

Parental Expectations and Children's Academic Performance in Sociocultural Context

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Abstract In this paper, we review research on parental expectations and their effects on student achievement within and across diverse racial and ethnic groups. Our review suggests that the level of parental expectations varies by racial/ethnic group, and that students' previous academic performance is a less influential determinant of parental expectations among racial/ethnic minority parents than among European American parents. To explain this pattern, we identify three processes associated with race/ethnicity that moderate the relation between students' previous performance and parental expectations. Our review also indicates that the relation of parental expectations to concurrent or future student achievement outcomes is weaker for racial/ethnic minority families than for European American families. We describe four mediating processes by which high parental expectations may influence children's academic trajectories and show how these processes are associated with racial/ethnic status. The article concludes with a discussion of educational implications as well as suggestions for future research.

Keywords Parental expectations · Academic achievement · Education · Ethnicity · Race · Socioeconomic status

The role of parental expectations in affecting children's academic progress has received substantial attention from psychologists and sociologists over the past half century. In general, parental expectations have been found to play a critical role in children's academic success. Students whose parents hold high expectations receive higher grades, achieve higher scores on standardized tests, and persist longer in school than do those whose parents hold relatively low expectations (Davis-Kean 2005; Pearce 2006; Vartanian *et al.* 2007). High parental expectations are also linked to student motivation to achieve in school, scholastic and social resilience, and aspirations to attend college (Hossler and Stage 1992;

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Peng and Wright 1994; Reynolds 1998). Furthermore, parents' academic expectations mediate the relation between family background and achievement, and high parental expectations also appear to buffer the influence of low teacher expectations on student achievement (Benner and Mistry 2007; Zhan 2005).

While most of the research conducted to date has been cross-sectional, a few longitudinal studies offer particularly powerful evidence that parental expectations are a causal determinant of student expectations and academic outcomes (Rutchick *et al.* 2009; Trusty *et al.* 2003). Additionally, two meta-analyses have found that parental expectations are the strongest family-level predictor of student achievement outcomes, exceeding the variance accounted for by other parental beliefs and behaviors by a substantial margin (Jeynes 2005, 2007).

For the most part, scholarly inquiry on parental expectations has focused on European American, middle-class samples, and theoretical formulations have typically not attempted to account for the context of race or ethnicity in shaping parental expectations or the academic outcomes associated with them. Only within the last few decades have researchers attempted to include diverse ethnic and racial groups in their samples. In recent years, several large studies have included a measure of parental expectations including the National Educational Longitudinal Study (NELS) and the Early Childhood Longitudinal Study–Kindergarten Cohort (ECLS-K). As we will argue presently, these and other studies find significant racial/ethnic variation in (a) the level of parental expectations, (b) the role of students' academic performance in determining parental expectations, and (c) the effect of parental expectations on student outcomes. The goal of this review is to conduct a thorough review of these studies and take a fresh look at the way in which parental expectations are formed and communicated to children in a variety of sociocultural contexts.

Our analysis of racial and ethnic differences in the formation and effects of parental expectations draws from a sociocultural approach to parenting pioneered by anthropologists Beatrice and John Whiting, along with their colleagues and former students (e.g., Harkness and Super 2002; LeVine *et al.* 1994; Weisner 2002; Whiting and Edwards 1988; Whiting and Whiting 1975). Within this perspective, parents in a society are thought to develop goals and care strategies (i.e., cultural models) that maximize the likelihood that children will attain culturally valued skills and characteristics. Parents are seen as rational actors who use their shared knowledge of the world to adapt and make complex decisions in their local community. The likelihood of a particular parent adopting the norms that have been formulated within a cultural scene is dependent on individual characteristics of the parent (e.g., personality, health status) but parents are also viewed as existing within cultural scenes that include macro-structural elements and institutions (e.g., political and economic systems).

Although cultural models of child rearing and education are collectively constructed by members of a community, this does not mean that they necessarily emerge at the level of a national, ethnic, or racial group, nor do all members of a group necessarily agree with dominant cultural models (Gjerde 2004). To understand why a parent acts the way she does, it is essential to identify the models that are available to members of a certain community but also to acknowledge “individuals' self-consciousness, individuality, and ability to transcend their own culture” (Gjerde 2004, p. 140).

