = .83 (adolescents: .92 for heritage acculturative stress subscale, and .92 for mainstream acculturative stress subscale; emerging adults: .91 for heritage acculturative stress subscale, and .88 for mainstream acculturative stress subscales).

**Psychological well-being.** The Profile of Mood States-Adolescent Version (POMS-A; Terry, Lane, Lane, & Keohane 1999) is a 24-item self-report measure that assesses subjective well-being. A list of 24 feelings (e.g., “unhappy,” “worried”, “lively”) is provided and individuals are asked to rate how much it described their mood that day using a 5-point scale, with the following response choices: 1 = not at all, 2 = a little, 3 = moderately, 4 = quite a bit, and 5 = extremely. POMS-A items make up six domains: depression-dejection, tension-anxiety, anger-hostility, fatigue-inertia, confusion-bewilderment, and vigor-activity. Individuals were asked to rate their mood every night for two weeks; these ratings were averaged across the two weeks and summed across subscales. If a participant forgot to complete a daily survey one evening, they were asked to complete it early the next morning. Adolescent surveys were collected multiple times through the week and were date stamped upon collection to assess compliance. Emerging adult daily surveys were completed online and time/date stamped upon completion. Only those participants who completed at least 4 days per each week were included; on average adolescents completed 12.68 daily surveys, and emerging adults completed 13.35 daily surveys. For the purpose of the current study, only the depression-dejection, and tension-anxiety scores were used. Internal consistency coefficients of .96 for depression subscale, and .96 for the tension subscale were found using the current data (adolescents: .94 for depression subscale, and .95 for the tension subscale; emerging adults: .96 for the depression subscale, and .95 for the tension subscale).
CHAPTER IV

RESULTS

The purpose of this study was to take a multidimensional approach to examine the relationship between acculturation, acculturative stress, and psychological well-being (i.e., depression and tension) in second-generation Latino/a adolescents and emerging adults. The range, means, and standard deviations for all variables are reported in Table 1. All analyses were conducted using SPSS 20 for MAC OS.

Assumptions of Normality

Tests of statistical assumptions of normality of variance of the variables underlying the research hypotheses were conducted. The skewness and kurtosis statistics provided evidence that the distribution of the acculturative stress subscale (mainstream and heritage) scores were not normally distributed. Table 2 reports the results of the skewness, and kurtosis statistics for the acculturative stress variables, for each developmental period. The results indicated that a transformation would be required in order to improve the normality of the data. As recommended by Tabachnick and Fidell (2007), a square root transformation was performed to account for the moderately positive skewness of the acculturative stress subscales. The transformation equates for group differences by compressing the upper end of a distribution more than it compresses the lower end, allowing for a distribution to a more nearly normal shape (Tabachnick & Fidell, 2007). All results reported hereafter therefore utilize the transformed acculturative stress scores.
Multiple Regressions

Zero-order correlations were conducted to examine the strength and direction of the bivariate relationships between each independent and dependent variable. Separate zero-order correlations were conducted for the adolescent data (see Table 3) and the emerging adult data (see Table 4). In regards to adolescents, mainstream acculturation was significantly and positively correlated with heritage acculturation, and mainstream acculturative stress was significantly and positively associated with heritage acculturative stress. Also, mainstream acculturative stress and depression were significantly and positively associated with tension. In regards to emerging adults, mainstream acculturation was significantly and negatively associated with heritage acculturation, and mainstream acculturative stress was significantly and negatively associated with mainstream acculturation and positively associated with heritage acculturative stress. Also, depression was significantly and positively associated with associated with heritage acculturative stress, and tension was significantly and positively associated with heritage acculturative stress and depression.

Heritage Acculturation as a Potential Moderator of Heritage Acculturative Stress

To test for heritage acculturation as a moderator of the relationship between heritage acculturative stress and each aspect of psychological well-being, multiple regression analyses were run separately by developmental period with heritage acculturation as the moderator, and acculturative stress as a predictor of psychological well-being (see Table 5). To test if heritage acculturation moderated the relationship between heritage acculturative stress and psychological well-being, an interaction variable was created by multiplying heritage acculturative stress and heritage
acculturation (Aiken & West, 1991). The predictor variables were centered before creating the interaction variable (Aiken & West, 1991).

