ACCULTURATION LEVEL, GENERATIONAL STATUS, AND GENDER:
THEIR ROLES IN ACCULTURATIVE STRESS IN YOUNG
ADOLESCENT MEXICAN AMERICANS

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The purpose of this study was to determine relationships between acculturation level, generational status, and gender with acculturative stress. Acculturation level was determined by the Acculturation Rating Scale for Mexican Americans-II (ARSMA-II) and acculturative stress was determined by the Societal, Attitudinal, Familial and Environmental Acculturative Stress Scale-Children’s Version (SAFE-C). Subjects included 1268 Hispanic children ages 11-15. In order to validate the usefulness of the ARSMA-II with this sample, analyses were conducted between acculturation level and generational status. The Pearson product moment correlation ($r=.44$) and the ANOVA between the mean acculturation score and generational status were significant. However, the mean acculturation score from this study was considerably lower than the ARSMA-II score; therefore, new acculturation levels were developed to establish local adolescent norms for the ARSMA-II. All analyses involving acculturation levels were conducted using both the ARSMA-II and new acculturation levels because 300 subjects were reclassified with the new norms. Significant results were similar using both acculturation levels; however, there were more between group differences using the new acculturation levels. It was hypothesized that as acculturation level increased toward the Anglo culture, acculturative stress would decrease. The one-way ANOVA confirmed this relationship. It was also hypothesized that as generational status increased,
acculturative stress would decrease. A one-way ANOVA also supported this hypothesis. In order to replicate previous findings on gender, a one-way ANOVA was conducted with acculturative stress and acculturation level. Results for both were non-significant. Overall findings indicate that generational status and acculturation level have a significant impact on acculturative stress in Hispanic children; however, gender does not seem to be a factor. Findings emphasize the importance of addressing cultural issues in the assessment, intervention, and treatment of acculturating Hispanic children. Furthermore, the ARSMA-II appears to be a useful instrument in assessing acculturation level in young adolescent Hispanics though new local adolescent norms for the ARSMA-II were developed from this study.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>iii</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF FIGURES</td>
<td>iv</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Hispanic Population</td>
<td></td>
</tr>
<tr>
<td>Hispanic Experience and Acculturation</td>
<td></td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td></td>
</tr>
<tr>
<td>II. LITERATURE REVIEW</td>
<td>9</td>
</tr>
<tr>
<td>Acculturation</td>
<td></td>
</tr>
<tr>
<td>Acculturation Instruments</td>
<td></td>
</tr>
<tr>
<td>Acculturative Stress</td>
<td></td>
</tr>
<tr>
<td>Acculturative Stress Instruments</td>
<td></td>
</tr>
<tr>
<td>Generational Status</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>III. PURPOSE OF STUDY</td>
<td>20</td>
</tr>
<tr>
<td>IV. METHOD</td>
<td>22</td>
</tr>
<tr>
<td>Subjects</td>
<td></td>
</tr>
<tr>
<td>Procedures</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td></td>
</tr>
<tr>
<td>V. RESULTS</td>
<td>28</td>
</tr>
<tr>
<td>General Description of the Study Sample</td>
<td></td>
</tr>
<tr>
<td>Evaluation of the Reliability and Validity of Measures</td>
<td></td>
</tr>
<tr>
<td>Acculturative Stress and Gender</td>
<td></td>
</tr>
<tr>
<td>Acculturative Stress and Acculturation Level</td>
<td></td>
</tr>
<tr>
<td>Acculturative Stress and Generational Status</td>
<td></td>
</tr>
<tr>
<td>VI. DISCUSSION</td>
<td>43</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>52</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Page
1. Internal and Test-Retest Reliability for the ARSMA-II ........................................26
2. Acculturation Characteristics ...............................................................................29
3. Mean AOS, MOS, and Acculturation Scores of the ARSMA-II ...........................31
4. ARSMA-II Acculturation Cutoff Scores and Acculturation Levels......................31
5. Comparison of Acculturation Level Sample Size .............................................32
6. ARSMA-II Acculturation Levels and Generational Status Crosstabulations Based on Original Cutoff Scores ........................................................................35
7. New Acculturation Levels and Generation Status Crosstabulations .................36
8. ARSMA-II Acculturation Level Pairwise Comparisons on Acculturative Stress ...40
9. New Acculturation Levels Pairwise Comparisons On Acculturative Stress........41
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>ARSMA-II Mean Acculturation Score by Original and New Acculturation Levels</td>
<td>33</td>
</tr>
<tr>
<td>2.</td>
<td>Mean Acculturation Score by Generational Status</td>
<td>37</td>
</tr>
<tr>
<td>3.</td>
<td>Acculturation Score Means by Gender and Acculturation Level</td>
<td>38</td>
</tr>
<tr>
<td>4.</td>
<td>Acculturative Stress Means by Original and New Acculturation Levels</td>
<td>41</td>
</tr>
<tr>
<td>5.</td>
<td>Mean of SAFE-C Acculturative Stress by Generational Status</td>
<td>42</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

Hispanic Population

Within American society, there exist numerous cultures, traditions, and ethnicities. Among these, the largest ethnic group is identified as Hispanic or Latino American. According to demographic data and projected growth trends, Hispanic Americans will play an increasing role in American society in the 21st century. Hispanics are adding more people to the United States than any other ethnic group including non-Hispanic Whites. More than one in eight people in the United States are of Hispanic origin. The tremendous growth by this group has historically been under estimated and recent efforts to predict demographic outcomes are no exception. In 1997 for instance, the U.S. Bureau of the Census, projected that by the year 2020, Hispanic Americans would become the largest minority group, outnumbering African Americans. In 2002, 18 years sooner than expected, Hispanics surpassed the number of Blacks in the U.S. when they reached 12% of the U.S. population. In addition, the Hispanic population is the youngest ethnic group with an average age of less than 26 years. Further, 36% of the Hispanic population was less than 18 years of age, and of the total Hispanic population, those of Mexican descent had the highest proportion of persons younger than 18 at 38% (United States Bureau of Census, 2001). Additionally, in 2002, 40% (15 million) of the Hispanic population in the United States was foreign born and 52% of them entered between 1990 and 2002 (United States Bureau of Census, 2002). The
United States is the fifth largest Spanish speaking country in the world where 75% of Hispanics speak a language other than English in the home.

Hispanics are actually an ethnic group made up of many subgroups including Mexican Americans (67%), Central and South Americans (15%), Puerto Ricans (9%) and Cuban Americans (4%) (United States Bureau of the Census, 2002). Although grouped together as one ethnicity, these four groups have different cultural histories and traditions. In the United States, the distribution of each sub-group depends upon geographic region. Latinos of Mexican origin are more likely to live in the west (57%) and south (33%), Puerto Ricans are most likely to live in the northeast (64%), and Cubans are more highly concentrated in the south (80%). Central and South Americans are concentrated in three of the four regions: the northeast (32%), the south (35%), and the west (28%) (Therien and Ramirez, 2000). In addition, half of all Hispanics reside in two states, California and Texas. In Texas, Hispanics make up 33% of the Texas population; Mexican Americans represent 67% of this group and account for 85% of the demographic make-up along the Texas-Mexico border.

By 2050, it is predicted that 20.9 million Hispanic school aged children will be eligible to enter the American school system (U.S. Bureau of the Census, 1996). For many states, Hispanic children will be the majority enrollment. It is predicted that the Hispanic population in California’s public schools will be the majority group by 2006 (Pinal, 1996). In Texas, Hispanics are already a majority representing 52% of elementary school-aged children.

With Hispanics becoming more and more prominent in the United States’
educational and social systems, it seems essential for those working in the schools and other child serving institutions to understand relevant cultural issues and how they may impact health, education, and academic success. Therefore, cultural factors (including acculturation and acculturative stress), psychological adjustments, and competencies should be addressed as part of the assessment process and during the development of educational programming strategies and interventions (Claxton & Kallan, 1998).

