

Parental Involvement and the Academic Achievement of Mexican American Youths: What Kinds of Involvement in Youths' Education Matter Most?

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Parental involvement in education is a key focus of current policies and programs aimed at improving the academic outcomes of students at risk for academic underachievement. This study examines six forms of parental involvement in education to determine which forms of involvement have the strongest relationships with youths' academic outcomes. Using nationally representative data ($N = 1,609$) from the National Education Longitudinal Survey, this study focuses specifically on Mexican American families and youths, a population at high risk for academic underperformance. Findings show that the positive effects of parental involvement among Mexican American parents occur through involvement in the home, whereas parental involvement in school organizations is not associated with youths' achievement. Parents' investment of financial resources in their children's education was found to have a somewhat higher impact on achievement than forms of involvement that require parents' investment of time. Findings also suggest that the impact of these forms of parental involvement occurs prior to high school.

KEY WORDS: *academic achievement; Mexican American youths; parent involvement*

Policy and program interventions aimed at improving children's academic outcomes often focus on increasing parental involvement. The federal No Child Left Behind Act of 2001 (P.L. 107-110) highlights parental involvement as a key factor in improving academic outcomes, particularly for children attending schools that serve high proportions of low-income children (Title 1 schools). Indeed, parental involvement appears to be an important factor in improving children's academic outcomes, and a sizeable body of work generally points to the positive effects of parents' naturally occurring involvement (for a recent review, see Pomerantz, Moorman, & Litwack, 2007). However, less is known about the effects of parental involvement on academic outcomes among children of color, particularly Latino children (Jeynes, 2003).

Effects of parental involvement in academics appear to differ among racial-ethnic groups (Desimone, 1999) and among different Latino nationality groups (Figueroa-Moseley, Ramey, Keltner, & Lanzi, 2006). In addition, different types of parental involvement have distinct relationships with academic outcomes (Domina, 2005; Jeynes, 2003; Pomerantz

et al., 2007). Consequently, to understand the role of parental involvement and its potential utility for intervention in promoting academic achievement among children of color, and particularly Latino children, more studies that carefully examine the role of multiple forms of involvement with diverse samples are needed.

Of critical importance are studies focused on Mexican American families, both those that have recently migrated and those that have resided in the United States for generations. Mexican Americans are by far the largest and fastest growing population of Latinos in the United States, accounting for 65% of U.S. Latinos and 9.7% of the entire U.S. population (U.S. Census Bureau, 2009). Among Latino groups, Mexican Americans are at gravest risk for living in poverty, in part because of lower rates of high school completion and college attendance within this group (U.S. Census Bureau, 2002). The likelihood of high school dropout is two to four times higher for Mexican American students than for Cuban and South American youths, even after controlling for factors such as socioeconomic status (Driscoll, 1999; Landale, Oropesa, & Llanes,

1998). Indicators of academic achievement, such as grades and performance on standardized tests, are, on average, lower among Mexican American children than among children from other immigrant and native-born groups (Ferguson, 2001; Kao & Thompson, 2003; Portes & Rumbaut, 2001). Thus, interventions to address the academic disparities faced by Mexican American children and youths are much needed.

This study examined the role of parental involvement in the academic achievement of Mexican American youths using a nationally representative sample from the National Educational Longitudinal Survey. Following García Coll et al.'s (1996) critique of dominant approaches to studying processes among minority populations, this study focused on intragroup variability among Mexican Americans, and, thus, it highlights beneficial parenting processes related to youths' academic outcomes in this population.

TYPES OF PARENTAL INVOLVEMENT IN ACADEMICS

Parental involvement in academics is a broad construct that encompasses a range of parenting behaviors from discussing school-related matters with children to being active in parent-teacher organizations (Pomerantz et al., 2007). Differing definitions of parental involvement play an important role in the debate about whether Mexican American parents are involved in their children's academics. Assertions that Latino and Mexican American parents—particularly those who have low incomes or are recent immigrants—are uninvolved and uninterested in their children's education can be seen in both scholarly writing (for a review and critique of such writing, see Valencia & Black, 2002) and in the opinions of teachers (Quiocho & Daoud, 2006; Valdés, 1996). Yet multiple empirical studies have shown that Mexican American parents care deeply about their children's education, have high expectations for academic success, and engage in a range of activities in relation to their children's education (for example, Chrispeels & Rivero, 2001; Lopez, 2001; Martinez, DeGarmo, & Eddy, 2004; Quiocho & Daoud, 2006). This disjuncture is, in part, reflective of the differing definitions of parental involvement used by both scholars and educators. Key distinctions that should be addressed when considering the parental involvement of Mexican American parents are those between school-based

and home-based involvement and between parental investment of time and investment of money in their children's education.

