Cultural Attributes and Adaptations Linked to Achievement Motivation Among Latino Adolescents

Gladys E. Ibañez,¹ Gabriel P. Kuperminc,² Greg Jurkovic,³ and Julia Perilla⁴

Received May 14, 2003; accepted November 13, 2003

This exploratory study examined whether associations between perceived school experiences and achievement motivation varied by language acculturation and generational status among a sample of immigrant and U.S. born Latino adolescents ($n = 129$). Ogbu's (1993) notion of primary and secondary cultural differences was adapted to better suit comparisons within this Latino group using the terms cultural attributes and cultural adaptations. Academic competence, school belonging, and parent involvement were positively related to achievement motivation. Academic competence and parent involvement were strongly related to achievement motivation among students who spoke English or were born in the U.S., suggesting that these associations may be cultural adaptations. Future intervention programs for Latino students, regardless of acculturation or generational status, should focus on making them feel supported and included. Acculturated Latino youth and youth who have lived in the U.S. for a long time should be targeted for programs that enhance academic competence and parent involvement.

KEY WORDS: Latino adolescents; achievement motivation; acculturation; cultural adaptation.

INTRODUCTION

Immigrants arrive in the U.S. with hopes of a better life, if not for themselves, for their children. Immigrant parents pass their hopes and dreams down to their children in phrases such as “estudia y sea alguien” or “study and be somebody” (Suárez-Orozco, 1989). Although the major-

ity of Latinos enter high school with educational and career aspirations as high as those of the majority population, many Latino students are failing in school (Goldenberg, 1996). Moreover, school achievement among Latinos lags behind that of their White, African American, and Asian counterparts (Kao and Tienda, 1998). What happens to the hopes and dreams of immigrant youth, and why are those hopes and dreams not being realized? One way to address this question is to examine what motivates Latino immigrant adolescents to achieve their dreams. For example, perceived school experiences such as a sense of academic competence, a sense of school belonging, and parent involvement have been positively related to achievement among a general population of students in the U.S. (Goodenow and Grady, 1993; Harter, 1988; Kao and Tienda, 1998). However, cultures may value school experiences differently and will have their own native theory of what leads to greater achievement (Ogbu, 1981).

This study focused on 2 processes that immigrant adolescents might use to adapt to their new environment. These processes are referred to in the present study as cultural attributes and cultural adaptations. Specifically, immigrants and their families bring with them culturally

¹Research fellow, Oak Ridge Institute for Science and Education, Oak Ridge, Tennessee 37831-0117. Received PhD in Psychology from Georgia State University. Current research interests include family processes and HIV prevention research within Latino populations, particularly gay youth. To whom correspondence should be addressed at 719 Ormewood Avenue, Atlanta, Georgia 30312; e-mail: gldysibanez@aol.com.

²Associate Professor, Community Psychology, Georgia State University, Atlanta, Georgia. Received PhD in Developmental Psychology at University of Virginia in 1994. Current interests are social ecology, school climate, and Latino youth.

³Associate Professor, Clinical Psychology, Georgia State University. Received PhD from University of Texas-Austin in 1975. Research interests include family processes, trauma, and filial responsibility.

⁴Research Associate Professor, Georgia State University. Received PhD from Georgia State University in 1995. Research interests include immigrant Latinos, domestic violence, and community psychology.

distinctive ways of perceiving and making sense of their reality (cultural attributes), but they also create new ways of understanding their surroundings (cultural adaptations). Little is known about the cultural attributes that immigrants bring with them to the U.S., and the cultural adaptations that immigrants create as a response to their experiences in the new host culture. Furthermore, there are no studies that examine the association between perceived school experiences and achievement motivation as it pertains to cultural attributes and adaptations. Therefore, the main purpose of this study was to learn more about perceived school experiences linked to achievement motivation within a sample of immigrant and U.S. born Latino students across language acculturation levels and generational status. Understanding of schooling within the Latino culture can help U.S. schools better utilize existing cultural resources that promote achievement motivation, and it can produce culturally tailored interventions targeting Latino youth.

Cultural Attributes and Adaptations

Several theories have been put forward to explain the school performance of minority children. These theories range from *biological determinism*, which assumes genetic inferiority of minority children (Jensen, 1969) to theories that recognize the impact of different cultural settings on the development of children's skills and abilities (Trueba, 1989). Although earlier theories offered an explanation for why many students experience school difficulties, these explanations could not account for the school success experienced by many Latino students.

