Examining Relationships Between Social-Emotional, Cultural, and Academic Outcomes of Culturally Diverse Adolescents

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Examining Relationships Between Social-Emotional, Cultural, and Academic Outcomes of Culturally Diverse Adolescents

A Thesis submitted in partial satisfaction of the requirements for the degree of

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in

Education

by

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This study examined the relationships between acculturative stress, social-emotional resiliency, ethnic identity, and academic outcomes. A total of 78 middle and high school students from two different schools in California participated in this study during the 2010-2011 school year. Students reported on their perceived levels of acculturative stress, social-emotional resiliency, and ethnic identity. Academic data (reading fluency, GPA, and scores on state tests) were collected for all participants. A significant negative correlation was found between acculturative stress and social-emotional resiliency, suggesting that students with higher levels of acculturative stress tend to have lower levels of social-emotional resiliency. No other significant relationships were found between the variables being analyzed, however several limitations to pursuing research in this area were identified. Recommendations for future research are discussed.
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Examining Relationships between Social-Emotional, Cultural, and Academic Outcomes of Culturally Diverse Adolescents

Young adults today are engaging in a variety of risky behaviors that are increasing their chances of involvement in destructive and even deadly situations. Nationwide, 23.3% of high school students have reported riding in a vehicle that was driven by someone who had been drinking alcohol, 41.8% reported they have consumed alcohol themselves, 20.8% reported they have used marijuana, 17.5% reported they have carried a weapon, 31.5% reported being in a physical fight, and 6.3% reported that they have attempted suicide (CDC, 2010). Additionally, youth are continuing to put themselves at risk for serious health and social problems considering that 2.1% of youth reported they had injected an illegal drug at least once, 34.2% of youth have reported being sexually active, and yet 38.9% of those youth reported not using a condom during their last sexual encounter. These behaviors increase the potential for unintended pregnancies and contracting STD’s, including HIV, which may have serious long-term effects (CDC, 2010). As a whole, these behaviors have the potential to serve as risk factors for a variety of negative developmental pathways for youth as well as put them at risk for being involved in life threatening situations. It is imperative that these types of risky behaviors be addressed, and prevented, in order to protect youth from serious health and social problems as well as to promote healthy development. Schools can be an ideal place to address these issues considering youth spend a fair amount of their time at school and are required to attend. Given the convenient access to a captive audience, schools have the ability to prevent and/or intervene in these risky behaviors.
School environments have been shown to have the ability to provide youth with various protective factors that may decrease their risk of involvement in potentially dangerous behaviors (CDC, 2009; U.S. Department of Health and Human Services, 2001). For instance, current research has shown that academic success may serve as a protective factor for youth (NIDA, 2003). Students who have higher grades in school are less likely to engage in these risky behaviors (Livaudais, Napoles-Springer, Stewart, & Kaplan, 2007; Maguin & Loeber, 1996). In a recent analysis of data from a national youth survey, statistical significant differences in grades (GPA) between those students who did not engage in risky behaviors and those who did were found; students who engaged in risky behaviors had significantly lower grades (CDC, 2011). Academic success of “all students” including those at risk is not only important as a potential protective factor for risky behavior, it is also a critical factor affecting the growth and success of our country’s economy. Successful academic attainment has been linked with increased employment opportunities as well as higher annual earnings (Aud, et al., 2011). Higher education and higher paid jobs can not only promote an overall better quality of life for an individual, but can also promote the financial stability and competitiveness of our country which in turn can benefit the communities we all live in.

One area of potential concern for the future of our nation’s economy is the disparities that currently exist in academic success among culturally diverse populations. Historically, ethnic minority students have had lower levels of academic success than their Caucasian counterparts (Aud, et al., 2011). This problem has been present for the past 50 years and it continues to plague our education system, creating an uneven playing
field for minority students (Castro-Olivo, Preciado, Sanford, & Perry, 2011). Between 1992 and 2009, a 17 year period, the average National Assessment for Educational Progress (NAEP) mathematics and reading scale scores of Black and Hispanic 4th, 8th, and 12th grade students have continued to be on average, 20 points lower than their White peers (Aud, et al., 2011). Moreover, as of 2008 young Hispanics between 16 and 24 years old had the highest percentage of dropouts (18.3%) compared to Blacks (9.9%) and Whites (4.8%). It is estimated that Hispanics born outside the United States have an even higher (32.8 %) dropout index (Chapman, Laird, & KewalRamani, 2010). In fact, throughout the 36-year period of 1972-2008, Hispanics have continued to have the highest percentages of dropouts compared to all other races (Chapman, Laird, & KewalRamani, 2010). Minority youth, specifically Hispanics and African Americans, are also over represented in the juvenile justice system (Armour & Hammond, 2009) as well as in school disciplinary practices (i.e., office referrals, suspensions, expulsions) (Wallace, Goodkind, Wallace, & Bachman, 2008). The disproportionate number of school suspension and expulsions ethnic minority youth experience may be a contributing factor in the achievement gaps displayed with minority populations (Gregory, Skiba, & Noguera, 2010).