Hispanic Experience and Acculturation

In an article entitled, “Everything you ever wanted to know about assimilation but were afraid to ask,” Harvard professor Marcelo Suarez-Orozco talks about the new influx of immigrants, nearly half of whom are Hispanic. As more and more Hispanics enter the United States, America is experiencing its second great wave of immigration mostly stemming from Latin America. Today’s immigrants, as opposed to those in the late 1800’s and early 1900’s, are very different. Present day Hispanic immigrants are entering a country where modern forms of communication, including telephone, internet, and Spanish media (television and radio), allow them to stay close to their country of origin and family left behind. They are entering a country that is in itself a “culture of multiculturalism” that values cultural differences (Magnet Communications, 2002). It is no longer easy to define what becoming “Americanized” really is. What's more, it is thought that Hispanics are not only mainstreaming themselves to America, but also “Hispanicizing” American culture with their food, music, values, and traditions (Molleda, 2004). Suarez-Orozco writes, “Immigrants today are more likely to be at once ‘here’ and ‘there’, articulating dual consciousness and dual
identities and, in the process, bridging increasingly unbounded national spaces.” His statement sends a powerful message that today’s Hispanic immigrants are able to stay closely connected to their culture and family of origin. However, even though it seems easier for today’s immigrants to continue their ethnic ties, the American culture continues to play a role in their lives through the acculturation process.

Acculturation was defined by Redfield, Linton and Herskovitz (1936) “as a process represented by all the changes that occur as a result of individuals from two distinct cultures coming into continuous first-hand contact with one another, but particularly those changes that result in changes in the original cultural patterns of either of both groups” (Cuellar and Paniagua, 2000, p. 47). The acculturation process for Hispanics in America differs depending on where they choose to live and by whom. For example, Hispanics will more likely follow a bicultural and bilingual lifestyle if they live in a large metropolitan area that has a high concentration of Hispanics. However, even though they may be clustered in certain areas, it does not always mean the acculturation process will be the same for each of them. For example, depending on the number of years they have lived in America, some areas that are inhabited by the same group of Hispanics may have communities that vary greatly in their ethnic ties. For instance, New Mexico has a large number of Hispanics, but there are big differences between northern, southern, rural and urban Hispanics. Northern New Mexico Hispanics have been there in the area since the sixteenth century, but southern New Mexico Hispanics are much closer to their Mexican culture, both in their ethnicity and geographic location (Ramirez, 2004).
Korzenny (1999) investigated Hispanic adaptation to the United States by asking Hispanic immigrants for e-mail responses about their acculturation or assimilation experience in America. Their responses varied greatly with respect to their experience and some were worth noting: “The only connection I have to my heritage is through my family. All we have together is language, musical taste, cuisine, and cultural attitudes about how a family works”; “I keep my Hispanic culture. I accept and follow the U.S. culture but it will not replace my maternal Hispanic culture”, and “I have replaced some of my Hispanic culture by mainly speaking English, at home and at work. Unfortunately, I have not taught my children the Spanish language...and I have regretted not teaching them” (Korzenny, 1999, used with permission). As shown by these reports, the acculturation experience is different for many Hispanics. The language, values, and traditions that one chooses to keep vary from family to family and from community to community. Some have chosen to stay very close to their ethnic heritage and others have acculturated more towards the American culture.

As immigrants begin to mesh into a new social community, it is not surprising that they would experience conflict as part of the acculturation process. As mentioned above, some Hispanics try very hard to continue with the values and traditions of their culture and maintain a strong ethnic identity; however, others have chosen to adapt to part of the American culture (i.e., language spoken) but have regrets about doing so. It seems reasonable that the process of adapting could potentially cause stress. This conflict stemming from the acculturation process is termed acculturative stress (Born, 1970). Dressler and Bernal (1982) stated that acculturative stress arises as “an
individual's adaptive resources are insufficient to support adjustment to a new cultural environment” (p. 34). Without sufficient resources and support, acculturative stress may well affect one’s emotional functioning.

Although acculturative stress has been a topic for over 30 years, there is little literature addressing its role in the adjustment process in acculturating Hispanics. While acculturative stress itself has not been researched extensively, interest has increased recently looking at the effects of the acculturation process on a person’s psychosocial functioning and the potential for significant stress mediated by the experience of acculturation (Gil et al., 1994; Montgomery, 1992). A number of researchers have studied acculturation, self-perceptions, and ethnic identity and their impact on social and emotional functioning in Hispanic youth (Okagaki, Frensch, & Dodson, 1996; Phinney, 1992). Their findings have suggested that as Hispanics become more like their Caucasian peers in terms of behaviors, cognitions, and preferences, they become less like their cultural peers and family. With these changes, there is a greater likelihood that they will experience psychosocial problems. A review of the current acculturation literature suggests acculturative processes and outcomes may be related to a variety of difficulties experienced by Hispanics, including increased likelihood of lifetime psychiatric disorders and poly-substance abuse; and decreased likelihood of academic achievement and engaging in health promoting behaviors (Alderete, Vega, Kolody, & Aguilar-Gaxiola, 2000; Ebin, Sneed, Morisky, Rotheran-Borus, Magnusson, & Malotte, 2001; Epstein, Botvin, & Diaz, 2001). While research has been conducted looking at acculturation or ethnic identity as it relates to emotional and behavioral issues; the
specific role of acculturative stress is not clear because it was not a focus of these studies. The lack of research investigating the effects of the acculturation process and ensuing acculturative stress demonstrates the need for further investigation in this area, especially with Hispanic children and adolescents.

Statement of the Problem

It seems essential to understand how Hispanic children and adolescents adjust to a new culture and maintain ties to their own, and how this process affects them emotionally. This study will attempt to show the relationship between acculturation, generational status, gender, and acculturative stress in a group of Mexican American adolescents. Few acculturation studies have been conducted with this age group and even fewer have investigated multiple factors. Though most studies have been conducted with adult populations, those that have included children have produced mixed outcomes. More child focused research is needed because there is not enough attention focused specifically on child psychopathology and because there is a tendency to apply adult theories to the psychological functioning of children (Ammerman, Last, & Hersen, 1993). Further, children of minority ethnic origin have traditionally been underrepresented by research professionals in the field of psychology (Kazdin, 1993). Therefore, ongoing research directed at understanding acculturation and the acculturative process in Hispanic children is essential. This research is also necessary in order to aid in the development of effective strategies for the prevention, intervention, and treatment of the negative effects of the acculturation process, which will in turn, result in the promotion of healthier behavioral, social, and emotional outcomes for
Hispanic children. In addition, this study hopes to contribute to the field of minority child-focused research and help in understanding how various psychological problems may develop in Hispanic children.

The results of this research should also be of interest to those who work in the school systems and social services institutions who deal with large populations of Hispanics and other minorities. Professionals, especially those who are involved with assessment and educational planning (i.e., school psychologist, diagnostician, and counselor), need to understand how cultural issues including acculturation level, acculturative stress and generational status, may play a role in the Mexican-American students’ emotional, behavioral, and intellectual functioning. This research may guide them in educational planning, treatment, intervention, and placement.
CHAPTER II

LITERATURE REVIEW

Acculturation

Acculturation is defined as the process of change members of a minority group experience as they move towards the adoption of the majority group’s culture (Mena, Padilla & Maldonado, 1987). Cuellar (2000) describes the acculturation process occurring at two different levels. The first level, macro, involves acculturation processes shaping large-scale cultural factors such as food, music, and language. The second level, micro, is more cognitive and psychological in nature, and involves factors such as perception, beliefs, values, and behaviors. Cuellar, et al. (1995) further defined these changes as they occur at different levels of functioning: behavioral, affective, and cognitive. The behavioral level includes customs, foods, and cultural expressions such as music. The affective level includes any emotional ties to culture and tradition. The cognitive level involves beliefs about fundamental values, gender roles, and attitudes.

There are only a limited number of theories or models that have been developed to explain the acculturation process. Buriel (1975) developed a two factor model to describe Hispanic acculturation in the United States. He described these as the “acculturation to the majority” model and the “acculturation to the barrio” model. The first describes acculturation towards the Anglo culture, thus Hispanics will adopt more of the dominant culture. The second model described communities where traditional Hispanic culture was preserved and acculturation to the dominant culture was less likely.
Graves (1967) defined the acculturation process as psychological acculturation, which refers to changes in values, attitudes, behaviors, and beliefs in the individual. Several terms have been used to help define or understand the different modes of acculturation (Berry, 1980). Assimilation refers to the individual losing his or her original cultural identity as he or she acquires a new identity in the second culture. Integration refers to the individual developing a bicultural orientation and successfully integrating both cultures and feeling a sense of identification and comfort with both groups. Separation occurs when the individual resists acculturation and chooses not to identify with another culture and retains separate ethnic identification, behaviors, beliefs, practices and values. Marginalization occurs when the acculturating individual gives up his or her original culture for identification with another culture only to find they are rejected by the new culture. The result is that the individual no longer identifies with either culture and feels as though they do not belong to either group. The marginalized person is not exploring their ethnicity, as they no longer feel they fit into either group. Adolescents are particularly vulnerable to marginalization when they are from a traditional family. They are encouraged by peers to become independent and try new things but are reminded at home that they are still under their family’s control and cultural influences.