John Ogbu, an educational anthropologist, argued that earlier theories had been constructed without taking into account the social reality of ethnic minorities. According to Ogbu's (1991) cultural-ecological perspective, transactions between immigrant youth and the school system are linked to wider sociohistorical factors such as immigration and immigrant's adaptations to the new host culture. On the basis of his work with African American children, Ogbu (1991) describes 2 types of cultural differences that exist between minorities and a dominant society. Primary cultural differences, such as language, result from members of 2 different populations having their own ways of behaving, thinking, and feeling, before coming into contact with one another (Ogbu, 1993). Secondary cultural differences refer to differences that result from contact between the dominant-group culture and the culture of the minority group. An oppositional stance to the White, middle-class school system by some African American children is an example of a secondary cultural difference (Ogbu, 1991, 1993).

The present study uses a different comparative approach by investigating similarities and differences between members of the same broadly defined group (youth of Latin American descent) separated by linguistic acculturation and generational status. Thus, the terms primary and secondary cultural differences were adapted to better reflect the goals of the present study by using the terms cultural attributes and cultural adaptations. Cultural attributes refer to cultural traits or values that do not change with acculturation or generation status (similar to Ogbu's primary cultural differences). Cultural adaptations refer to changes in values that occur with acculturation to the U.S. or the more time spent in the U.S. (similar to secondary cultural differences). In sum, within this theoretical framework, the present study focused on school experiences related to achievement motivation among Latino adolescents in the U.S. to determine whether these associations may be cultural attributes of Latino culture or adaptations to the U.S. by Latino youth.

School Experiences Linked to Achievement Motivation

Three school experiences that promote achievement are a sense of academic competence, a sense of school belonging, and parental involvement (Goodenow and Grady, 1993; Harter, 1988; Kao and Tienda, 1998). Academic competence, which refers to a student's perceptions of his or her school-related abilities (Harter, 1988) is highly correlated with academic achievement and motivation (Eccles and Wigfield, 2002; Marsh, 1990). School belonging, or the extent to which students feel personally accepted, respected, included, and supported at school (Goodenow, 1993), may be most crucial for students who are likely to feel alienated and unaccepted in an environment whose values and beliefs may be incompatible with their own (Ford, 1993; Steele, 1992). For example, Goodenow and Grady (1993) found stronger associations between school belonging and academic motivation for Latino than for African American students. Lastly, there is growing evidence that parents contribute to adolescents' educational and developmental attainment (e.g., Dornbusch and Wood, 1989; Entwisle, 1990). For example, greater parental involvement is associated with more positive attitudes toward school, lower rates of drop out, and higher academic achievement among White youth (Epstein, 1987; Lareau, 1987). Little is known about the relation between parental involvement and achievement motivation among Latino youth. However, the literature suggests that Latino parents may have low levels of involvement due to certain social and cultural factors such as a language barrier or differences in cultural values (Delgado-Gaitan, 1991).

The Present Study

Perceived school experiences may relate differently to achievement motivation after Latino youth have spent time living in the U.S. and/or have acculturated to the U.S. The acculturation process, or the process of adopting certain aspects of the host culture (Berry, 1998), was examined as a possible moderator of the relation between school experiences and achievement motivation. Generational status (e.g., whether a youth migrated before 12, after 12, or was U.S. born) and language acculturation (degree to which adolescents are adopting the host language) were considered processes that may lead to cultural changes or adaptations.

In the present study, it is hypothesized that (1) a sense of competence will be positively related to achievement motivation regardless of acculturation level or generation status; (2) a sense of school belonging will be more strongly related to achievement motivation for high acculturated and U.S. born youth than for low acculturated or immigrant youth; and (3) parent involvement will be more strongly related to achievement motivation for high acculturated and U.S. born youth than for low acculturated or immigrant youth.

