

# The Role of Social Cognitive Factors in Mexican American Students' Educational Goals and Performance: A Longitudinal Analysis

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This longitudinal study examined relations between social cognitive factors assessed during high school and educational goals and performance assessed 2 years later within a sample ( $N = 90$ ) of Mexican American young adults. Results of a multivariate multiple regression analysis revealed that college self-efficacy and perceptions of future barriers assessed at Time 1 significantly predicted educational goals and college grade point average (GPA) assessed at Time 2. Contrary to hypotheses, Anglo-oriented acculturation and college interests were not significant predictors of criterion variables. Effect sizes for the relations between college self-efficacy, perceptions of future barriers, and the criterion variables ranged from small to medium. Implications for research and practice are discussed.

*Keywords:* Mexican American, longitudinal, acculturation, social cognitive career theory

Although there have been significant gains in the numbers of Latinas/os pursuing postsecondary education (Fry, 2009), they continue to lag behind their African American, Asian American, and European American peers on indicators of educational attainment and performance (U.S. Bureau of the Census, 2012; U.S. Department of Education, 2010). Furthermore, among Latinas/os, Mexican Americans have reported the lowest relative levels of educational attainment, with 9% of Mexican Americans 25 or older having obtained a bachelor's degree compared with 13% for all other U.S. Latinas/os (Motel & Patten, 2012). Despite these educational disparities, Mexican American high school students have been shown to endorse high educational aspirations (Arbona & Novy, 1991; Flores, Navarro, & DeWitz, 2008). Fur-

thermore, as Mexican Americans' participation in the U.S. labor force grows (U.S. Bureau of Labor Statistics, 2010), it is important to understand factors that promote their academic persistence and achievement. Indeed, population survey data indicate that Mexican Americans are overrepresented in low-wage occupations such as housekeeping, construction, and agricultural jobs, which require low levels of academic preparation (Pew Hispanic Center, 2005). Scholars have specifically called for additional longitudinal research to address discrepancies in Mexican American students' educational aspirations and attainment (Navarro, Flores, & Worthington, 2007).

## Social Cognitive Predictors of Mexican Americans' Educational Goals

Social cognitive career theory (SCCT; Lent, Brown, & Hackett, 1994) is an empirically based model from which to conceptualize Mexican Americans' educational and career development. Drawing from Bandura's (1986) social cognitive theory, SCCT is domain-specific and postulates triadic reciprocal linkages among individual, contextual, and behavioral dimensions. The individual level of analysis within SCCT includes person-cognitive variables hy-

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pothesized to allow individuals to exercise control over their educational and career-related behaviors. Specifically, self-efficacy, outcome expectations, interests, and goals are thought to influence eventual activity selection and performance. The contextual level of analysis within SCCT includes individual predispositions, background affordances, learning experiences, and influences proximal to choice behaviors (Lent, Brown, & Hackett, 2000). In recent years, a greater number of studies have focused on contextual factors and their relation to other social cognitive constructs. However, the preponderance of these studies has focused on the development of interests and goals, whereas few have assessed how social cognitive factors relate to performance attainments. Consequently, it has been recommended that researchers extend study of the SCCT model beyond choice goals to actions and performance domains (Lent, Lopez, Lopez, & Sheu, 2008).

Past studies have successfully used SCCT to predict the educational and career development of Mexican American students (Flores et al., 2008; Flores & O'Brien, 2002; Flores, Ojeda, Huang, Gee, & Lee, 2006; Flores, Robitschek, Celebi, Anderson, & Hoang, 2010; Navarro et al., 2007). Collectively, this body of research has delineated person-cognitive and contextual factors that may influence Mexican Americans' educational aspirations and plans. Acculturation status, for example, has been shown to predict desired career prestige (Flores & O'Brien, 2002), educational aspirations (Flores et al., 2008), and career interests (Flores et al., 2010). Notably, only orientation toward Anglo culture has exhibited statistically significant relations to criterion variables in past studies. For example, Flores et al. (2008) found that Anglo-oriented acculturative status (i.e., affiliation toward Anglo language, ethnic identity, and ethnic interaction) significantly predicted educational goal expectations and aspirations, whereas Mexican-oriented acculturation (i.e., affiliation toward Mexican language, ethnic identity, and ethnic interaction) did not. This finding replicated past studies (e.g., Flores & O'Brien, 2002; Flores et al., 2010) and supports assertions that Anglo-oriented acculturation may be adaptive within a U.S. educational system that predominantly reflects Anglo values, expectations, and norms (Flores et al., 2008). More studies are needed to replicate these findings and further test the hy-

