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**The Relationship of College-Generational Status to Psychological and
Academic Adjustment in Mexican American University Students at a
Predominantly White University**

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Dedication

This thesis is dedicated to my family and friends for their support. Also, to the numerous individuals who played a role in making my journey as a first-generation college student a successful one. Finally, this thesis is dedicated to the other first-generation college students who are making the process for those who come after them a little easier.

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Abstract

The Relationship of College-Generational Status to Psychological and Academic Adjustment in Mexican American University Students at a Predominantly White University

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The University of Texas at Austin, 2010

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The literature on Latino college students, particularly at Predominantly White Universities, suggests that they are enrolling at higher rates at the beginning of the first year in college than prior years, but dropping out at higher rates than any other racial/ethnic group. For students whom are the first in their family to attend college, attrition rates are even more pronounced. In the present study, based on Bourdieu's Social Capital Theory, group differences based on race/ethnicity and college-generational status were examined for reported anxiety, depression, and academic problems at the beginning and end of the first semester of students' first year at a university. The results indicated that differences in reported outcome measures were greater when examined between college-generation Mexican American groups, rather than between racial/ethnic

groups more generally. Additionally, it was hypothesized that for Mexican American first-generation college students, perceived family support at the beginning of the semester would mediate the relationship between academic self-efficacy and academic problems at the end of the semester. The results of the study provided support for this hypothesis, suggesting that perceived support from family, even when it is not entirely instrumental, offers benefits for first-generation Mexican American college students. Implications for future interventions, both pre and post-college entry are discussed.

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INTRODUCTION

Over the last few decades, the Latino population in the United States has increased significantly. Latinos have become the largest minority ethnic group in the United States, with 35.3 million people self-identifying as Latino (U.S. Census, 2001). The increase in the United States Latino population, however, has not been reflected in the number of Latinos graduating from college. With an increase of approximately ten million people in the general population since 1990, college completion rates for White and African American students have increased with respect to degree attainment, while the proportion of Latinos completing college has remained stagnant. It is expected that only about 10% of the entire Latino population will graduate from a 4-year university, compared to the 34% and 18% college completion rates for their White and African American counterparts, respectively (National Center for Education Statistics, 2003).

Fewer than half of the U.S. high school graduates meet qualifications for entrance into college, and the number of students who will enroll in either a 2- or 4-year program after completing high school does not differ much across racial/ethnic groups: 44% for Whites, 39% for African Americans, and 36% for Latino students (National Center for Education Statistics, 2003). However, ethnic differences in educational attainment by total awarded degrees are pronounced. The National Center for Educational Statistics (2010) examined differences in recipients of degrees conferred over a 10-year period and noted a decrease in the number of degrees earned by White students (from 76.1% to 71.8%) and an increase in the number attained by African American and Latino students (from 8.3% to 9.8% and 5.6% to 7.9% respectively). Though it seems the gap in college

completion rates is narrowing, it still remains substantially large. Among the three largest racial/ethnic groups, Latinos have been underrepresented in educational attainment, a trend that has remained consistent throughout the last three decades (NCES, 2010; NCES, 2003; NCES, 2001). Thus, although college enrollment rates among White, African American, and Latino students do not differ dramatically after graduation from high school, college completion rates indicate that attrition occurs differentially among those groups. It is important to determine why Latino students drop out at a higher rate than students of other racial/ethnic groups.

Latino College Attrition

Between 1972 and 1999, Latinos had the highest college attrition rates at four-year colleges. In contrast, White and African American students' attrition rates have decreased and are considerably lower than comparable rates for Latinos (Vélez and Saenz, 2001). Attrition rates for White students dropped from 12.3% to 7.3%, rates for African Americans dropped from 21.3% to 12.6% over this time, and rates for Latino students rates only dropped from 34.3% to 28.6% over the same time period (NCES, 2000). Additionally, first-generation college students have been found to have the highest attrition rates at four-year colleges before the second year (NCES, 2001).

Sólorzano, Villalpando, & Oseguera (2005) compared attrition rates among the largest five racial/ethnic groups by creating a pictorial representation of the U.S. educational pipeline (see Figure 1). The Educational Pipeline is based on data collected from various sources, including the 2000 Bureau of the Census, and shows that Latino students are among the lowest in school completion at each level (elementary, high

school, college, graduate school). According to the data, Latinos have the lowest number of graduates beginning at the high school level and continue this trend at various levels of this pipeline. Solorzanos' Educational Pipeline suggests that sociocultural factors lead to differential academic outcomes, which prove beneficial to some groups and deleterious to others.

Vélez and Saenz (2001) have noted three main predictors of attrition rates among Latinos: structural, family, and individual factors.

Structural factors refer to the societal context of the student and his or her family, such as the school practices or the social and economic situation of the community in which they live (Vélez and Saenz, 2001). Researchers have found that school, and community conditions for ethnic minorities are generally worse than for that of the White majority. These conditions, in turn, affect the quality of schools that ethnic minorities attend and the level of education received (Rumberger, 2004).

Family factors are those experiences that allow for advantages and disadvantages for the individual. These factors consist of different situational factors that to a larger extent provide the student with social, human and cultural capital necessary to succeed academically (Vélez and Saenz, 2001). In addition to the capital that parents provide for their children, family social support may impact a student negatively or positively (Dennis, Phinney, & Chuateco, 2005).

Individual factors are behaviors and attitudes that are specific to individual students. Some individual factors, such as academic self-efficacy, language spoken, and

generational status, may affect students' undergraduate experience (Vélez and Saenz, 2001).

Social Capital Theory

In order to better understand and address the high attrition rates in the Latino college student population, it may be helpful to identify the unique challenges that first-generation college students face upon entering higher education, and the impact that factors such as academic self-efficacy and social support have on college adjustment from a social capital perspective.

According to Bourdieu's Social Capital Theory, a wealth of knowledge about society and the way in which it runs is inherited through one's family. He states:

It is sufficient to give free play to the laws of cultural transmission for cultural capital to be added to cultural capital and for the structure of the distribution of cultural capital between social classes to be thereby reproduced (1973, p. 73).

Bourdieu goes on to argue that although social knowledge and opportunity are theoretically available to everyone in society, only those fortunate enough to inherit this wealth of knowledge and capital will fulfill a prophecy and will take their place into the social class into which they were born.

Bourdieu discusses the way social capital is reinforced in education by saying:

The educational system reproduces all the more perfectly the structure of the distribution of cultural capital among classes (and sections of a class) in that the culture which it transmits is closer to the dominant culture and that the mode of inculcation to which it has recourse is less removed from the mode of inculcation practised by the family (1973, p. 80).

In the educational system, the values, language and culture of the dominant group are the ones present and must be adopted in order to become a member of that educational system. What this means today is that students who are not part of the dominant culture must play a game of catch-up to compensate for their poorer education and differing values. Looking specifically at higher education, this means that students who have not been fortunate enough or knowledgeable enough to prepare with a rigorous academic workload will begin college at an academic disadvantage. Additionally, students who come from more cooperative, traditional cultures will be at a disadvantage socially since the atmosphere in college tends to be more individualistic and competitive (Ramirez & Castañeda, 1974).