The implications of this sociocultural perspective for our review of the extant literature are that we (a) will be alert to the likelihood that parents' expectations about their children's schooling will be partially dependent on their racial or ethnic heritage; (b) will examine the linkages of the social economic context to parental expectations; and (c) will explore the

culturally based beliefs that parents have about their own role and the role of those in important institutions such as the schools. This perspective will also guide the questions we seek to explore in future work, which are discussed in the final section of this review.

Defining Parental Expectations

Although the term “parental expectations” has been defined in various ways in the literature, most researchers characterize parental expectations as realistic beliefs or judgments that parents have about their children's future achievement as reflected in course grades, highest level of schooling attained, or college attendance (e.g., Alexander *et al.* 1994; Glick and White 2004; Goldenberg *et al.* 2001). Parental expectations are based on an assessment of the child's academic capabilities as well as the available resources for supporting a given level of achievement. Most researchers operationalize parental expectations by asking parents “how far” they think their child will go in school or by asking them to forecast what grades a child will receive that year (see Table 1). Occasionally, researchers have also asked about student perceptions of parental expectations as a proxy for parental expectations themselves (e.g., Gill and Reynolds 1999).

Parental expectations can be contrasted with parental aspirations, which typically refer to desires, wishes or goals that parents have formed regarding their children's future attainment rather than what they realistically expect their children to achieve (Seginer 1983). To the extent that parental aspirations reflect the value parents place on education, they are based on parents' personal goals as well as community norms about schooling and its role in promoting professional and personal success (Astone and McLanahan 1991; Carpenter 2008). Researchers tend to measure parental aspirations by asking the year of schooling parents “want” or “hope” their children to achieve (Aldous 2006; Goldenberg *et al.* 2001).

Although parental aspirations and expectations are conceptually distinct, the terms are sometimes used interchangeably (e.g., Fan and Chen 2001; Juang and Silbereisen 2002; Mau 1995). On occasion, researchers assess parental aspirations and expectations separately but combine them into a single measure for analytic purposes (e.g., Bandura *et al.* 1996). In this review, we focus exclusively on studies that measured parental expectations about their children's future academic achievement. In order to locate relevant work, we first conducted a computer-based literature search of the PsycINFO and ERIC databases using the key phrase “parent[al] expectation” and “achievement.” We restricted our search to peer-reviewed articles published in journals in or after 1990. We then took an “ancestry approach,” examining the references sections of relevant articles to identify relevant articles that had not emerged in the computer search. In the process of reviewing articles, we excluded studies that (a) measured parents' aspirations concerning their children's educational achievement rather than parental expectations, (b) examined children with cognitive disabilities, and (c) focused on parental expectations concerning students' non-academic outcomes such as occupational attainment.

This process resulted in the identification of 33 articles reporting on studies that assessed parental expectations concerning their children's academic achievement and two meta-analyses (see Table 1 for an overview). In 18 of these articles the authors contrasted the expectations of parents in two or more racial/ethnic groups or examined the relation between parental expectations and students' academic performance in two or more groups.

In this paper, we refer to race as well as to ethnicity, which can be defined as an individual's heritage based on nationality, language and/or culture (Betancourt and Lopez 1993). A variety of terms have been employed to denote racial/ethnic groups in the studies