pothesis that orientation toward Mexican culture may have a positive effect on students' educational and career goals (Aguirre & Hernandez, 1995). To date, no studies have examined longitudinal relations between acculturation status and educational outcomes among Mexican American high school students.

Perceptions of barriers have also been shown to predict the educational plans and career goals of Mexican American adolescents (McWhirter, Hackett, & Bandalos, 1998). In a study examining the influence of gender, generation status, parental education level, and perceived barriers on educational goals, researchers found that perceived barriers were the strongest predictor of educational goals for Mexican American students (Ojeda & Flores, 2008). However, prior research investigating perceived barriers in addition to other social cognitive variables (i.e., self-efficacy and acculturative status) has found a nonsignificant relationship between perceived barriers and educational goals among Mexican American students (Flores et al., 2008). Clearly, more research is needed to clarify the nature of the relationship between perceived barriers and educational goals for Mexican American students. Furthermore, no studies have investigated how perceptions of barriers relate to educational goals and performance for Mexican American students over time.

Prior studies have examined longitudinal relations among SCCT variables. This research has demonstrated modest relationships between self-efficacy and goals over time, as well as nonsignificant relationships between perceived barriers and goals, as well as interests and goals (Lent, Sheu, et al., 2008; Lent, Sheu, Gloster, & Wilkins, 2010; Nauta & Epperson, 2003; Nauta, Kahn, Angell, & Cantarelli, 2002). One of these studies was conducted with adolescent girls (Nauta & Epperson, 2003) and two others were conducted with college students (Lent, Sheu, et al., 2008; Lent et al., 2010). Although we could locate no studies examining the longitudinal relationship between acculturation and SCCT variables, SCCT postulates that background contextual affordances do exert their influence on social cognitive constructs over time (Lent et al., 1994, 2000). Given documented discrepancies in Mexican American students' educational aspirations and attainment, longitudinal research examining both contextual and person-

cognitive influences on their educational development could provide rich information to help guide future intervention efforts. To our knowledge, only one study (Nauta & Epperson, 2003) has examined temporal relationships extending from high school to college using SCCT, and no studies have implemented this research design with Mexican American students. Furthermore, none of the aforementioned studies have examined the longitudinal relations between SCCT constructs and performance attainments over time.

### Method

The present study examined the longitudinal relations between contextual (i.e., acculturation, perceptions of future barriers) and person-cognitive (i.e., college self-efficacy, college interests) variables assessed during high school and the educational goals and performance of Mexican American students assessed two years later. Because SCCT is domain-specific and Mexican American students have much lower college matriculation rates than their peers, we focused on self-efficacy, interests, and perceived barriers associated with attending an institution of higher education. Based on extant theory and research, we proposed the following hypotheses:

*Hypothesis 1:* Anglo-oriented acculturation, college self-efficacy, and college interests measured during high school would serve as positive predictors of students' educational goals and performance.

*Hypothesis 2:* Mexican-oriented acculturation measured during high school would have a nonsignificant relationship with educational goals and performance.

*Hypothesis 3:* Perceptions of future barriers measured during high school would serve as a negative predictor of students' educational goals, but not performance, as postulated in SCCT (Lent et al., 1994).