The effect this unequal wealth of social capital has on individuals with little social capital are negative social and academic outcomes (1973, p. 83). Individuals in the social capital minority are well aware that in comparison to their upper-class counterparts, they are at a clear disadvantage and are more prone to failure than are their socially mobilized counterparts. This way of thinking may ultimately serve as a self-fulfilling prophecy for individuals with less social capital.

Bourdieu's Social Capital Theory describes the way in which families' capital is inherited through generations and serves an either advantageous or disadvantageous role in the future academic success of its members. Additionally, social capital inherited through generations can be seen as a means of gaining knowledge about how to navigate the system, not only academically, but socially as well. For those fortunate enough to have that wealth of knowledge at their fingertips, the path to higher education is much

more well-defined and familiar. Unfortunately, for those who do not inherit a wealth of social capital, their path to higher education is rougher, less clearly defined, and often less successful.

Social capital, although generally thought to be acquired through one's immediate social network, can also be accrued through outside social relationships, and can prove immensely instrumental in educational success. According to Saunders and Serna (2004), college students who sought available resources and created new social networks often had higher GPA's, reported more confidence in their new environment, and were involved in more social justice activities than those who did not. Furthermore, among first-college generation students, those who utilized both old and new networks were often motivated to improve educational opportunities, not only for themselves, but also for other minorities. Thus, the effect that social capital may have on furthering the educational trajectories of minority students, particularly those who are first-college generation is large, and carries the possibility of having a ripple-like effect.

Social Support

Social support has consistently been shown to positively affect Latinos' academic persistence in college. The more perceived emotional support and encouragement a student receives from his/her parent, the more persistent the individual will be in their academic endeavors (Gloria, Castellanos, Lopez, & Rosales, 2005), and the greater reported self-efficacy a student will endorse (Torres and Solberg, 2001). In addition to parental support, Gloria et al. (2005) stress the importance of the influence of peers, including siblings, cousins and friends, in transmitting college survival skills that enhance

the educational experiences of Latinos (Pérez and McDonough, 2008). In addition to their peers, Latino students often look to other Latino faculty or staff as mentors. These individuals have already successfully navigated their way through college and become a source of knowledge for Latinos beginning their academic careers, though the small number of full-time Latino faculty and administrators limits their impact (Gloria et al., 2005).

Social support from friends and family has been found to have a positive role in the adjustment of college students (Fuligni, 1997) and self-efficacy (Torres and Solberg, 2001). Though social support has been suggested to be a predictor of academic success, it is important to understand the types of social support that family can offer. McCarron and Inkela's study (2006) indicated that parental involvement can bolster educational aspirations for some (second and later-college generation students) but not others (first-college generation students), suggesting that parental involvement and support are not created equal. On the one hand, family members can offer instrumental support, providing knowledge and information that can lead to greater academic success. On the other hand, family members can provide emotional or moral support, particularly when they are not able to provide the aforementioned support (Dennis, Phinney, & Chuateco, 2005).

Many college students acquire their knowledge about higher education through family members (Holland, 2010; Pérez and McDonough, 2008). Students may gain invaluable knowledge of resources available to them, as well as skills necessary for success in navigating the college system. When accurate information is transferred, the

outcome is typically positive, as evidenced by the higher educational outcomes of students with parents who have received a higher education (Ramos-Sanchez and Nichols, 2007). By contrast, incomplete, biased or inaccurate information can have a deleterious effect (Holland, 2010).

Family support is believed to impact how students perceive academic difficulties, with students with greater support viewing them as challenging, and students with less support viewing them as threats. Thus, it is important to better understand the differences in family support received by an individual to predict self-efficacy. In the case of first college generation Latino students, especially, parents often find themselves at a loss for guiding their children because they lack knowledge about the college experience (Auerbach, 2006). Their supporting role then becomes solely moral as they are unable to provide specific recommendations about college-related choices (Gloria, Castellanos, Orozco, 2005).

Academic Self-Efficacy

Another factor Gloria et al. (2005) cite as contributing to positive effects in Latinos is self-beliefs. Self-efficacy has been defined as an individual's perceived ability to organize thoughts, feelings and actions for a given outcome (Bandura, 1986), and has been found to be an important variable in predicting college adjustment (Torres and Solberg, 2001) and achievement (Ramos-Sanchez and Nichols, 2007). Academic self-efficacy, thus, is an individual's ability to successfully use skills that are necessary to do well academically (i.e., reading textbooks, asking questions in class, and studying).

When college students have higher self-esteem, resiliency and self-efficacy, they are more likely to succeed and graduate. Research has found self-efficacy to be directly related to stronger persistence intentions and lower attrition, and indirectly related with better mental health (Torres and Solberg, 2001; Close and Solberg, 2008). Torres and Solberg (2001) found that availability of family support was associated strongly with academic self-efficacy.

In a study of self-efficacy among first-generation versus non-first-generation college students, researchers found that high self-efficacy at the beginning of the year predicted greater college adjustment at the end of the year (Ramos-Sanchez and Nichols, 2007). These findings are important given that many first-generation college students do not return to college after completion of their first year.

College-Generation Status

First-generation college students are defined as individuals who have neither parent who has more than a high school education (U.S. Department of Education, 2001). Research has indicated that first-generation college students are often less prepared upon college entrance (NCES, 2001; London, 1992). According to the National Center for Education Statistics (2001), at the time of high school graduation, the highest educational levels of parents among students varied across racial/ethnic groups; 83% of White graduates had a parent with a bachelor's degree, compared to 6% for African American students and 4% for Latino students.

As mentioned earlier, first-generation college students have the highest attrition rates in college before the second year. These students either drop out of school during

their first year, or fail to reenroll for their second year of college. First-generation students were about twice as likely as second and later-generation students to drop out of college after their first year, 23% compared to 10% respectively (NCES, 2001).

Researchers have suggested that college-generational status is a strong predictor of academic achievement relative to their second and later-college generational counterparts (NCES, 2001). While Ramos, Sanchez, and Nichols (2007) found no relationship between college-generational status and GPA among Latino college students, they did find that first-generation college students reported significantly lower college self-efficacy, and were underperforming relative to second- and later-generation college students (Ramos-Sanchez and Nichols, 2007). The variance associated with reported GPA was mostly accounted for by college-generational status, above and beyond other factors, suggesting that college generational status plays a significant role in predicting later success or difficulties.

First-generation college students are often not privy to the same information that many of their second and later-generation college counterparts are. These students, instead, often rely heavily on outside sources of information. Saunders and Serna (2004) suggested that first-generation college students' college experience often relies on their ability to create, negotiate and maintain social networks prior to their undergraduate education, as well as at their college or university. Thus, students who do not actively seek resources or mentors will be at a disadvantage because they will not have access to the same knowledge that other students enjoy.

In a study of the experiences of first-generation college students, Orbe (2004) found that these students experiences varied widely, however the effect of being a first-generation college student became more pronounced when coupled with another salient cultural identity (i.e., race/ethnicity, age, socioeconomic status, and gender). For those students, being a first-generation college student provided just one set of challenges they encountered, above and beyond those associated with other aspects of their cultural identity.