Studies of parental involvement in academics often distinguish between home-based and school-based involvement (for example, Domina, 2005; Pomerantz et al., 2007; Sheldon & Epstein, 2005). School-based involvement includes activities such as attendance at parent-teacher conferences, attendance at school meetings or events, and involvement in school-based parent organizations. Home-based involvement includes assisting children with homework, discussing school-related matters with children, and engaging with children in intellectual activities (Pomerantz et al., 2007). In collecting information about parent and family involvement in education, the National Center for Education Statistics (NCES) has focused overwhelmingly on school-based involvement (Herrold & O'Donnell, 2008; Vaden-Kiernan & McManus, 2005), echoing the priorities set by No Child Left Behind (P.L. 107-110) to get parents involved at school. Yet for parents who experience economic, social, cultural, and linguistic barriers to engaging with schools, such involvement may be much more challenging, if not altogether impossible (for example, when language translation is not available). Language and cultural barriers between English-speaking teachers and Spanish-speaking parents are significant barriers to parental involvement at school (Reese, 2002; Romo & Falbo, 1996; Stanton-Salazar, 2001; Valdés, 1996). In addition, economic circumstances of Mexican American families are a frequently cited barrier to parental participation in that parents must direct most of their energies toward providing basic needs, leaving little time for involvement at school (Lopez, 2001; Romo & Falbo, 1996; Stanton-Salazar, 2001; Tapia, 2000).

Barriers to school-based parental involvement for Mexican American parents do not, however, preclude home-based parental involvement in education that may also further children's educational success. For example, Romo and Falbo (1996) documented that many low-income, second-generation Latino parents experienced profound marginalization in U.S. schools as children and are hesitant to engage with the schools as parents; nevertheless, these parents are invested in their children doing well in school and regularly communicate this to their children. Examining parental involvement in education among recent immigrants from Mexico, Lopez (2001)

argued that parents are deeply invested in their children's education and operationalize this investment by involving children in life lessons, including early introduction to hard labor, that demonstrate the value of education. This form of parental involvement, focused on motivating children to succeed in education, has been documented in a number of studies with Mexican American families in which parents have reported telling their children to do well in school so that they do not end up working in low-wage, manual jobs like their parents (Lopez, 2001; Stanton-Salazar, 2001; Valdés, 1996). In this way, parents attempt to socialize their children to achieve in school, without directly engaging with the U.S. educational system. Such forms of parental involvement are not visible to the schools, and teachers often label these parents as uninvolved. In examining parental involvement in education among Mexican American families, it is therefore critical to examine the contributions of both school-based and home-based involvement in education, as parents may be more likely to be involved in their children's education outside of school.

A second important distinction in types of parental involvement, especially among low-income families, is that between the investment of time and the investment of money in children's education. Although parents' investment of time and money may have different effects on youths' achievement, no known studies to date have explicitly examined this distinction with Mexican American or Latino samples. The choices parents make to invest in their children are circumscribed by the availability of resources (for example, time, money) and the value parents place on allocating available resources toward their children's education (Mayer, 1997). Among Mexican American families, the availability of resources is likely to differ on the basis of family income, and allocation priorities may shift with cultural changes across immigrant generations and time spent in the United States. Consequently, both cultural and economic influences on parental involvement must be considered in interventions aimed at increasing parental involvement in children's education among Mexican American parents.

EFFECTS OF ACADEMIC PARENTAL INVOLVEMENT AMONG MEXICAN AMERICAN FAMILIES

Previous studies have identified the positive impact of various forms of parental involvement in academ-

ics among Mexican American and Hispanic families. For example, family involvement in academics (in terms of attending school programs, helping choose courses, and attending conferences with teachers) was found to be positively associated with Mexican American youths' grades (Rodríguez, 2002), and mothers' educational aspirations for adolescents were positively associated with Latino youths' grade point averages (GPAs) (Henry, Merten, Plunkett, & Sands, 2008). Mexican American high school students' perceptions of academic support from parents have been positively associated with youths' academic motivation (Plunkett & Bámaca-Gómez, 2003). However, when academic support from peers and teachers were assessed alongside parents' academic support, effects of parent support were found to be insignificant for boys and diminished for girls, whereas teacher's academic support emerged as a stronger predictor of boys' and girls' academic motivation (Alfaro, Umaña-Taylor, & Bámaca, 2006). This body of knowledge suggests that parental involvement in academics has an overall positive impact on Mexican American youths' academic achievement. However, previous studies do not clearly distinguish between different types of parental involvement in academics; for example, the measure of family involvement used by Rodríguez (2002) combined home- and school-based involvement into one construct, providing limited information about the distinct effects of each type of involvement. Conversely, the finding that parental academic support is less influential when teachers' support is included in models (Alfaro et al., 2006) highlights the need to assess multiple forms of involvement simultaneously.

Using nationally representative data, this study examined the effects of six forms of parental involvement in education on the academic achievement of Mexican American youths. School- and home-based involvement and involvement requiring investments of time and money were all examined to answer this question: What types of parental involvement matter most for academic achievement among Mexican American youths?

METHOD

Data

Data from the National Education Longitudinal Study of 1988 (NELS) was used to assess the influence of parenting practices in eighth grade on subsequent academic performance in 10th grade. The NELS is a large, nationally representative,

longitudinal data set containing five waves of data collected by NCES to study educational processes and outcomes in secondary schools (Curtin, Ingels, Wu, & Heuer, 2002). NCES followed a two-stage design to select students for participation in the base year NELS sample; in the first stage, schools across several strata (region of the country, urban/suburban/rural location, public/private school) were sampled. Once participating schools were identified, students were sampled within those schools. Latino and Asian students were oversampled. In addition, there was an attempt to identify and include schools with high proportions of African American and Latino students. To obtain data about students' home lives, a parent or guardian who was best informed about their child's schooling was asked to complete the parent questionnaire. All questionnaires were self-administered, paper-and pencil-instruments (Curtin et al., 2002).