METHOD

Participants

Data were collected in May 1999. The sample comes from a large public high school in the Atlanta, GA metropolitan area. The student body consisted of 1,300 students in 1997–1998 in grades 9–12 of which 28% were Latinos (Council on School Performance, 1999). Researchers recruited participants by going to classes, explaining the study to those students who identified as Latinos, and signing up those who were interested in participating. Each student was required to bring a signed parental consent, and to sign an assent form signifying personal consent before participating. One-hundred and twenty-nine students returned both a signed parental consent form and an assent form. Of the 129 respondents, 64% ($n = 82$) were girls, and ages ranged from 14 to 19, with a mean age of 16.2. All of the youth were either immigrants ($n = 96$; 74%) or U.S. born children of immigrants ($n = 33$; 26%). Most ($n = 65$; 66%) of the immigrants were born in Mexico, 16% ($n = 16$) were born in Central America (El Salvador, Guatemala, Honduras, or Nicaragua), 10% ($n = 10$) were born in the Caribbean (Cuba, the Dominican Republic, or Puerto Rico), and 6% ($n = 6$) were born in South America (Colombia or Peru).

Measures

Each independent variable represents a distinct school experience: (1) a sense of academic competence; (2) a sense of school belonging; and (3) parental involvement in schooling. Moderators were language acculturation and generational status. Three dependent variables—school aspirations, school expectations, and importance of schooling for future success—represented achievement motivation. All measures were self-reported, and translated even if there was an existing Spanish version in order to make them more linguistically appropriate to this sample (Brislin *et al.*, 1973). Those procedures include initial translation (from English to Spanish), back-translation (from Spanish to English), and centering (comparison of both the original English and the back-translated English for similarity).

Academic Competence

Academic competence was assessed with a 5-item subscale adapted from Harter's (1988) Self Perception Profile for Adolescents, which measures a student's perceptions of his/her abilities or competence within the realm of scholastic performance (e.g., "I do well in most school subjects"). The response format used in the original scale consists of pairs of statements, one representing a positive statement, and the other a negative statement. For each pair of statements, the child is asked to choose which statement is most true for him or her. When translated into Spanish, this response format seemed awkward. Consequently, the items were slightly altered and a response format of a 4-point Likert scale (1 = *not at all true*, 4 = *very true*) was used. Internal consistency was adequate ($\alpha = 0.75$).

School Belonging

The Psychological Sense of School Membership Scale (PSSM; Goodenow and Grady, 1993; Hagborg, 1994) was used to assess adolescents' satisfaction with school and perceptions of support from students and teachers (e.g., "I feel I am a part of my school."). The 18-item scale uses a 4-point Likert scale response (1 = *not at all true*, 4 = *very true*). It displayed good internal consistency ($\alpha = 0.79$).

Parental Involvement in Schooling

The Parental Involvement in Schooling Scale (PI; Steinberg *et al.*, 1992) assesses the degree to which parents

assist their child with homework, attend extracurricular activities, and help with class selection. The scale consists of 7 items on a 4-point Likert scale (1 = *not at all true*, 4 = *very true*). The Cronbach alpha was 0.74.

School Aspiration and School Expectations

Studies on school aspirations and expectations typically have used single-items to measure these 2 constructs (McWhirter *et al.*, 1998; Reyes *et al.*, 1999; Trusty, 1999). Consistent with past work, *school aspirations* was measured by 1 item, "If you could do exactly what you wanted, how far would you go in school?" The response format included 7 options ranging from "9th–11th grade" to "get a law degree, PhD, or medical doctor's degree." *School expectations* were also assessed by 1 item, "We can't always do what we most want to do, how far do you think you actually will go in school?" The responses were the same as for the school aspiration item.

Importance of Schooling

Scales adapted from the work of J. S. Eccles and A. J. Sameroff was used to assess importance of schooling (Roeser and Eccles, 1998). Importance of schooling for future success (e.g., "I have to do well in school if I want to be a success in life") was measured using 4-items with a 4-point Likert scale (1 = *not at all true*, 4 = *very true*). Internal consistency was 0.68.

Language Acculturation and Generation Status

Adolescents completed the Language Acculturation Scale ($\alpha = .83$; Marin and Marin, 1991), which measures preference of one language over another in certain areas such as speaking and writing (e.g., "In general, in what language do you read?"). Responses to 5 items were given on a 5-point Likert-type scale (1 = *only Spanish* to 5 = *only English*). We used the Generational History Scale (Marin and Marin, 1991) and the age of arrival to create an immigrant status variable, which included 3 levels: 1 = *late immigrants* (migrated after 12), 2 = *early immigrants* (migrated before 12), and 3 = *U.S. born*.

Covariates

Age, gender, and socioeconomic status (SES) were assessed. Age and gender were self-reported. Gender was coded as male (1) and female (2). SES was measured using school records of students who received financial as-

sistance for lunch. Students from low SES received free lunch (0) or partially free lunch (1). Students from high SES did not qualify for free lunch (2).