The academic achievement gap between Hispanic and non Hispanic students is unacceptable and cannot continue, as it can lead to serious problems for our entire nation. Latino students are the fastest growing group in this country (Ennis, Rios-Vargas, & Albert, 2011). In schools, the population of Hispanic children doubled from 11 to 22 percent between 1989 and 2009 (Aud, et al., 2011). By 2050 31 % of working aged adults
will be of Hispanic origin (Passel & Cohn, 2008). If this population does not have the skills they need to succeed, our economy will suffer and our nation will be unable to compete at a global scale.

The significant demographic changes in our nation are even more evident in our nation's public schools. In California for example, over 50% of the public school population self-identifies as Hispanic (CDE, 2011). With these changes has come the need to address the diverse needs of students from culturally and linguistically diverse (CLD) populations. In addition to lower academic achievement, CLD students have also been identified to be at higher risk for social-emotional and behavioral problems (Albeg, 2010; Blanco-Vega, Castro-Olivo, & Merrell, 2008; Gonzales & Kim, 1997; Suarez-Orozco & Suarez-Orozco, 2001). Research suggests that CLD students are at higher risk because they tend to come from disadvantaged backgrounds (Prelow & Loukas, 2003). Students’ environments have shown to play a significant role in their academic, behavioral, and social-emotional outcomes (Cooper, Masi, & Vick, 2009).

A population identified to be at higher risk, but often understudied are Latino immigrant students. These students often face many additional challenges that can create barriers to learning such as their circumstances of exit and entrance (immigration experience), social–economic status, levels of acculturation, higher levels of acculturative stress, familial acculturative gaps, unstable educational experiences, unwelcoming host cultures, and lower perceptions of community and school belonging (Blanco-Vega, Castro-Olivo, & Merrell, 2008). In addition, schools’ social networks have also been found to marginalize these students, resulting in detrimental outcomes (Olsen, 1997).
The environmental factors listed above have a direct impact on CLD students’ risk for social-emotional and behavioral problems. For example, Latino youth are overrepresented in juvenile and adult detention centers (Arya et al., 2009), and when compared to their Black and White peers Hispanic students were more likely to ride in a car with a driver who had been drinking alcohol, seriously consider attempting suicide, not use a condom during their last sexual encounter, be offered, sold, or given an illegal drug by someone on school property, use some form of cocaine, methamphetamine, ecstasy, and sniff/inhale paints or sprays to get high (CDC, 2010). Equally troubling is the fact that as a group Hispanics are less likely to seek out mental health services and currently they represent one of the largest groups of uninsured in the United States despite that Hispanic youth are at a higher risk for mental and emotional problems (APA, 2010). Many of these outcomes can be function of the neighborhood and environment these students come from (Prelow & Loukas, 2003). Regardless of their environmental circumstances, educators must identify effective interventions for facilitating success among these populations.

It is imperative that educators be aware and informed of the role environmental/social variables can play in students’ development and learning. Schools must learn how to address the needs of CLD students in order to promote the healthy development of our children and prepare them to become productive and successful citizens. Some of the environmental and social variables that have been shown to contribute to students' academic outcomes, and that can be altered within school settings,
are: social-emotional resiliency, acculturative stress, and ethnic pride (Blanco-Vega et al., 2008). The following section describes the current research on each of these areas.

