Parental Involvement in Adolescents' Education: An Examination of the Interplay Among School Factors, Parental Role Construction, and Family Income

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Abstract

Whereas the focus of most parental involvement research has been on examining its effects on student outcomes, the goal of our study was to explore the determinants of parental involvement. Drawing on a nationally representative dataset of families with a student in high school, we investigated a hypothesized model in which positive associations between school factors (i.e., welcoming environment, informative communication, parental satisfaction with school) and levels of parental involvement in their adolescents' education are mediated by parents' construction of their role. We found that parents reportedly became involved in their children's education in response to inclusive school practices and also to compensate for perceived deficits in student experiences at school. Economically disadvantaged parents who were dissatisfied with the school were particularly likely to become involved. We also found support for a direct relationship between school factors and parental involvement, as well as an indirect path via parents' perceptions of their role in promoting their involvement. Implications for promoting parental involvement during adolescence are discussed.

Key Words: parents, involvement, adolescents, school factors, parental role construction, family income, high schools, communication, welcoming

Introduction

Many studies have documented a strong link between children's academic performance and parental involvement in their schooling. Parental participation is significantly associated with higher grades (Galindo & Sheldon, 2012; Hill & Craft, 2003; Tan & Goldberg, 2009), greater academic motivation (Grolnick & Slowiaczek, 1994; Simons-Morton & Chen, 2009), higher graduation rates (Fan & Chen, 2001; Sanders & Herting, 2000), and better school attendance (Jeynes, 2007). Moreover, parental involvement has been associated with more favorable social and emotional outcomes for students, such as less disruptive behavior (El Nokali, Bachman, & Votruba-Drzal, 2010; Gutman & Midgely, 2000), greater social competence (Domina, 2005; McWayne, Fantuzzo, Cohen, & Sekino, 2004), and better mental health (Wang & Sheikh-Khalil, 2014). But what factors set the scene for more frequent and effective involvement by parents? This is the core question addressed in our study.

In most studies, parental involvement is conceptualized as the participation of parents or other significant caregivers in education-related activities expected to promote the academic and social/emotional well-being of children (Fishel & Ramirez, 2005). For parents of high school students, this could include engagement in activities at the school, such as volunteering in the classroom, as well as in the home, such as discussing college plans or supporting extracurricular activities. The most common framework for modeling the factors that precipitate parental involvement has been proposed by Hoover-Dempsey and her colleagues (Hoover-Dempsey & Sandler, 1997; Walker, Wilkins, Dallaire, Sandler, & Hoover-Dempsey, 2005). The Hoover-Dempsey framework features psychological characteristics of the parents—including their self-efficacy regarding involvement and their beliefs about whether involvement is part of the parental role—and characteristics of the school, including the extent to which parents perceive the school as a welcoming environment and view the staff as willing to communicate effectively about student progress. Numerous studies have established that these features of the family and the school are all related to parents' likelihood of becoming involved (e.g., Anderson & Minke, 2007; Deslandes & Bertrand, 2005; Green, Walker, Hoover-Dempsey, & Sandler, 2007).

Our study builds on these investigations but extends them in three ways. First, we explore the idea that, rather than directly affecting parental involvement, the nature of the school environment and staff communications constitute an *indirect* force whose effects on parental involvement are mediated by their effects on parents' construction of their role *vis a vis* the education system. Based on a constructivist perspective (Kim, Sheridan, Kwon, & Koziol,

2013), we argue that the stance that school staff members take regarding parental involvement constitutes an influential social force that shapes parents' sense of their role. This is a significant departure from previous literature in which school factors and parents' role beliefs are conceptualized and tested as *independent* predictors of parental involvement. The idea of a mediated pathway from school invitations to parental involvement via parents' role construction has never been tested to our knowledge.

Second, we introduce the notion that parental involvement is also motivated by parents' perception of the *need* for their involvement in order to offset limitations of what the school can provide. This dynamic effect of perceived need exists in tension with the previously discussed notion that only positive elements such as the environment and effectiveness of communication prompt parents to become involved. Accordingly, we sought to examine the role of parent satisfaction with the school—including its academic program, discipline practices, teacher quality, and staff services—in shaping their involvement. Our view is that parents who perceive the school as less satisfactory on these dimensions will be more likely to view their academic support role as important and hence become more involved.

Third, we examine the relationship of these features of schools to parental involvement separately for parents of higher and lower income levels. In Hoover-Dempsey's model, parental resources (i.e., their education level, income, time availability) are considered, but their role is not elaborated in depth. Clearly, all these forms of capital shape parents' opportunities for particular kinds of involvement. It is well established that economically disadvantaged parents may view education as the purview of the school rather than the family (Lareau, 2003) or may feel particularly uncertain about how to help their adolescents as the curriculum becomes increasingly advanced. Additionally, substantial evidence suggests that many teachers and administrators perceive low-income parents to be uninterested in their children's education and thus do not create a welcoming or informative environment (e.g., Baquedano-López, Alexander, & Hernandez, 2013; Mapp, 2003). Our approach is designed to shed light on the complex role of family income level in shaping the perceptions and expectations of parents and school staff.

Background

Parental Involvement in Adolescents' Education

Previous research has consistently shown that many forms of parental involvement decline as children move into the middle and high school years (Eccles & Midgley, 1990; Green et al., 2007; Seginer, 2006; Spera, 2005).

However, certain distinctive activities can come to the forefront, such as fostering educational and occupational aspirations, discussing learning strategies, and making preparations and plans for college (Chao, Kanatsu, Stanoff, Padmawidjaja, & Aque, 2009; Hill & Tyson, 2009; Stevenson & Baker, 1987). Not all parents feel equally confident about their ability to engage in these forms of involvement. Confronting an institution of the size and complexity of most high schools, parents may have difficulty figuring out how to obtain information or advice and may not develop close relations with any of the shifting array of teachers. Furthermore, high school teachers may employ fewer strategies to help families stay involved than do teachers in the lower grades, expecting students to take responsibility for their own schoolwork (Adams & Christenson, 2000; Pelco & Ries, 1999). Yet, in spite of this general tendency, some schools are effective in communicating to parents that their involvement is welcome. It is these delicate and sometimes difficult interactions between school staff and parents that we seek to understand in this study. The conceptual model guiding our approach is depicted in Figure 1.
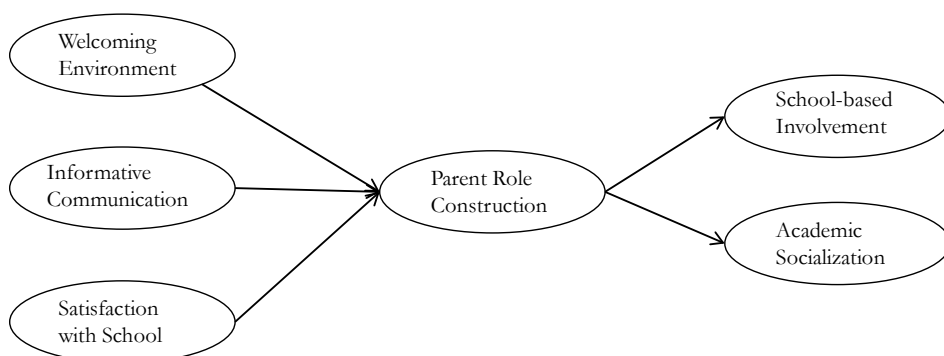
Figure 1. Conceptual model of the meditational role of parental role construction on the relation between school factors and parental involvement.