### Participants

Participants were 90 Mexican American students recruited from a public high school in the Southwestern region of the United States as part of a 2-year longitudinal study. The sample for

the present study represents 11% of the participants from the full sample at Time 1 ( $N = 818$ ). At the time of the first wave of data collection, the mean age of participants in the present study was 17.43 years; 20.3% identified as juniors and 79.7% identified as seniors. Eleven students did not provide this information. By gender, 62.2% of students identified as female and 30% identified as male. Seven participants did not provide this information. Most students (33.8%) identified as "second generation," followed by "fourth generation" (31.3%), "third generation" (16.3%), "first generation" (11.3%), and "fifth generation" (7.5%).

At the second data collection, participants' mean age was 20.39 ( $SD = .83$ ). Of the 73.3% who were in college, 62.1% were enrolled at a 4-year local university categorized as a Hispanic-serving institution and 15.2% were attending a local 2-year community college that predominantly enrolled Mexican Americans. Thus, 77% of those enrolled in college were attending institutions that predominantly enrolled Mexican Americans. Average ACT score was 22.09 ( $SD = 3.47$ ) and average SAT total score was 1038 ( $SD = 199.83$ ). Mean college credits completed was 60.17 credit hours, and average college grade point average (GPA) was 2.91 ( $SD = .95$ ). Most participants (63.3%) were single, 16.7% were in a relationship but not living together, 10% were married/partnered, and 10% were living with significant other but were not married. Eleven (12.2%) indicated that they had children, and 79 (87.8%) did not. Mother's highest level of education was "less than a 7th grade education" (23.3%), "educated through 8–9th grade" (5.6%), "went to high school but did not graduate" (20%), "graduated from high school" (13.3%), "went to college but did not graduate" (14.4%), "completed college" (15.6%), and "had graduate/professional training" (7.8%). Father's highest level of education was "less than a 7th grade education" (21.1%), "educated through 8–9th grade" (7.8%), "went to high school but did not graduate" (12.2%), "graduated from high school" (23.3%), "went to college but did not graduate" (12.2%), "completed college" (16.7%), and "had graduate/professional training" (6.7%). In terms of student services utilized while in college, 18.9% accessed the career center, 24.4% accessed the counseling center, 46.7% used tutoring services, 56.7% used academic advising, 3.3% accessed

minority student services, and 1.1% used learning disability services.

### Instruments

**Acculturation Rating Scale for Mexican Americans-II (ARSMA-II).** The ARSMA-II (Cuéllar, Arnold, & Maldonado, 1995) was used to assess self-reported acculturative status. The ARSMA-II contains two subscales that measure Anglo-orientation (AOS; 13 items) and Mexican-orientation (MOS; 17 items) acculturation, respectively. Participants responded to a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*extremely often or almost always*). Item responses are summed and averaged to produce subscale scores.

Internal consistency estimates for subscale scores on the ARSMA-II have ranged from .79 to .83 on the AOS subscale and .87 to .91 for the MOS subscale with adult samples (Cuéllar et al., 1995; Cuéllar & Roberts, 1997; Lessenger, 1997), and from .76 to .83 for AOS scores and .87 to .91 for MOS scores with Mexican American high school students (Flores, Carrubba, & Good, 2006; Flores, Navarro, Smith, & Ploszaj, 2006; Flores, Ojeda, et al., 2006). Alpha coefficients for subscale scores on the AOS and MOS in the present study were .82 and .94, respectively. Validity for the ARSMA-II has been established through positive correlations with other acculturation measures, as well as generational differences on scale scores in prior research (Cuéllar et al., 1995; Lessenger, 1997).

**College self-efficacy and interests.** College self-efficacy and interests were measured with two items. For self-efficacy, participants completed an item asking them to rate their perceived confidence in their ability to complete a degree at a 4-year college on a scale ranging from 1 (*very unsure*) to 4 (*very sure*). Instructions asked participants to rate their confidence in their "ability and skills to successfully learn to do the following jobs or complete the training program, assuming you are motivated or interested in the job or program." For the educational interests item, participants reported their level of interest in pursuing a 4-year college degree on a scale ranging from 1 (*dislike*) to 3 (*like*). Instructions asked participants to, "indicate your interest in the following jobs or training programs, regardless of your skill level."