**Social-Emotional Resiliency and Academic Outcomes**

Social-emotional resiliency is the combination of a multitude of positive social-emotional traits such as: social and emotional knowledge and competence, peer acceptance and relationships, ability to bounce back in the face of difficulties, coping skills, problem-solving abilities, empathy, and global self-concept (Cohn, Merrell, Felver-Grant, Tom, & Endrulat, 2009). In a recent review of 213 school-based social emotional learning (SEL) programs, Durlak, Weissberg, Dymnicki, Taylor, & Schellinger (2011) found that when compared to control groups, SEL programs improved social and emotional skills, attitudes, behavior, and academic performance of participating students. This review also highlighted important points in the literature which suggests that relationships and emotional processes can affect learning and other related factors such as academic engagement, work ethic, commitment, and overall school success. The findings of this review also showed that youth with stronger social-emotional skills improved their attitudes towards themselves, others and school, their social and classroom behavior, and mental health (i.e., stress, anxiety, and depression) which are all related to successful academic attainment. Given the negative social and behavioral risks minority youth, specifically Latino youth, are faced with, promoting social-emotional resilience has been proposed as a promising means to address these issues among this population (Castro-Olivo, 2010b; Reyes & Elias, 2011). In addition to positive effects on students' academics, literature has demonstrated a link between higher levels of social emotional
competency and lower levels of high risk behaviors such as delinquency, alcohol and drug use, drop outs, poor attendance, conduct problems, suspensions, and school disciplinary actions (Ali, Dwyer, Vanner, Lopez, 2010; Durlak, et. al., 2011; Najaka, Gottfredson, & Wilson, 2001).

The positive relationship of social-emotional competency and academic achievement has been well established (Prelow & Loukas, 2003; Brackett, Rivers, Reyes, & Salovey, 2010; Elias & Haynes, 2008; Castro-Olivo et al., 2011); however only a few of these studies have focused on Latino youth. The review conducted by Durlak, et. al. (2011) is currently the most comprehensive analysis regarding the relationship between social emotional learning and academic outcomes; however the findings are limited given the lack of subgroup analysis. Examining group differences is needed in order to fully understand the specific needs of CLD populations given that factors such as ethnicity and culture can impact how much certain populations will benefit from standard SEL teaching practices (Durlak, et. al., 2011). For CLD populations, factors such as acculturative stress and ethnic identity/pride may impact the levels of social emotional resiliency a student may have, as well as their overall academic success (Blanco-Vega et al., 2008). Examining the relationships between these variables will allow researchers and educators to develop stronger/more culturally sensitive SEL programs that will be more effective at promoting healthy development and academic success of CLD students.

**Acculturative Stress**

An underdeveloped, yet promising area of research is the relationship between acculturative stress and academic outcomes. Acculturative stress occurs when an
individual finds him/herself being a part of two different conflicting cultures and feels the need to conform to their host culture in order to evade potential discrimination (Mena, Padilla, Maldonado, 1987). Across cultural groups, acculturative stress may manifest differently into various psychosocial stressors that may involve: perceived language barriers, familial acculturation gaps, perceived discrimination, and low sense of school and/or community belonging (Castro-Olivo, Palardy, Albeg, & Williamson, 2011). To date very few have examined the relationship between acculturative stress and academic outcomes directly, however the few studies that are available have shown significant relationships, where adolescents who report higher levels of acculturative stress have lower academic outcomes (Albeg, 2010; Schwartz, Zamboanga, & Jarvis, 2007).

Higher levels of acculturative stress in Hispanic youth have been linked to various negative social and emotional outcomes, such as early experimental drug use (Kulis, Marsiglia, & Nieri, 2009; Vega, Zimmerman, Warheit, & Gil, 2003); physiological, concentration, and worrisome symptoms of anxiety (Suarez-Morales & Lopez, 2009); and depression and suicidal ideation (Hovey & King, 1996) which all have the potential of impacting students’ learning. Higher levels of social emotional resiliency may provide CLD youth with the skills necessary to cope with acculturative stress (Castro-Olivo, 2010b), which could have an indirect impact on academic achievement within this population. Given the negative psychological, social, and potential academic outcomes acculturative stress can have on CLD youth it is important to explore these relationships in more detail in order to identify how schools can contribute to the prevention and or intervention of these negative outcomes.
**Ethnic Identity/Pride**

Another body of research has focused on the role of ethnic identity/pride on academic self-efficacy and academic achievement. Ethnic identity is multidimensional and dynamic in nature, meaning it is constantly evolving (Phinney & Ong, 2007). It is an aspect of social identity “that is part of an individual’s self-concept which derives from knowledge of membership of a social group (or groups) together with the value and emotional significance attached to that membership” (Tajfel, 1981, p. 255). Given the many components and research focuses of ethnic identity, this study focuses on ethnic pride and commitment specifically. Previous literature has suggested that stronger levels of ethnic pride and acceptance are related to strong academic outcomes for both Hispanic and African American adolescents (Supple, Ghazarian, Frabutt, Plunkett, & Sands, 2006; Altschul & Oyserman, & Bybee, 2006; Smith, Atkins, Connell, 2003); however, the research in this area is limited especially research focusing on Hispanic populations.