School Factors

Our study focuses on two school factors that may promote parental involvement during adolescence: creating a welcoming school environment, and facilitating informative communication between schools and families. In the Hoover-Dempsey framework (Hoover-Dempsey & Sandler, 1997; Walker et al., 2005), the authors suggested that creating a welcoming school atmosphere is an important strategy for promoting parental involvement. The importance of creating a welcoming environment—including provision of space for parents to congregate—or the creation of a respectful, friendly climate has been

demonstrated in studies of students in elementary and middle school settings (Anderson & Minke, 2007; Deslandes & Bertrand, 2005; Green et al., 2007; Sheldon & Van Voohris, 2004). For parents from marginalized populations, who may lack confidence in their own skills or who may have been treated with disrespect in other settings, it may be particularly important to feel that the school welcomes their involvement. For instance, one large parent survey conducted in urban elementary and middle schools found that parent perception of the schools' responsiveness to their needs and requests was more strongly associated with parental involvement than parent education, family size, marital status, or children's grade level (Dauber & Epstein, 1993; see also Mapp, 2003). However, in spite of the promising nature of these findings, few studies of these environmental factors have been conducted at the high school level, nor have they examined the mediating element of parents' role construction.

Perhaps one of the most important elements of the school environment is the nature of the communications between school staff and parents. Through frequent and well-crafted communications, schools can provide useful information to parents about student progress, upcoming events, features of the curriculum, and supporting learning at home, which affects parents' attitudes and beliefs about their role (Chrispeels & Rivero, 2001). Prior research suggests that creating ample opportunities for communication does indeed encourage parental involvement (López, Sánchez, & Hamilton, 2000; Simon, 2004). Recently, advances in technology provide an inexpensive, easy-to-use tool to further facilitate parent–school communications. For example, text messaging allows teachers and administrators to send educational prompts and reminder messages in real time for parents to read at their convenience. Intervention studies found a positive effect of text messaging on parental involvement (Hurwitz, Lauricella, Hanson, Raden, & Wartella, 2015). This need for informative communication is particularly critical in the high school years when parents and adolescents are making decisions about course selection, college admissions, and other important academic matters.

The third construct of interest in our study—parental satisfaction with the school—has frequently been construed as an outcome of school practices. For example, previous research found that school communication, curriculum, school safety, school environment, staff quality, and transportation services are related to overall parent satisfaction (Hausman & Goldring, 2000; Maddaus, 1990; Martinez, Godwin, & Kemerer, 1996; Tuck, 1995). The relatively few studies examining the role of parents' satisfaction with the school in motivating their involvement have focused on parental dissatisfaction and have linked it to some form of school choice (Friedman, Bobrowski, & Markow, 2007). For instance, using the National Education Longitudinal Study of 1988 [NELS:88]

dataset, Walsh (2010) found that parents of children attending underfunded schools were more likely to engage in volunteer activities than were those whose children were enrolled in well-funded schools and argued that such parents viewed their involvement "as a substitute, rather than a complement, for perceived school quality" (p. 960). Our study explores these somewhat contradictory features of parental involvement by examining how parent satisfaction, in combination with school outreach, is related to the range of parental behaviors that support a teenager's school success.

Parental Role Construction

Previous research on parental involvement has emphasized the notion that parents' beliefs about what they can and should do for their children is shaped by external factors including messages from the school. According to theoretical formulations in this area, role-related expectations are communicated by those with social status to those with less power, thus creating a system of norms that guide behavior (Biddle, 1986). Indeed, empirical evidence confirms that parents pick up cues from the school which guide their choices about how to become involved in their children's schooling (Deslandes & Bertland, 2005; Green et al., 2007; Kim et al., 2013; Semke, Garbacz, Kwon, Sheridan, & Woods, 2010; Sheldon, 2002; Shumow & Lomax, 2002). However, it is also crucial to recognize the agency of parents in this role construction process. Far from being passive receptacles of messages from the school, parents also evaluate their own resources in order to identify how and when to become involved (Hoover-Dempsey & Sandler, 1997). Moreover, they monitor the resources of the school and evaluate how well their own children are being served in the school context (Walsh, 2010). Parents construct their own involvement strategy based on these perceptions and judgments as they engage in transactions over time with school staff.

While empirical verification has been obtained of the relation between messages from the school and parental involvement, the mediating role of parent role construction has rarely been tested. In one of the few tests of this notion, a recent empirical study demonstrated that parental perceptions of school expectations for involvement and school climate predicted parental role beliefs about their own involvement at home and school at the elementary school level (Whitaker & Hoover-Dempsey, 2013).

Family Income

Much of the literature on conventional forms of parental involvement demonstrates an association of parental involvement to family income level (Cooper, 2010; Gershoff, Aber, Raver, & Lennon, 2007; Lee & Bowen, 2006).

Parents living under the poverty line (i.e., annual income less than $35,000) are less likely than other parents to be involved at the school site but are equally or more likely to engage in certain types of home-based behavior (Park & Holloway, 2013). The reasons for these household income differences can be located in the forms of capital that are available to parents from diverse backgrounds. At a purely economic level, low-income families may find it difficult to attend school-based events due to their long or unpredictable work hours or lack of transportation and childcare. From a cultural capital perspective (Bourdieu, 1987), middle-class families are more likely to have resources that align with schools' expectations, enabling them to engage in interactions at the school site relatively effortlessly and smoothly (Lareau, 2003). Higher income parents are more likely to see themselves as equal partners with the school and believe that they have the right and responsibility to raise issues of their choosing and to scrutinize or monitor teachers; in contrast, lower income parents are more likely to view children's learning as the responsibility of the school (Barnard, 2004; Gillies, 2008; Lareau, 2003). To the extent that they view teachers as professionals with specialized knowledge they themselves lack, lower income parents are less likely to express their concerns about school practices and policies (Cheadle, 2008).

In addition to identifying income-level differences in the views and practices of parents, it is also crucial to acknowledge that another source of income-level differences in parental involvement pertains to the attitudes and practices of the schools. Many schools do not engage in sufficient or effective outreach to low-income parents (Baquedano-López et al., 2013). Teachers and other staff frequently hold stigmatizing expectations and beliefs concerning the motivations, commitment, and skills of socioeconomically marginalized parents. Even when school personnel reach out to parents, these efforts are more likely to benefit families with higher amounts of capital. For example, Cooper (2010) found that although poor parents reported higher levels of involvement when schools had higher levels of outreach, the non-poor parents benefitted more from the outreach efforts. In light of these family income differences in benefits of school outreach as well as the propensity of parents to evaluate school practices, we constructed separate models for parents who are economically disadvantaged and those who are relatively advantaged. This strategy enables us to offer a descriptive account of income differences in the amount of school factors and parental role construction, as well as specify differential pathways by which these factors may contribute to parental involvement in the two groups.

The Current Study: Purpose and Research Questions

The goal of this study was to investigate the determinants of parental involvement during the high school years. We focused on two crucial school factors: parental perception of a welcoming school climate (Adams & Christenson, 2000; Bryk & Schneider, 2002; Hoover-Dempsey & Sandler, 1997), and the ability of the school to provide regular and informative communication (Griffith, 1998; Lopez et al., 2000; Patrikakou & Weissberg, 2000; Simon, 2004). In addition, we documented the extent to which parents were satisfied with the performance of the school in educating, nurturing, and protecting their children. We sought to specify the process through which these school factors are related to parental involvement behavior. In particular, we hypothesized that parents' perceptions of the school are related to their construction of their own role in their adolescents' education, which in turn contributes to their level of actual involvement. Lastly, we examined whether the hypothesized mediation model works equitably for economically disadvantaged and nondisadvantaged families.

To our knowledge, no previous research has examined the mediated pathway from school factors to parental involvement via parents' role beliefs, especially with a nationally representative sample of families with high school students. Further, while previous research indicates that families of varying socioeconomic backgrounds display distinctive patterns of family–school relations, the potential differences in the relationship of high school factors to parental role beliefs and involvement have rarely been tested across different income groups.