Another model of acculturation, developed by Keefe and Padilla (1987), looks at the acquisition of new traits while relinquishing traditional traits. This process allows the individual to choose which new traits he or she wants to adopt and which traditional traits he or she wants to hold on to. A criticism of this model is that it assumes that the
individual cannot be adept in both cultures but has to give up something in one culture to gain or maintain something in the other culture (Negy & Woods, 1992). However, some research has supported this idea. One study suggested acculturation and ethnic identity are negatively related, in that as a person's level of acculturation toward the majority culture increases, their ability to relate to their ethnicity of origin decreases (Cuellar, Nyberg, Maldonado, & Roberts, 1997). More specifically, they become more like the majority culture in terms of their likes and dislikes, behaviors, and general attitude, while becoming less like and less able to identify with their culture of origin. On the other hand, some research has suggested that acculturating immigrants are able to sustain identification in both cultures and succeed. LaFromboise, Hardin, Coleman, and Gerton (1993) reviewed literature that explored the relationship of acculturation and ethnic identity to academic, social, and economic life of Hispanics. The literature suggested that ethnic minority individuals are more likely to succeed if they have bicultural competence, meaning they identify with both cultures.

Acculturation Instruments

Increased interest in the acculturation process initiated the development of numerous instruments attempting to measure its effect on a person’s cultural orientation. However, because research was based on so many different types of measurements, simple definitions or conceptualizations of the acculturation process were produced. Consequently, past research on acculturation has been criticized for using limited definitions of the acculturation process (Cuellar et al., 1995). Previous research has included the use of socio-demographic variables such as language
dominance (Cuellar, Harris & Jasso, 1980; Griffith, 1983), the person’s generation level (Buriel, 1975; Cuellar, Harris & Jasso, 1980), and socioeconomic status (Mercer, 1976; Padilla, Olmedo & Loya, 1982). Through ongoing research, the focus has shifted away from simple definitions towards acculturation as a complex, multidimensional construct. As a result, more complex measures were developed to not only assess language preference but orientation toward or away from the culture of origin in terms of cognitions, behaviors, and social environments. The Acculturation Rating Scale for Mexican Americans (ARSMA), and later the ARSMA II, was developed as a multidimensional approach to acculturation measurement (Cuellar, Arnold, & Maldonado, 1995). The ARSMA and ARSMA-II measure affinity to Mexican culture and Anglo culture independently and allow classification within one of five levels of acculturation. Cuellar based the instrument on Berry’s four stage model of the acculturation process (i.e., integrated, separated, assimilated and marginalized). In addition, the ARSMA-II includes three scales that measure marginality (Mexican marginality, Anglo marginality, and Mexican American marginality). Scoring of these scales is based on the premise that if the person is having difficulty accepting values, traditions, behaviors, or individuals from a particular group, then he or she does not identify with that group or participate in behaviors and beliefs that reflect his or her cultural heritage (Cuellar, Arnold, & Maldonado, 1995).

Research using the ARSMA-II relating acculturation with emotional functioning, gender, and/or generational status is somewhat limited; however, there were two relevant studies. Cuellar and Roberts (1997) used this instrument to investigate the
relationship between depression, acculturation, and socioeconomic status among a
sample of first year university Latino students. Findings revealed that depression scores
were influenced more by gender and SES than acculturation or ethnic identity.
However, when looking at acculturation level, assimilated Mexican Americans reported
significantly fewer symptoms of depression than traditional Mexicans. Atwood (2001)
investigated acculturation level and generational status using the ARSMA-II with a
population of Hispanic adolescents. Findings indicated that there was a significant
relationship between generational status and acculturation level. First generation
Mexican Americans rated themselves higher on the Mexican orientation scale while,
conversely, third generation Mexican Americans reported a greater Anglo orientation.

Acculturative Stress

Conflict and strain during the acculturation process often arises for immigrants as
they try to adapt to a new social community and still preserve ties to their own. As a
result, acculturative stress frequently occurs during the acculturation process. Berry
(1980) proposed a three-step acculturative stress model, which includes contact,
conflict, and adaptation. Contact occurs when individuals from different cultures come
into contact with one another on a consistent basis. Conflict occurs when traditional
values are not shared between cultures and it becomes difficult to sustain those values.
The conflict results in stress to which the individual must then adapt.

Cuellar, Roberts, Romero, and Leka (1999) suggest that there are several levels
of change during the acculturation process. Some of these levels are more difficult to
adapt to than others. The level of dissonance between the individual's pre-existing
values and the ones to which he is attempting to acculturate may determine the potential for stress. Behavioral change, for example, would be somewhat easier to adapt to than activities that involve the individual’s value system. In other words, changes like eating different foods, learning a new language, or listening to different music would be easier to adapt to than behaviors or cognitions based on cultural values and traditions. Several researchers have looked at the relationship between acculturation processes and stress and found that the acculturation process places significant strains on an individual’s psychological resources (Chavez, Moran, Reid & Lopez, 1997; Curtis, 1990; Montgomery, 1992).

Acculturative Stress Instruments

With the rapid increase in immigrant adults and children to the United States and the accompanying growth in birth rates, it seems of key importance to develop instruments designed specifically to assess acculturative stress. To date there are not many instruments that are available to specifically measure acculturative stress, and instruments specifically for use with children or adolescents are even more limited. Chavez, Moran, Reid, and Lopez (1997) modified the Societal, Attitudinal, Familial, and Environmental Acculturative Stress Scale (SAFE) for use with children and adolescents (SAFE-C). They developed the SAFE-C by changing the short SAFE scale items into more age appropriate language for school aged children. They administered the SAFE-C to Latino and Euro American children and found significant differences between the two groups, establishing the validity of the measure.

The SAFE-C has not been used widely in research to date; therefore, most
studies on acculturative stress have been conducted on college age students using the
original SAFE scale. Fuertes and Westbrook (1996) used the SAFE scale with a group of
Hispanics to explore the relationship between acculturative stress and gender,
generational status, and SES, and also to examine the reliability and validity of the
instrument. They found a significant main effect for generation, and that the SAFE scale
was a reliable and valid instrument for measuring acculturative stress. Mena, Padilla,
and Maldonado (1987) used the SAFE scale to examine acculturative stress and coping
strategies among immigrant college students. They found that late immigrant students
(immigrating after 12 years of age) experienced more acculturative stress than other
groups. They were also more likely to deal with stress by taking a direct individualistic
approach as opposed to the second- and third-generation groups who were more likely
to cope by talking with friends or a group of people. In a similar study, Padilla, Alvarez
and Lindholm (1986) found that first generation late immigrant students reported the
most stress as compared to early immigrant students and later generation immigrants.
Furthermore, the best discriminators of generational status were the Cultural/Familial
and Social/Environmental factors from the SAFE measure. Padilla, Wagatsuma, and
Lindholm (1985) looked at acculturative stress and generational status with a group of
Japanese American and Mexican American students. Their findings suggested that late
immigrant first generation students experienced the most stress, with first generation
Mexican Americans reporting the highest levels of stress as compared to other groups.
Lastly, Hovey and King (1996) used the SAFE scale to determine the relationship
between acculturative stress, depressive symptoms, and suicidal ideation in a sample of
immigrant and second-generation Latino-American adolescents. Results indicated 25% of the adolescents reported critical levels of depression and suicidal ideation and these critical levels were positively correlated with acculturative stress. Findings suggest that some acculturating Latino adolescents experience considerable levels of acculturative stress and these adolescents are at risk for experiencing significant levels of depression and suicidal ideation. The results emphasized the importance of assessing and treating the depressed acculturating Hispanic adolescent within a cultural context.

Generational Status

Generational status for Mexican-Americans, as defined by Pinal & Singer (1997) refers to the origin of birth and varying degrees of exposure one has to the United States and Mexico. First generation students are those who were born in Mexico and immigrated into the United States. Their parents and grandparents were also born in Mexico. Second generation immigrants are those who were born in the United States but whose parents and grandparents were born in Mexico. Third generation Mexican Americans are those who, along with both parents, were born in the United States; however, their grandparents were born in Mexico. While several research studies have used this definition, others have adjusted the “pure” generation concept and have classified subjects as second or third generation immigrants as long as they have at least one parent born in the United States (Atwood, 2001; Kao & Tienda, 1996; Kaufmann, Chavez, & Lauen, 1998; Mendoza & Dixon, 1999).