A strong body of research has identified protective effects of higher levels of ethnic pride on the overall well being of adolescents. For instance, higher levels of ethnic pride in Mexican adolescents has been found to be associated with increased levels of daily happiness and decreased levels of daily anxiety (Kiang, Yip, Gonzales-Backen, Witkow, & Fuligni, 2006). In a study focusing on African American adolescents, ethnic pride was found to be a protective factor for attitudes and resistance efficacy towards high risk behaviors (Wills, et al., 2007). Stronger reports of ethnic pride have also found to be associated with less reported drug use and exposure among minority adolescents (Marsiglia, Kulis, & Hecht, 2001). Given the positive effects demonstrated in the
literature, stronger levels of ethnic pride may have the potential to promote social emotional resiliency among CLD populations (Blanco-Vega et al; Castro-Olivo, 2010a). Currently the majority of literature on ethnic pride focuses on college age students and African American populations. There is a need to examine this variable within the context of Hispanic youth and academic outcomes in primary and secondary level education in order to better understand how ethnic pride can promote positive outcomes among this population.

**Purpose of Study and Research Questions**

The purpose of this study is to examine the relationships between acculturative stress, ethnic identity, social-emotional resiliency and academic outcomes with culturally diverse adolescents in a school setting. A better understanding of how these variables relate to school achievement can provide additional support and highlight the benefits of incorporating social-emotional learning (SEL) programs that are culturally responsive into the school culture. This study attempted to answer the following research question:

1) Is there a significant relationship between acculturative stress, ethnic pride, social-emotional resiliency and academic outcomes? 2) Do the relationships between acculturative stress, ethnic identity, and social-emotional resilience have indirect effects on academic outcomes with an adolescent CLD population? Given the current literature on these variables, it is hypothesized that higher levels of social-emotional resiliency will be positively correlated with higher levels of academic success. Considering that ethnic pride has been shown to be a protective factor for various social and emotional outcomes among minority youth it is hypothesized that ethnic pride will be positively correlated
with social-emotional resiliency, and have an indirect effect on academic outcomes. Literature currently postulates that acculturative stress can have a negative impact on students’ social-emotional resiliency, therefore it is hypothesized that there will be a negative relationship between high levels of acculturative stress and social-emotional resiliency, which may have an indirect effect on academic outcomes.

**Analytical Plan**

The data collected in this study was examined using a path analysis (Mplus statistical software, Version 5.1). A path analysis is a subset of structural equation modeling (SEM) which examines the direct and indirect relationships between observed variables. Model fit was evaluated utilizing the guidelines provided by Hu and Bentler (1999), which suggest CFI and TLI estimates >.95, a RMSEA estimate <.06, and a 0 in the left end of the RMSEA confidence interval (CI). Consensus among these fit indices provides the strongest evidence of good model fit. Chi-square statistics are presented, however given their sensitivity to sample sizes they were not utilized as an index of model fit with this data (Raykov & Marcoulides, 2006). The analysis was conducted using raw data and factor loadings were interpreted in standardized form.

**Proposed Model.** This model seeks to examine the role of ethnic identity, acculturative stress, and social-emotional resilience on academic outcomes measures by GPA, reading fluency, and English language arts state test scores (see Figure 1.).
Participants

Data were collected on 78 middle and high school students in Southern California during the 2010-2011 school year. Participants were drawn from middle school (n=50) and high school (n=28) classrooms in Southern California. The average age of the participants was 14 years old, and gender was almost evenly split with 49% (n=38) males and 51% (n=40) females. With regards to the primary language spoken in the home, 35% (n=27) listed English, 17% (n=13) listed Spanish, 2% (n=2) list a language of Asian origin, and 46% (n=36) listed both English and Spanish as being equally spoken in the home. As classified by the school district, 47.4% were English only students, 47.4% were English Language Learners (ELL), and 5.1% had been Redesignated as Fluent-English Proficient (RFEP). Of the ELL group, California English language development test...
(CELDT) scores placed these students within language proficiency levels ranging from level 1 through level 5. Across the sample 3.9% (n=3) identified themselves as Caucasian/White, 11.7% (n=9) identified as African American, 64.9% (n=50) identified as Hispanic/Latino, and 19.5 (n=15) identified as Other or Mixed.