In summary, we address four crucial questions about the role of the school and the family in promoting parents' involvement in the education of their adolescent:

RQ 1: What is the relationship of parents' perceptions about the school climate and communication with families to their involvement in their adolescent's schooling (i.e., school-based involvement and academic socialization)?

RQ2: Is there a direct inverse relationship between parents' overall satisfaction with the school and their involvement in their adolescents' schooling?

RQ3: Is the relationship of parental perceptions of school factors (i.e., school environment, communication, overall parent satisfaction) to parental involvement mediated by parents' role construction?

RQ4: Does the mediated pathway differ depending on family income?

Method

Data Source

We used data from the Parent and Family Involvement in Education Survey (PFI) of the 2007 National Household Education Surveys Program (NHES:2007). PFI interviews were conducted with parents or guardians of a nationally representative random sample of 10,681 children enrolled in kindergarten through twelfth grade. For this study, we selected those parents of high school students who were being educated in private (11%) or public schools (89%). Students who were homeschooled were excluded from the analyses. To maintain some control over variability due to family racial/ethnic background, we included families from the three largest groups: White (71%), Black (12%), and Latino (17%). The final sample for this study included 3,248 participants. In most cases, the participant was the child's mother (73%) or father (21%), followed by a grandparent (5%) or relative (1%). Approximately two-thirds of the participants were between 36 and 45 years of age and reported having attended some college or attained a college degree. Participating households contained roughly equal numbers of boys and girls, and the adolescents were evenly distributed across Grades 9–12. To obtain unbiased population estimates, we employed sample weights in our analyses.

The survey weight variable for estimating the characteristics of children and their family in the PFI data files is FPWT (Hagedorn et al., 2008). This weight contains all of the adjustments for the probabilities of selection, nonresponse, and under coverage. The PFI–NHES:2007 sample design and data collection procedures are further described at http://nces.ed.gov/nhes.

Measures

Welcoming School Environment

A single item was used to measure welcoming school climate, asking to what extent the respondent perceived that the focal child's school was welcoming of the family. A four-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) was used.

Informative Home–School Communication

Informative home–school communication was measured with 5 questions asking parents to rate how well the school kept them informed about (a) their own adolescent's performance, (b) helping with homework, (c) their adolescent's course placement decisions, (d) planning for college or vocational programs, and (e) the parents' role in supporting student achievement. A four-point Likert scale was used for all of the items, ranging from 1 (*doesn't do*

it at all or *don't know*) to 4 (*does it very well*). To facilitate analysis and scaling of the variables, PFI coded *don't know* answers as a score of 1 (see Herrold & O'Donnell, 2008).

Parent Satisfaction With School Practices

Parent satisfaction with school practices was measured by asking parents how satisfied they were with (a) the school their adolescent attends this year, (b) their adolescent's current teachers, (c) the academic standards of the school, (d) the maintenance of order and discipline at the school, and (e) school staff interactions with parents. A four-point Likert scale was used for all of the items, ranging from 1 (*very dissatisfied*) to 4 (*very satisfied*).

Parent Role Construction

To measure the degree to which parents' role construction was oriented toward becoming involved in children's schooling, respondents were asked to what extent they thought it was the parents' responsibility to teach their children to value education and success in school and to what extent it was the parents' responsibility to attend meetings with teachers or other school staff. Both questions had a four-point response scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*).

School-Based Parental Involvement

Parents were asked whether they or anyone else in their household had done the following things since the beginning of the school year: (a) attended a school meeting, (b) attended a parent–teacher conference, (c) attended a PTA meeting or other school event, (d) engaged in volunteer activities, and (e) engaged in fundraising efforts. Parents were given two response options: *yes* or *no*.

Academic Socialization

Aligned with Hill and Tyson's (2009) definition of academic socialization, four questions were selected reflecting parents' academic support, including whether or not someone in the family had (a) worked on a project with the adolescent, (b) discussed how to manage his/her time, (c) enrolled the adolescent in a program to prepare for college entrance exams, and (d) planned to help the adolescent pay for his/her education after high school. For the first three questions, the response options were *yes* or *no*, while for the last question, parents were also given a third option: *haven't thought about y*et. To facilitate the analysis and scaling of the variables, the response *haven't thought about yet* was coded the same as *no*.

Disadvantaged Household Income

This variable indicates whether a focal adolescent resided in a household categorized as economically disadvantaged. Respondents indicated the household

income level on a 14-point ordinal scale from *$5,000 or less* to *over $100,000*. In our study, households were characterized as economically disadvantaged or not disadvantaged using household income and household size. If a household fell below the poverty line as indicated in the 2006 Census poverty threshold figures (U.S. Census Bureau, 2006), we coded it as 1 (economically disadvantaged). All households falling above the poverty threshold were coded as 0 (not economically disadvantaged). The Appendix summarizes questions used for each measure, as well as reliability scores and factor loading scores.

Analytic Strategies

Mediation analysis was used to address Research Questions 1, 2, and 3 (Baron & Kenny, 1986). The first step was to show that parental involvement (the outcome) could be predicted by the three school factors (the predictors). This step enabled us to answer Research Questions 1 and 2. The second step was to examine whether role construction (the mediator) was predicted by the three school factors. The third step was to determine whether the effects of the three school factors were shown to be reduced (partial mediation) or eliminated (full mediation) when the mediator was included in the equation. This final step addressed Research Question 3. The model parameters were estimated using Stata 13.

The significance of the mediating effect was tested using a bootstrapping approach. Traditional tests for mediation (e.g., Sobel's test) are designed for variables that follow standard normal distribution and may reduce statistical power to detect mediation. The bootstrapping procedure doesn't assume a normal sampling distribution and corrects the standard errors of mediating effects (Frazier, Tix, & Barron, 2004; Shrout & Bolger, 2002). For the purpose of this study, we requested 1,000 bootstrap samples. Following conventional practice, we reported confidence intervals of the mediation effects. If the confidence interval for a mediated path did not span zero, then we could conclude that there was statistically significant mediation at the .05 level.

For Research Question 4, we conducted multigroup Structural Equation Modeling (SEM) analyses. To evaluate the generalizability and robustness of the hypothesized model, we first tested it separately in the disadvantaged and nondisadvantaged groups. Upon establishing model fit separately in each group, we conducted multigroup SEM to evaluate model invariance across the two income groups.

Results

Descriptive Analyses

Intercorrelations among the study measures as well as the means and standard deviations for both income groups are presented in Table 1. The relationships among study variables were similar for both groups. For instance, high positive correlations, ranging from $r = .42$ to $.61$, were found among the three school factors in both groups. The relations between the school factors and school-based involvement were all positive and significant. In contrast, the relationships between the school factors and academic socialization were varied; engaging in academic socialization was not related to perceptions of a welcoming environment in either group ($r = .03$ for nondisadvantaged; $r = .02$ for disadvantaged), while it was positively related to perceptions of informative communication ($r = .10$ for nondisadvantaged; $r = .08$ for disadvantaged) and negatively related to satisfaction with school practices ($r = -.07$ for nondisadvantaged; $r = -.05$ for disadvantaged). Parent role construction displayed a significant positive association with all three school factors ($r = .20$ to $.39$ for nondisadvantaged; $r = .19$ to $.35$ for disadvantaged) and with both types of parental involvement ($r = .26$ and $.12$ for nondisadvantaged; $r = .21$ and $.20$ for disadvantaged).

Table 1 highlights clear income-level differences in the two types of parental involvement behaviors and their predictors. Multiple t-test results revealed that economically disadvantaged parents were less likely to feel responsible for their adolescents' education and were less likely to perceive their children's school as being welcoming, informative, and satisfactory. They were also less involved in school-based activities and academic socialization.