Results indicated that, among adolescents, the overall models were not significant for depression, $R^2 = .01 (p = .68)$ or tension $R^2 = .01 (p = .89)$. However, among emerging adults, the overall model was significant for depression, $R^2 = .04 (p = .02)$. In particular, heritage acculturative stress significantly predicted depression, $\beta = .21, B(SE) = .33(.11), p = .002$. Additionally, the overall model was marginally significant for tension, $R^2 = .06 (p = .06)$. Specifically, heritage acculturative stress significantly predicted tension, $\beta = .19, B(SE) = .31(.12), p = .008$. Among both adolescents and emerging adults, there was no significant interaction effect of heritage acculturation and heritage acculturative stress for depression (adolescents: $\beta = .09, B(SE) = .15[.15], p = .34$; emerging adults: $\beta = .02, B(SE) = .04[.14], p = .77$) and tension (adolescents: $\beta = .002, B(SE) = .004[.12], p = .98$; emerging adults: $\beta = .06, B(SE) = .13[.15], p = .40$).

**Mainstream Acculturation as a Potential Moderator of Mainstream Acculturative Stress**

To test for mainstream acculturation as a moderator of the relationship between mainstream acculturative stress and each aspect of psychological well-being, multiple regression analyses were run separately by developmental period with mainstream acculturation as the moderator, and acculturative stress as a predictor of psychological well-being (see Table 6). To test if mainstream acculturation moderated the relationship between mainstream acculturative stress and psychological well-being, an interaction variable was created by multiplying mainstream acculturative stress and mainstream acculturation. The predictor variables were centered before creating the interaction
variable.

Results indicated that, among adolescents, the overall models were not significant for depression $R^2 = .03$ ($p = .26$) or tension $R^2 = .04$ ($p = .19$). Among emerging adults, the overall models were not significant for depression $R^2 = .02$ ($p = .26$) or tension $R^2 = .02$ ($p = .18$). Among both adolescents and emerging adults there was no significant interaction effect of mainstream acculturation and mainstream acculturative stress for depression (adolescents: $\beta = .12$, $B[SE] = .16(.12)$, $p = .19$, and emerging adults: depression: $\beta = -.003$, $B(SE) = -.01[.25]$ $p = .96$) or tension (adolescents: $\beta = .17$, $B[SE] = .27[.14]$, $p = .06$) and emerging adults: $\beta = -.003$, $B[SE] = -.10[.27]$ $p = .97$. 
CHAPTER V
DISCUSSION

The purposes of this study were to (1) examine if adolescents’ and emerging adults’ acculturative stress is negatively associated with psychological well-being, (2) examine if adolescents’ and emerging adults’ heritage acculturation moderates the association between heritage acculturative stress and psychological well-being, (3) examine if adolescents’ and emerging adults’ mainstream acculturation moderates the association between mainstream acculturative stress and psychological well-being, and (4) explore developmental differences by examining separate models for adolescents and emerging adults. It was proposed that the associations would be stronger for lower levels of acculturation and for emerging adults.

The hypotheses were partially supported. Results indicated that, among emerging adults, heritage acculturative stress significantly predicted depression, and marginally predicted anxiety. However, heritage acculturative stress did not significantly predict psychological well-being for adolescents. Additionally, heritage acculturation did not moderate the relationships between heritage acculturative stress and psychological well-being for emerging adults or adolescents. Mainstream acculturative stress did not significantly predict psychological well-being for either adolescents or emerging adults. Lastly, the association between heritage acculturative stress and psychological well-being varied by developmental period such that heritage acculturative stress significantly predicted psychological well-being for emerging adults but not for adolescents. These findings support the importance of heritage and acculturative stress in the adjustment of second-generation Latino/a youth.
These findings suggest that among second-generation Latino/a youth, feeling American cultural and language pressures (i.e., mainstream acculturation) may not be significantly impacting second-generation adolescents’ and emerging adults’ psychological well-being. Generally, adolescents and emerging adults did not report high amounts of mainstream acculturative stress, based on the low mean scores on the MASI mainstream subscale. Since second-generation immigrants are born in the United States, and spend their lifetime growing up in the United States they may be experiencing lower levels of mainstream acculturative stressors, including English competency and American cultural pressures. Second-generation immigrants have the supplemental source of being socialized in American culture and English language, through their primary education.