Mexican American Sample

The base-year through first follow-up subset of the NELS data used in this study allowed for estimation of parameters that generalize to the population of all eighth-graders enrolled in public and private schools in the United States in the spring of 1988. Within these data, Mexican American students were identified as those who selected Mexican American/Mexican/Chicano as their Hispanic ethnicity or whose parent selected Mexican American/Mexican/Chicano as their ethnicity in any of the first three waves of the study; only student's, mother's, and father's ethnicity were considered. Thus, the data used here approximated results for the population of Mexican American eighth-graders in the spring of 1988. Within the base-year through first follow-up NELS sample, Mexican American students comprised 1,609 cases. Although 20 years old, these data provide the most current, comprehensive nationally representative sample of high school youths that includes youths' national origin, and thus they allowed the analyses of processes specifically for Mexican American youths.

Measures

Parenting variables used to predict student academic achievement and control variables were based on data collected in the base year from student and parent questionnaires. The outcome variables, student performances on standardized academic tests, were taken from both the eighth- and 10th-grade

waves. To maximize available data and reduce missing data bias, full information maximum likelihood estimation was used during analyses. Methods for handling missing data are discussed more fully in the Analyses section. All analyses were conducted using the NCES-provided sample and population weights for the base-year through first follow-up longitudinal sample. Reported means and standard deviations are for the weighted sample.

Outcomes

In each wave of data collection, students were administered four standardized tests in reading, math, science, and history. For these analyses, item response theory-estimated test scores for all four tests were standardized to the population of Mexican American students such that the mean test score for each test was 50, with a standard deviation of 10 points. The four standardized test scores were then averaged (as long as any two were available) into one test score composite for eighth grade ($\alpha = .881$, $M = 50.12$, $SD = 8.51$) and 10th grade ($\alpha = .896$, $M = 49.99$, $SD = 8.74$). Eighth-grade scores were missing in 5.0% of cases, and 10-grade scores were missing in 12.3% of cases.

Parenting Factors

Parental involvement with academics was assessed with six variables representing engagement at home or school and the investment of time or money (1) parents being involved with school organizations (school, time), (2) parents discussing school-related matters with their child (home, time), (3) parents assisting their child with homework (home, time), (4) parents and children engaging in enriching activities together (home, time), (5) parents investing in educational resources in the home (home, money), (6) and parents investing in extracurricular instruction for their child (home, money). Parenthetical terms link each parent involvement variable with the broader types of parental involvement discussed earlier.

Parental Involvement with School Organizations.

Parent responses to five questions about different types of involvement with school and parent organizations—such as belonging to a parent-teacher organization, attending meetings or activities, and volunteering at the school—were combined into one index of the number of different types of involvement (from 0 to 5). On average, parents had one type of involvement with their child's school organizations. Because few parents reported more

than two or three kinds of involvement with school organizations, the count variable was top-coded at 3 to reduce skew ($M = 0.85$, $SD = 1.06$). Data were missing in 16.3% of cases.

Discussion of School-related Issues between Parents and Students. Responses provided by a parent to three questions about how often he or she or a partner/spouse has discussed school-related issues—such as school experiences, plans for high school, and postsecondary educational plans—with their child were combined into a three-point scale (0 = not at all, 1 = rarely, 2 = occasionally, 3 = regularly). The scale mean indicated that, on average, parents spoke with their children between occasionally and regularly about school plans ($M = 2.32$, $SD = 0.72$). The scale had a Cronbach's alpha of .825, which was used to define measurement error [$\sigma^2(1 - \alpha) = .091$] for this variable in the structural model. Data were missing in 10.6% of cases.

Parental Help with Homework. Parents were asked how frequently they or their spouse/partner helped their child with his or her homework (1 = seldom or never, 2 = once or twice a month, 3 = once or twice a week, 4 = almost every day). Responses to this question indicated that, on average, parents helped their child with homework once or twice a month ($M = 2.01$, $SD = 1.00$). Data were missing in 14.6% of cases.

Parent and Child Involvement in Enriching Activities. Parents were asked whether they or their child took part in five enriching activities, such as music performances or going to the library. A count of the number of enriching activities both parent and child engaged in indicated that, on average, parents and their children engaged in less than two of the same enriching activities ($M = 1.67$, $SD = 1.70$). Data were missing in 20.8% of cases.

Educational Resources in the Home. A count of items that were present in the student's home that might be helpful in school-related activities or might promote academic focus (10 items: a specific place to study, a daily newspaper, magazines, encyclopedia, atlas, dictionary, typewriter, computer, more than 50 books, pocket calculator) was computed on the basis of student report if at least six items had nonmissing responses. The composite had a mean of 5.94 ($SD = 2.23$). In 3.4% of cases, no count was calculated and this item is missing.