Evaluation of the Measurement Model

The model to be tested is presented in Figure 1. For the sake of clarity, individual items (observed variables) were omitted from the figure. They were, however, included in all analyses. Confirmatory factor analysis (CFA) was conducted for each latent construct prior to examining the relationships among them. The standardized loadings were all statistically significant (see Appendix). Inspecting the modification indices suggested that there were no significant cross-loadings. Model fit for an unconstrained model was good for the overall sample ($\chi^2_{(199)} = 1,357.50$, $p < .001$, TLI = .97, CFI = .97, RMSEA = .04).

Table 1. Means, SDs, and Intercorrelations Among All Latent Variables

Variable	1	2	3	4	5	6
Welcoming Environment	–	.42***	.60***	.35***	.18***	.02
Informative Communication	.45***	–	.61***	.19***	.21***	.08**
Satisfaction With School	.60***	.61***	–	.19***	.07*	-.05*
Parent Role Construction	.39***	.20***	.21***	–	.21***	.20***
School-Based Involvement	.23***	.30***	.18**	.26***	–	.21***
Academic Socialization	.03	.10**	-.07*	.12**	.22***	–
Mean (SD)						
Disadvantaged	3.24 (.66) ***	2.85 (.91) ***	3.31 (.76) ***	3.54 (.46) ***	0.47 (.28) ***	0.57 (.41) ***
Nondisadvantaged	3.43 (.64)	3.00 (.80)	3.38 (.62)	3.71 (.41)	0.64 (.26)	0.84 (.43)

Note. N = 3,248 (Disadvantaged = 596, Nondisadvantaged = 2,652). Upper diagonal part displays correlations for the economically disadvantaged families, while lower diagonal displays correlations for the nondisadvantaged families.
* p < .05. ** p < .01. *** p < .001.

Evaluation of the Structural Model

Testing the Direct Paths Between School Factors and Parental Involvement

The first step was to test the direct paths from the school factors to the parental involvement variables without the mediating variable of parent role construction. The results indicated that two of the school factors significantly contributed to academic socialization and school-based involvement (see Figure 2). Parents' perception of a welcoming school environment was positively associated with school-based involvement only (β_1 = .13, p < .001). Informative home–school communication was the strongest predictor of both types of parental involvement ($\beta_{school\text{-}based\ involvement}$ = .28, p < .001; $\beta_{academic\ socialization}$ = .12, p < .001, respectively). In contrast, parental satisfaction with school practices had significant, but negative, associations with both types of parental involvement ($\beta_{school\text{-}based\ involvement}$ = −.07, p < .01; $\beta_{academic\ socialization}$ = −.11, p < .001, respectively).
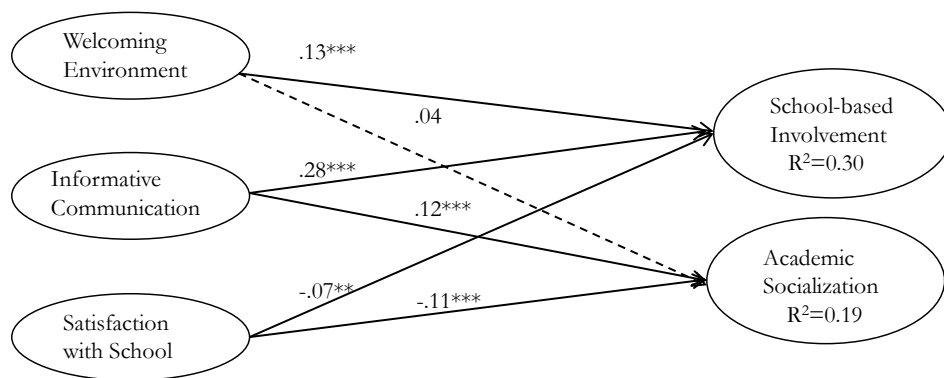

Figure 2. A test of the direct path model (standardized path coefficients provided for all paths). Ovals represent latent variables, and arrows define the hypothesized direction of relationship among variables.
* p < .05. ** p < .01. *** p < .001.

Testing the Mediating Effects of Parent Role Construction

In the second step, we first showed that the mediator—parent role construction—could be predicted from the predictors. As shown in Figure 3, welcoming environment (β = .29, p < .001) and informative communication (β = .10, p < .001) were positively associated with parent role construction, while satisfaction with school was negatively associated (β = -.08, p < .001). The third step was to demonstrate that the direct path coefficients from the

predictor to the outcome decreased or vanished when the indirect path was included in the model. As can be seen from Figures 2 and 3, the direct path coefficients between the school variables and parental involvement variables dropped subsequent to the addition of parental role construction. This suggests that parent role construction *partially* mediated the relations between the three school factors and parent involvement. The goodness-of-fit indices suggested that the proposed mediated model in Figure 3 was a good fit to the data ($\chi^2_{(143)}$ = 1,712.33, $p < .001$; TLI= .91; CFI = .92; RMSEA = .04).
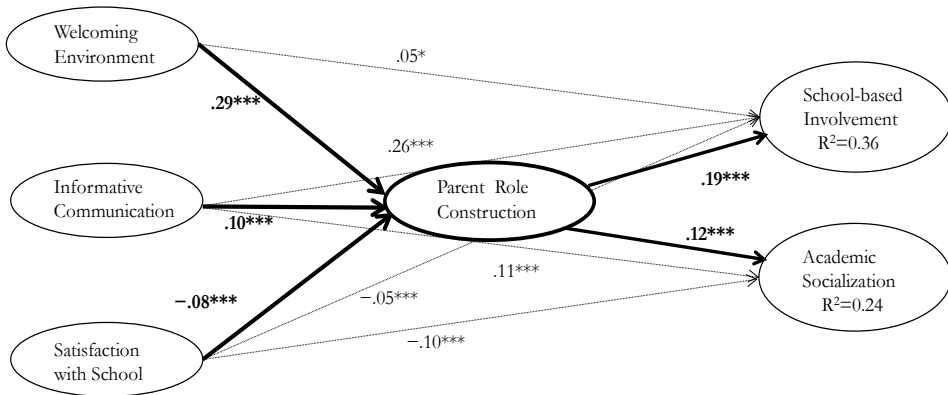

Figure 3. A test of the mediation model (standardized path coefficients provided for all paths). All paths missing from school factors to parental involvement were examined, but only those found to be significant are indicated in the figure. Boldface paths depict mediation effects.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Subsequently, the hypothesis of mediating effects was tested by examining a total of six indirect effects. The parameter estimate of the indirect effect, standard error, and confidence intervals are presented in Table 2. The results confirmed that parent role construction mediated the effects of the school factors on school-based involvement and academic socialization. The size of the indirect effect of welcoming environment on school-based involvement via role construction was $k^2 = .11$. That is, the observed indirect effect was 11% as large as the maximum possible direct effect. This effect is considered medium-sized (Preacher & Kelley, 2011). For the other five paths, the effect size (k^2) ranged from .07 to .02 (see Table 2).

The mediated path from welcoming school environment to academic socialization through parent role construction was significant, despite the fact that the direct association between the two was not significant (see Figure 2). Here we note that previous work suggests that the presence of a direct significant relation between two variables is not a necessary prerequisite for testing a mediated pathway (Shrout & Bolger, 2002). In addition, it is noteworthy that parents' satisfaction with school practices seems to operate quite differently from the other two school variables. These findings suggest that parents who are dissatisfied with the schools may be prompted to think that involvement in their children's schooling is their role/ responsibility which may, in turn, lead to their active involvement.