**School Characteristics**

The participating middle school consisted of a predominantly Hispanic or Latino population (53%), followed by Black or African American (22%), White (18%), Filipino (3%), Asian (2%), Native Hawaiian/Pacific Islander (.6 %), and American Indian or Alaska Native (.3%). Among this population, 67% were classified as socio-economically disadvantaged, and 12% were classified as English language learners during the 2009-2010 academic school year, as reported by the representing school district. The participating high school also consisted of a predominantly Hispanic or Latino population (63%), followed by Black or African American (22%), White (9%), Filipino (2%), Asian (3%), Native Hawaiian/Pacific Islander (.6 %), and American Indian or Alaska Native (.2%). Among this population, 76% were classified as socio-economically disadvantaged, and 18% were classified as English language learners during the 2009-2010 academic school year, as reported by the representing school district.

**Measures**

**Coping with Acculturative Stress in American Schools (CASAS-A).** The CASAS-A is a 16-item scale where children are asked to report how often they feel, think, and or act a certain way when they experience a situation that might trigger acculturative stress in school settings (see Appendix A for complete scale). Students
responses reflect: 0= does not apply; 1= never; 2= sometimes; 3= often; and 4= always or almost always. CASAS-A was developed for use with school-age children in grades 6 through 12 who may be experiencing acculturative stress from the cultural interactions and conflicts between their school and home social networks. The measure has been found to be reliable and valid, at $\alpha=.86$ and convergent validity reported at .58 ($p<.01$) (Castro-Olivo et al., 2011). Reliability for the current sample was also found to be acceptable at $\alpha=.85$. The mean (with standard deviation in parentheses) for the current sample was 14.37 (3.92).

**The Multigroup Ethnic Identity Measure (MEIM).** The ethnic commitment subscale of the MEIM (Phinney, 1992) was used to assess the level of ethnic identity/pride of participants (see Appendix B for complete subscale). The commitment subscale of the MEIM is comprised of six items and levels of ethnic commitment are measured according to how strongly the respondent feels about each statement. Items are rated on a scale of 1 to 4; where 1 indicates *strongly disagree*, 2 indicates *disagree*, 3 indicates *agree* and 4 indicates *strongly agree*. Sample items include: "I am happy to part of my ethnic group," "I am very proud of my ethnic group and its accomplishments." Reliability has been previously reported to range from $\alpha=.69-.90$, for the current sample an alpha coefficient of $\alpha=.71$ was obtained. The mean (with standard deviation in parentheses) for the current sample was 17.24 (7.44).

**SEARS-Adolescent Short Form (SEARS-A-SF).** The SEARS-A-SF (Merrell, 2008) is a 12-item self-report measure for adolescents in grades 7 through 12, that is used as a school-based screening measure to efficiently identify the incidence of low social-
emotional resiliency (see Appendix C for complete measure). Items are rated on a Likert scale with response choices consisting of Never, Sometimes, Often, and Always. Sample items include: “I make friends easily,” “I stay in control when I get angry.” The SEARS-A-SF has been previously reported to have strong reliability and validity (Merrell, 2008). For the current sample an alpha coefficient of $\alpha = .58$ was obtained. The mean (with standard deviation in parentheses) for the current sample was 19.93 (4.38).

**Dynamic Indicators of Early Literacy Skills (DIBELS).** The 6th grade passages from the DIBELS’ Oral Reading Fluency (DORF) (Good & Kaminski, 2010) assessment systems were used to assess participating students’ levels of reading fluency. The DORF is a standardized brief measure of accurate and fluent reading of connected text. This measure is administered individually and participants are given 1 minute to accurately and fluently read a passage (see Appendix D for example passage). Three passages are given for a total testing time of three minutes, and the final score is determined by identifying the median number of words read correctly per minute. An inter-rater reliability coefficient of .98 was obtained from 7% of the current sample. The DIBELS DAZE (Good & Kaminski, 2010) was used as a standardized measure of reading comprehension. Participants were given three minutes to silently read a passage where every seventh word has been replaced by a box containing the correct word and two distracters. The participant received credit for every correct word selected in the passage. The mean (with standard deviation in parentheses) for the current sample was 120.56 (25.36).
**Academic Achievement.** Academic achievement was measured by students’ GPA and performance on the English Language Arts portion of the California Standards Test (CST-ELA). GPAs and CST scores were obtained by school personnel at each respective school. GPAs were based on the students’ performance from the current year and were not cumulative from previous years. The CST-ELA is designed to assess proficiency in English Language Arts content standards set by the state of California. The means (with standard deviations in parentheses) for GPA and CST-ELA were 1.92 (0.78) and 296.90 (44.68), respectively.