Allocation of Resources to Extracurricular Instruction. Parents were asked whether their child had attended classes outside of school in eight topics,

such as art, dance, and computer skills. A count of the number of different kinds of instruction students received indicated that, on average, students were involved in extracurricular instruction in less than one topic. Because few students received instruction outside of school in more than two topics, the count variable was top-coded at 2 to reduce skew (0 = no other instruction, 1 = instruction in one topic, 2 = instruction in two or more topics) ($M = 0.60$, $SD = 0.76$). Data were missing in 21.2% of cases.

Control Variables

Among Mexican American youths, immigrant generation, family income, and child's sex have a significant impact on academic outcomes. Consequently, these variables were included in analyses as controls.

Generation. Immigrant generation was determined using responses from the parent questionnaire indicating mother's, father's, and student's place of birth and time of arrival in the United States (when applicable). In the weighted sample, 14.3% of students were first-generation immigrants; 33.0% were second generation, or children of immigrants; and 40.0% were in the third or higher generation. For 12.8% of the sample, immigrant generation information was missing.

Family Income. Parents reported their 1987 family income by checking one of 15 income ranges. The resulting data distribution was approximately normal; thus, family income was treated as a continuous variable in analyses. The average 1987 family income for the sample was between \$15,000 and \$20,000. Income data were missing in 13.2% of cases.

Child's Sex. NCES provided a global variable indicating the child's sex, which is based on all available data. The sample had slightly more girls (51.4%) than boys (48.6%).

Analyses

Structural equation models (SEMs) were used to assess relationships between parental involvement and academic achievement while controlling for child sex, family income, and immigrant generation. Models were estimated in Mplus 5.2 (Muthén & Muthén, 1998–2007) and evaluated using the comparative fit index (CFI) and the root mean square error of approximation (RMSEA)—with cutoff values of .95 and .06, respectively—establishing good fit (Hu & Bentler, 1999). Models were estimated using the NCES-provided sampling and

population weights for the longitudinal sample, adjusted for sample size. Thus, modeling results account for different probabilities of being sampled and for nonresponse but are based on sample sizes equal to those youths actually sampled rather than the population of youths they represent. Standard errors were adjusted for the sampling design, with students clustered within schools, using the cluster option in Mplus.

To maximize available data for analyses and to reduce missing data bias, models were estimated using full information maximum likelihood (FIML) estimation within Mplus 5.2 (Muthén & Muthén, 1998–2007), thus accounting for missing data. FIML is a preferred method of model estimation for SEMs with missing data (Allison, 2003), and estimating models with missing data rather than using listwise deletion is preferable when data do not appear to be missing completely at random (MCAR) (Allison, 2003; Graham, 2009; Schafer & Graham, 2002). Examination of missing data patterns with probit regression identified dependencies between the likelihood of missingness on some variables and other variables in the analyses, indicating that data did not satisfy MCAR assumptions and missing data estimation was warranted. Final analyses were conducted with FIML estimation; however, all models were also run using listwise deletion. Both approaches yielded similar results, thus supporting the robustness of study findings. Because Mplus cannot take into account missing data for exogenous variables, like generation, without assuming that the variable is normally distributed, which was not applicable in this case, missing data for generation was estimated with a wide range of auxiliary variables using the expectation maximization algorithm within the

missing value analysis function in SPSS (version 15.0). Modeling results using the unestimated generation variable were very similar to final modeling results using the estimated variable, thus suggesting that estimating missing data on generation did not introduce significant bias.

Two SEMs were estimated to address this question: What types of parental involvement predict academic achievement among Mexican American youths? In the first model, parenting and control variables assessed in the eighth grade predicted youths' 10th grade test scores. This first model assessed the cumulative effects of parenting factors on 10th-grade test scores. In the second model, eighth-grade test scores were added as a control variable. This second model assessed the effects of parenting on the *change* in test scores between eighth and 10th grade, thus focusing on the immediate impact of parenting practices in midadolescence. In both models, all parenting variables were allowed to covary. Correlations between model variables used in final analyses (that is, after missing data estimation) are presented in Table 1.

RESULTS

Model 1, which assessed the direct effects of six forms of parental involvement on 10th-grade test scores while controlling for background factors, provided a good fit to the data [CFI = .987, RMSEA = .050, $\chi^2(1, N = 1,609) = 4.97, p = .026$] and explained 18% of the variance in 10th-grade test scores ($R^2 = .183$). Although the chi-square test of model fit indicated a significant difference between the model and data, this should not be interpreted to indicate poor model fit, given that chi-square depends on sample size and will identify even small differences

Table 1: Correlations between Family Income, Parental Involvement Variables, and Test Scores									
Measure	1	2	3	4	5	6	7	8	9
1. Family income	—								
2. School organizations	.140***	—							
3. Discussion of school matters	.192***	.222***	—						
4. Help with homework	.179***	.144***	.351***	—					
5. Enriching activities	.330***	.329***	.330***	.232***	—				
6. Educational resources	.375***	.145***	.229***	.144***	.302***	—			
7. Extracurricular instruction	.210***	.331***	.122***	.108***	.342***	.287***	—		
8. Eighth-grade test scores	.232***	.085***	.144***	-.085	.246***	.263***	.273***	—	
9. 10th-grade test scores	.252***	.080***	.157***	-.039	.260***	.273***	.252***	.860***	—