### Perceptions of educational barriers.

Perceptions of educational barriers were measured with 14 items from the Perceptions of Barriers scale (POB; McWhirter et al., 1998) that assess perceived likelihood of experiencing barriers in college. Items are rated on a Likert-type scale ranging from 1 (*not at all likely*) to 4 (*definitely*), and are summed and averaged to produce scale scores. Internal consistency estimates ranging from .86 to .91 have been reported for the POB in prior research (Flores & O'Brien, 2002; McWhirter et al., 1998; McWhirter, Rasheed, & Crothers, 2000). Validity for the POB has been established in prior studies (McWhirter, 1997; McWhirter et al., 2000). The coefficient alpha for scale scores on the POB in the present study was .94.

### Educational goals and performance.

Students' educational goals 2 years following graduation were measured using an individual item derived from past theoretical and empirical literature (Farmer, 1985; Flores, Ojeda, et al., 2006). The single item asked participants to indicate their desired future levels of education ranging from 1 (*some high school*) to 6 (*doctoral or professional degree*), with higher ratings indicative of higher expectations for educational attainment. Several options (community college, vocational/technical/business school, and nursing school) were combined to reflect a single category based on their similarity in offerings at 2-year colleges and universities. Furthermore, self-reported GPA was assessed as a proxy of educational performance. College GPA has been used in prior SCCT studies as a proxy of performance attainments (cf. Brown et al., 2008).

### Procedures

The study was approved by the institutional review board at the researchers' home institution. In high school, students were invited to participate in a study on Mexican American high school students' career development. Students completed measures of acculturation, perception of barriers, and educational self-efficacy, along with a demographic survey. Participant contact information was obtained from students who indicated an interest in being invited to participate in future studies. Two years later, participants were asked to complete a survey packet related to their educational and ca-

reer activities. An educational goals item and college GPA were among the items that participants completed at Time 2.

## Results

### Power Analysis

Post hoc power analyses were performed with the GPOWER software program (Erdfeuler, Faul, & Buchner, 1996) to determine ability to detect small, medium, and large effects with the multivariate multiple regression. Based on a sample size of 90 and alpha level of .05, results of the power analysis<sup>1</sup> indicated achieved power of .99 to detect a large effect ( $f^2 = .35$ ), .82 to detect a medium effect ( $f^2 = .15$ ), and .14 to detect a small effect ( $f^2 = .02$ ). Therefore, we had adequate power to detect medium and large effects based on conventional standards (Cohen, 1988).

**Preliminary analyses.** Means, standard deviations, and intercorrelations among study variables are included in Table 1. Data were determined to be multivariate normal prior to data analyses. We next conducted preliminary analyses to examine whether there were differences in criterion variables based on gender or generation status. Results of a multivariate analysis of variance (MANOVA) indicated no significant differences between males and females, Wilks'  $\Lambda = .96$ ,  $F(2, 73) = 1.37$ ,  $p = .25$ , or by generation level, Wilks'  $\Lambda = .95$ ,  $F(2, 73) = 1.92$ ,  $p = .15$ , on criterion variables. Therefore, we proceeded with analyses based on the sample as a whole. Bivariate correlations revealed that, as hypothesized, Mexican-oriented acculturative status was not significantly associated with college GPA or educational goals at Time 2. Furthermore, college self-efficacy, interests, and Anglo-oriented acculturative status were each significantly correlated with both criterion variables. Also consistent with hypotheses, perceptions of future barriers were significantly correlated with goals, but not with college GPA.