Most of the Hispanic children in the United States in 1996 were first generation (38%) born, followed by second generation (30%) and third-generation Mexican
Americans (32%) (Pinal & Singer, 1997). With the majority of these children being first
generation, acculturation and generation issues seem even more critical as first
generation immigrants tend to experience more emotional distress and acculturative
stress (Hovey & King, 1996; Roysircari-Sodowsky & Maestas, 2000). In a more recent
study, Hertel (2002) looked at social adjustment and generational status. He explored
social adjustment among different generations of Mexican Americans and found the first
generation group reported significantly less social adjustment, which may suggest
higher stress levels due to acculturation. Overall, research has shown that first
generation immigrants tend to experience a significant amount of acculturative stress;
however, second and third generation immigrants also experience acculturative stress
as they adjust to the conflicts encountered in bicultural socialization.

Gender

Gender based behaviors refers to the behaviors and characteristics that are
appropriate for and typical of females and males of a particular culture (Unger, 1979).
Gender roles are defined by O'Neill (1990, p. 23) as “behaviors, expectations, and role
sets deemed by society as masculine or feminine which are embodied in the behavior of
the individual man or woman and culturally regarded as appropriate to males or
females”. Expected behaviors for each gender are allocated in each culture; however,
when children reach adolescence they begin to develop their own ideas due to
influences outside the home (peers, school, and mass media) (Keats, 1997). This would
suggest that early adolescence and the middle school years are usually a time when
minority children will give up their ethnicity in order to fit in with the majority group
even though cultural roles are usually still very rigid in the home.

Gender has been researched extensively with factors such as depression, self-esteem, alcohol consumption, smoking, and academic achievement (Borelli, 1996; Dean, 2001; Enochs, 1997; Zapata and Katims, 1994). Results of these studies have found that although there were no overall differences, there were differences between genders on certain scales of emotional functioning.

Even though there has not been extensive research in the role gender plays in acculturation or perceived stress in young adolescents, there are a few studies to consider. Chrispin (1999) used the SAFE scale to investigate gender differences with respect to acculturative and emotional stress and findings indicated that females were more vulnerable to emotional distress. Cuellar, Arnold, and Maldonado (1995) utilized the ARSMA-II to examine gender differences in acculturation scores. Results indicated that there was not a significant difference between the genders; however, females in general reported higher acculturation scores than males. In a more recent study, Atwood (2001) used the ARSMA-II with Mexican American adolescents to examine acculturation levels and how gender plays a role in acculturation. Findings suggested that there was not a significant difference between male and female subjects.

Phinney (1992) used the Multigroup Ethnic Identity Measure (MEIM) to look at relationships between gender and ethnic identity in high school and college students who represented an array of ethnic groups including Asian, African American, Hispanic, White, and multiracial. Findings suggested that high school females achieved higher scores than males on ethnic behaviors; however, there were no statistically significant
differences when both samples were used between gender on either the ethnic identity component or ethnic identity achievement and affirmation/belonging components. Cuellar, Nyberg, Maldonado, and Roberts (1997) used the MEIM total score to examine differences between genders. They found that gender was not a significant predictor of the MEIM total score but it was a meaningful contribution to the Affirmation and Belonging subscale of the MEIM in that Latino males scored lower than Latino females.

Koss-Chioino & Vargas, (1999) investigated the relationship between gender and ethnicity and found that girls score higher than boys on sophisticated measures of identity development as opposed to those that only measure one construct (i.e. language use in the home). They also found that younger adolescents are usually in the earlier stages of the acculturative and ethnic identity process. Rotheram-Borus, Dopkins, Sabate, and Lightfoot (1996) found that gender did play a role in ethnic identity. Their findings suggested that boys were more likely to identify themselves as having a more mainstream orientation (majority) rather than strongly tied to their own ethnic origin. Rotheram-Borus (1998) also found that females of several ethnic groups have repeatedly shown greater identification with their ethnic peers than males. Overall, these studies show that females are reporting closer ties to their ethnic origin in their behaviors, belonging, and identity development, which suggests that the acculturation process may be more difficult for them; however, some research has shown no gender differences with respect to acculturation level (Atwood, 2001; Cuellar et al., 1995).
CHAPTER III

PURPOSE OF STUDY

The purpose of this study is to investigate the relationship between acculturation level, generational status, gender, and acculturative stress on young adolescent Mexican Americans. There is currently limited research examining the relationship between generational status and acculturation level with acculturative stress. There has been little research to date on the usefulness of the ARSMA-II as a tool for measuring acculturation level in early adolescent Mexican Americans. There has also been little research to date on the usefulness of the SAFE-C as a tool for measuring acculturative stress in early adolescent Mexican Americans. Furthermore, research in general on young adolescent Mexican Americans is limited.

The past decade has seen a growing interest in the social and cultural adjustment processes of our growing minority and immigrant populations. Our educational and social institutions seem to find themselves pressed to consider the implications of these differences as they try to serve a growing and diverse population. The construct of acculturation, although developed decades ago, is seldom considered as a dimension of a person’s social and cultural adjustment. Acculturative stress as well as the relationship and influence of gender and generational status are more recent research interests. The gap is greatest for ethnic minority children and adolescents as target populations for this research. More is needed to help inform the community and service providers of the influence that acculturation, gender, generational status and acculturative stress may have on the unique development and outcomes of immigrant
and ethnic minority boys and girls in our society. This study evaluates the effect of these variables among a group of early adolescent, Mexican American youth in south Texas. It is an attempt to validate the use of the ARSMA-II with this age population and to explore the effect of gender and generational status on acculturation and acculturative stress as measured by the SAFE-C. The following research questions served to guide study design and data analysis.

Research Questions

1) Is the ARSMA-II a valid instrument for use with a sample of early adolescent Mexican American youth?

2) Is there a relationship between generational status and gender with acculturation level in young adolescent Mexican Americans?

3) Is there a relationship between generational status, gender, and acculturation level with acculturative stress in young adolescent Mexican Americans?

Hypotheses

The research questions stated above were used to develop the following hypotheses to guide data analysis and provide information on acculturation and acculturative stress in young adolescent Mexican Americans.

1. It is hypothesized that as acculturation level on the ARSMA-II increases, acculturative stress measured by the SAFE-C will decrease.

2. It is hypothesized that as generational status increases, the acculturative stress as measured by the SAFE-C will decrease.
CHAPTER IV

METHOD

Subjects

This study is part of a larger investigation exploring thoughts, attitudes, and academic performance of rural Mexican American adolescents in Weslaco, Texas. Weslaco is a small town located in south Texas seven miles from the Mexico border. The population is estimated at 26,935, with 83.76% (22,560) of Hispanic or Latino origin of any race (U.S. Bureau of the Census, 2000). Parents of sixth, seventh, and eighth grade students were notified and provided a description of the study. After receiving permission from the district superintendent and campus administrators, parental passive consent and child assent procedures were used. If parents chose not to allow their child to participate, they were instructed to sign a form requesting such and return it to the school with their child. Students were provided with an assent form requiring their signature the day of data collection and were given the option to either participate or opt out of participation. Teachers of each classroom were also given the option to participate or engage in another work activity during the data collection period.

The total number of students enrolled in grades six through eight on the two data collection days in November 1997 totaled 2,809. The month of November was chosen to help assure that a maximum number of students from migrant families had returned to school. There were 157 students absent on one or both of the two days of data collection. Partially completed surveys were not included if they were due to a student's absence during data collection. Eight students did not participate due to their
parents returning completed and signed non-participatory forms indicating the parent/s did not give permission for their child to participate in the study.

Of the 2,644 remaining students, 814 did not participate in the study by teacher choice to opt out. As a result, the survey information of 1830 students was entered into the database. A total of 1,268 students had complete data on the measures examined in the current study and were included in the analysis. Of these students 96.1% were identified in a school database as Hispanic (the majority are Mexican American). They included 636 boys (50.2%) and 632 girls (49.8%). There were 422 sixth graders (33.3%), 415 seventh graders (32.7%), and 431 eighth graders (34.0%). Ages of the participants ranged from 11 to 15 years with a mean age of 12.57 years. Age distribution included 199 eleven year olds (16.5%), 385 twelve year olds (31.9%), 393 thirteen year olds (32.5%), 195 fourteen year olds (16.1%), and 36 fifteen year olds (3.0%).