***p ≤ .001.

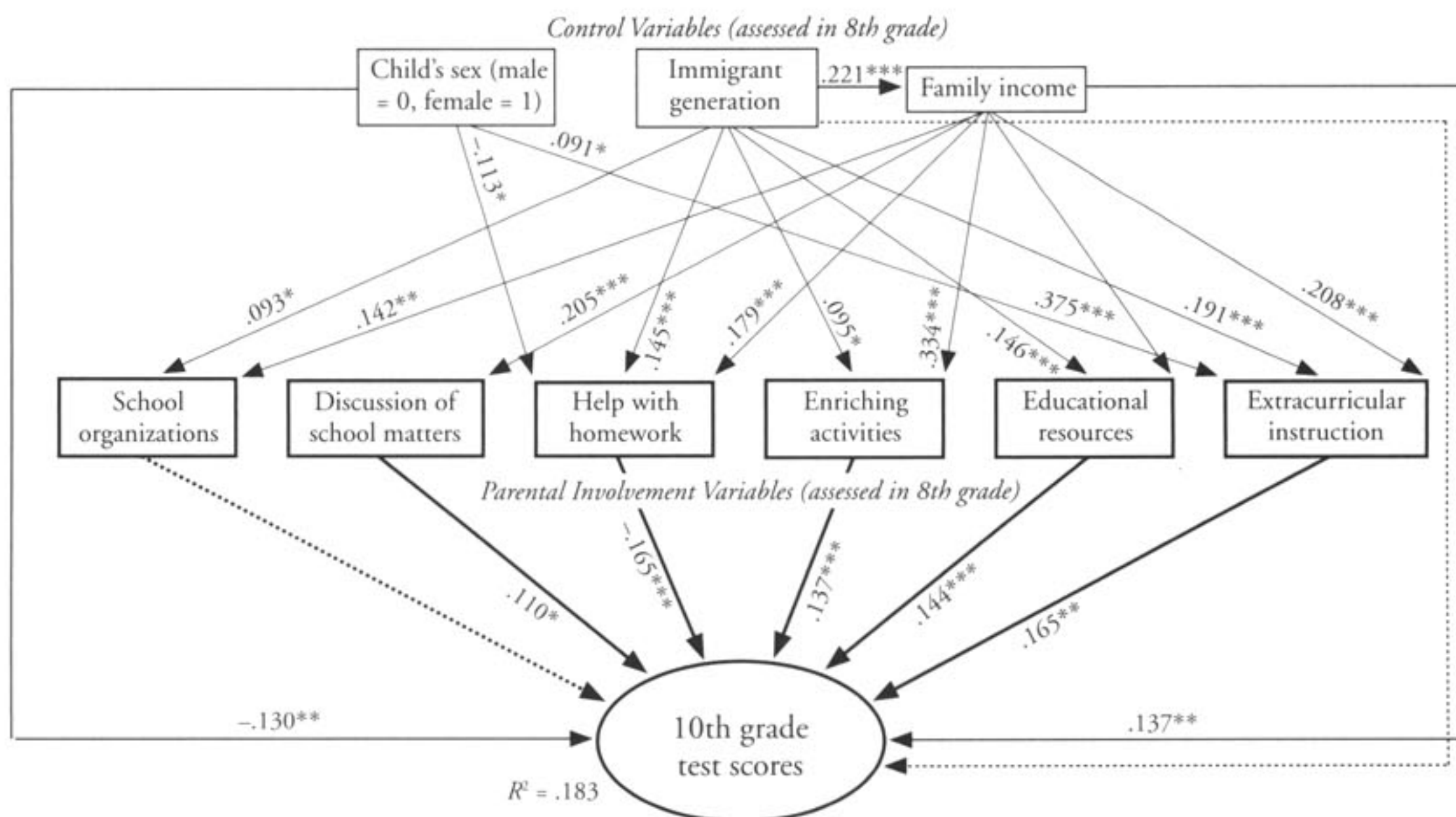
as significant in large samples (Tabachnick & Fidell, 2007). The standardized path coefficients between parenting and control variables and tests scores are shown in Figure 1. All parenting variables had significant covariances with one another (with the exception of discussion and homework with extra-curricular instruction); the covariance relationships are not shown in Figure 1.

Model results show that the following parenting factors were related to higher test scores in order of impact: extracurricular instruction ($\beta = .165$), educational resources in the home ($\beta = .144$), parents and children engaging in enriching activities together ($\beta = .137$), and parents discussing school matters with children ($\beta = .110$). Family income was also associated with higher test scores ($\beta = .137$). Parents helping with homework and whether the child was male were both negatively related to test scores ($\beta s = -.165$ and $-.130$, respectively). It is important to stress that parents helping with homework was only negatively associated with achievement once all other forms of parental involvement in academics were considered; the bivariate association between these variables was not significant, although it was

negative. Finally, parent participation in school organizations and immigrant generation were not related to test scores. Parental involvement in school organizations had small to moderate bivariate relationships with other parental involvement variables and small correlations with eighth- and 10th-grade test scores (see Table 1). However, when other forms of parental involvement were taken into consideration, parent participation in school organizations was not a significant predictor of academic achievement.