Procedures

Questionnaires were administered in small group-settings of 5–15 students. In all test sessions, students preferred test administration in Spanish, although items were written in English and Spanish, which allowed students to read in whatever language, was most comfortable. An interviewer introduced each questionnaire to the students, and read each item aloud to control for reading comprehension. Students were paid \$10 for completing the questionnaire, which lasted approximately 1 h and 30 min.

Data Analyses

The main analyses included 2 sets of regression analyses. The first set of regressions was conducted with age, gender, and socioeconomic status (SES) entered as covariates in Step 1. Language acculturation was entered as the moderator in the second step. Although school experiences were entered in Step 3, each school experience was analyzed separately in order to avoid multicollinearity among the predictor variables. In Step 4, each school experience by language acculturation interaction term was entered and analyzed separately. This resulted in 3 separate regression models for each dependent variable for a total of 9 regression models. The second set of analyses was identical to the previous analyses except that generation status and not language acculturation was entered as the moderator. Three separate regression models were conducted for each of the dependent variables resulting in 9 regression models. Only regression models with significant interaction terms will be presented in tables.

RESULTS

There were very few missing data on any of the dependent or independent variables; thus, missing data were replaced by sample means. Except for educational expectations and parental involvement, all measures were negatively skewed. Because most measures were skewed in the same direction, data transformations were not conducted. Because the Atlanta sample included adolescents from several countries other than Mexico (or of Mexican descent), we used *t* tests to examine subgroup differences between Mexican and non-Mexican adolescents on all measures. No significant subgroup differences were found suggesting that youth from several Latino subgroups could be analyzed together.

Table I. Correlational Analysis for All Measures Among Latino Youth in the U.S. ($n = 129$)

	1	2	3	4	5	6	7	8	9	10	11
1. Age	—										
2. Gender	0.01	—									
3. SES	−0.07	−0.06	—								
4. Generation status	−0.21*	0.02	−0.18*	—							
5. Acculturation	−0.11	−0.07	−0.07	0.64***	—						
6. Aspirations	−0.05	−0.04	0.19*	−0.01	0.06	—					
7. Expectations	0.07	−0.02	0.01	0.18*	0.25**	0.43***	—				
8. Importance. of schooling	0.12	0.14	0.05	−0.17	−0.10	0.26**	0.25**	—			
9. Competence	−0.09	−0.17	−0.01	0.26**	0.33***	0.22*	0.35***	0.22*	—		
10. School belonging	0.13	−0.01	0.02	0.18*	0.22*	0.22*	0.37***	0.43***	0.48***	—	
11. Parents involved	0.06	−0.04	−0.02	0.08	0.08	0.10	0.33***	0.31***	0.33***	0.48***	—

Note. Imp = Importance.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Educational aspirations were quite high. Twenty percent aspired to graduating from a university, 14% to obtaining a master's degree, and almost one-third of Latino youth aspired to a doctoral degree (31%). Educational expectations were more modest and evenly distributed. Sixteen percent expected to graduate from high school, 21% expected some college, 24% expected a 2-year college degree, and 23% expected to graduate from a university. Only 5% expected to obtain a master's or a doctoral degree.

Correlational analysis was also conducted (Table I). Educational aspirations were positively correlated with SES, educational expectations, importance of schooling, academic competence, and school belonging. Educational

expectations were positively correlated with generation status, acculturation, importance of schooling, academic competence, school belonging, and parental involvement. Importance of schooling was positively correlated with academic competence, school belonging, and parental involvement.

Acculturation as Moderator

Language acculturation was examined as a possible moderating factor between school experiences and achievement motivation. In terms of educational aspirations, the 3 models accounted from 6 to 13% of the variance (see Table II). Students of low SES reported higher

Table II. Achievement Motivation Regressed on Language Acculturation, School Experiences, and Interaction Terms ($n = 129$)