Academic Adjustment

The literature indicates that some Latinos report a great amount of difficulty in adjusting to college. Researchers have suggested that social support is an important factor in Latino student college adjustment (Friedlander, Reid, Shupak, & Cribbie, 2007; Gloria et. al., 2005; Alvan, Belgrave, & Zea, 1996). There has been strong support for this finding specifically in Latino students, with up to 51% of the variability in college adjustment accounted for by perceived social support (Schneider and Ward, 2003). Thus, for Latino students, this adjustment period may seem more difficult if they do not feel strong social support at school.

Especially in the first semester, students are still adjusting to their surroundings. Exposure to stress has been indicated as a barrier in the college adjustment process (Alvan et al., 1996). This is concerning as the literature suggests college adjustment in the first year has serious implications for later educational success. In a longitudinal study, Gerdes and Mallinckrodt (1994) indicated that emotional and social predictors

predicted later attrition. For the purposes of this study, the indicators of academic adjustment will include predictors of emotional distress and academic problems.

It is easy to imagine that students in positions where they may have low college self-efficacy, and who are hesitant to seek support, may get overlooked and begin to underperform in their academic endeavors.

Current Study

According to the statistics, the number of Latinos in the United States is growing steadily, yet there is no representative increase in enrollment in the colleges and universities across the nation. This study seeks to understand the experience of college students during their first semester of their first academic year in college. The specific role of being a first-generation Latino student to go to college in a family will be the main participant focus of the study; however, this study will examine the differences, if any, among differing college-generational, as well as ethnic groups.

The goal of the proposed study is to investigate the relationship of both college-generational status and ethnicity to the academic and psychological adjustment of undergraduate students at the University of Texas at Austin. Based on previous research, it is expected that first-generation college students, particularly those who come from Latino culture, will report greater difficulty adjusting to college. It is hypothesized that:

1. Latinos, both first- and second and later-college generations, will report higher levels of difficulty adjusting to college. These differences will persist from time 1 at the beginning of the semester to time 2 of the study at the end of the semester.

2. First-generation college students will report experiencing a greater number of stressors and greater degree of difficulty adjusting to college than their second and later-college generation counterparts for both Mexican American as well as White Americans of European descent. These differences will persist from time 1 to time 2.
3. Perceived family support at time 1 will mediate the relationship between academic self-efficacy and academic problems among Mexican American first-generation college students at time 2 (See Figure 2). More specifically, perceived family support at the beginning of the semester can be used to explain the relationship between academic self-efficacy and academic problems by the end of first-generation college Mexican American students' first semester of their first year of college.

This study will help inform the body of literature in that it will be completed at a large, Predominantly White Institution (PWI). Based on the literature, when first-generation college students are faced with the challenges associated with negotiating multiple cultural identities, they experience greater difficulty. It is important to examine whether the college-generational differences will be comparable or show evidence of cross-cultural differences between White and Latino students.

METHODS

Participants

Two-hundred and fifty participants were recruited for the study over the course of two academic years. Of those participants, 120 Mexican American and 130 White students participated in the first part of the study. Participants were recruited primarily from the Introduction to Psychology subject pool at the University of Texas at Austin. Additionally, some students were recruited from student programs and classes on campus aimed at assisting first-year students, as well as programs assisting first-generation college students. Participants were considered eligible for the study if they met the following requirements: (1) self-identified as being of Mexican American or White descent, and (2) in their first semester of their first year of college. Twenty-six students were dropped from the analyses due to incomplete data.

Among the Mexican American participants included in the final analyses, 54.5% were first-generation college students and 45.5% were second and later-generation college students. Among White participants, 6.1% were first-generation college students and 93.9% were second and later-generation college students. The sample contained 80% females and 20% males for the Mexican American group and 69.3% female and 30.7% male respondents for the White group. Table 1 lists full sample demographics for study completers. Generally, White participants' estimated family income was higher than that of Mexican American students, with almost half reporting an annual income above

\$95,000 and almost half reporting an annual income of below \$35,000, respectively.

Participants were all between 17 and 19 years of age, with a mean age of 18.06.

Measures

College Adjustment/Psychological Adjustment

College Adjustment Scales (CAS) (Anton and Reed, 1991). The CAS is a 108-item self-report measure used to assess developmental and psychological distress. The measure includes nine subscales: anxiety, depression, suicidal ideation, substance abuse, self-esteem problems, interpersonal problems, family problems, academic problems and career problems. Each item is rated on a 4-point scale and scores on each item are summed to attain a score for each scale, ranging from 12-48, with higher totaled scores reflecting greater reported problems. The internal consistency of subscales vary from .80-.92 (Anton and Reed, 1991) and has been validated by other researchers. For the purposes of this study, the three subscales of interest were anxiety, depression, and academic problems.

Academic Self-Efficacy

College Self-Efficacy Inventory (CSEI) (Solberg, O'Brien, Villareal, Kennel, & Davis, 1993). The CSEI is a 20-item self-report measure designed to measure college students' confidence in three areas of academic performance: course efficacy (e.g., writing papers, studying for exams), roommate efficacy (e.g., share chores, get along with roommate), and social efficacy (e.g., talk to professors, participate in class). Each item is rated on a likert scale from not at all confident to extremely confident, with higher scores reflecting greater perceived self-efficacy. Internal consistency for the overall scale is .93, and .88

for each of the subscales (Solberg et al., 1993) and has been validated by other researchers (Barry and Finney, 2009).

Social Support

Perceived Social Support from Family Scale (PSS-Fa) (Procidano and Heller, 1983). The PSS-Fa and PSS-fr were designed to determine the extent to which individuals perceived their needs for support, information and feedback were being met by family and friends. For the purpose of this study, the focus will be primarily on perceived support from family (the PSS-Fa). The PSS-Fa is comprised of 20 declarative statements regarding social support on behalf of family, for which participants indicate a response of “yes”, “no”, or “don’t know”. Items indicating the presence of social support are scored as 1, while “no” and “don’t know” responses scored as 0. Total scores range from 0-20, with higher scores indicating greater perceived social support from family. Internal consistency for the scale was .90 and has been shown to be valid (Procidano and Heller, 1983).

Procedure

Data collection took place during the Fall semesters of 2008 and 2009 to maximize the likelihood that participants were in their first semester of their first year of college. Participants were recruited from the Introduction to Psychology subject pool, classes or academic programs and asked to fill out a packet of the aforementioned measures at time 1 (first three weeks of the Fall semester) and time 2 (final three weeks of the Fall semester). Also at time 1, participants were asked two exit interview questions:

1. What would you say has been the hardest/most stressful thing to get used to as a freshman at UT?
2. Have you received any guidance/advice about how college works (i.e., who to talk to if you're having problems, what resources are available to you)? If so, from whom?

Results

The findings presented reflect the responses of 224 participants who completed participation in both sessions, of whom 110 are Mexican American and 114 are White. Overall, there was generally an even split in college-generational status among Mexican American students, which was not the case among White students (refer to Table 1). Due to the large differences in college-generational status among White students, the two groups were not comparable and those analyses were not conducted.

As previously described, there were differences in reported annual income among Mexican American and White participants. These differences in socioeconomic status (SES) have been found to be correlated to ethnicity in the literature and, as such, were not controlled for in the analyses. Additionally, both samples contained a higher representation of females, a trend often seen in undergraduate psychology classes, and thus were not controlled for.