Procedures

Data were collected over a two-day period in November 1997. Students were instructed not put their names on the surveys and were identified only by the student’s ID number. The classroom teachers read the entire survey to their students prior to administration and the teachers assisted students with questions as needed. If the child requested, or if the child was identified as an ESL (English as a Second Language) student, they were given a survey written in Spanish and it was read to the child in Spanish. However, the current data set does not include any surveys read in Spanish. If a child requested not to participate once the study was underway he or she was
permitted to discontinue the survey. No such requests for discontinuation were noted. School performance and demographic data for each student were obtained from the school district. The data included a student ID that allowed matching the school performance and socio-demographic data with the survey data. School data points included grades, absences, academic achievement scores, and status as at-risk for dropping out of school, limited English proficiency, migrant, and gifted and talented, among other variables.

Materials

Acculturation Rating Scale of Mexican Americans-II (ARSMA-II). The ARSMA-II (Sage Publications, Thousand Oaks, CA, www.sagepub.com) is a 48-item Likert type scale that measures acculturation along 3 primary factors: language, ethnic identity, and ethnic interaction. It was normed on 379 Mexican, Mexican-American, and White Non-Hispanic university students who represented five generational levels. The ARSMA-II is an orthogonal, multidimensional scale that measures orientation toward the Mexican culture (Mexican Orientation Subscale (MOS)) and the Anglo culture (Anglo Orientation Subscale (AOS)) independently. The MOS has 17 items and a coefficient alpha of .88, while the AOS has 13 items and a coefficient alpha of .83. The ARSMA-II is able to generate both linear acculturation categories (Levels 1-5 defined below) and orthogonal acculturative categories (Traditional, Low Biculturals, High Biculturals, and Assimilated). For each subject, a mean MOS score is computed by summing the 17 items of the MOS scale and dividing by 17. Likewise, a mean AOS score is obtained by summing the 13 items of the AOS and dividing by 13. A linear acculturation score is
obtained for each subject by subtracting the mean MOS score from the mean AOS. The Acculturation levels range along a continuum from Level I “Very Mexican oriented” to Level V “Very Assimilated; Anglicized”. This linear acculturation score is used in computing acculturation level for each subject and is the value used for this study. Examples of items on the MOS are “I speak Spanish; I enjoy listening to Spanish language music; My thinking is done in Spanish.” Examples of items on the AOS are “I speak English; I enjoy English language TV; I associate with Anglos.” Response categories to all items on ARSMA-II are based on a 5 point Likert scale which evaluates frequency and/or intensity (1= not at all; 2= very little or not very often, 3= moderately, 4= much or very often, and 5= extremely often or almost always). The criteria for including subjects into one or the other of the acculturative categories on ARSMA-II is generally based on the obtained scores on the MOS and AOS using the following computational procedures: The following are cutoff scores suggested by Cuellar et al. (1995), categorizing subjects into five different acculturation levels: <-1.33 (Level 1) = Very Mexican Oriented, >=-1.33-<.07 (Level 2) = Mexican Oriented to approximately balanced Bicultural, >-.07-1.19 (Level 3) = Slightly Anglo Oriented Bicultural, 1.19-<2.45 (Level 4) =Strongly Anglo oriented, and >2.45 (Level 5) = Very Assimilated. These cutting scores were based on standard deviation units or fractions thereof about the mean of the original standardization sample of ARSMA-II (see Cuéllar et al., 1995). The internal reliability and test-retest reliability data for the ARSMA II are reported as follows:
Table 1

Internal and Test-Retest Reliability for the ARSMA-II

<table>
<thead>
<tr>
<th>Scale</th>
<th>Internal</th>
<th>Test-Retest</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOS</td>
<td>.83</td>
<td>.94</td>
</tr>
<tr>
<td>MOS</td>
<td>.88</td>
<td>.96</td>
</tr>
<tr>
<td>MARG</td>
<td>.87</td>
<td>.78</td>
</tr>
<tr>
<td>ANGMAR</td>
<td>.90</td>
<td>.72</td>
</tr>
<tr>
<td>MEXMAR</td>
<td>.68</td>
<td>.80</td>
</tr>
<tr>
<td>MAMAR</td>
<td>.91</td>
<td>.81</td>
</tr>
</tbody>
</table>

The Mexican marginality subscale (MEXMAR) is the only subscale that appears to have a poor internal consistency. Though included in the data collection, marginality was not a factor considered for this study.

Societal, Attitudinal, Familial and Environmental Acculturative Stress Scale - Children's Version (SAFE-C). This 36-item scale is scored on a 6-point Likert-type scale from 1 “Doesn’t bother me” to 5 “Bothers me a lot”. A “0” is used for those statements that do not apply to the child. The scale is comprised of two factors: general social stressors (16 items) that apply to all children and ethnic stressors (20 items) that pertain to ethnic minorities as a result of acculturation. The acculturation domain is comprised of 14 items that address stressors related to acculturation and 6 items related to discrimination as perceived by the child. A total SAFE-C score and scores for general social stress, process-oriented stress and perceived discrimination are obtained. The total SAFE-C score ranges from 1 to 180. The range of scores for general social
stress is 0-80; process-oriented stress scores, 0-70, and 0-30 for perceived discrimination. Higher scores indicate higher levels of perceived stress.

Cronbach’s alpha for the SAFE-C is .86, which is similar to the reliability coefficient found in the original SAFE scale by Mena et al., 1987. The high Cronbach’s alpha indicates that it is a reliable instrument for measuring acculturative stress in children. In addition, the subscales of the SAFE-C are highly intercorrelated. The highest correlation is between the Discrimination and Process-Oriented items ($r = .88, p < .01$) and the lowest between the Discrimination and General Social Stress item ($r = .60, p < .01$).
CHAPTER V
RESULTS

General Description of the Study Sample

Frequency analysis was used to assess socio-demographic characteristics of the participants. The majority of students fell within the 12-13-year-old range, followed by 11 and 14-year-olds. The students were equally distributed with respect to grade and gender of the participants.

There were three possible classifications for generational status. First generation students are those who were born in Mexico and immigrated into the United States. Their parents and grandparents were also born in Mexico. Second generation students are those who were born in the United States but whose parents were born in Mexico. Third generation Mexican Americans are those who, along with one or both of their parents, were born in the United States. There were 151 (9.5%) in the first generation, 279 (22.0%), in the second generation, and 868 (68.5%) in the third generation.

There were 5 possible classifications for acculturation levels as defined by the ARSMA-II cutoff scores. Of the five, there were 45 (3.6%) in Level 1 (Very Mexican Oriented), 411 (32.5%) in Level 2 (Mexican Oriented to approximately Balanced Bicultural), 579 (45.8%) in Level 3 (Slightly Anglo Oriented Bicultural), 215 (17.0%) in Level 4 (Strongly Anglo Oriented), and 14 (1.1%) in Level 5 (Very Assimilated; Anglicized) (see Table 2).
Table 2

Acculturation Characteristics

<table>
<thead>
<tr>
<th>Acculturation Level</th>
<th>Male</th>
<th>Female</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>23</td>
<td>22</td>
<td>45</td>
</tr>
<tr>
<td>Level 2</td>
<td>199</td>
<td>212</td>
<td>411</td>
</tr>
<tr>
<td>Level 3</td>
<td>292</td>
<td>287</td>
<td>579</td>
</tr>
<tr>
<td>Level 4</td>
<td>111</td>
<td>104</td>
<td>215</td>
</tr>
<tr>
<td>Level 5</td>
<td>9</td>
<td>5</td>
<td>14</td>
</tr>
</tbody>
</table>

As noted earlier, the ARSMA-II was normed on Mexican, Mexican-American, and White non-Hispanic university undergraduate students. The average education level of the sample was one to two years of college. Cuellar et al. (1995) did not give the age range or mean age of his sample, but one would assume the majority of these students would be adults older than 18 years of age. This study sample involved children and young adolescents in middle school, and their ages ranged from 11-15 years. Most research has shown consistent differences developmentally, socially, and cognitively between children, early and late adolescents, and adults (Flavell, 1979; Harter, 1998; Keating, 1990). Therefore, considering the age difference between the normative group of the ARSMA-II and this study, it seems critical to investigate possible differences between the two groups.