Independent variables	Educational aspirations		Educational expectations		Importance of schooling	
	β	ΔR^2	β	ΔR^2	β	ΔR^2
Step 1: Background		0.04		0.01		0.04
Age	−0.02		0.12		0.13	
Gender	0.02		0.05		0.20*	
SES	−0.21*		−0.04		−0.05	
Step 2: Moderator		0.01		0.07**		0.01
Acculturation status	0.02		0.17		−0.16	
Step 3: School experiences ^a						
Academic competence	0.27**	0.05*	0.32***	0.08***	0.36***	0.09**
School belonging	0.22*	0.05*	0.33***	0.10***	0.36***	0.21***
Parental involvement	−0.03	0.01	0.31***	0.09***	0.32***	0.10***
Step 4: Interaction term(s) ^a						
Competence $\times$ Acculturation	0.20*	0.03*	0.05	0.00	0.15	0.02
Belonging $\times$ Acculturation	0.04	0.00	0.00	0.00	0.05	0.00
Parent involved $\times$ Acculturation	0.00	0.00	−0.07	0.01	0.24**	0.06**

^aPredictors were analyzed separately due to multicollinearity. Interaction terms were also analyzed separately.

All school experiences and interaction terms are presented together for readability.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Fig. 1. School aspirations regressed on Competence $\times$ Language acculturation.

aspirations, and students who reported more academic competence and sense of school belonging also reported more aspirations. There was one significant interaction term. Language acculturation moderated the relation between competence and aspirations (see Fig. 1). For low-acculturated youth, school aspiration was similar regardless of whether they felt competent at school or not. However, for high-acculturated youth, school aspiration was much higher for students who felt competent at school than those who did not feel competent.

For school expectations, the 3 models accounted from 16 to 19% of the variance. High-acculturated youth reported more expectations than low-acculturated youth. All school experiences—competence, school belonging, and parent involvement—were positively related to expectations, and there were no significant interaction terms.

For the importance of schooling, the 3 models accounted from 14 to 22% of the variance. All the school experiences—competence, school belonging, and parent involvement—were positively related to the importance of schooling. There was one significant interaction term. Language acculturation moderated the association between importance of schooling and parent involvement (see Fig. 2). For low-acculturated youth, the level of the importance of school was similar regardless of whether their parents were highly involved or not involved. However, for high-acculturated youth, the importance of school was much higher for students whose parents were involved in school than for those students whose parents were not involved.

Generational Status as Moderator

Immigrant Vs. Nonimmigrant

Generation status, defined as immigrant students versus U.S. born students, was also examined as a moderating

Fig. 2. Importance of schooling regressed on Parental involvement $\times$ Language acculturation.

factor between school experiences and achievement motivation. In terms of educational aspirations, the 3 models accounted for 9 to 14% of the variance (see Table III). Students of lower SES reported higher aspirations than high-SES students. There was no main effect for immigrant status on aspirations. Both academic competence and school belonging were positively related to aspirations. Only one interaction term was significant. The association between aspirations and competence was moderated by immigrant status. For immigrant Latino youth, their aspirations were similar whether they had a strong sense of competence at school or not. But for the U.S. born Latino youth, a sense of competence seemed strongly related to their level of aspirations. Among the U.S. born Latino youth, those with high levels of competence reported high aspirations where as those who reported low levels of competence reported low aspirations (see Fig. 3).

The models predicting educational expectations accounted for 10 to 13% of the variance (see Table III). None of the covariates nor immigrant status were significant predictors. However, all 3 school experiences—competence, school belonging, parent involvement—were significantly and positively related to expectations. There were no significant interaction effects. That is, school experiences were related to school expectations the same for all Latino youth regardless of generation status.

The models predicting the importance of schooling accounted for 13 to 27% of the variance. School was more important for Latina girls than for boys. All 3 school experiences were significantly and positively related to the importance of schooling. There was one significant interaction term. The association between the importance of schooling and competence was moderated by immigrant status. That is, competence does not relate to importance of schooling in the same way for everyone. For immigrant

Table III. Achievement Motivation Regressed on Immigration Status, School Experiences, and Interaction Terms ($n = 129$)

Independent variables	Educational aspirations		Educational expectations		Importance of schooling	
	β	ΔR^2	β	ΔR^2	β	ΔR^2
Step 1: Background		0.05		0.00		0.04
Age	-0.06		0.05		0.13	
Gender	0.02		0.05		0.20*	
SES	-0.24**		0.01		-0.04	
Step 2: Moderator		0.00		0.00		0.01
Immigrant/non-immigrant ^a	0.08		-0.02		0.17	
Step 3: School experiences ^b						
Academic competence	0.28**	0.05*	0.34***	0.10***	0.34***	0.08**
School belonging	0.28**	0.05*	0.36***	0.12***	0.44***	0.18***
Parental involvement	0.15	0.02	0.35***	0.12***	0.30***	0.08**
Step 4: Interaction term(s) ^b						
Competence $\times$ Immigrant	-0.20*	0.04*	-0.08	0.01	-0.22*	0.04*
Belonging $\times$ Immigrant	-0.15	0.02	-0.02	0.00	-0.01	0.00
Parent involvement $\times$ Immigrant	-0.15	0.02	-0.03	0.00	-0.13	0.02

^aHigher scores represent immigrants and lower scores represent U.S. born.