Hypothesis 1

To test the first hypothesis that Mexican American students would experience greater difficulty adjusting to college than their White counterparts, independent samples t-tests were run to examine the differences in reported anxiety, depression and academic problems. Means for dependent variables at sessions 1 and 2 are presented in Table 2.

To account for the number of analyses conducted, a Bonferroni correction was applied, resulting in a significance threshold of .016.

Beginning of the Semester

At the beginning of the semester, the hypothesis that there would be differences among Mexican American and White students in reported anxiety, depression and academic problems was not supported. Reported means for anxiety among Mexican Americans ($M = 21.5, SD = 7.00$) and White students ($M = 21.2, SD = 7.43$) did not differ significantly, $t(222) = .281, p = n.s.$ The same was found in reported depression among Mexican American students ($M = 17.9, SD = 5.09$) and White students ($M = 18.2, SD = 5.97$), $t(217) = .399, p = n.s.$, as well as in reported academic problems among Mexican American ($M = 22.6, SD = 6.11$) and White students ($M = 21.3, SD = 6.45$), $t(221) = 1.597, p = n.s.$

End of the Semester

At session 2, Mexican American students reported marginally greater academic problems ($M = 24.9, SD = 6.71$) than their White counterparts ($M = 22.8, SD = 7.31$), $t(216) = 2.21, p = .028$ (See Figure 3).

There were still no statistically significant differences in reported between-group differences for anxiety and depression. Regarding anxiety, Mexican Americans ($M = 20.7, SD = 6.62$) reported similar rates of distress as their White counterparts ($M = 21.2, SD = 7.43$), $t(215) = .488, p = n.s.$ Similarly, reported depression was comparable for Mexican American ($M = 17.9, SD = 5.54$) and White students ($M = 19.1, SD = 6.72$), $t(215) = 1.369, p = n.s.$

Hypothesis 2

The second hypothesis stated that first-college generation students, regardless of reported race/ethnicity, would experience greater difficulty adjusting to college than their second and later-college generation counterparts. Independent samples t-tests were run to examine the differences in reported anxiety, depression and academic problems. Means for dependent variables at sessions 1 and 2 are presented in Table 3. Again, to account for the number of analyses conducted, a Bonferroni correction was applied, resulting in a significance threshold of .016.

Due to the large difference in first- versus second and later-college generation students among White participants, those groups were not deemed comparable and thus omitted in the following analyses. Results reflect findings for college-generational differences among Mexican American students only.

Beginning of the Semester

There was a statistically significant difference in reported depression among Mexican American students of differing college-generational statuses at the beginning of the semester. Similar to anxiety, first-college generation students reported greater depression ($M = 19.1, SD = 5.79$) than their second and later-college generation counterparts ($M = 16.4, SD = 3.65$), $t(99) = 2.955, p = .004$. Levene's test indicated unequal variance ($F = 16.04, p < .001$), so degrees of freedom were adjusted from 106 to 99.

At the beginning of the semester, there was a statistically significant difference in reported anxiety among Mexican American first-college generation and second and later-

college generation students. First-college generation students reported greater anxiety ($M = 23.0, SD = 7.59$) than their second and later-college generation counterparts ($M = 19.7, SD = 5.82$), $t(107) = 2.508, p = .014$. Again, Levene's test indicated unequal variances ($F = 5.23, p = .024$), so degrees of freedom were adjusted from 108 to 107.

There was a trend in differences in reported academic problems among the two groups at the beginning of the semester, with first-college-generation Mexican American students reporting greater academic problems ($M = 23.7, SD = 6.22$) than second and later college-generation students ($M = 21.4, SD = 5.79$), $t(104) = 1.977, p = .051$. Figure 3 shows this reported trend among Mexican American and White college students.

End of the Semester

At the end of the semester, there was still a reported difference in depression among the two groups of students (See Figure 4). Due to the corrected significance threshold, the significance of the difference was marginal, with first-generation college students continuing to report greater depression ($M = 19.0, SD = 6.43$) than second and later-generation college students ($M = 16.7, SD = 4.04$), $t(94) = 2.231, p = .028$. Degrees of freedom were adjusted from 103 to 94 due to unequal variances as indicated by Levene's test ($F = 17.685, p < .001$).

Reported differences for anxiety and academic problems among the participants, on the other hand, did not remain significant by the end of the semester (See Figures 5 and 6). First-generation college students reported a similar degree of anxiety ($M = 21.2, SD = 7.60$) to second and later-generation students ($M = 20.1, SD = 5.31$), $t(98) = .862, p = n.s$. Likewise, reported academic problems were similar among first-generation college

students ($M = 25.4$, $SD = 7.25$) and second and later-college generation students ($M = 24.4$, $SD = 6.05$), $t(104) = .689$, $p = n.s.$

Hypothesis 3

The third hypothesis asserted that perceived family support at the beginning of the semester would mediate the relationship between college self-efficacy and academic problems for first-generation Mexican American college students. To test perceived family support as a mediator, Baron and Kenny's (1986) three-step procedure was used.

The first step of determining mediation requires that the independent variable (i.e., college self-efficacy) be statistically significantly related to the dependent variable (i.e., academic problems). As shown in Figure 7, college self-efficacy is related significantly and negatively to reported academic problems at the end of the semester ($\beta = -.601$, $p < .001$).

The second step is to determine that the mediator variable (i.e., perceived family support) is statistically significantly related to the independent variable (i.e., college self-efficacy), as well as the dependent variable (i.e., academic self-efficacy). Figure 7 illustrates that both these requirements were fulfilled. Perceived family support was positively and significantly correlated to college self-efficacy ($\beta = .212$, $p = .032$) and negatively and significantly correlated to academic problems ($\beta = -.325$, $p < .001$).

The third step required for there to be a mediation effect is to show the mediator (i.e., perceived family support) predicts the dependent variable (i.e., academic problems) above and beyond the independent variable (i.e., college self-efficacy) after controlling statistically for the independent variable. As expected, the effect of college self-efficacy

on academic problems became nonsignificant when perceived family support was controlled statistically ($\beta = 1.241, p = n.s.$). The effect of perceived family support, however, remained significant even when college self-efficacy was controlled statistically ($\beta = -.027, p = .007$). The Sobel test was used to test the significance of the mediation (MacKinnon, Fairchild, & Fritz 2007), which indicated a significant mediation ($z = -2.79, p = .005$).

DISCUSSION

This study examined differences in reported difficulty adjusting to college between differing racial/ethnic groups, as well as between differing college-generation groups. Additionally, the study sought to gain a better understanding of selected variables that have been found in the literature to be indicative of better or poorer educational outcomes for first-generation Latino college students, namely determining the mediating role of perceived family support for beginning students. Taking into consideration the increasing rates of Latino students enrolling in higher education, yet the consistently high rates of attrition among this same population, this study helps inform the literature of possible differences and specifically, considerations in working with first-generation Mexican American students.

The hypothesis that there would be observed differences in difficulty adjusting to college among Mexican American and White students was, for the most part, not supported. The results indicate that Mexican American and White students do not differ significantly in reported anxiety or depression at either the beginning or end of their first semester of their first year of college. This implies that, based on race/ethnicity alone, students experience similar degrees of difficulty with respect to both anxiety and depression.