**Primary analyses.** For primary analyses, we conducted a multivariate multiple regression analysis with Time 2 educational goals and self-reported college GPA as the criterion variables. Multivariate multiple regression allows one to regress multiple dependent variables onto multiple predictor variables while conserving statistical power. College self-efficacy, Wilks'  $\Lambda =$

.78,  $F(2, 71) = 9.51$ ,  $p < .001$ ,  $\eta_m = .21$ , where  $\eta_m$  represents the multivariate effect size, and perceptions of future barriers, Wilks'  $\Lambda = .88$ ,  $F(2, 71) = 4.37$ ,  $p < .05$ ,  $\eta_m = .11$ , were significant predictors of criterion variables. However, Anglo orientation, Wilks'  $\Lambda = .96$ ,  $F(2, 71) = 1.14$ ,  $p > .05$ ,  $\eta_m = .03$ , and interests, Wilks'  $\Lambda = .99$ ,  $F(2, 71) = .015$ ,  $p > .05$ ,  $\eta_m = .00$ , were not significant predictors. Follow-up univariate analyses revealed that college self-efficacy was a significant positive predictor of educational goals,  $F(1, 76) = 18.30$ ,  $p < .001$ ,  $\eta = .20$  (where  $\eta$  represents the univariate effect size), and college GPA,  $F(1, 76) = 5.24$ ,  $p < .05$ ,  $\eta = .07$ . Furthermore, perceptions of future barriers were a positive predictor of educational goals,  $F(1, 76) = 5.62$ ,  $p < .05$ ,  $\eta = .08$ , but not college GPA,  $F(1, 76) = .41$ ,  $p > .05$ ,  $\eta = .01$ . Examination of effect sizes suggested that the effects for college self-efficacy on goals and performance ranged from small to medium (Cohen, 1988).

## Discussion

The present study examined longitudinal relations between social cognitive variables and Mexican American students' educational goals and performance. This study builds upon prior literature in several ways. To begin, this is the first study to examine the impact of social cognitive variables on educational outcomes with Mexican American students over time. Furthermore, whereas prior longitudinal research has assessed the relationships between SCCT variables over shorter spans of time (e.g., 5 months in Lent, Sheu, et al., 2008), this study is one of few (e.g., Nauta & Epperson, 2003) that have examined these relationships over significantly longer periods of time and grade levels. Finally, very few studies to date have extended the application of SCCT to performance domains, as was done in this study.

Hypotheses in the current study were partially supported. As hypothesized, college self-efficacy was a statistically significant predictor of educational goals and performance. Notably,

<sup>1</sup> To conserve statistical power and because the nonsignificant correlation between Mexican-oriented acculturation and criterion variables was consistent with hypotheses, Mexican-oriented acculturation was not included as a response variable in the post hoc power analysis.

Table 1  
*Means, Standard Deviations, and Intercorrelations Among Study Variables*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Anglo orientation	4.03	0.38	—	-.25*	.19*	.31**	.21*	.20*	.33**
2. Mexican orientation	3.43	0.73		—	-.08	-.03	.01	-.14	.06
3. Perceptions of barriers	3.36	1.38			—	.12	.13	.30**	-.02
4. College self-efficacy	3.61	0.77				—	.73**	.60**	.37**
5. College interests	2.81	0.51					—	.44**	.28*
6. Educational goals	4.85	1.17						—	.30*
7. College GPA	2.96	0.87							—

*Note.* GPA = grade point average.

\*  $p < .05$ . \*\*  $p < .01$ .

the magnitude of the relationship between self-efficacy and goals in this study was greater than that reported in prior research conducted within a predominantly White sample of college students (Lent, Lopez, et al., 2008), and closer in magnitude to that reported within a sample of students attending a predominantly Black university (Lent et al., 2010). It may be that self-efficacy has a significant relationship over time with educational and career goals for all groups of students, and particularly for students historically underrepresented in higher education, such as students of color. Additional longitudinal research is needed to examine whether this assertion might hold true for other similar groups of underrepresented students.