Additionally, these findings suggest that second-generation Latino/a emerging adults feel pressures to maintain heritage culture and language. These findings of apparent heritage acculturative pressures among second-generation immigrants are similar to those found with adult immigrant populations; in which later generation adults reported significantly more acculturative stress due to Spanish competency pressures while first generation individuals reported significantly more acculturative stress due to English competency pressures (Rodriguez et al., 2002). However, heritage acculturative stress did not predict adolescents’ psychological well-being. This may be indicative of the relatively young age of the adolescent participants. According to Phinney’s 3-stage model of ethnic identity formation, during stage 1, adolescents are not giving ethnicity much thought and are rather preoccupied with the mainstream culture (Phinney, 1993), whereas emerging adults are experiencing shifts in their environment (e.g., being a young freshmen in college and experiencing a new and diverse environment) and expanding
their identity exploration into new areas (Arnett, 2000). This exploration during emerging adulthood may further be impacting their heritage acculturative exploration and their distress during this stage.

It is also important to consider that the differences in adolescent and emerging adult findings may be due to demographic differences in the two samples. First, the adolescent sample was 45.5% female whereas the emerging adult sample was 70.9% female; therefore, it is possible that gender differences are contributing to the current findings. Second, adolescent participants were recruited from a high school that had an over 80% Latino/a population, whereas emerging adults were recruited from a more diverse college population (albeit a Hispanic serving institution). This difference in ethnic diversity may be a factor in emerging adults’ association with their heritage acculturation and ethnic exploration. Hence, further examination is necessary to better understand the developmental differences found in this study. It is also important to note that these differences were examined using cross-sectional data; therefore, conclusions about the impact of acculturative stress on an individual adolescent’s psychological well-being over time can not be made.

Further, it is important to consider the possible impact of immigrant generational status on these findings. Previous research examining generational status has found that first generation immigrants experience higher rates of acculturative stress due to levels of English competency (Fuertes & Westbrook, 1996; Mena et al., 1987). The current findings suggest that second generation individuals may be experiencing supplemental pressures to maintain heritage culture, such as those measured by the MASI. If this is the case, it may explain why second generation immigrants have higher rates of mental
health problems than do first generation immigrants, especially among emerging adult populations.

Research examining the immigrant paradox in regards to mental health problems have mainly included adult populations, with participants age 18 and older (Alegria et al., 2007; Escobar et al., 2000) and did not expand to examine these relationships in adolescence. However, other studies examining the immigrant paradox, in regards to adolescence, have found the immigrant paradox to be associated with academic achievement (Coll & Marks, 2011; Rhodes et al., 2009), and substance abuse problems (Alegria et al., 2008; Bacio et al., 2013). It seems that there may be developmental shifts in the quality and definition of the difficulties that second-generation adolescents and emerging adults encounter. Again, it is important to consider the developmental shifts and transitions that occur during adolescence to emerging adulthood, and to note the increases of mental health rates from middle to late adolescence (ages 15-18; Hankin et al., 1998; Merikangas et al., 2010).

Further, it is important to consider that when first generation immigrants acculturate to mainstream culture they are picking up a new culture and incorporating it into their preceding culture. Whereas second generation immigrants are born in the United States, into American culture and are then asked to maintain their family’s culture, a culture that they are mainly in contact with, in the home. Additionally, they may not feel the same type of pressures that first generation immigrants encounter, such as going into the workplace with limited language and cultural knowledge. However, it is important to note that the current study did not directly examine the differences between first and second-generation immigrants. Therefore, no direct inferences can be made.
Findings from the current study provide important understanding in the cultural factors that relate to depressive and anxiety symptoms in immigrant Latino/a adolescent and emerging adult populations. Specifically, it is important for mental health professionals to recognize the effects of heritage acculturative pressures in second-generation individuals and to be aware that these pressures may be more stressful and apparent during emerging adulthood. By developing an understanding of the acculturation process and acculturative stressors effects on mental health, mental health professionals can not only educate themselves but also their clients about the potential relationship between psychological distresses brought on by the process of acculturation and incorporate these findings into treatment with these individuals.

**Future Research**

This study will aid in the understanding of the acculturation process among second-generation immigrant youth. However, future research should address limitations of the current study. First, future research should take a longitudinal approach so that developmental generalization from adolescence to adulthood may be observed. Second, future research should include individuals from different generations in order to capture generational differences. Additionally, future researchers should consider expanding their subject pool to a more representative community sample of adolescents and emerging adults; beyond those who are in high school and college.

In the current study, adolescent participants were in a school that is 80% Latino/a whereas emerging adults were in a school that is more diverse. Future research should therefore examine the impact of contextual factors, such as access to co-ethnic peers, on acculturation and acculturative stress. Further, other sources of measurement, including
qualitative methods, such as, interviewing youth (second-generation) and their parents (first-generation) to identify specific acculturative pressures should be considered. Ideally, this research will follow immigrant adolescents through adulthood and record their acculturation process, acculturative stress measures, and psychological well-being.