Table 2. Bootstrap Analysis of Indirect Effects and Effect Sizes of Indirect Paths

Independent Variable	Mediator Variable	Dependent Variable	Estimates	Standard Error	95% CI (lower, upper bound)	Effect Size (k^2)
WE →	RC →	SI	.04	.02	(.03, .05)	.11
IC →	RC →	SI	.01	.01	(.01, .03)	.04
SS →	RC →	SI	−.01	−.01	(−.03, −.01)	.03
WE →	RC →	AS	.08	.01	(.05, .11)	.07
IC →	RC →	AS	.03	.01	(.01, .04)	.03
SS →	RC →	AS	−.03	−.01	(−.04, −.01)	.02

Note. WE = Welcoming Environment, IC = Informative Communication, SS = Satisfaction with School, RC = Role Construction, SI = School-based Involvement, AS = Academic Socialization, CI = Confidence Intervals, k^2= a ratio of the observed indirect effect to the maximum possible indirect effect that is contingent on the sample variance (Preacher & Kelley, 2011).

Multigroup Analyses Between Economically Disadvantaged and Nondisadvantaged Groups

After establishing measurement equivalence, all structural paths (those between the latent constructs) were constrained to be equal across two groups. Although this model fit the data adequately, the fit differed significantly from that of the baseline model ($\Delta\chi^2_{(10)}$ = 25.72, p <.01), indicating that at least one of the constrained paths in the model is variant across the two groups.

Inspecting the freely estimated model and the constrained models, we found the following three paths were invariant across two groups: (a) between informative communication and role construction; (b) between satisfaction with school and academic socialization; and (c) between satisfaction with school and school-based involvement. Informative communication was associated with role construction for the economically nondisadvantaged group (β = .06, p < .001) but not for the economically disadvantaged group (β = .01, p < .50). The direct negative associations between parent satisfaction with school practices

and the two parental involvement indicators were significant for the economically nondisadvantaged group ($\beta_{school\text{-}based\ involvement}$ = -.06, $p < .01$; $\beta_{academic\ socialization}$ = -.10, $p < .001$, respectively), but not for the economically disadvantaged group ($\beta_{school\text{-}based\ involvement}$ = -.02, $p < .50$; $\beta_{academic\ socialization}$ = -.03, $p < .50$). Significant path coefficients of the models across the two groups are presented in Figure 4.

After releasing three constraints, the fit was no longer significantly different from that of the baseline model ($\Delta\chi^2_{(7)}$ = 7.75, $p < .66$). This finding implies that the hypothesized mediation model was applicable to both groups with the three path coefficients showing significant differences across the two groups.
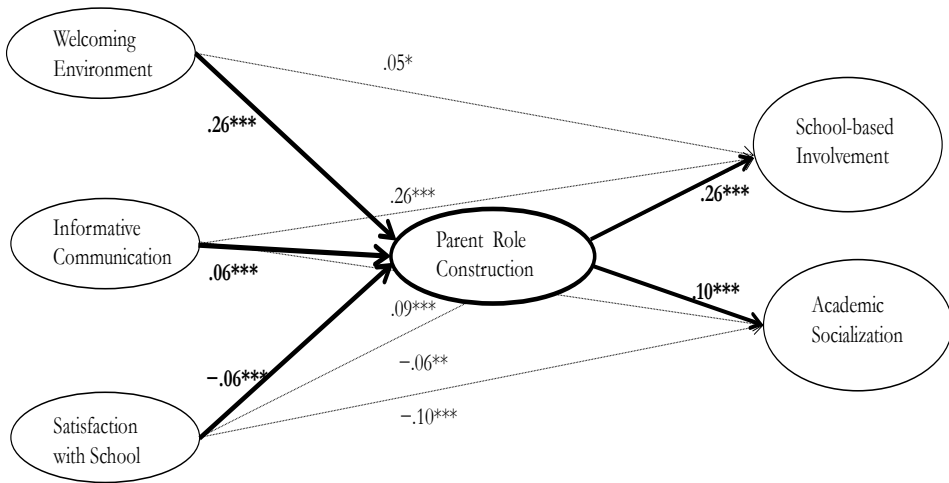
(a) Nondisadvantaged Group
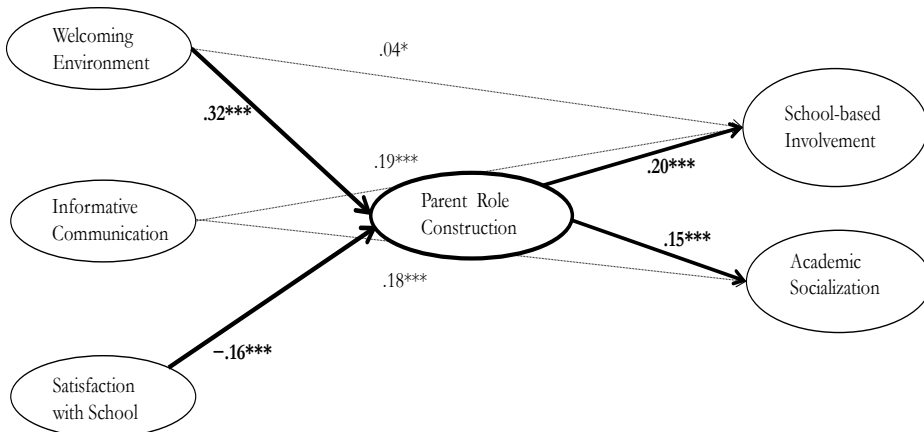
(b) Disadvantaged Group

Figure 4. A test of the mediated model with the economically nondisadvantaged vs. disadvantaged groups.

Discussion

The primary aim of this study was to better understand how key features of the school setting are implicated in parents' decisions about becoming involved in the education of their adolescent children. We hypothesized that schools that succeed in communicating with parents and that truly welcome their involvement can stimulate the construction of parents' beliefs about their role, which in turn can lead to actual involvement behavior at home and at the school site. Our empirical test of this hypothesis indicated that, indeed, parents' perception of a welcoming school environment and informative home–school communication was positively related with their heightened sense of responsibility to be involved, which in turn was also positively associated with actual involvement. At the same time, parents who were less satisfied with the school were also more likely to define their role to include school involvement and were also more likely to report actually being involved. This model provided a good fit with the data from those families who were living below the poverty line as well as those living above it. For families living in poverty, the extent to which they felt welcome at the school was particularly strongly related with their belief that involvement was an important part of their role. For these parents, dissatisfaction with the school was also a particularly strong factor in how they constructed their role. For the comparatively advantaged parents, there were more direct significant paths between the school factors and the parental involvement variables. For instance, the role of dissatisfaction was a contributor to their role construction but was also directly related to their involvement.

In general, this study confirms the critical importance of high schools' efforts to inform and connect with parents in order to promote their involvement. These findings are consistent with those of previous work conducted with elementary and middle school children (Anderson & Minke, 2007; Deslandes & Bertrand, 2005; Green et al., 2007; Marinez-Lora & Quintana, 2009). We found that each school factor displayed a different pattern of influence on parental involvement. Overall, informative home–school communication was the strongest predictor of both types of involvement. In contrast, the presence of a welcoming school environment displayed a strong relation only with school-based involvement. We also found that parental satisfaction with the schools had negative associations with both types of parental involvement, suggesting that parents who are dissatisfied with school practices tend to get more involved, similar to the results of Spera, Wentzel, and Matto (2009). This result is consistent with previous research findings that parents' view about the quality of the school's educational curriculum and instructors, as well as their

perceptions of safety and climate, are factors guiding school choice (Taske & Schneider, 2001). This indicates that parents do attempt to compensate for perceived deficits in school practices at the high school level (Walsh, 2010).