^bPredictors were analyzed in separate models and not together with the other predictor variables because of multicollinearity. Interaction terms were also analyzed separately.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Latino youth, students have a similar belief that school is important regardless of their sense of competence. For the U.S. born Latino youth, those with high levels of competence also reported high levels of the importance of schooling where as those with low levels of competence reported low levels of the importance of schooling (see Fig. 4).

Early Immigrant Vs. Late Immigrant

Generational status was also defined as students who migrated before the age of 12 versus those who migrated

after 12, and used as a possible moderator between school experiences and achievement motivation. For school aspirations, the models accounted for 8 to 12% of the variance. Results will be presented in the text rather than in a table because of a lack of significant interaction terms. SES ($\beta = -0.25$, $p < 0.01$), academic competence ($\beta = 0.24$, $p < 0.05$), and school belonging ($\beta = 0.24$, $p < 0.01$) were significant predictors. For school expectations, the models accounted for 13 to 17% of the variance. Generational status was negatively related to school expectations

Fig. 3. School aspirations regressed on Competence $\times$ Immigrant/Nonimmigrant status.

Fig. 4. Importance of schooling regressed on Competence $\times$ Immigrant/Nonimmigrant status.

($\beta = -0.21$, $p < 0.05$). That is, students who migrated before the age of 12 had higher expectations than students who migrated after the age of 12. All school experiences were significant predictors of school expectations: academic competence ($\beta = 0.21$, $p < 0.01$), school belonging ($\beta = 0.33$, $p < 0.001$), and parental involvement ($\beta = 0.33$, $p < 0.001$). Finally, the models accounted for 14 to 22% of the variance in the importance of schooling. Girls ($\beta = 0.20$, $p < 0.05$) and students who migrated after the age of 12 ($\beta = 0.20$, $p < 0.05$) are more likely to think school is important. Academic competence ($\beta = 0.34$, $p < 0.001$), school belonging ($\beta = 0.42$, $p < 0.001$), and parental involvement ($\beta = 0.29$, $p < 0.001$). There were no significant interaction terms.

DISCUSSION

This study examined the association between achievement motivation and school experiences among Latino youth in the U.S., and examined whether these associations varied by language acculturation and generational status. Findings suggest that although all 3 school experiences were important predictors of achievement motivation, a sense of competence and parent involvement related to certain aspects of achievement motivation differently across generation status and language acculturation levels.

School belonging and parent involvement were positively related to achievement motivation. This finding reflects the importance that most Latino cultures attach to collectivist and affiliative socialization goals (Abi-Nader, 1990). Perhaps the key to motivating all Latino youth regardless of acculturation or generational status is based on relationships—relationships within the school and family microsystems. Furthermore, parent involvement was positively related to expectations and importance of schooling but not to aspirations. Parental involvement may be important for school values that are more concrete (e.g., expectations) rather than abstract (e.g., aspirations). This finding also suggest that parent's belief that school is important for success is critical in order to pass those beliefs on to their children. This finding is consistent with previous research that has found parental involvement to be associated with positive attitudes toward school and a positive future outlook (Epstein, 1987; Lareau, 1987). This finding also provides evidence that parental involvement is important for school expectations among Latino students, which is contradictory to the general assumption that parental involvement may not be salient in Latino culture (Martin, 1998). In addition, this finding suggests that expectations and aspirations are not the same construct. Aspirations may be abstract values whereas expectations may deal with the concrete reality of these adolescents'

schooling experiences (Mickelson, 1990). In this study, parent involvement may provide the concrete form of support that is needed for a youth to believe they can actually achieve their goals, but may have little to do with the level of goals to which they aspire.