Additionally, at the beginning of the semester, Mexican American and White students reported similar academic problems. By the end of the semester there are marginal reported differences in academic problems, with Mexican Americans reporting greater academic problems than their White counterparts. These findings suggest that

although both groups start their first semester reporting similar degrees of academic problems, by the end of the first semester, that difference becomes marginally larger between the groups.

Overall, it appears that Mexican American and White freshmen report similar difficulties in adjusting to college in their first semester. College students' experiences vary widely, however; as such, it seemed appropriate to examine the differences in adjustment among college students based on college-generational status within each racial/ethnic group.

In order to examine within-group differences among Mexican American and White freshmen, equal, or at least comparable, groups were needed to perform analyses. The Mexican American sample had almost equal membership among first- and second and later-college generation students, with 54.5% and 45.5% students in each group, respectively. In examining membership of both groups for White students, however, it quickly became apparent that the hypothesized analyses would not be feasible. Of the entire White sample, only 6.1% reported that they were of first-college generation. The fact that there were not enough first-generation White college students to conduct the proposed analyses highlights how these two racial/ethnic groups of students differ characteristically prior to beginning college. At the outset of beginning their first year, the large majority of White students in this sample (93.9%) were already at an advantage by having been reared in a household where at least one parent completed a college education.

Due to the limited number of first-generation White college students, the author compared first-generation college students to second and later-generation college students for the Mexican American group only to determine if there were differences present in the experiences among those students. The results indicated differences in reported problems at the beginning of the first semester in college. First-generation Mexican American college students reported greater depression, anxiety and academic problems than their second and later-generation college student counterparts.

By the end of the semester, the results indicated there were still differences in reported depression, though marginal, among first-college generation Mexican American students. This trend did not hold true for either anxiety or academic problems. The findings suggest that Mexican American first-generation college students find a means of adjusting to their new environment in the course of one semester, such that their reported anxiety is similar to that of students who may have more exposure to what to expect with regards to college.

This finding supports some of the literature on first-generation college students. First-generation college students often rely heavily on information they receive from family and friends regarding what to expect in college (Pérez and McDonough, 2008). For individuals who receive incomplete information or who do not receive any information about what to expect with regards to beginning college, it makes sense that they might experience greater anticipatory anxiety than students with a clearer idea of what to expect. Thus, it would also make sense that by the end of the semester, reported rates of anxiety would become increasingly similar, as both groups of students have been

in this new setting for the same amount of time and have had a chance to acclimate to their surroundings.

With regards to academic problems, at the beginning of the semester, first-generation college students reported slightly more academic problems than second and later-college generation students; however, these differences are no longer present by the end of the first semester. This finding also suggests that first-generation Mexican American students are able to find ways to adjust from the beginning to the end of their first semester, to the extent that they later report academic problems similar to that of second and later-generation college students. In a longitudinal study of first-generation Latino college students, Dennis, Phinney, and Chuateco (2005) found that students who lacked peer support reported lower college adjustment and lower GPA's in their spring semester. One potential reason for the shift in reported academic problems in this study may be a potential increase in social capital during their first semester. It may be that upon starting college, first-generation college students may make friends with older students who are able to provide effective academic tips or are involved in programs aimed at providing strategies for increasing academic success.

Interestingly, of the three outcome variables of interest, only depression had a significant relationship at the second session. The literature on social capital provides some possible explanations for decreases in reported anxiety and academic problems, but not as much for factors that may contribute to depression. Some researchers have indicated that ethnic minority students at predominantly White universities are confronted with added stressors specific to their minority status that are above and beyond general

college stressors (Wei, Liao, Chao, Mallinckrodt, Tsai, & Botello-Zamarron, 2010). The sample in this study was attending a predominantly White university, so these students may have been experiencing stress outside of traditional college stressors. This finding also supports Orbe's (2004) finding that identifying as a co-cultural group also creates greater difficulty for first-generation college students. This point is reflected in the responses of two Mexican American students in the study. When asked about the most stressful thing to get used to in their first semester, a first-generation Mexican American student responded, "[g]etting to know people. The people in my dorm are different, not what I'm used to. There aren't any Mexicans." Many of the respondents in this sample echoed similar sentiments regarding experiencing feeling culturally different from the majority of other students.

Another possibility is that first-generation college students may have different experiences with adjusting to being away from their family. When asked about her greatest stressor, one Mexican American first-generation college student stated, "[n]ot living with family. The separation has been hard on both of us."

Although there were not enough White first-generation college students to conduct quantitative analyses, the qualitative responses of the ones that did participate shared similar sentiments as their Mexican American counterparts. When asked to describe her greatest stressor, one White first-generation college student answered, "I'm the first to leave. I feel like I've abandoned my family. I feel guilty about liking college because it feels like I should be helping with home problems." It may be that first-generation college students experience greater difficulty being away from their families

given it is an unfamiliar experience within the family, possibly contributing to depression across the first semester for first-generation college students.

As previously mentioned, the literature indicates that social support is important for the academic adjustment (Fuligni, 1997) and development of self-efficacy (Torres and Solberg, 2001) of college students. As such, the third goal of this study was to examine the role of perceived family support as a potential mediator for self-efficacy and academic problems.

The findings indicate that the hypothesis that perceived family support at the beginning of the semester would mediate the relationship between college self-efficacy and academic problems at the end of the semester for first-generation college students was supported. It appears that, in the case of first-generation Mexican American college students, family support at the beginning of the semester is a strong underlying mechanism that helps explain the relationship of later college self-efficacy and academic problems.

The implications of this final finding are important for first-generation college students. These students are often at a disadvantage at the outset of their undergraduate career due to their limited social capital. They enter college with the least knowledge about how to successfully navigate the college system. For Mexican American students at a predominantly White university, additionally, this finding indicates that initial family support is important in reducing the likelihood of developing academic problems, even with lower college self-efficacy, which is often the case for first-generation college students.

This finding offers some good news for first-generation Mexican American college students who rely heavily on their families for support, whether instrumental or moral. On the other hand, for students who do not perceive much, if any, family support, they may experience even greater difficulty in their first semester in college. For those students, the added lack of family support may be deleterious in their academic adjustment by the end of their first semester.

The findings of this study support Bourdieu's (1985) notion that social capital plays a role in academic adjustment. When examined in a broader racial/ethnic context, the differences in adjustment between groups were not as evident as when social capital was more implied by making comparisons based on college-generational status. Social capital is more greatly implied for college adjustment by examining cross college-generational status comparisons, as networking opportunities and knowledge necessary for successful college navigation will vary more widely depending on college-generational status rather than other characteristics such as race/ethnicity. The decrease in reported anxiety and academic problems from the beginning to the end of the semester indicates that first-generation Mexican American students may be gaining social capital from sources outside of their previous social network, providing for greater means of academic adjustment (Saunders and Serna, 2004).

Finally, the importance of family support when social capital may not be as readily available was supported in this sample (Dennis, Phinney, & Chuateco, 2005; Auerbach, 2004). For first-generation Mexican American college students, especially, the findings in this study provide evidence for the importance of moral support from family

members as an alternative for instrumental support traditionally acquired through social capital that most second and later-generation college students automatically inherit.