In our study, the three school factors explained more variance in school-based parental involvement than in academic socialization. This is not surprising to the extent that the attitudes and behaviors of school staff are more likely to motivate parents to visit and engage directly with them than to affect how they interact with their own children. Other factors may better account for parents' academic socialization practices, including student history of academic performance (McNeal, 2012) or parent expectations regarding adolescents' college attendance (Chao et al., 2009). Thus, a new comprehensive framework might be necessary to understand diverse forms of parental involvement during their children's adolescence.

Overall, our results suggest that the factors identified by Hoover-Dempsey and her colleagues (Hoover-Dempsey & Sandler, 1997; Walker et al., 2005) are powerful determinants of parental involvement at the high school level, particularly at the school site. However, the relative magnitude of these effects was somewhat different than those found in studies of young children. For instance, previous work by Deslandes and Bertrand (2005) suggests that invitations by elementary school staff for parents to become involved was the most powerful predictor of parental involvement, whereas in our study, the more powerful school factor was informative home–school communication.

Conceptually, our study departs somewhat from the Hoover-Dempsey model because we conceptualized parent role construction as a mediating factor that results from ongoing transactions between school staff and parents rather than an exogenous predictor of parental involvement. Our findings are consistent with the notion that the proximal social environment is influential in shaping and maintaining individuals' ideas and beliefs about their role (Biddle, 1986). From our study, it appears that schools create a social context in which parents construct their role and build their capacity to help their adolescent children achieve school success.

In addition to demonstrating the mediating effect of role construction, our study also contributes to the literature by introducing the notion of parental satisfaction with the school as a third school-based determinant. Parents who are not satisfied with the school were more likely to take on responsibility for encouraging their adolescents to achieve in school and formulate plans for college attendance. Although it is often assumed that parental involvement is stimulated by effective school practices and thus serves to *complement* them, our study identifies a *compensatory* dynamic in which parents attempt to remedy perceived deficits in the school through their own involvement.

Study Limitations

The current study has several limitations. As with any secondary analysis, the questions we could ask were constrained by the data available. We would have liked to have a sense of the adolescents' disposition regarding their parents' involvement. Given that adolescents are increasingly able to evaluate and even rebuff parental efforts at involvement, this is a particularly important construct to include in future studies (Deslandes & Bertrand, 2005). A second limitation is that we were unable to explore some important but less direct types of involvement, including establishing residence in areas served by higher quality schools or drawing upon social capital from extended family or community members (Li, Holloway, & Bempechat, 2008; López, 2001). We would have also liked to be better able to evaluate the frequency and quality of school outreach to parents. Issues related to tone, clarity, and type of information seem especially relevant to parents' comprehension of and response to schools' explicit and implicit expectations of parental involvement.

From a methodological standpoint, the large sample size used in the present study presents both a strength and weakness. While the sample size provides substantial statistical power, we urge caution in interpreting statistically significant findings that may have debatable substantive importance. In addition, self-report measures of parental involvement might be vulnerable to exaggeration, falsification, or social desirability bias. In future studies, observational measures of parental involvement or teachers' report of parental involvement should be used to provide more objective appraisals of their behavior. Such data would not only provide objective evidence of this construct, but also circumvent the issue of shared method variance.

Lastly, it must be mentioned that causal processes cannot be definitively verified with a cross-sectional, nonexperimental study design such as this. It is possible, for instance, that parents' involvement prompts certain attitudes and behaviors on the part of the staff who may, in turn, become more welcoming and communicative over time. A longitudinal study design would be required to test these mediating pathways over time.

Implications for Educational Policy and Practices

Given that relatively little has been studied about the connections that exist between schools and families when students are in high school, the results of this study have important implications for educational policy and teacher education programs. While, according to our findings, informative home–school communication is a strong predictor of parental involvement at the school site and at home, teachers report that they receive little training in working effectively with families (Graue & Brown, 2003). Given the challenging nature of

home–school relationships, we think it is important to develop preservice and in-service programs to help teachers identify effective formats and modes of communicating with families. Furthermore, instead of merely meeting district or state requirements for notifying parents of school rules and policies, schools might devise active and ongoing lines of communication with parents not only to share important information pertinent to students' learning, but also to provide varied forums and opportunities to share and build on the strengths within the parent community. Along these lines, previous research suggests that taking time to develop trusting relationships via informal and personalized contacts is more likely to be effective than relying on formal methods such as newsletters (Bryk & Schneider, 2002; Halsey, 2005; Scribner, Young, & Pedroza, 1999).

In addition, our study suggests that the creation of a welcoming environment is particularly important for economically disadvantaged parents. The actual physical environment is one important component. For example, in a qualitative study by Mapp (2003), some parents commented that a school that is clean and colorfully decorated with examples of students' work contributed to their feeling of being welcome. Perhaps even more important than the physical environment is the psychological context. For instance, invitations to school activities are not likely to be effective if they come across as pro forma (Halsey, 2005). Effective invitations flow from personal interactions with parents and genuinely communicate respect for the contributions that parents can make to the school and to their own children's achievement.

The findings of this study suggest that a desirable framework for working with parents is a family–school partnership/collaboration model, rather than a simple parental involvement model (Kim & Sheridan, 2015). Achieving a true partnership is difficult when the parties differ in their relative status and when each side has distinctive goals. In these delicate interactions, school psychologists can play an important bridging role (Christensen & Sheridan, 2001). They can assist teachers in reflecting on their own preconceptions about parents and in interrogating each other regarding negative stereotypes based on SES or race. They can help teachers see how to frame interactions with parents that are informative and respectful. At the same time, they can also provide support and consultation to parents as they become involved in their children's educational lives. Particularly for parents who are economically disadvantaged, it is difficult to act as an effective advocate if it involves challenging the existing system or requesting resources from an underfunded institution. School psychologists can help parents find ways to construct a role that is powerful but also supportive of the school's mission. Effective parent consultation can be achieved by bringing families and school staff together to

engage in joint problem solving and decision-making within the context of mutual, collaborative relationships (Sheridan et al., 2012). Lastly, this study suggests the importance of helping teachers and administrators support parents in the implementation of involvement strategies that are appropriate to the developmental level of their children. In contrast to the hands-on engagement demanded of parents whose children are young, parents of adolescents are attempting to foster independence while also communicating appropriate educational expectations and aspirations and helping their children develop realistic and feasible plans for their academic and/or vocational futures.

Conclusion

In this study of families with adolescents attending high school, we were able to evaluate the power of a mediated model in which features of the school promoted a certain conceptual frame that, in turn, resulted in parental involvement in their children's education. Specifically, our model—in which three important school factors promoted parents' role construction, which in turn affected their involvement—explained 24% of the variance in academic socialization and 36% of school-based involvement, with very robust fit indices. We found that parent efforts complement school practices but also compensate for perceived deficits in what schools are able to accomplish. The dissatisfaction that economically disadvantaged parents feel is a particularly strong motivator of their engagement in their children's schooling. For advantaged as well as disadvantaged parents, the direct effects of these school features are complemented by the mediating role of parental role construction. Thus, this research represents a promising approach to study determinants of parental involvement by examining the interrelatedness of school and family factors.

References

Adams, K. S., & Christenson, S. L. (2000). Trust and the family–school relationship: Examination of parent–teacher differences in elementary and secondary grades. *Journal of School Psychology, 38*, 477–497.

Anderson, K. J., & Minke, K. M. (2007). Parent involvement in education: Toward an understanding of parents' decision making. *The Journal of Educational Research*, *100*, 311–425.

Baquedano-López, P., Alexander, R. A., & Hernandez, S. J. (2013). Equity issues in parental and community involvement in schools: What teacher educators need to know. *Review of Research in Education*, *37*, 161–194.

Barnard, W. M. (2004). Parent involvement in elementary school and educational attainment. *Children and Youth Services Review*, *26*(1), 39–62.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182.

Biddle, B. J. (1986). Recent developments in role theory. *Annual Review of Sociology, 12*, 67–92.