**Procedure**

All students from the participating classrooms were given an opportunity to participate in this study, however only students who returned a signed parental consent were allowed into the study. This study was approved by the University of California, Riverside’s Human Subject Institutional Review Board, under the protocol # HS 09-120. An explanation and information session of the study was given during regular class time and consents were sent home with students from nine participating classes. Consent forms as well as surveys were available in both English and Spanish. Data was collected over two days, with the first day consisting of administering the literacy measures, and the second day consisting of administering the full survey which combined the remaining measures. Literacy measures were administered individually and the survey was administered in a group format. An empty classroom was used to administer the survey, and all questions were read aloud to participants in an effort to eliminate item bias associated with reading levels. In order to prevent participant responses from being
influenced by their peers, privacy carols were used at each desk occupied by a participant during the survey. All data collection took place during normal school hours and on the campus of the participating school. As an incentive, all participants were entered into a drawing for a pair of movie tickets, and one participant from each classroom was chosen after data collection. Three trained graduate students administered the literacy and survey measures in a standardized manner.

**Results**

Spearman correlations were run to answer research question 1 and path analysis techniques were employed to answer research question 2.

**Research Question 1) Is there a significant relationship between acculturative stress, ethnic pride, social-emotional resiliency and academic outcomes?**

The correlation analysis summarized in Table 1 indicates a negative relationship between acculturative stress and resiliency, $r(78) = -.23, p = .04$. This suggests that students with higher levels of acculturative stress tend to demonstrate lower scores on the measure of social-emotional resiliency, which supports the original hypothesis. However, no significant relationships were found between ethnic identity, social-emotional resiliency, and academic outcomes.
Table 1

Correlations of all Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>GPA</th>
<th>CST-ELA</th>
<th>Reading Fluency</th>
<th>Acculturative Stress</th>
<th>Resiliency</th>
<th>Ethnic Pride</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPA</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CST-ELA</td>
<td>.45** a</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading Fluency</td>
<td>0.08 a</td>
<td>.54** a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acculturative Stress</td>
<td>0.06 b</td>
<td>-0.00 b</td>
<td>0.03 b</td>
<td></td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Resiliency</td>
<td>0.09 b</td>
<td>0.02 b</td>
<td>-0.03 b</td>
<td>-0.23* b</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Ethnic Pride</td>
<td>-0.06 b</td>
<td>0.13 b</td>
<td>0.03 b</td>
<td>0.15 b</td>
<td>0.17 b</td>
<td>---</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01.

Note. GPA = Grade Point Average; CST-ELA = English Language Arts portion of the California Standards Test; a = Pearson Correlation; b = Spearman Correlation

Path Analysis

Given that the independent variables in the model (acculturative stress, resiliency, and ethnic pride) are ordinal variables, factor scores were created in Mplus in order to ensure that the items from each variable were weighted according to the amount of variance being accounted for, rather than leaving all items equally weighted (DiStefano, Zhu, & Mindrila, 2009). The new factor scores for the independent variables along with the original raw scores for dependent variables were entered into the proposed path analysis model. Results from the path analysis are displayed below in Figure 2.

According to the guidelines provided by Hu and Bentler (1999), the model did not fit the data adequately (
Research Question 2) Do the relationships between acculturative stress, ethnic pride, and social-emotional resilience have indirect effects on academic outcomes with an adolescent CLD population?

The analysis did not reveal significant paths between social-emotional resiliency and academic outcomes, or between acculturative stress, ethnic pride, and social-emotional resiliency as originally hypothesized.

Discussion

The purpose of this study was to examine the relationships between acculturative stress, ethnic identity, social-emotional resiliency and academic outcomes with culturally diverse adolescents in a school setting. It was hypothesized that higher levels of social-
emotional resiliency would be positively correlated with academic success and ethnic pride; and negatively correlated with acculturative stress. Spearman correlations revealed a significant negative correlation between social-emotional resiliency and acculturative stress. This finding supports the original hypothesis; however, no other significant correlation was found. The results of this study are inconclusive and fail to support the proposed hypotheses. A potential explanation for the non-findings could be the low reliability and questionable validity of the social-emotional resiliency measure employed for this study. Measures that are not psychometrically strong can have larger amounts of measurement error and limit the ability to make valid inferences (Salvia, Ysseldyke, & Bolt, 2010). Additional limitations to this study that could have contributed to the non-significant findings are described in the section below.