Analysis was conducted on the mean acculturation scores from the ARSMA-II (Cuellar, Arnold, & Maldonado, 1995) and this study to determine if differences exist
between the two samples. As noted previously, the difference between the Anglo Orientation Subscale (AOS) and the Mexican Orientation Subscale (MOS) comprise the acculturation score. Table 3 lists the AOS and MOS mean and standard deviation scores from both studies. Cuellar et al. (1995) did not report the acculturation score or standard deviation but only the derived cutoff scores that resulted from them. The mean of the acculturation cutoff scores would be the difference between the AOS and MOS means reported (see table 3). Comparisons indicated that this sample had a considerably lower mean acculturation score suggesting the instrument may be measuring the construct of acculturation differently for youth. New acculturation levels were therefore developed in the same manner that the ARSMA-II levels were developed by Cuellar et al. (1995). Level 1 corresponds to acculturation scores 1.5 standard deviations below the mean. Level 2 includes acculturation scores between 1.5 and .5 standard deviations below the mean. Level 3 encompasses acculturation scores .5 standard deviations below and above the mean. Level 4 represents scores in the range between .5 and 1.5 standard deviations above the mean. Level 5 represents more than 1.5 standard deviations above the mean. Table 4 compares the ranges for determining acculturation level using the ARSMA-II with the new cutoff scores using the data from this study.
### Table 3

**Mean AOS, MOS, and Acculturation Scores of the ARSMA-II**

<table>
<thead>
<tr>
<th></th>
<th>Original Study</th>
<th>Current Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOS</td>
<td>3.82 SD=.57</td>
<td>3.46 SD=.58</td>
</tr>
<tr>
<td>MOS</td>
<td>3.28 SD=.84</td>
<td>3.18 SD=.81</td>
</tr>
<tr>
<td>Acculturation Score</td>
<td>0.54* SD=1.26*</td>
<td>0.28 SD=.94</td>
</tr>
</tbody>
</table>

*scores were not reported by Cuellar et al. (1995) in the ARSMA-II article, these scores are derived from the available AOS and MOS mean scores and cutoff scores.

### Table 4

**ARSMA-II Acculturation Cutoff Scores and Acculturation Levels**

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Original Scores</th>
<th>New Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>Very Mexican</td>
<td>&lt; -1.33</td>
<td>&lt; -1.12</td>
</tr>
<tr>
<td>Level 2</td>
<td>Mexican to</td>
<td>≥ -1.33 to &lt; -.07</td>
<td>≥ -1.12 to ≤ -.18</td>
</tr>
<tr>
<td></td>
<td>Balanced Bicultural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 3</td>
<td>Slightly Anglo</td>
<td>&gt; -.07 to &lt; 1.19</td>
<td>&gt; -.18 to &lt; .76</td>
</tr>
<tr>
<td></td>
<td>Bicultural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 4</td>
<td>Strongly Anglo</td>
<td>≥ 1.19 to ≤ 2.45</td>
<td>≥ .76 to ≤ 1.7</td>
</tr>
<tr>
<td>Level 5</td>
<td>Very Assimilated</td>
<td>&gt; 2.45</td>
<td>&gt; 1.7</td>
</tr>
<tr>
<td></td>
<td>Anglicized</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There were five possible classifications for acculturation levels as defined by the new acculturation cutoff scores when using the mean acculturation score from this research. Table 5 compares the two sample sizes using both cutoff scores. Using the new scores, there were 77 (6.1%) in Level 1 (Very Mexican Oriented), 329 (25.9%) in Level 2 (Mexican Oriented to approximately Balanced Bicultural), 486 (38.3%) in Level 3 (Slightly Anglo Oriented Bicultural), 283 (22.3%) in Level 4 (Strongly Anglo Oriented), and 93 (7.3%) in Level 5 (Very Assimilated; Anglicized). As seen in Table 5, with the new cutoff scores, the sample becomes more evenly distributed with additional participants falling into the extremities and others becoming more dispersed within the middle acculturation levels.

Table 5

<table>
<thead>
<tr>
<th>Acculturation Level</th>
<th>Original</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>45</td>
<td>77</td>
</tr>
<tr>
<td>Level 2</td>
<td>411</td>
<td>329</td>
</tr>
<tr>
<td>Level 3</td>
<td>579</td>
<td>486</td>
</tr>
<tr>
<td>Level 4</td>
<td>215</td>
<td>283</td>
</tr>
<tr>
<td>Level 5</td>
<td>14</td>
<td>93</td>
</tr>
</tbody>
</table>

A Pearson chi-square was conducted on the original ARSMA-II and the new acculturation levels obtained from this study to determine whether the means were significantly different. Results of the chi-square were significant at the $p < .05$ level of
significance ($\chi^2[N = 1264] = 2536.40$ (df = 16), $p < .001$) indicating that there is a significant difference between the two groups. Moreover, with the new levels 300 (24%) of the students were reclassified into different levels indicating that the levels from this study are more appropriate for this age group. Therefore, to assure that more students are classified correctly, further analysis with respect to acculturation levels will include both the original and new acculturation levels. Figure 1 illustrates the different distributions of the original ARSMA-II and new acculturation levels with regard to their mean acculturation score.

Figure 1

Evaluation of the Reliability and Validity of Measures

Cronbach's alpha coefficients were computed to determine the internal reliability for both the ARSMA-II and SAFE-C using the current study sample. Results indicated that the Cronbach's alpha coefficient for the ARSMA-II Acculturation score (AOS-MOS)
was .85, suggesting that the ARSMA-II is a reliable instrument with this sample of young Mexican-American adolescents. The Cronbach’s alpha for the SAFE-C Acculturative stress score was .87, indicating that it also has sufficient reliability with this group of Mexican-American children and adolescents.

The validity of the SAFE-C was tested by Chavez et al. (1997) by comparing the scores from a Euro American sample and a Latino sample. The results indicated that the Latino sample did have significantly higher scores in all stress domains suggesting the Latino group was experiencing higher levels of acculturative stress, thus supporting the validity of the instrument.

Originally, the concurrent validity comparing the ARSMA and ARSMA-II, as measured by a Pearson product moment correlation, resulted in a coefficient of .89 (Cuellar, Arnold, and Maldonado, 1995). Like the original study, to further assess the validity of the ARSMA-II with this age group, comparisons were made based on generational status and acculturation level, assuming that with each successive generation, individuals tend to become more Anglo oriented and less Mexican oriented. Acculturation level should increase as generational status increases to support the construct validity of the ARSMA-II.

In order to determine whether there is a significant positive relationship between generational status and acculturation level, two separate analyses were conducted, as well as a crosstabulation summary (Table 6). First, a Pearson product moment correlation was computed using the three generational statuses (1-born outside U.S., 2-born in U.S., 3-student and one or both parents born in U.S.) and five linear
acculturation levels (1-Very Mexican Oriented, 2-Mexican Oriented to Balanced Bicultural, 3-Slightly Anglo Oriented Bicultural, 4-Strongly Anglo Oriented, and 5-Very Assimilated, Anglicized). The results indicated a significant correlation at the $p < .05$ level ($r = .44$); therefore, there is a significant positive relationship showing that as generational status increases, acculturation level also increases supporting the construct validity of the ARSMA-II.

Table 6

ARSMA-II Acculturation Levels and Generational Status Crosstabulations Based on Original Cutoff Scores

<table>
<thead>
<tr>
<th>Acculturation Levels</th>
<th>First Generation ($N=120$)</th>
<th>Second Generation ($N=279$)</th>
<th>Third Generation ($N=865$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Very Mexican</td>
<td>19 (15.80%)</td>
<td>18 (6.45%)</td>
<td>8 (.92%)</td>
</tr>
<tr>
<td>2 Mexican to Balanced Bicultural</td>
<td>67 (55.83%)</td>
<td>146 (52.33%)</td>
<td>198 (22.89%)</td>
</tr>
<tr>
<td>3 Slightly Anglo-Bicultural</td>
<td>29 (24.17%)</td>
<td>99 (35.48%)</td>
<td>451 (52.14%)</td>
</tr>
<tr>
<td>4 Strongly Anglo</td>
<td>5 (.83%)</td>
<td>16 (5.73%)</td>
<td>194 (22.43%)</td>
</tr>
<tr>
<td>5 Very Assimilated; Anglicized</td>
<td>0</td>
<td>0</td>
<td>14 (1.62%)</td>
</tr>
</tbody>
</table>

A Pearson product moment correlation and crosstabulations (Table 7) were also conducted on the three generational statuses and new acculturation levels to determine
whether acculturation level increased as the generational status increased. The results indicated a significant positive correlation at the $p < .05$ level ($r = .41$). Therefore, there is a significant positive relationship between generation status and the new acculturation levels further validating the use of the ARSMA-II for identifying acculturation levels in adolescent Mexican-Americans.