Also consistent with hypotheses, perceptions of future barriers were a significant predictor of educational goals. The magnitude of the relationship between barriers and goals was similar to prior research with students of color attending college (Lent et al., 2010). This finding suggests that as Mexican American high school students perceive greater barriers associated with their education, the lower their goals for educational attainment over time. Although the relationship between barriers and goals in this study was relatively small, it is noteworthy that it persisted over a relatively long period of two years. Given that no other studies have examined perceived barriers and their temporal relationship to educational and career goals for Mexican American students, future research is needed to replicate these findings. Longitudinal research that examines supports and barriers concomitantly would also add to the literature, given inconsistent findings for these two variables in cross-sectional studies (Flores et al., 2008; Ojeda & Flores, 2008).

Findings regarding acculturation status were mixed. The hypothesis that Mexican-oriented acculturation would have a nonsignificant relationship with educational goals and performance was supported in the present study and adds to existing cross-sectional research suggesting a lack of a relationship between Mexican orientation and educational or career outcomes among Mexican American students. It may be that Mexican orientation exerts greater influence on other domains of Mexican Americans' well-being, such as psychological health (e.g., Thoman & Suris, 2004), than it does on educational and career outcomes. Future studies may examine mental health in addition to educational or career variables when examining acculturation among Mexican American students to support or dispute this hypothesis.

Also consistent with prior research, Anglo-oriented acculturation exhibited a positive significant relationship with criterion variables. However, contrary to hypotheses, Anglo acculturation did not significantly predict educational goals or performance when entered into the regression equation. Collectively, findings from the present study, when considered with results of prior research (e.g., Flores & O'Brien, 2002), suggest that Anglo orientation may have a positive significant relationship with educational and career outcomes for Mexican American students, but that this relationship may diminish over time. Specifically, Anglo-oriented acculturation may exert most of its influence at earlier stages of academic and career development among Mexican American students or during the initial transition from high school to college. The positive relationship between Anglo, but not Mexican, orientation and educational outcomes may reflect the adaptive nature of Anglo

orientation within an educational system that tends to reflect Anglo cultural values and norms, as has been suggested in prior research (Flores et al., 2008). Future research should examine the effects of Anglo acculturation at various transitions and stages of career development. Alternatively, Anglo-oriented acculturation may not play as significant a role in the educational goals and career development of Mexican American students attending a college/university in which the majority of their peers are from similar ethnic backgrounds. The university context is an important factor that should be explored in future research to determine if these findings are consistent with other samples of Mexican American students attending Hispanic-serving institutions as well as those attending predominantly White institutions.

Additionally, educational interests had a statistically significant relationship with educational goals and performance, but did not significantly predict either criterion variable in the multiple multivariate regression analysis. This was consistent with prior longitudinal SCCT research (Lent, Sheu, et al., 2008, 2010) but inconsistent with SCCT hypotheses, which suggest a relationship between interests and goals over time (Lent et al., 1994). This finding supports past cross-sectional research indicating a nonsignificant relationship between interests and goals in Mexican American students (Flores & O'Brien, 2002; Flores et al., 2010). It may be that participants' educational interests were unrelated to future educational goals and performance due to moderating influences of contextual variables not captured in the present study. Indeed, SCCT proposes that environmental influences proximal to individual's choice goals moderate the relationship between interests and goals. Parental and peer support are two such factors that have been shown to be predictive of Latina/o students' academic persistence (Gloria, Castellanos, Lopez, & Rosales, 2005).<sup>2</sup>

These results hold potential implications for educators and counselors. First, given the magnitude of the relationship between college self-efficacy and educational goals within this study's sample, it may be important for teachers to enhance Mexican American students' self-efficacy for attending college while they are still in high school. Because Latina/o students may face significant educational barriers both before

and while attending college (e.g., Gloria, Castellanos, & Orozco, 2005; Nora, Barlow, & Crisp, 2006), fostering college self-efficacy may serve as a protective factor. Counselors may wish to explore self-efficacy as it relates to Mexican American high school students' goals for attending an institution of higher education, as well as potential sources of high or low college self-efficacy beliefs. Helping Mexican American students challenge low self-efficacy beliefs or providing learning experiences that may enhance self-efficacy (Lent et al., 1994) may have lasting impacts on Mexican Americans' educational goals and performance. Attention to how experiences with teachers or in specific classes have informed Mexican American students' sense of self-efficacy for pursuing postsecondary education may lead to fruitful interventions.