As far as the significant finding identified in this study (negative relationship between social-emotional resiliency and acculturative stress), more research needs to be conducted to evaluate the impact of social-emotional resiliency programs on reducing students' acculturative stress. The negative relationship found between these variables provides some support for developing/implementing SEL programs that are culturally responsive. Culturally responsive SEL programs are expected to provide CLD youth with the resiliency skills necessary to learn to cope with the acculturative stress they may be experiencing as they navigate our multicultural society (Castro-Olivo, 2010).

**Limitations**

There are several limitations of this study that are important to discuss. First, the sample size was relatively small. Although there is no universal agreement on guidelines
for sample sizes in SEM models, there is a recommendation found in the literature that a desirable sample size would be more than 10 times the number of free model parameters (Hu, Bentler, & Kano, 1992). Given the proposed model had 8 free parameters, a desirable sample size would be 80, according to the recommendation stated above. The current sample of 78 would seem to be appropriate; however there are many other factors that can affect the appropriate sample size needed for this analysis. For instance, factors such as the psychometric properties of the variables, missing data, and the strength of the relationships between variables can all play a role in determining an adequate sample size (Raykov & Marcoulides, 2006). Evaluating the current data with regards to these factors, a larger sample size would have been more appropriate. Second, given the small sample size the current analysis combined both middle and high school students into one group. These two groups were not equal in size, with more middle school students in the sample than high school students. It is possible that there are differences between these two groups that could be affecting the results in this analysis.

One of the other major limitations of this study is the means used to assess the independent variables acculturative stress, social-emotional resiliency, and ethnic identity. These are latent constructs that often consist of more than one factor. Although the measures used in this study had previously been validated it is possible that they might not be adequately measuring the desired, or most relevant, construct, especially given the diversity of my sample. It is also possible that individual factors of a particular construct might have more of an impact on other variables compared to the global construct. For instance, there are many facets that make up social-emotional resiliency
and it is possible that particular individual components may have a stronger relationship with academic outcomes compared to the global construct of social-emotional resiliency. A more thorough review of the independent variables and their related factors is needed in order to be able to identify important relationships.

Given these limitations, the main question of this study regarding identifying how the variables acculturative stress, ethnic identity, and social-emotional resiliency relate to academic outcomes with an adolescent CLD population could not be fully answered.

**Future Research**

More research is needed to better understand the relationship between these variables and determine how factors relating to CLD populations, such as acculturative stress and ethnic identity, can be influenced by social-emotional resilience. Previous literature has supported the link the between social-emotional resilience and academic outcomes, however limited research has examined this relationship with regards to CLD populations. Future research should secure a large enough sample to be able to analyze group differences between, grade level, ethnicity, and gender. It is also imperative that measures used to analyze latent constructs are effectively measuring the desired construct in order to be able to adequately provide recommendations for intervention.
References


the heuristic model for the strong African-American families program. *Health Psychology*, 26, 50-59. DOI: 10.1037/0278-6133.26.1.50
Appendix A

Coping with Acculturative Stress in American Schools (CASAS-A)

Directions: Below is a list of items that describe how people sometimes feel, think, and/or act. Read each item and mark the number that best describes how you feel, think, and/or act. You will circle 1 if you NEVER feel, think, or act that way. Circle 2 if you SOMETIMES feel, think, or act that way. Circle 3 if you OFTEN. Circle 4 if ALWAYS OR ALMOST ALWAYS. Circle 0 if the situation DOES NOT APPLY to you. There are no right or wrong answers. Please answer each question as best as you can.

<table>
<thead>
<tr>
<th></th>
<th>1 Never</th>
<th>2 Sometimes</th>
<th>3 Often</th>
<th>4 Always or Almost Always</th>
<th>0 Does not apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel uncomfortable participating in class discussions at my school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2. I feel bad when I have a hard time making friends with kids who do not speak the same language as me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3. I feel I do not belong at my school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4. I feel bad when my family members do not understand the cultural changes that I am experiencing in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5. I feel bad when my family members want me to act more &quot;American&quot; (from the United States).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>6. I feel uncomfortable participating in extracurricular activities at my school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>7. I feel uncomfortable speaking English at school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>8. It is difficult for me to be far from my country.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>9. It bothers me when people in my school say that I am shy because I am very quiet. The reality is that I am not shy; I am quiet because I don’t speak English well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>10. I feel that my family members do not want me to act like an &quot;American&quot; (from the United States).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>11. I enjoy living in this country.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>12. It bothers me when kids at school make fun of me because of the way I speak English.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>13. I feel that some teachers would pay more attention to me if I spoke English better.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>14. I feel I do not belong to the culture of this country.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>15. I feel that I will never be able to speak English correctly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>16. I wish I could speak my native language with all of my teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>17. I feel ashamed of being part of my ethnic group when I hear bad things about us at my school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>18. I feel like I don’t have a good chance to succeed at my school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>19. I feel many people at my school judge me because of my ethnic background.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>
Appendix B