IMPLICATIONS FOR FUTURE RESEARCH AND INTERVENTION

Given the results of this study demonstrate that not all college students' needs are created equal, and specifically that race/ethnicity alone does not adequately predict student adjustment and achievement. As a uniform group, Mexican American students did not seem to differ much, if at all, in terms of reported anxiety, depression or academic problems from their White college student counterparts. These findings suggest that interventions aimed at college students solely due to their racial or ethnic background may not be as beneficial as interventions aimed specifically at reaching students who may have less social capital, and thus less knowledge necessary to succeed academically (Bourdieu, 1985).

For students who are the first in their family to attend an institution of higher education, however, the findings of this study offer different implications for interventions. Because of the greater reported anxiety, depression and academic problems at the outset of the school semester for first-generation college students, it could be beneficial to provide those students with an individual that can serve a mentoring role, whether a faculty member or an older student. Research indicates that students that take advantage of extended social networks and attain greater instrumental support adjust better academically than students who do not (Saunders and Serna, 2004). Based on previous literature, in conjunction with current findings, it seems offering this support would be beneficial for any first-generation Mexican American college student. Based on findings in this study, this type of intervention would be particularly beneficial for students who report limited perceived family support.

The finding of the importance of perceived family support in this study also offers an opportunity for implications for interventions specifically with regards to families of first-generation Mexican American students. Many parents of first-generation college students are limited in the type of advice they can give their children. Auerbach (2006) conducted interviews with parents of first-generation college students and found that these parents could not advise their children on things they should do to excel academically; instead, they often used themselves as cautionary examples of what would happen if they did not attain a higher education. Some programs, such as the Futures project described by Auerbach, invited parents to informational sessions where they educated parents about the college application process. Educating parents in this way may help parents feel empowered to assist and support their children in the college application process. Additionally, these interventions would be beneficial for parents who have other children who they intend on providing support for in a similar capacity at a later date.

Another potential intervention that may facilitate greater familial support can occur at the institutional level across colleges. For parents who help their children move into their college dorms, the college atmosphere can be just as intimidating for them as for their first-generation college children. Due to minimal knowledge about higher education, some parents might shy away from being proactive, limiting their support to being solely moral (Auerbach, 2006). If the programs designed to assist first-generation college students could also integrate an orientation for parents to become familiarized

with the college or university where their child will spend the next four years, parents may feel more comfortable providing suggestions or support when their child is in need.

Given the findings of this study and the implications for interventions offered, more research is needed to investigate the effect that interventions targeted at parents of first-generation college students have on psychological and academic adjustment of first-generation college students. Such research would further inform the literature on the role of social support for the academic success of first-generation college students.

LIMITATIONS

This study's sample focused on Mexican American students to increase the ethnic homogeneity of the sample, which may make the findings of the study less generalizable to Latinos of different ethnicities. Because the large majority of students were recruited from the Introduction to Psychology classes at UT, the sample obtained may also not be as representative as a random sample of all Latino students at various other institutions of higher education.

The study also included a low sample size of first-generation White college students. It would have been important to explore the college-generational differences among White college students and ascertain whether those differences are present across students of differing racial/ethnic backgrounds. The findings that may have resulted from those analyses could have shed light for some similarities or differences among first-generation college students and would further help inform future interventions.

Finally, data for study noncompleters were omitted in final data analyses. It is uncertain why those participants did not return to complete the study. For students who may have decided to leave the university or drop their Introduction to Psychology course, information attained would have helped gain a broader understanding of a larger sample of students at the university.

APPENDIX

Table 1. Sample Demographic Characteristics for Study Completers.

Variable	Percentage (<i>n</i>)
Ethnicity	49.1% (110) Mexican American 50.9% (114) White
College-Generational Status	<u>Mexican American</u> 54.5% (60) First-college generation 45.5% (50) Second and later-college generation <u>White</u> 6.1% (7) First-college generation 93.9% (107) Second and later-college generation
Gender Distribution	<u>Mexican American</u> 80% (88) Female 20% (22) Male <u>White</u> 69.3% (79) Female 30.7% (35) Male
SES (estimated family annual income)	<u>Mexican American</u> 47.3% (52) Below \$35,000 27.3% (30) \$35,001-64,999 8.2% (9) \$65,000-94,999 14.5% (16) Over \$95,000 2.7% (3) Did not report <u>White</u> 5.3% (6) Below \$35,000 18.4% (21) \$35,001-64,999 26.3% (30) \$65,000-94,999 47.4% (54) Over \$95,000 2.6% (3) Did not respond

Table 2: Means of Dependent Variables for Hypothesis 1: Group Differences in Reported Anxiety, Depression, and Academic Problems Among Mexican American and White College Students at Time 1 and Time 2.

	Mexican American				White			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Time 1								
Depression (CAS)	17.91	5.09	12.00	34.00	18.21	5.97	12.00	40.00
Anxiety (CAS)	21.49	7.00	12.00	41.00	21.22	7.43	12.00	46.00
Academic Problems (CAS)	22.65	6.11	13.00	42.00	21.30	6.45	12.00	38.00
Time 2								
Depression (CAS)	17.90	5.54	12.00	38.00	19.05	6.72	12.00	45.00
Anxiety (CAS)	20.70	6.62	12.00	45.00	21.17	7.35	12.00	46.00
Academic Problems (CAS)	24.93	6.71	13.00	45.00	22.83	7.31	12.00	41.00

Table 3: Means of Dependent Variables for Hypothesis 2: Group differences in Reported Anxiety, Depression, and Academic Problems Among First and Second and Later-Generation Mexican American College Students at Time 1 and Time 2.

	First-generation College Mexican American Students				Second and later-generation College Mexican American students			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Time 1								
Depression (CAS)	19.14	5.79	12.00	34.00	16.43	3.65	12.00	30.00
Anxiety (CAS)	22.95	7.59	12.00	41.00	19.74	5.82	12.00	39.00
Academic Problems (CAS)	23.68	6.22	13.00	40.00	21.40	5.82	13.00	42.00
Time 2								
Depression (CAS)	18.98	6.43	12.00	38.00	16.67	4.04	12.00	35.00
Anxiety (CAS)	21.21	7.60	12.00	45.00	20.12	5.31	12.00	36.00
Academic Problems (CAS)	25.35	7.25	14.00	45.00	24.45	6.05	13.00	41.00

Figure 1: The U.S. Educational Pipeline (Solorzano et al., 2005)