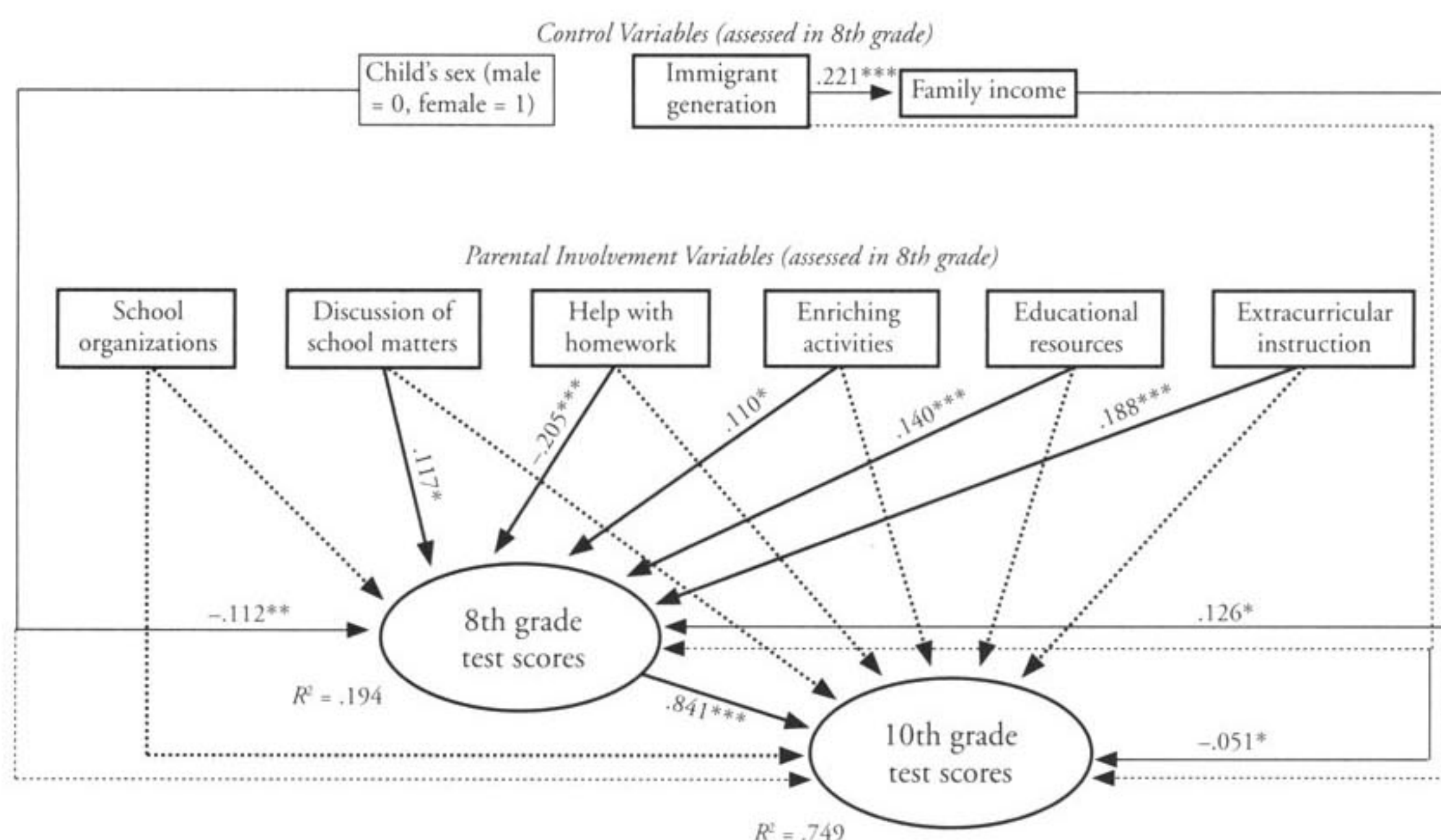
The second model examining the effects of parental involvement on 10th-grade test scores while controlling for eighth-grade scores also fit the data well [CFI = .989, RMSEA = .050, $\chi^2(1, N = 1,609) = 4.97, p = .026$], explaining 75% of the variance in 10th-grade scores ($R^2 = .749$). The standardized path coefficients between parenting and tests scores estimated in model 2 are shown in Figure 2 (for path coefficients between control and parenting variables, please see Figure 1). By controlling for prior academic achievement, this model examined relationships between parental involvement and change in academic achievement between eighth and

Figure 1: Direct Effects of Six Parental Involvement Variables on 10th-Grade Test Scores for Mexican American Youths



Notes: All path coefficients are standardized. In the main part of the model, solid lines represent significant relationships; insignificant paths are shown as dashed lines. Only significant relationships between control variables and parental involvement variables are shown in the figure, but all paths were included in the model. The structural equation model also included covariances between all parental involvement variables; these relationships are not shown here. Comparative fit index = .987; root mean square error of approximation = .050.
* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Figure 2: Effects of Six Parental Involvement Variables on Mexican American Youths' 10th-Grade Test Scores, Controlling for Eighth-Grade Test Scores