The Multigroup Ethnic Identity Measure (MEIM)

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**MEIM**

**Directions:** Below is a list of items that describe how people sometimes feel, think, and/or act. Read each item and mark the number that best describes how you feel, think, and/or act.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have tried to learn more about my own ethnic group, such as its history and customs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4, n/a</td>
</tr>
<tr>
<td>2. I have often talked to other people, like my parents, to learn more about my ethnic group</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4, n/a</td>
</tr>
<tr>
<td>3. I am happy to be part of my ethnic group</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4, n/a</td>
</tr>
<tr>
<td>4. I'm very proud of my ethnic group and its accomplishments</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4, n/a</td>
</tr>
<tr>
<td>5. I feel like I really belong to my own ethnic group</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I am involved in the customs of my own ethnic group, such as food, music or celebrations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4, n/a</td>
</tr>
</tbody>
</table>

---

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Appendix C

SEARS-Adolescent Short Form (SEARS-A-SF)

**SEARS-A-SF**
SOCIAL-EMOTIONAL ASSETS AND RESILIENCE SCALE
Adolescent Short Form (for Grades 7-12)

<table>
<thead>
<tr>
<th>TC #:</th>
<th>Class #:</th>
<th>Date:</th>
</tr>
</thead>
</table>

**DIRECTIONS**
Here is a list of sentences that describe ways that people sometimes feel, think, or act. Read each sentence, and circle the letter that best describes you. Circle **N** if the sentence is NEVER true for you. Circle **S** if the sentence is SOMETIMES true for you. Circle **O** if the sentence is OFTEN true for you. Circle **A** if the sentence is ALWAYS (or ALMOST ALWAYS) true for you. There are no right or wrong answers. Please read every sentence, and do your best to rate yourself on each item.

<table>
<thead>
<tr>
<th>Remember: NEVER</th>
<th>SOMETIMES</th>
<th>OFTEN</th>
<th>ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I try to help other people when they need help.......................... N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I make friends easily......................................................................... N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Other kids ask me to hang out with them........................................ N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Other people like me........................................................................... N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I like doing things for others............................................................ N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I am good at making decisions............................................................ N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I stay in control when I get angry...................................................... N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I care what happens to other people................................................... N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I make good decisions........................................................................... N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I am a responsible person................................................................. N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I know how to calm down when I am stressed out or upset................ N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I know how to identify and change my negative thoughts................... N S O A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Appendix D

Example Passage of DIBELS’ Oral Reading Fluency (DORF)

Hello Hong Kong

Warm air means a change in the weather, and summer means travel to many families. For the Chen family, this summer was going to be an exciting time of year. For the first time, they would take the underground train ride from their home in southern China and travel to Hong Kong.

Jackie was very excited about the visit. Jackie Chan, the movie star, was one of his heroes, and he liked to imagine that one day he would meet the famous star from Hong Kong. They would become good friends, smiling and laughing that their names were almost the same.

The family had spent much time learning about Hong Kong. Still, they were surprised at what they found when they got off the train and walked onto the city streets. Old Chinese ways blended with new Western culture, the result of British rule of the island for hundreds of years. The city was totally bilingual. Almost everyone spoke fluently in English and Chinese. Tall buses with two levels of seats whizzed through the busy streets, competing with trams and taxis for passengers. Modern skyscrapers filled the city, and millions of people bustled about their business and their lives. There were cars, but they certainly weren’t necessary with all the public transportation readily available.

Rising high beyond the city skyline were steep, green mountains, and much of the island was preserved for parks. However, the family was only treated to the full beauty of Hong Kong Island when they took a ferry ride across Victoria Harbour. From the water, the family could see almost the entire island, including the mountains.

The Chens had a wonderful time exploring the city, shopping and visiting museums. They loved hiking up peaceful, green trails to look out over the island that was part of their homeland. Jackie knew he would return many times. There was so much to see and do that his imagination was set on fire. Maybe someday he would get to meet his hero. In Hong
Kong, everything seemed possible.