Bourdieu, P. (1987). What makes a social class? On the theoretical and practical existence of groups. *Berkeley Journal of Sociology, 32*, 1–17.

Bryk, A. S., & Schneider, B. L. (2002). *Trust in schools: A core resource for improvement.* New York, NY: Russell Sage Foundation.

Chao, R., Kanatsu, A., Stanoff, N., Padmawidjaja, I., & Aque, C. (2009). Diversities in meaning and practices: The parental involvement of Asian immigrants. In N. E. Hill & R. K. Chao (Eds.), *Families, schools, and the adolescent: Connecting research, policy, and practice* (pp. 110–125). New York, NY: Teachers College Press.

Cheadle, J. E. (2008). Educational investment, family context, and children's math and reading growth from kindergarten through the third grade. *Sociology of Education*, *81*(1), 1–31.

Chrispeels, J. H., & Rivero, E. (2001). Engaging Latino families for student success: How parent education can reshape parents' sense of place in the education of their children. *Peabody Journal of Education*, *76*(2), 119–169.

Christenson, S., & Sheridan, S. M. (Eds.). (2001). *Schools and families: Creating essential connections for learning.* New York, NY: Guilford Press.

Cooper, C. E. (2010). Family poverty, school-based parental involvement, and policy-focused protective factors in kindergarten. *Early Childhood Research Quarterly*, *25*(4), 480–492.

Dauber, S. L., & Epstein, J. L. (1993). Parents' attitudes and practices of involvement in inner-city elementary and middle schools. In N. F. Chavkin (Ed.), *Families and schools in a pluralistic society* (pp. 53–71). Albany, NY: SUNY press.

Deslandes, R., & Bertrand, R. (2005). Motivation of parent involvement in secondary-level schooling. *The Journal of Educational Research, 98*, 164–175.

Domina, T. (2005). Leveling the home advantage: Assessing the effectiveness of parental involvement in elementary school. *Sociology of Education, 78*, 233–249.

Eccles, J. S., & Midgley, C. (1990). Changes in academic motivation and self-perception during early adolescence. In R. Montemayor, G. R. Adams, & T. P. Gullotta (Eds.), *From childhood to adolescence: A transitional period?* (pp. 134–155). London, UK: Sage.

El Nokali, N. E., Bachman, H. J., & Votruba-Drzal, E. (2010). Parent involvement and children's academic and social development in elementary school. *Child Development*, *81*(3), 988–1005.

Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review*, *13*(1), 1–22.

Fishel, M., & Ramirez, L. (2005). Evidence-based parent involvement interventions with school-aged children. *School Psychology Quarterly*, *20*(4), 371.

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology. *Journal of Counselling Psychology*, *51*, 115–134.

Friedman, B. A., Bobrowski, P. E., & Markow, D. (2007). Predictors of parents' satisfaction with their children's school. *Journal of Educational Administration*, *45*(3), 278–288.

Galindo, C., & Sheldon, S. B. (2012). School and home connections and children's kindergarten achievement gains: The mediating role of family involvement. *Early Childhood Research Quarterly*, *27*(1), 90–103.

Gershoff, E. T., Aber, J. L., Raver, C. C., & Lennon, M. C. (2007). Income is not enough: Incorporating material hardship into models of income associations with parenting and child development. *Child Development*, *78*(1), 70–95.

Gillies, V. (2008). Perspectives on parenting responsibility: Contextualizing values and practices. *Journal of Law and Society*, *35*(1), 95–112.

Graue, E., & Brown, C. P. (2003). Preservice teachers' notions of families and schooling. *Teaching and Teacher Education*, *19*(7), 719–735.

Green, C. L., Walker, J. M. T., Hoover-Dempsey, K. V., & Sandler, H. M. (2007). Parents' motivations for involvement in children's education: An empirical test of a theoretical model of parental involvement. *Journal of Educational Psychology, 99*(3), 532–544.

Griffith, J. (1998). The relation of school structure and social environment to parent involvement in elementary schools. *The Elementary School Journal, 99*, 53–80.

Grolnick, W. S., & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development, 65*(1), 237–252.

Gutman, L. M., & Midgley, C. (2000). The role of protective factors in supporting the academic achievement of poor African American students during the middle school transition. *Journal of Youth and Adolescence*, *29*(2), 223–249.

Hagedorn, M., O'Donnell, K., Smith, S., & Mulligan, G. (2008). *National Household Education Surveys Program of 2007: Data file user's manual, Vol. III: Parent and Family Involvement in Education Survey.* (NCES 2009–024). Washington, DC: National Center for Education Statistics.

Halsey, P. A. (2005). Parent involvement in junior high schools: A failure to communicate. *American Secondary Education*, *34*(1), 57–69.

Hausman, C., & Goldring, E. (2000). Parent involvement, influence, and satisfaction in magnet schools: Do reasons for choice matter? *The Urban Review*, *32*(2), 105–121.

Herrold, K., & O'Donnell, K. (2008). *Parent and family involvement in education, 2006–07 school year, From the National Household Education Surveys Program of 2007* (NCES 2008–050). Washington, DC: National Center for Education Statistics.

Hill, N. E., & Craft, S. A. (2003). Parent–school involvement and school performance: Mediated pathways among socioeconomically comparable African American and Euro-American families. *Journal of Educational Psychology, 95*, 78–83.

Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology, 45*, 740–763.

Hoover-Dempsey, K. V., & Sandler, H. M. (1997). Why do parents become involved in their children's education? *Review of Educational Research, 67*(1), 3–42.

Hurwitz, L. B., Lauricella, A. R., Hanson, A., Raden, A., & Wartella, E. (2015). Supporting Head Start parents: Impact of a text message intervention on parent–child activity engagement. *Early Child Development and Care, 185*(9), 1373–1389.

Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis. *Urban Education*, *42*(1), 82–110.

Kim, E. M., & Sheridan, S. M. (2015). Foundational aspects of family–school connections: Definitions, conceptual frameworks, and research needs. In S. M. Sheridan & E. M. Kim (Eds.), *Foundational aspects of family–school partnership research* (pp. 1–14). New York, NY: Springer International.

Kim, E. M., Sheridan, S. M., Kwon, K., & Koziol, N. (2013). Parent beliefs and children's social–behavioral functioning: The mediating role of parent–teacher relationships. *Journal of School Psychology*, *51*(2), 175–185.

Lareau, A. (2003). *Unequal childhoods: Class, race, and family life.* Berkeley, CA: University of California Press.

Lee, J. S., & Bowen, N. K. (2006). Parent involvement, cultural capital, and the achievement gap among elementary school children. *American Educational Research Journal*, *43*(2), 193–218.

Li, J., Holloway, S. D., & Bempechat, J. (2008). Building and using a social network: Nurture for low-income Chinese American adolescents' learning. *New Directions for Child and Adolescent Development*, *121*, 9–25.

López, G. R. (2001). The value of hard work: Lessons on parent involvement from an immigrant household. *Harvard Educational Review*, *71*(3), 416–438.

López, L. C., Sánchez, V. V., & Hamilton, M. (2000). Immigrant and native-born Mexican-American parents' involvement in a public school: A preliminary study. *Psychological Reports*, *86*(2), 521–525.

Maddaus, J. (1990). Parental choice of school: What parents think and do. *Review of Research in Education*, *16*, 267–295.

Mapp, K. L. (2003). Having their say: Parents describe why and how they are engaged in their children's learning. *School Community Journal*, *13*(1), 35–64. Retrieved from http://www.schoolcommunitynetwork.org/SCJ.aspx

Marinez-Lora, A. M., & Quintana, S. M. (2009). Low-income urban African American and Latino parents' school involvement: Testing a theoretical model. *School Mental Health, 1*, 212–228.