Findings related to the relationship between perceptions of future barriers and educational goals point to the need for intervention efforts to focus on helping Mexican American students address potential barriers perhaps even before attending college. Specifically, encouraging students to discuss what barriers may negatively impact their ability or desire to attend college, while helping them to problem solve or generate helpful coping responses, could be beneficial. Assisting Mexican American students in identifying coping strategies, should potential future barriers arise, may increase the likelihood they will develop or maintain their goals for higher education. Advocacy efforts and assisting with systems-level change interventions could also aid in the removal of potential systemic barriers to Mexican American students' educational goals.

### Limitations

Findings from the present study should be placed within the context of several limitations. First, although we had statistical power to detect medium and large effects, we were unable to recruit a sample large enough to detect small effects with our analyses. Given the relatively

<sup>2</sup> A test of the moderating effect of perceptions of future barriers on the relationship between interests and goals was not statistically significant ( $p > .05$ ). However, limited power associated with the sample size in this study may limit interpretation of this finding.

long period of time between waves of data collection, small effects for the predictor variables under investigation may have been present but went undetected due to the smaller sample size. Furthermore, all participants for this study were drawn from a public high school serving a predominantly Mexican American region in the Southwest. This characteristic of the sample may restrict the degree to which results may be applied to other Mexican American or Latina/o students. Similarly, although capturing Mexican American students who were attending institutions of higher education may reveal strengths of this particular subgroup of students, a sample including a larger number of Mexican American students not attending higher education institutions may have contributed to greater variation in participants' responses and may have extended the external validity of this study. For example, although it has been found that Latino males report lower academic persistence rates than their female counterparts (Lopez, 2009), no differences were found in this study among males and females on variables of interest.

Our use of single items to capture several of the constructs in the present study is also a limitation. Specifically, due to the method of measurement, self-efficacy, interests, and goals may have been underrepresented as constructs (Heppner, Wampold, & Kivlighan, 2008). The relatively small standard deviations on scale scores for each of these measures suggests that the restricted range of scores may have impacted the ability of these measures to account for unique variance. Therefore, results of this study should be taken with caution and treated as preliminary. Future research using more complex measures to assess similar constructs may be necessary to substantiate findings presented in this study. Furthermore, this study examined only one broad dimension of self-efficacy (i.e., completing a 4-year college degree). Studies investigating other, more specific dimensions of self-efficacy, such as succeeding in particular majors, are also warranted. Similarly, our use of the ARSMA-II to assess acculturation limited measurement of this construct to behaviors. Future studies that capture affective elements of acculturation, such as familial and cultural pride, may add to the existing literature. Finally, an experimental design was not

used in the present study and causality cannot be assumed.

Despite these limitations, this study adds to the body of literature on Mexican American students' educational persistence and achievement. As the Mexican American population within the United States continues to grow, it is possible that results from studies such as the present one may be used to understand and enhance the likelihood they reach their educational goals.

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### Abstracto

La presente investigación longitudinal examina la relación entre factores cognitivos y sociales evaluados en una escuela secundaria y metas educativas y el desempeño evaluado dos años después en una muestra ( $N = 90$ ) de jóvenes Mexicanos. Los resultados de un análisis multivariado de regresión múltiple revelaron que la auto eficacia en la universidad y percepciones de barreras hacia el futuro evaluado en Tiempo 1 significativamente predijeron metas educativas y promedios de calificaciones de la universidad evaluado en a Tiempo 2. De modo contrario a lo esperado por la hipótesis, la aculturación "anglo" orientada y los intereses universitarios de los estudiantes no fueron predictores significantes de las variables criterio. El tamaño del efecto de las asociaciones entre auto eficacia en la universidad, percepciones de barreras futuras, y las variables criterio que varían de pequeño a mediano Implicaciones para investigaciones y práctica son discutidas.

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