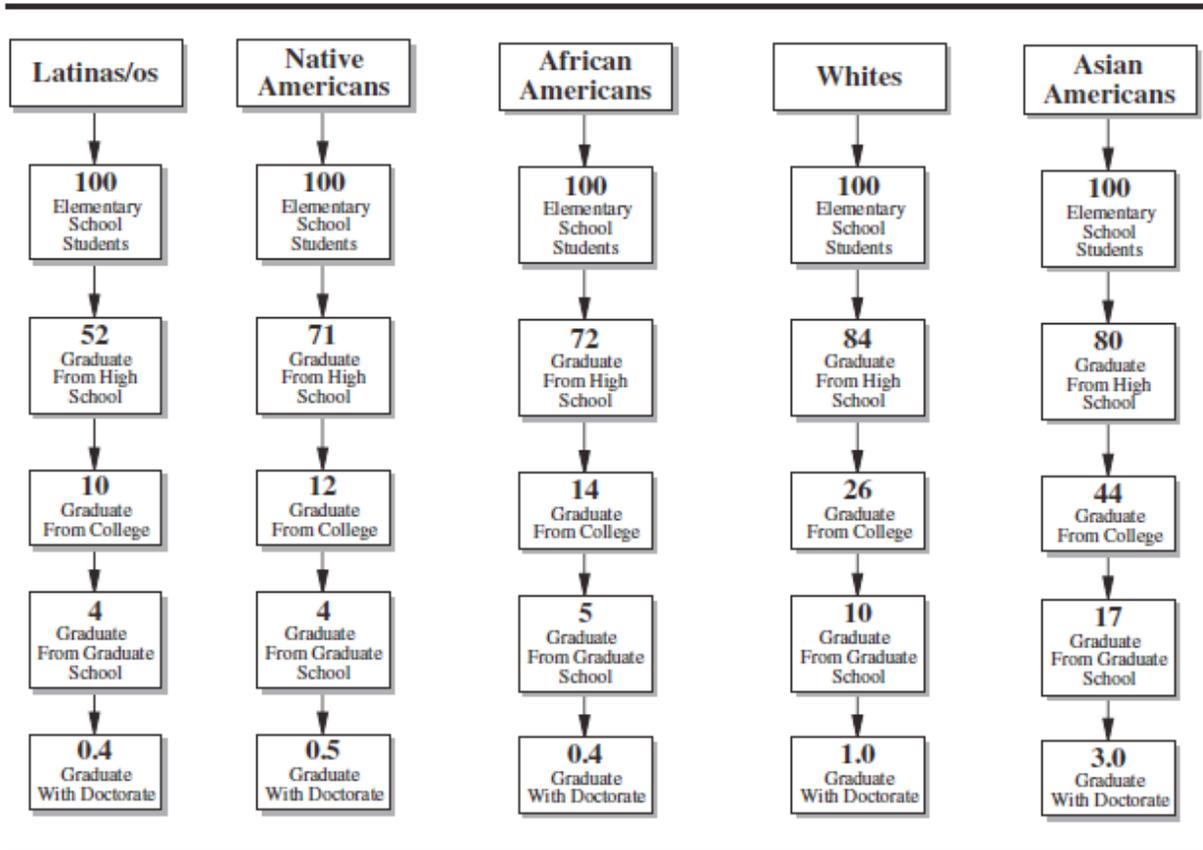


Figure 2: Family Support at Time 1 as a Significant Mediator of the Effect of Academic Self-Efficacy at Time 2 and Academic Problems at Time 2: Hypothesized Model.

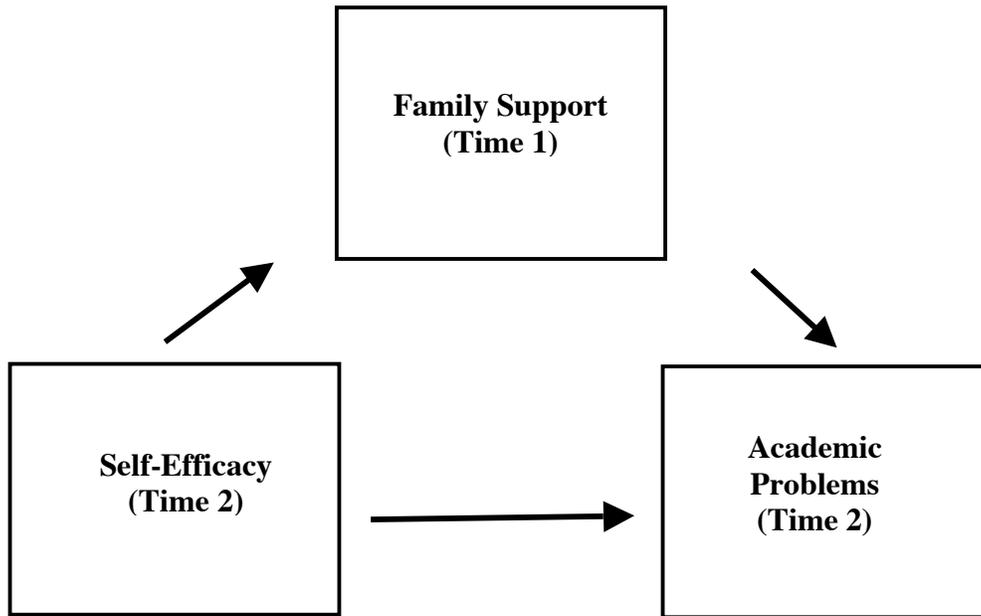


Figure 3: Hypothesis 1: Reported Trend in Differences of Academic Problems Among Mexican American and White College Students.

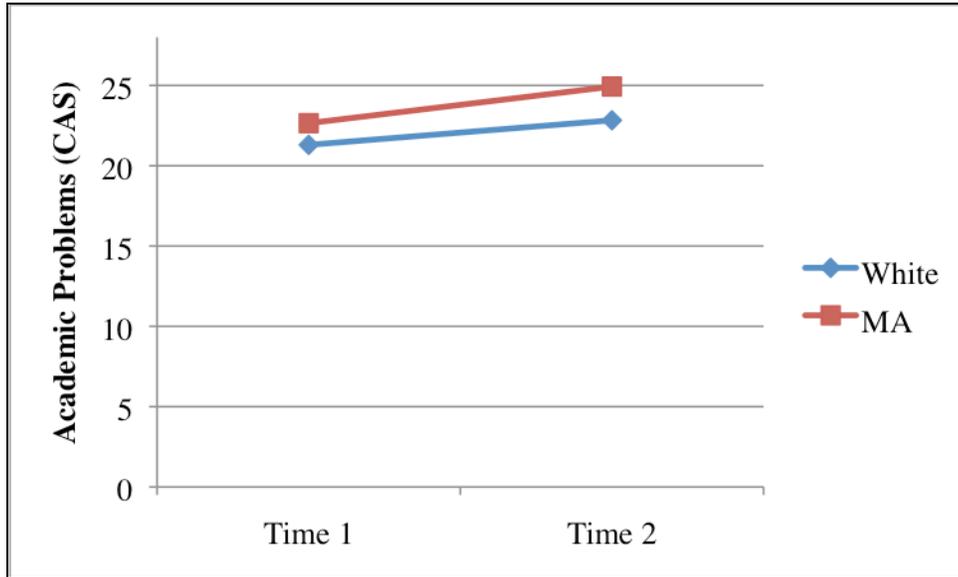


Figure 4: Hypothesis 2: Reported Differences in Depression Amongst First- and Second and Later-Generation Mexican American College Students.