Martinez, V., Godwin, K., & Kemerer, F. (1996). Public school choice in San Antonio: Who chooses and with what effects? In B. Fuller, R. Elmore, & G. Orfield (Eds.), *Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice* (pp. 50–69). New York, NY: Teachers College Press.

McNeal, R. B., Jr. (2012). Checking in or checking out? Investigating the parent involvement reactive hypothesis. *The Journal of Educational Research*, *105*(2), 79–89.

McWayne, C., Fantuzzo, J., Cohen, H. L., & Sekino, Y. (2004). A multivariate examination of parent involvement and the social and academic competencies of urban kindergarten children. *Psychology in the Schools*, *41*(3), 363–377.

Park, S., & Holloway, S. D. (2013). No parent left behind: Predicting parental involvement in adolescents' education within a socio-demographically diverse population. *The Journal of Educational Research*, *106*(2), 105–119.

Patrikakou, E. N., & Weissberg, R. P. (2000). Parents' perceptions of teacher outreach and parent involvement in children's education. *Journal of Prevention & Intervention in the Community*, *20*, 103–119.

Pelco, L. E., & Ries, R. R. (1999). Teacher's attitudes and behaviors towards family–school partnerships. *School Psychology International*, *20*, 265–277.

Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods*, *16*(2), 93–115.

Sanders, M. G., & Herting, J. R. (2000). Gender and the effects of school, family, and church support on the academic achievement of African American urban adolescents. In M. G. Sanders (Ed.), *Schooling students placed at risk: Research, policy, and practice in the education of poor and minority adolescents* (pp. 141–161). Mahwah, NJ: Lawrence Erlbaum.

Scribner, J. D., Young, M. D., & Pedroza, A. (1999). Building collaborative relationships with parents. In P. Reyes, J. D. Scribner, & A. P. Scribner (Eds.), *Lessons from high-performing Hispanic schools: Creating learning communities* (pp. 36–60). New York, NY: Teachers College Press.

Seginer, R. (2006). Parents' educational involvement: A developmental ecology perspective. *Parenting: Science and Practice*, *6*(1), 1–48.

Semke, C. A., Garbacz, S. A., Kwon, K., Sheridan, S. M., & Woods, K. E. (2010). Family involvement for children with disruptive behaviors: The role of parenting stress and motivational beliefs. *Journal of School Psychology*, *48*(4), 293–312.

Sheldon, S. B. (2002). Parents' social networks and beliefs as predictors of parent involvement. *The Elementary School Journal*, *102*(4), 301–316.

Sheldon, S. B., & Van Voorhis, F. L. (2004). Partnership programs in U.S. schools: Their development and relationship to family involvement outcomes. *School Effectiveness and School Improvement*, *15*(2), 125–148.

Sheridan, S. M., Bovaird, J. A., Glover, T. A., Garbacz, S. A., Witte, A., & Kwon, K. (2012). A randomized trial examining the effects of conjoint behavioral consultation and the mediating role of the parent–teacher relationship. *School Psychology Review*, *41*, 23–46.

Shrout, P., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods, 7*(4), 422–225.

Shumow, L., & Lomax, R. (2002). Parental efficacy: Predictor of parenting behavior and adolescent outcomes. *Parenting: Science and Practice*, *2*(2), 127–150.

Simon, B. S. (2004). High school outreach and family involvement. *Social Psychology of Education, 7*, 185–209.

Simons-Morton, B., & Chen, R. (2009). Peer and parent influences on school engagement among early adolescents. *Youth & Society, 41*(1), 3–25.

Spera, C. (2005). A review of the relationship among parenting practices, parenting styles, and adolescent school achievement. *Educational Psychology Review*, *17*(2), 125–146.

Spera, C., Wentzel, K. R., & Matto, H. C. (2009). Parental aspirations for their children's educational attainment: Relations to ethnicity, parental education, children's academic performance, and parental perceptions of school climate. *Journal of Youth and Adolescence*, *38*(8), 1140–1152.

Stevenson, D. L., & Baker, D. P. (1987). The family–school relation and the child's school performance. *Child Development*, *58*(5), 1348–1357.

Tan, E. T., & Goldberg, W. A. (2009). Parental school involvement in relation to children's grades and adaptation to school. *Journal of Applied Developmental Psychology*, *30*(4), 442–453.

Taske, P., & Schneider, M. (2001). What research can tell policy-makers about school choice. *Journal of Policy Analysis and Management, 20*, 609–631.

Tuck, K. D. (1995). *Parent satisfaction and information: A customer satisfaction survey*. Washington, DC: District of Columbia Public Schools. (ED401326)

U.S. Census Bureau. (2006). *Poverty thresholds for 2006 by size of family and number of related children under 18 years*. Retrieved from http://www.census.gov/hhes/www/poverty/threshld/thresh06.html

Walker, J. M. T., Wilkins, A. S., Dallaire, J. R., Sandler, H. M., & Hoover-Dempsey, K. V. (2005). Parental involvement: Model revision through scale development. *The Elementary School Journal, 106*(2), 85–104.

Walsh, P. (2010). Is parental involvement lower at larger schools? *Economics of Education Review*, *29*(6), 959–970.

Wang, M. T., & Sheikh-Khalil, S. (2014). Does parental involvement matter for student achievement and mental health in high school? *Child Development*, *85*(2), 610–625.

Whitaker, M., & Hoover-Dempsey, K. (2013). School influences on parents' role beliefs. *The Elementary School Journal*, *114*(1), 73–99.

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Appendix. Item Description, CFA Standardized Factor Loading, and Reliability Scores (*n* = 3,248)

Item	Item Description	Factor Loading	Reliability Scores
	School Factors		
	Welcoming environment		
PL3C	(Child)'s school as a whole is welcoming to my family		
	Informative communication Tell me how well (child)'s school has been doing the following things this year		α = .80
PJ2A	Let you know between report cards how (child) is doing in school	.76	
PJ2B	Provides information about how to help (child) with (his/her) homework	.80	
PJ2C	Provides information about why (child) is placed in particular groups or classes	.67	
PJ2D	Provides information on how to help (child) plan for college or vocational school	.68	
PJ2E	Provides information on your expected role at (child)'s school	.70	
	Satisfaction with school		α = .86
PK1A	You are satisfied with the school (child) attends this year	.69	
PK1B	You are satisfied with the teachers (child) has this year	.71	
PK1C	You are satisfied with the academic standards of the school	.70	
PK1D	You are satisfied with the order and discipline at the school	.86	
PK1E	You are satisfied with the way that school staff interacts with parents	.78	

	Parent Role Construction		
	Role construction [a]		*r* = .54
PL3D	It is the parents' responsibility to teach their children to value education		
PL3E	It is the parents' responsibility to attend meetings with teachers or other school staff		
	Parent Involvement		
	School-based involvement Since the beginning of the school year, (have/has) (you/any adult in your house):		α = .74
PI1A	Attended a general school meeting, (e.g., an open house, or a back to school night?)	.69	
PI1B	Attended a meeting of the parent-teacher organization?	.71	
PI1C	Attended a regularly scheduled parent-teacher conference with (child's) teacher?	.89	
PI1D	Attended school or class event, such as a play, dance, sports event, or science fair?	.79	
PI1E	Served as a volunteer in (child)'s classroom or elsewhere in the school?	.56	
PI1F	Participated in fundraising for the school?	.51	
	Academic socialization Has anyone in your family done the following things with (child)?		α = .71
PN13A	Worked on a project together?	.67	
PN13B	Discussed with (child) how he/she would manage his/her time?	.71	
PN13C	Enrolled in programs to prepare (child) for college entrance exam?	.70	
PH13	Does anyone in your family plan to help (child) pay for his/her education after high school?	.59	