It is recommended that researchers continue to examine the relationship between the use of instruments that capture the acculturation process. In consideration of the relatively low mean heritage acculturative stress scores, it may be possible that the items on the MASI are not quite capturing heritage based acculturative stress. The MASI utilizes similar questions to measure heritage and mainstream acculturative stress (i.e., heritage stress [e.g., “I don’t feel accepted by Hispanic/Latinos”], and mainstream stress: [e.g., “I don’t feel accepted by Americans”]). It may be more insightful to consider using different types of questions to get at the uniqueness of heritage acculturative pressures that immigrant individuals are feeling. Heritage acculturative stress is a variable to be considered in future research, but with different instruments.

Conclusions

Previous research has found that first generation immigrants experience higher rates of acculturative stress due to English competency measures (Fuertes & Westbrook, 1996; Mena et al., 1987). Current findings suggest that second generation individuals may be experiencing similar rates of acculturative stress, however these stresses stem from pressures to maintain heritage culture. If this is the case, it may account for why second generation emerging adults have higher rates of mental health problems than do first generation immigrants. Further research should be done to examine (1) generation status and mental health in adolescents, and (2) the possible impacts of heritage
acculturative stress on other adolescent outcomes (e.g., academic difficulties, substance abuse problems). It is important to note that although second-generation immigrants do experience acculturative stress, these stressors and pressures may be different from those of first-generation immigrants. The impacts of heritage acculturative stressors are especially important to note in the development of second-generation immigrants, as they are born into American culture but are also asked to maintain their parents’ culture, a culture that they have limited contact with. However, it is important to expand the exploration on the various factors that may be contributing to their distress, as their social, cultural, and education development and process is not the same as first generation.
REFERENCES


Fuertes, J. N., & Westbrook, F. D. (1996). Using the social, attitudinal, familial, and environmental (s.a.f.e.) acculturation stress scale to assess the adjustment needs of


Figure 1

Theoretical Model
Table 1

*Descriptive Statistics for the Independent and Dependent Variables*

<table>
<thead>
<tr>
<th>Developmental Period</th>
<th>Variables</th>
<th>Range</th>
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<th>$SD$</th>
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### Table 2

**Summary Statistics for Acculturative Stress Variables**

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<th>Heritage Acculturative Stress</th>
<th>Mainstream Acculturative Stress</th>
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Table 3

Zero-Order Correlations for Adolescent Data

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<td>-.04</td>
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<td>1.00</td>
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*p < .05. **p < .01.
Table 4

Zero-Order Correlations for Emerging Adult Data

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<td>4. Mainstream Acculturative Stress</td>
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<td>5. Depression</td>
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<td>6. Tension</td>
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*p < .05. **p < .01.
Table 5

*Multiple Regression Statistics for Psychological Well-Being (Heritage Acculturative Stress)*

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
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<th>Tension</th>
<th></th>
</tr>
</thead>
</table>
|                      | $B$ | $SE$ | $\beta$ | $B$ | $SE$ | $\beta$
| **Adolescence**      |    |      |        |    |      |        |
| Heritage A.S.        | .06 | .12  | .05    | .10 | .14  | .07    |
| Heritage Acculturation | -.03 | .08  | -.03   | -.02 | .09  | -.02   |
| Heritage Acculturation x Heritage A.S. | .15 | .15  | .09    | .004| .18  | .002   |
| $R^2$                |    |      |        |    |      | .01    |
| **Emerging Adults**  |    |      |        |    |      | .01    |
| Heritage A.S.        | .33 | .11  | .21**  | .31 | .12  | .19**  |
| Heritage Acculturation | .03 | .07  | .03    | .07 | .08  | .06    |
| Heritage Acculturation x Heritage A.S. | .02 | .14  | .04    | .13 | .15  | .06    |
| $R^2$                |    |      |        |    | .04* |      |

* $p < .05$. ** $p < .01$. 
Table 6

Multiple Regression Statistics for Psychological Well-Being (Mainstream Acculturative Stress)

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
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<th></th>
<th>Tension</th>
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<td></td>
<td></td>
<td>B</td>
<td>SE B</td>
<td>β</td>
<td>B</td>
<td>SE B</td>
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<td>-.11</td>
<td>.28</td>
<td>-.04</td>
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<td>.10</td>
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<td>.17</td>
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<tr>
<td><strong>R^2</strong></td>
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<td>.03</td>
<td></td>
<td>.04</td>
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<td><strong>Emerging Adults</strong></td>
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*p < .05. **p < .01.