Table 7

<table>
<thead>
<tr>
<th>New Acculturation Levels and Generational Status Crosstabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acculturation Levels</td>
</tr>
<tr>
<td>1 Very Mexican</td>
</tr>
<tr>
<td>2 Mexican to Balanced Bicultural</td>
</tr>
<tr>
<td>3 Slightly Anglo-Bicultural</td>
</tr>
<tr>
<td>4 Strongly Anglo-Analyzed</td>
</tr>
<tr>
<td>5 Very Assimilated; Anglicized</td>
</tr>
</tbody>
</table>

As mentioned previously, the ARSMA-II acculturation levels are based on cutoff scores from the mean acculturation score (AOS-MOS). Cuellar et al. (1995) not only examined the correlation between acculturation levels and generational status, they also looked at generational status compared with the mean acculturation score to
determine differences between the generations to further validate the instrument. In this study, the one-way ANOVA comparing generational status and the mean acculturation score was significant at the $p < .05$ level, ($F (2, 1265) = 156.93$, $p < .001$. Figure 2 shows the mean acculturation score for each generation. A Tukey HSD pairwise comparison of the 3 means for generation indicated that all the pairwise comparisons were significant at the $p < .001$ level thus further validating the usefulness of this instrument with Hispanic adolescents.

Figure 2

Acculturative Stress and Gender

Several studies have indicated that there are not significant gender differences with respect to acculturation, generational status, and ethnic identity. However, some did show that females have reported closer ties to their ethnic origin and identity development; therefore, additional investigations are needed. Two recent studies using
the ARSMA-II examined gender differences on acculturation level with university students and secondary students 12-20 years of age, respectively (Atwood, 2000; Cuellar et al., 1995). Results of both studies again indicated that there were no gender differences with respect to acculturation level. In order to examine these findings with this study, a Pearson chi-square was computed on gender using the ARSMA-II acculturation levels. Results were not significant at the $p < .05$ level of significance ($\chi^2[N = 1264] = 1.84$ (df = 4), $p = .77$). Furthermore, when comparing the new acculturation levels with gender, the results were similar (Figure 3). There continued to be no significant gender differences using the new acculturation levels at the $p < .05$ level, ($\chi^2[N = 1262] = 3.61$ (df = 4), $p = .46$).

![Figure 3](image)

One of the research questions of this study was to explore if there are gender differences within this group of Mexican-American youth with respect to not only...
acculturation level but also to acculturative stress. There has been very limited research using the SAFE scale and none found by this author using the SAFE-C; therefore, it seems important to investigate all areas in this study, including gender, to see how they relate to acculturative stress. In order to discover if there were gender differences with acculturative stress, a one-way ANOVA was conducted using the acculturative stress score from the SAFE-C. Results indicated that there was not a significant difference between genders with regard to acculturative stress ($F(1, 1266) = 1.24, p > .05$) as measured by the SAFE-C.

Acculturative Stress and Acculturation Level

To determine if there was a significant relationship between acculturation level (ARSMA-II) and acculturative stress (SAFE-C), a one-way ANOVA was conducted to determine whether acculturative stress decreased as acculturation level increased (Figure 4). Using the original cutoff scores, results indicated a negative relationship between acculturation level and acculturative stress at the $p < .05$ level, ($F(4, 1259) = 8.37, p < .001$).

A Tukey HSD pairwise comparison of the 5 means for acculturation level indicated the following pairwise comparisons were significant at the $p < .001$ level; acculturation levels 1 and 3, acculturation levels 1 and 4, acculturation levels 2 and 3, and acculturation levels 2 and 4 (Table 8). There was no difference between levels 3 and 4 and when comparing all groups to level 5.
Table 8

ARSMA-II Acculturation Levels Pairwise Comparisons on Acculturative Stress

<table>
<thead>
<tr>
<th>ARSMA-II Acculturation Level Mean Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
</tr>
<tr>
<td>Level 1</td>
</tr>
<tr>
<td>Level 2</td>
</tr>
<tr>
<td>Level 3</td>
</tr>
<tr>
<td>Level 4</td>
</tr>
<tr>
<td>Level 5</td>
</tr>
</tbody>
</table>

*= statistically significant at the \( p < .05 \) level; **= \( p < .01 \) level

When comparing the new acculturation levels with acculturative stress, the results were again similar; however, there were more significant group differences within the pairwise comparisons, specifically between Levels 1 and 5 (Table 9). The one-way ANOVA comparing the new acculturation levels and the SAFE-C acculturative stress score was significant at the \( p < .05 \) level, \( (F(4, 1263) = 9.86, p < .001) \) indicating a significant negative relationship between acculturation level and acculturative stress. Figure 4 shows the comparisons of the acculturative stress means by the original and new acculturation levels.

A Tukey HSD pairwise comparison of the 5 means for acculturation level indicated the following pairwise comparisons were significant at the \( p < .001 \) level; acculturation levels 1 and 3, levels 1 and 4, levels 1 and 5, and levels 2 and 4. Acculturation levels 2 and 3 were significant at the \( p < .05 \) level.
Figure 4

![Acculturative Stress Means by Original ARSMA-II and New Acculturation Level](chart)

Table 9

**New Acculturation Levels Pairwise Comparisons on Acculturative Stress**

<table>
<thead>
<tr>
<th>ARSMA-II Acculturation Level Mean Differences</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>-----</td>
<td>5.62</td>
<td>9.04**</td>
<td>11.90**</td>
<td>10.90**</td>
</tr>
<tr>
<td>Level 2</td>
<td>5.62</td>
<td>-----</td>
<td>3.42*</td>
<td>6.28**</td>
<td>5.28</td>
</tr>
<tr>
<td>Level 3</td>
<td>9.04**</td>
<td>3.42*</td>
<td>-----</td>
<td>2.86</td>
<td>1.86</td>
</tr>
<tr>
<td>Level 4</td>
<td>11.90**</td>
<td>6.28**</td>
<td>2.86</td>
<td>-----</td>
<td>.999</td>
</tr>
<tr>
<td>Level 5</td>
<td>10.90**</td>
<td>5.28</td>
<td>1.86</td>
<td>.999</td>
<td>-----</td>
</tr>
</tbody>
</table>

* = statistically significant at the $p < .05$ level; ** = $p < .01$ level

Acculturative Stress and Generational Status

A one-way ANOVA was conducted on generational status and acculturative stress
(SAFE-C) to determine whether acculturative stress decreased as generational status increased. The one-way ANOVA comparing generational status and SAFE-C acculturative stress was significant at the $p < .05$ level, $(F (2, 1265) = 8.87, p < .001$ indicating a significant negative relationship between generational status and acculturative stress (Figure 5).

Figure 5

A Tukey HSD pairwise comparison of the 3 means for generational status indicated the pairwise comparisons were significant at the $p < .001$ level between generations 1 and 2 and generations 1 and 3. There was not a significant difference when comparing generations 2 and level 3.
CHAPTER VI
DISCUSSION

The results of this study appear to support the findings in the literature on acculturation in all areas examined including acculturation level, generational status, and gender. As noted previously, the ARSMA-II was used to assess acculturation level; however, it was normed on Mexican, Mexican American, and White non-Hispanic university students. The participants in this study were younger adolescent middle school students. Therefore, it appeared necessary to validate the usefulness of the ARSMA-II with this age population before continuing with further analysis. In order to determine if the ARSMA-II was an appropriate tool, similar analyses were conducted as those completed by Cuellar et al. (1995) when norming the ARSMA-II. First, the validity analyses were based on the assumption that as one moves toward the Anglo culture, there should be a proportional increase in acculturation scores; therefore, after each successive generation, one becomes more acculturated. With this idea in mind, acculturation level should increase as generational status increases. The Pearson product moment correlation between these two variables was statistically significant and showed a positive relationship. It should be noted, however, that the correlation for this study ($r = .44$) was not as strong as the ARSMA-II normative sample ($r = .61$) (Cuellar et al., 1995). Reasons for this difference may be the sample size, the number of participants in each level and/or only having three generation levels instead of five. To further validate the construct validity of the ARSMA-II, Cuellar et al., (1995) examined the relationship between the mean acculturation score and generational
status, which was also replicated in this study. The results were again significant confirming the usefulness of the ARSMA-II for this age population. The pairwise comparisons showed significant differences between all groups indicating that with each successive generation, participants moved more toward the Anglo culture and away from the Mexican culture.

After a closer look at the ARSMA-II acculturation mean from the normative sample, comparisons revealed that the mean from this study was significantly lower. Because the original cutoff scores defining the ranges for each acculturation level were based on the mean, it seemed necessary to construct new acculturation levels based on the mean from this sample. Analyses were conducted using both means; however, there were not any overall differences in the results when looking at acculturation levels versus generational status or acculturative stress. There were however, more differences between groups, specifically with level 5 when using the new acculturation levels. After constructing the new cutoff scores, it was noted that 300 (24%) of the participants were reclassified into a different level, with more going into the upper and lower groups (i.e., Levels 1 and 5). Even though there were not overall differences between the acculturation levels when looking at the group as a whole, there would be considerable differences when looking at students individually. This study established local norms for the ARSMA-II that could be used for adolescents in the south Texas region. Future research may want to establish national norms for the ARSMA-II for this age population.