Notes: All path coefficients are standardized. Solid lines represent significant relationships; insignificant paths are shown as dashed lines. The structural equation model included covariances between all parental involvement variables; these relationships are not shown here. Comparative fit index = .989; root mean square error of approximation = .050. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

10th grades. The single strongest predictor of 10th-grade scores in this model was prior achievement in the form of eighth-grade scores. Although all five parenting variables found to be significant predictors of test scores in the first model were significantly related to eighth-grade scores in model 2, none of them had a significant, direct impact on 10th-grade scores above and beyond their indirect relationships through eighth-grade test scores. This indicates that although parenting was related to achievement, parental involvement in eighth grade was not significantly associated with change in youths' achievement between eighth and 10th grade. It is interesting to note that the only background variable associated with change in test scores between eighth and 10th grade was immigrant generation, such that youths who were more recent immigrants (lower immigrant generation) were more likely to see an improvement in test scores. Given that a portion of first-generation immigrant youths will experience language barriers when taking achievement tests, it is logical that as they gain proficiency in English, their test scores will improve.

DISCUSSION

Impact of Differing Forms of Parent Involvement in Academics

This study examined what types of parent involvement in youths' education matter most for academic achievement among Mexican American youths. Study findings unequivocally show that, in Mexican American families, the positive impact of parental involvement in academics occurs through home-based involvement, whereas parent participation in school organizations above and beyond other forms of parent involvement in children's education does not appear to have a significant impact on youths' achievement. Parents' reported levels of home-based involvement were quite high, particularly when it came to discussing school matters. However, study findings suggest that investment of financial resources toward children's intellectual development through extracurricular instruction and educational resources in the home had a somewhat greater impact on achievement than did forms of involvement that represent an investment of parents' time, such as engaging in

enriching activities together and discussing school-related matters.

Previous studies have found evidence for the overall positive impact of parental involvement in academics on Mexican American youths' academic outcomes (for example, Alfaro et al., 2006; Henry et al., 2008; Plunkett & Bámaca-Gómez, 2003; Rodríguez, 2002). However, this body of work is limited in its utility to provide guidance as to what forms of parental involvement have greater impacts on youths' achievement. Different types of parental involvement in academics are interrelated; parents who discuss educational matters with their children are also more likely to attend a school meeting or purchase educational materials for the home. Yet these forms of parental involvement in academics have differing impacts on youths' outcomes, as demonstrated in the analyses presented here. Similarly, a recent study found that among four forms of parental involvement in education—homework monitoring; homework help; communication; and academic expectations, as assessed through youths' perceptions—only academic expectations were significantly related with Mexican American students' GPAs and educational aspirations (Carranza, You, Chhuon, & Hudley, 2009).

The findings presented here should be interpreted in light of the interrelated nature of different forms of parental academic involvement. Other studies that considered fewer factors or a different set of parent involvement factors have found involvement in school organizations to be predictive of achievement (for example, Rodríguez, 2002). The fact that parent involvement in school organizations was not found to be significantly related with academic achievement in this study suggests that other forms of involvement assessed here have a stronger association with achievement and, arguably, provide better targets for policy and program interventions. These findings are consistent with a recent review of literature on parent involvement in academics that found factors such as expectations and communication to be more influential than more overt actions related to academics (Jeynes, 2010).

Similarly, the finding that parents helping youths with homework, one form of parents' home-based involvement, was associated with lower achievement scores should be interpreted in light of other included parent involvement factors, meaning that help with homework was negatively associated with achievement, but only when all other forms

of involvement were taken into account, suggesting that parents who help with homework are also likely to engage in other forms of parental involvement that are positively associated with achievement. These results echo similar findings in studies with minority and low-income samples; for example, Bempechat, Graham, and Jimenez (1999) found parent assistance with homework to be negatively related to sixth-graders' math scores across several low-income populations of color. It is likely that such findings reflect parents increasing their level of assistance with homework when their children struggle academically.

Timing of Parent Involvement in Academics

Five of the six forms of parental involvement examined were found to be significant predictors of youths' achievement. Yet none of these parenting practices were related to changes in achievement between eighth and 10th grade, suggesting that their impact largely occurs prior to eighth grade. This finding is consistent with increasing focus on and evidence of effectiveness of earlier intervention to improve children's academic outcomes (Camilli, Vargas, Ryan, & Barnett, 2010). With regard to the particular forms of parental involvement examined in this study, it is logical that parent engagement in enriching activities with children would be associated with earlier achievement because such activities socialize students toward overall intellectual engagement and may have a greater impact on children than on adolescents. Similarly, investment in educational resources and extracurricular instruction represent investments of resources prior to eighth grade and, thus, are more likely to relate to earlier achievement. Perhaps a measure of ongoing investment of resources would be related to improvements in achievement in midadolescence.

The more surprising finding was that parents' discussion of school-related matters, including discussion of plans for high school and beyond, did not have a significant impact on youths' achievement between their last year of middle school and their second year of high school. One would expect this form of involvement to be particularly salient during the transition to high school and to influence youths' achievement. This finding, on the contrary, suggests that discussing school matters may function as a form of socialization, much like engaging in enriching activities with children, such that the

specific content of discussion may not be as important as discussing education in general, and the positive impact of such activities on achievement may occur earlier.