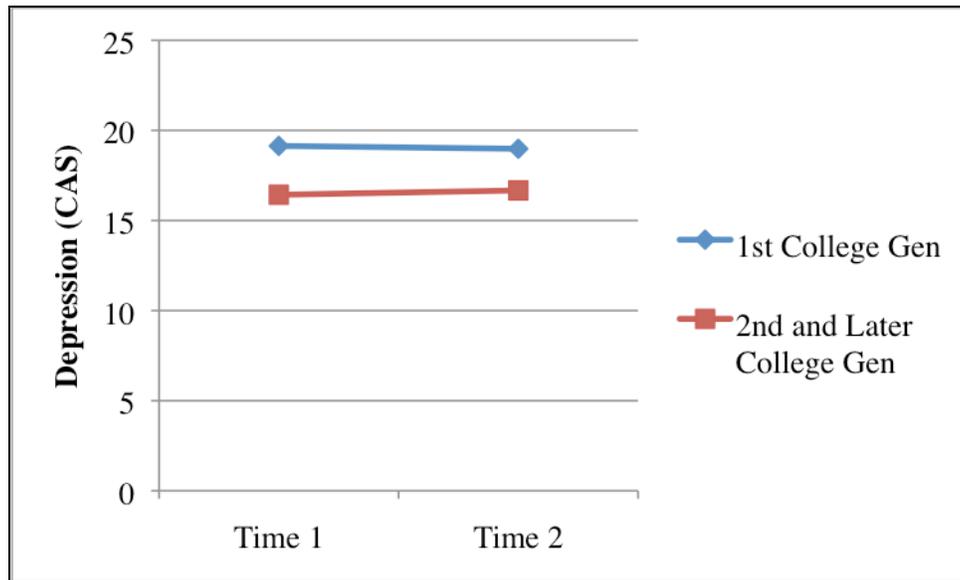


Figure 5: Hypothesis 2: Reported Differences in Anxiety Among First- and Second and Later-Generation Mexican American College Students.

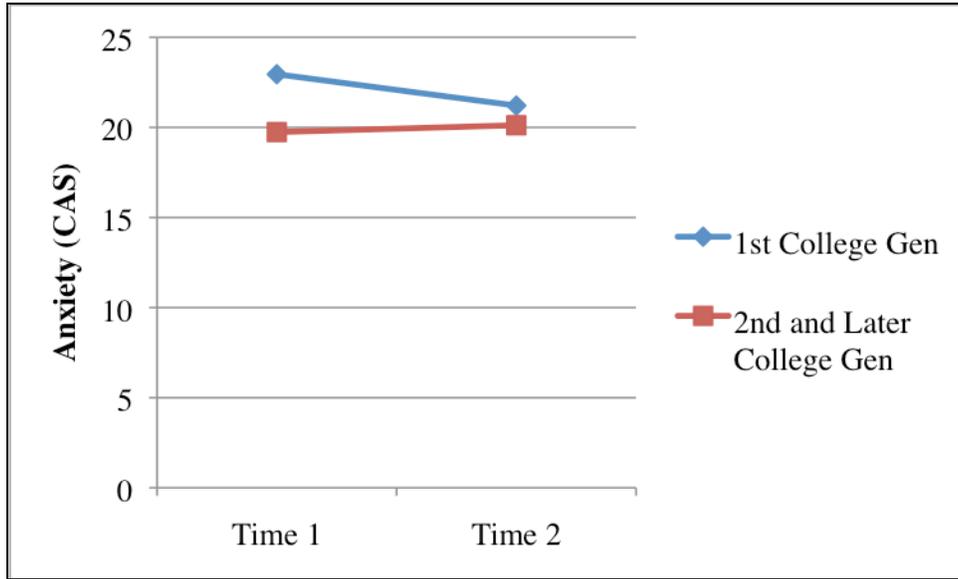


Figure 6: Hypothesis 2: Reported Differences in Academic Problems Amongst First- and Second and Later-Generation Mexican American College Students.

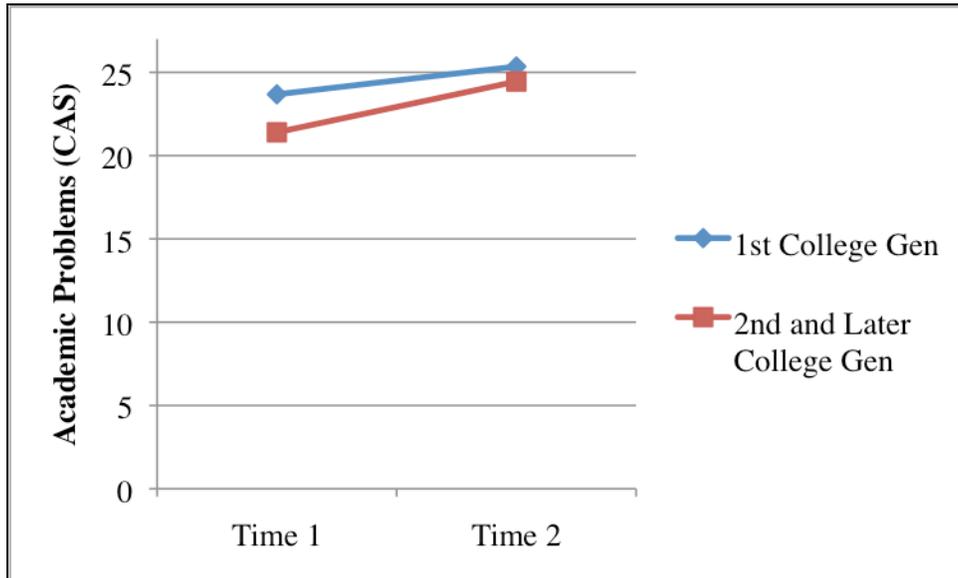
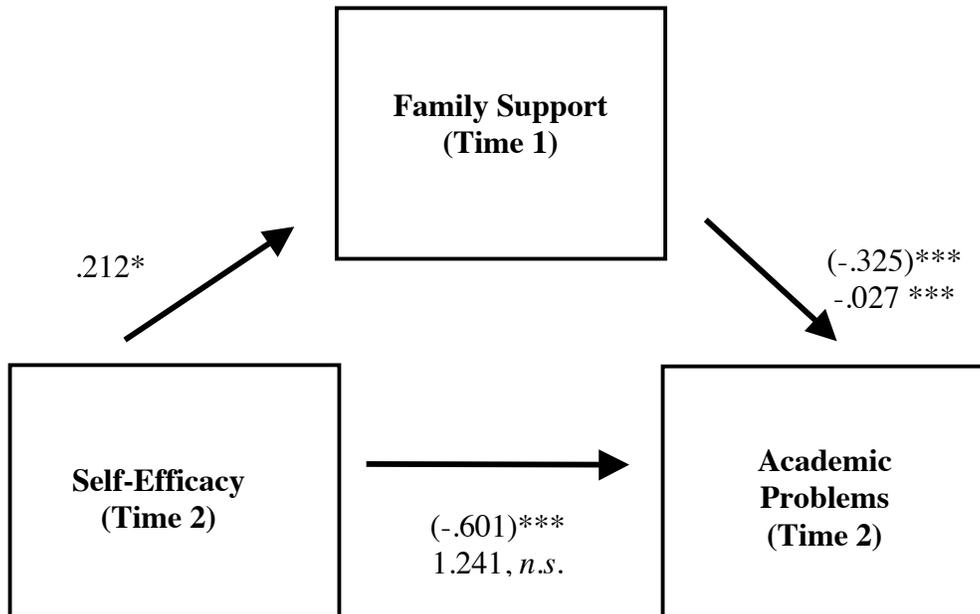


Figure 7: Family Support at Time 1 as a Significant Mediator of the Effect of Academic Self-Efficacy at Time 2 on Academic Problems at Time 2: Predicted Model with Path Analyses.

Note: * P < .05 ** P < .01 *** P < .001



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Vita

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