The results of this study supported the first hypothesis: as acculturation level
increases, acculturative stress decreases. Findings indicated a significant negative relationship. As literature on acculturation has suggested, the construct of acculturation predicts that as an immigrant moves closer to the Anglo culture, they experience less acculturative stress (Cuellar et al, 1995; Cuellar and Roberts, 1997). In this study, when using the ARSMA-II acculturation levels, there were significant differences between all groups except levels 1 and 2, 3 and 4, and all groups compared to level 5. From these pairwise comparisons, inferences can be made about differences between acculturation levels. There was not a significant difference between levels 1 and 2 or levels 3 and 4 suggesting that these groups may be experiencing similar amounts of stress and may be at about the same stage in the acculturation process. As the levels became further apart, there were significant differences between them. However, it is interesting to note that there were no significant differences with level 5 even when compared to level 1. This finding may be due to a very small sample size in level 5. When looking at the new acculturation levels, comparable results between levels were found except there were significant differences between groups 1 and 5. These differences may be due to increased participants in each group and the correct classification of the students.

The second hypothesis was also supported by these data: as generational status increases, acculturative stress will decrease. Research has shown that the greatest amount of stress has been found in first generation, as opposed to later generation immigrants (Hovey & King, 1996; Roysircari-Sodowsky & Maestras, 2000); therefore, it was predicted that later generation immigrants would be experiencing less acculturative
stress. Findings indicated a significant negative relationship between the two variables. Post hoc analysis revealed significant differences between generations 1 and 2 and 1 and 3. There were not significant differences between generations 2 and 3. Prior research has found that first generation immigrants have the most difficulty adjusting to the new culture followed by successive generations (Hertel, 2002; Padilla, Wagatasuma, & Lindholm, 1985). These results suggest that first generation immigrants have the most difficulty adjusting to the acculturation process, yet there are not many differences between second and third generation immigrants. First generation immigrants may be experiencing more difficulty due to language barriers and the entire family experiencing their first exposure to a new culture together. In addition, the age of immigration has been shown to play a critical role in the acculturation process. Later age immigrants (after age 12) appear to have the most difficult time adjusting to the American culture (Mena, Padilla, and Maldonado, 1987). In contrast, second and third generation Hispanics were born and raised in the United States so their exposure to a different culture, including the English language, started at birth.

Another purpose of this study was to investigate the role of gender in acculturation level and acculturative stress. The results of this study supported previous research that showed that there were no significant gender differences with respect to acculturation level (Atwood, 2001; Cuellar, Arnold, and Maldonado, 1995). Although some previous research showed trends in their responses (i.e., females scoring higher on scores of ethnic identity and belonging), a closer look at the means within each acculturation level did not suggest any trends present with these data. When looking at
gender difference with acculturative stress, there was little literature on which to base assumptions. However, considering there were insignificant differences found when looking at depression, self-esteem and other emotional indicators, it was thought that there would not be gender differences with respect to acculturative stress. Findings did indeed support this assumption. Females did have a slightly higher mean acculturative stress score but the difference was very minimal, thus there does not appear to be a trend with respect to acculturative stress and gender either.

Although there were significant findings in this study, there are several limitations that should be noted. One limitation is that although generational status and age were measured for this study, age of immigration was not. Research has found significant differences between early (before age 12) and late immigrant (after age 12) children and adolescents when looking at stress mediated by acculturation (Mena, Padilla, & Maldonado, 1987; Padilla, Alvarez, & Lindholm, 1986). It would be interesting to see how many students in the first generation group were late immigrant children and if their acculturative stress scores were significantly higher than early immigrant children. It is possible that if these two groups were separated, results may have been different. Therefore, conclusions can not be made for all first generation Mexican American immigrants because early immigrant children may not experience as much stress as the later immigrant children.

Another limitation of this study is that the age range of the participants is relatively small, ranging from 11 to 15 years of age. Even though all of these students were in middle school (sixth to eighth grade), there is a considerable difference in their
ages, with some being pre-adolescent children. Therefore, the information gained from these data may not be indicative of all Mexican American youth. Future research may want to consider a broader age range or even having separate groups of children and adolescents. A further weakness of this study is that the subjects for this research were pooled from only one geographic region of the United States (south Texas) and may not be representative of the Mexican American population as a whole or those living in other parts of the United States. As shown earlier, there are dramatic differences between Hispanics living in different parts of the country. Those living in south Texas are very close to their country of origin so their acculturation process may differ from those immigrants living in more northern and eastern parts of the United States. Prospective research may want to consider pooling subjects from several different areas in the United States, especially those areas that do not border Mexico.

One final shortcoming of this study is that all items considered for analysis are self-report. With self-report items, one cannot guarantee accuracy and honesty in all responses. It is not always clear if responses are how the student actually behaves or feels or if they responded in a defensive or socially desirable manner. Self-report measures do not always mirror actual behavior. Therefore the relationship between expressed attitude and actual behavior may not be predicted from this data. Future research may want to consider seeking information from parents, teachers, or health care providers to confirm the validity of the self-reports.

Overall this study contributes to the growing body of literature on the acculturation processes of Hispanic youth; however, the need for more research in this
area is apparent. There have been few acculturation studies and even fewer focused on Hispanic children and adolescents. The results of this study may help initiate further research on acculturation, acculturative stress, and psychosocial issues of acculturating Hispanic youth. Such research would be beneficial in furthering our understanding of the acculturation process in ethnic minority children, not only Hispanic immigrants. Although findings were significant with respect to acculturative stress, it is not clear what part of the acculturation process is the basis of the stress. Cuellar, Roberts, Romero, and Leka (1999) suggest that some changes are easier to make than others. For example, changing the type of food they eat or listening to different music would be easier than changing one’s cultural values. Several questions remain however. Is it moving away from one’s culture or trying to adapt to a new one that causes the stress or is it a combination of the two? With adolescents, is the root of acculturative stress stemming from peer pressure and acceptance and/or the pressure they feel from a traditional family? All of these questions deserve attention and perhaps will be the focus of future studies on acculturation.

Considering the Hispanic population is growing faster than expected, the school systems and social services institutions need to be fully informed in how to evaluate ethnic minorities. Professionals need to understand how cultural issues may play a role in the Mexican-American’s psychosocial, behavioral, and intellectual functioning. The findings presented may shed some light on understanding various psychological problems that develop in Hispanic children. In addition, this research may guide them in
educational planning, treatment, and intervention and point them in the direction of useful assessment tools for the identification of acculturation issues.

There are also additional issues to consider. More research needs to be done with the SAFE-C and ARSMA-II to further validate their usefulness with younger populations. Although the ARSMA-II is aimed specifically at Mexican Americans, the SAFE-C looks at acculturative stress in other ethnic minorities. Even though the focus of this study was with Mexican Americans, acculturative stress occurs with a range of immigrants (Fuertes & Westbrook, 1996; Padilla, Wagatsuma, & Lindholm, 1985). For that reason, future studies using the SAFE-C may want to consider including other ethnic minorities. Even though the homogeneity of the sample may be considered another weakness, results may be consistent with those of other minorities and may be applied to them as well.

In conclusion, this study illustrates several key points in the assessment and understanding of the acculturation process. First, for future research and assessment purposes, the ARSMA-II appears to be a useful tool for assessing acculturation level in young adolescent Hispanics; however, the local norms established by this study appear more appropriate with this age group to ensure correct classification. Although little research has been conducted on the SAFE-C, it appears to be a useful tool in assessing acculturative stress in Hispanic youth. Second, as shown by these data, generational status and acculturation level have a significant impact on acculturative stress and these factors need to be considered when working with ethnic minorities. However, gender does not appear to be a significant predictor of acculturation level or
acculturative stress. Third, those professionals in school systems or social institutions that are involved with the assessment, intervention, and treatment process of ethnic minorities need to understand that it is important to approach ethnic minority youth within a cultural context, and may need to consider generational status, acculturation level, and relevant cultural issues when emotional, psychosocial, or behavioral difficulties are present. Intervention strategies in the school may include individual and group counseling that focuses on acculturation issues, an adjustment class for immigrant students, assigning a “peer buddy” who has been through the acculturation process, establishing a mentoring program with minority students and teachers, and teacher training on acculturation issues that may be present in the classroom.
REFERENCES