The present study found 4 possible cultural adaptations: 3 of the 4 dealt with a sense of competence. Competence was positively related to aspirations and the importance of schooling for the U.S. born and high-acculturated-Latino youth, but unrelated for immigrant and low-acculturated-Latino youth. Students who have not mastered English might perceive language to be the main barrier to achieving aspirations and may place less emphasis on their overall academic ability. This finding is consistent with Suárez-Orozco and Suárez-Orozco's (1995) findings that immigrant students named language as their main barrier to success. Once English is learned and school performance cannot be attributed to language, Latino students' explanation for poor school performance may become more internalized in their sense of academic competence or lack thereof. This suggests that for those English speaking Latino students, promoting a sense of academic competence is critical to increase achievement motivation.

The fourth cultural adaptation found in this study was that parent involvement was positively related to the importance of schooling for high-acculturated students, but not for low-acculturated students. Our sample of adolescents all had immigrant parents; immigrant parents bring with them their own cultural beliefs about schooling and ideas of what parent involvement entails. On the other hand, acculturated students are adapting to the U.S. cultural beliefs about schooling, which may value another form of parent involvement. One explanation for this finding could be that acculturated students who perceive their parents involved as it is defined in the U.S. (e.g., PTA meetings, school board meetings) will also report schooling as important for success, whereas high-acculturated students whose parents are not involved will not view school as important. Low-acculturated students, who have not adapted to the U.S. model of schooling, may not expect their parents to be involved in this way; their sense of the importance of schooling may be unrelated to parental involvement in school. Future research should not only focus on how cultural adaptations by adolescents relate to school outcomes, but also how parents are adapting their own cultural model of schooling to their new environment, and how parental cultural adaptations may relate to adolescent schooling.

There seem to be both cultural attributes and cultural adaptations involved in how Latino youth perceive school experiences and achievement motivation. In terms

of cultural attributes, school belonging appears to relate to achievement motivation for all Latino youth regardless of generation or language acculturation level. In contrast, a sense of competence and parent involvement may be more salient for U.S. born and high-acculturated-Latino youth, suggesting that interventions targeting Latino youth should be tailored according to their degree of adaptation to the U.S.

Implications

Future research should focus on strategies used by minority students to gain a sense of competence, school belonging, and parental involvement. Some examples of interventions that may increase school belonging among Latino student's include mentoring programs, culturally relevant extracurricular activities (e.g., soccer, Latin American clubs), interventions that focus on improving teacher expectations (Weinstein *et al.*, 1991), and interventions that focus on improving the quality of supportive relationships within the school (e.g., Comer *et al.*, 1996; Felner and Adan, 1988). Similarly, intervention programs that can lead to a sense of competence and parental involvement will be positively related to achievement motivation such as cultural awareness training and parent advocacy groups.

School interventions geared toward increasing aspiration, expectation, and the perceived importance of schooling among Latino students must take acculturation status into account. This study implies that there may be some adaptation to the U.S. school system by children of immigrants. The present study suggests that the microsystems of family and school are especially important for acculturated Latino students.

Strengths and Limitations

The present study has several limitations. First, the cross-sectional design and convenience sampling makes it impossible to attribute causal relationships among the variables. The generalizability of the findings is also a limitation. Our findings may not generalize to second or third generation Latino youth or to Latino youth not living in the South. Finally, because there was a large number of regression equations conducted, there is an increase in the likelihood of Type I error.

Despite its limitations, the present exploratory study is one of a few to compare achievement motivation among Latino adolescents across acculturation and generation status. This form of comparative within-group study is

culturally respectful and offers a unique perspective on the scripts and norms that immigrant children may bring with them across the migration process. Comparing immigrant Latino children with their U.S. born Latino counterparts addresses adaptations that may occur when there is contact between immigrants and the U.S. culture.

The present study provided a glimpse of what strategies and components are shared among immigrant and U.S. born Latino youth about schooling. It provided information on which school experiences relate differently to achievement motivation based on language acculturation and generational status. It also points to the need for future studies on the specific strategies used within the Latino cultural model of schooling that may lead to positive school experiences. Further research on achievement motivation should be conducted with students living in Latin American countries to learn more about the cultural model of schooling for Latinos. In conclusion, this within-group approach should provide an interesting perspective to research on the growing immigrant student population in the U.S., and necessary if we are to study adaptive processes that immigrants' may use to respond to their new environment.

ACKNOWLEDGMENTS

This research was supported by Grant #88-01-09 from the Russell Sage Foundation. Appreciation is extended to Dr Roger Bakeman, Art Murphy, and Jose de Jesus Gutierrez Rodriguez for their invaluable assistance; to Bernardo Roque for his help in data collection; and to our schools and students who provided us with this information.

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