Putting NELS Data into Context

Despite being the most current set of nationally representative data about Mexican American middle and high school youths, the data used in this study were over 20 years old. The first wave of NELS data, collected in 1988, captured a point in history following 20 years of rapid expansion of Mexican migration to the United States (Durand, Massey, & Charvet, 2000). In the 20 years since NELS data were first collected, migration from Mexico has persisted at a rapid pace, contributing to continued expansion of the Mexican American population in the United States. Thus, in 1988, as today, the Mexican American population included a sizeable proportion of migrants born in Mexico (33% and 39%, respectively) (Lapham, 1993; U.S. Census Bureau, 2009).

Sociopolitically, Mexican Americans continue to face strong anti-immigrant sentiments today, as they have in the past. The first wave of NELS data was collected immediately following passage of the Immigration Reform and Control Act of 1986 (P.L. 99-603) and preceding passage of several controversial California laws that limited immigrant access to social services. Anti-immigrant legislation targeted primarily against migrants from Mexico, such as the 2010 Arizona law requiring law enforcement officers to question anyone suspected of not having valid U.S. residence documents, continues to be passed and debated nationally. Thus, it is likely that levels of discrimination experienced by Mexican American students today are similar to those in 1988.

In the 20 years since the NELS data were initially collected, educational policies have shifted in the direction of greater accountability for the success of disadvantaged students. Most notably, No Child Left Behind (P.L. 107-110) attempted to increase accountability through standardized testing so as to decrease gaps in educational outcomes for economically disadvantaged students and students of color (Smith, 2005). There is emerging evidence, however, that such policies are not effective at promoting academic proficiency among disadvantaged students in general (Hursh, 2005; Smith, 2005) and Hispanic and Mexican American students in particular (Altshuler & Schmautz, 2006; Lipman, 2003;

Valenzuela, 2000). National high school dropout data show a consistent pattern of disadvantage for Hispanic youths relative to their white and black counterparts (Cataldi, Laird, & KewalRamani, 2009). Although there was an overall downward trend in dropout rates for all three groups between 1972 and 2007, Hispanic youths continue to experience dropout rates that are two to four times higher than those of black and white youths (Cataldi et al., 2009). In sum, the NELS data provide information on academic achievement of Mexican American students when the Mexican American population was at the end of the first modern phase of substantial growth (Durand et al., 2000). Today, as in 1988, Mexican American students are part of a growing population that often garners negative social and legislative attention on the national stage. Hispanic students continue to lag far behind black and white students in terms of educational attainment despite educational accountability policies. Although it is difficult to assess all the ways in which data collected in 1988 may reflect the sociopolitical and educational realities experienced by today's Mexican American students, this brief overview suggests that the two eras may not be that different with regard to Mexican American student composition in the schools (recent migrants versus U.S.-born students), the level of discrimination Mexican Americans continue to face in U.S. society, and the relative disadvantage Hispanic students experience in terms of educational attainment.

Study Limitations

The findings presented here should be interpreted in light of study limitations. Because the data used in this study were 20 years old, study findings should be considered in conjunction with the newer trends in education and Mexican American migration discussed earlier. Replication studies should examine these relationships to determine whether similar relationships can be found in more recent data. The measures of parental involvement used here were not overly comprehensive; better measures of parenting practices would strengthen these findings. Study findings with regard to change in achievement in relation to parent involvement should be considered as preliminary. Studies using multiple waves of data across different developmental ages are needed to untangle relationships between parent involvement and changes in achievement and to determine when different parenting practices have the

greatest impact. Although the findings presented here are suggestive of directions for intervention with regard to parent involvement in education among Mexican American families, it is important to keep in mind that this study examined parents' naturally occurring involvement; experimental studies are needed to determine whether changes in parent involvement as a result of intervention would have similar impacts on achievement.

Conclusions

Despite their limitations, the results presented here have important implications for policy and program interventions aimed at improving the academic achievement of Mexican American youths. The current national focus on getting parents involved at school may not be effective at improving achievement for Mexican American youths. Instead, policies and programs should emphasize parental involvement in academics at home and should acknowledge and encourage the many ways in which Mexican American parents *are* involved in children's education. In addition, cultural, economic, and language barriers must be carefully considered when engaging Mexican American parents.

The finding that investment of parents' financial resources has a greater impact on achievement than does their investment of time suggests that in the absence of families' financial resources, provision of educational opportunities and resources in the community or school may boost achievement. This recommendation is consistent with the emerging literature on effective programs for Latino youths (for example, Slavin & Calderon, 2001), which suggests that programs that challenge youths academically while providing sufficient resources and supports to succeed in these challenges have overwhelmingly positive results with regard to youths' academic achievement, high school graduation, and matriculation at college. The way toward increasing academic achievement among Mexican American youths may lie in increasing academic opportunities available to this population of students and working in collaboration with Mexican American parents toward their children's success. **SWR**

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Original manuscript received July 21, 2009
Final revision received August 13, 2010
Accepted September 3, 2010