Table 1 Characteristics of Reviewed Studies

Author(s)	Measurement of parental expectations	Race/ethnicity	Race ^a	Child grade/age	Sample size ^b	Sample description
Alexander <i>et al.</i> (1994)	Parents' estimation of what mark their child is going to get in math and reading	African American, European American	Yes	3rd and 4th grade	790	Beginning School Study (BSS). Random sample of 20 schools in the Baltimore city system and randomly selected children within the schools
Balboni and Pedrabissi (1998)	Parents' expectations for their child's learning performance: poor to excellent	Not specified	No	1st grade	216	Children selected from primary schools in different Italian cities
Benner and Mistry (2007)	Parents' estimation of how much education their child will complete	African American, European American, Latino	No	9 to 16 years old	370	18-year olds and older recruited from two low-income neighborhoods in Milwaukee, Wisconsin. Then participants with at least one child between the ages of 1 and 10 years were invited to participate in a substudy (The Child and Family Study; CFS)
Beutel and Anderson (2008)	Parents' estimation of how much education their child will complete	"Black", Asian and mixed race, "White" in South Africa	Yes	8th to 11th grade	547	The Cape Area Panel Study (CAPS). Drew a sample of Census Enumeration Areas (EAs), and then randomly sampled households within each selected EA in Cape town in South Africa
Carpenter (2008)	Parents' estimation of how far their child will go in school	Latino and non-Latino with an immigrant parent	Yes	10th (time 1) and 12th grade	3,200	Educational Longitudinal Study (ELS) 2002
Davis-Kean (2005)	Parents' estimation of how much schooling their child will complete	African American, European American	Yes	8 to 12 years old	834	The 1997 Child Development Supplement of the Panel Study of Income Dynamics (PSID-CDS)
Entwisle and Alexander (1990)	Parents' "best guesses" for their child's first mark in mathematics: unsatisfactory to excellent	African American, European American	Yes	1st grade	785	Beginning School Study (BSS). Random sample of 20 schools in the Baltimore city system and randomly selected children within the schools
Entwisle and Alexander (1996)	Parents' "best guesses" for their child's first mark in mathematics and reading	African American, European American	Yes	1st and 2nd grade	391	Beginning School Study (BSS). Random sample of 20 schools in the Baltimore city system and randomly selected children within the schools

Galper <i>et al.</i> (1997)	Parents' report of how much education they think their children are capable of achieving and how much they think their children will actually receive	African American, Asian, European American, Latino	No	Kindergarten	124	Former Head Start children and their parents in eight participating schools selected from 31 sites across the nation
Gill and Reynolds (1999)	Parents' expectations of child's schooling and children's perceptions of parental expectations	African American	No	4th to 6th grade	712	Chicago Longitudinal Study (CLS), Low-income ethnic minority who attended government-funded kindergarten programs in Chicago Public Schools
Glick and White (2004)	Parents' report of expected highest level of education	African American, Asian, European American, Mexican, Other Hispanic, others	Yes	8th grade	11,061	National Education Longitudinal Study (NELS 88)
Goldenberg <i>et al.</i> (2001)	Parents' estimation of how far they think their child will go in terms of formal schooling	Latino	No	Kindergarten (time 1) and follow up through 6th grade	81	Latino immigrant sample selected from randomly selected schools.
Halle <i>et al.</i> (1997)	Parents' report of likelihood that the target child would complete different educational levels	African American	No	3rd and 4th grade	41	Sample was drawn from all 3rd and 4th graders enrolled at the target elementary school in the southeastern region of the USA
Hao and Bonstead-Burns (1998)	Parents' report of expected highest level of education	African American, Asian American, European American, Latino	Yes	8th grade	17,912	National Education Longitudinal Study (NELS 88)
Hossler and Stage (1992)	Parents' report of expected highest level of schooling	Minority, non-minority	Yes	9th grade	2,497	All students from 21 high schools in Indiana State. A cluster design used to select the schools
Jeynes (2005)	Meta-analysis of studies of parental expectations, defined as degree to which a student's parent held high expectations of the students' promise of achieving at high levels	Minority, European American	No	Kindergarten to 6th grade	41 studies	Not applicable
Jeynes (2007)	Meta-analysis of studies of parental expectations, defined as degree to which a student's parent held high expectations of the students' promise of achieving at high levels	Minority, European American	No	6th to 12th grade	52 studies	Not applicable

Table 1 (continued)

Author(s)	Measurement of parental expectations	Race/ethnicity	Race ^a	Child grade/age	Sample size ^b	Sample description
Neuenschwander <i>et al.</i> (2007)	Parents' report of expected highest level of education	Not specified (American and Swiss people)	No	$M = 11$ year olds	3,348	1) Michigan Study of Adolescent Life Transitions [MSALT], 2) Childhood and Beyond Study [CAB], 3) Swiss Parent-Teacher-Collaboration Study [SPTCS]
Okagaki and Frensch (1998)	Parents' report of expected final schooling and expected grades	Asian American, European American, Latino	Yes	4th and 5th grade	275	Parents of 4th and 5th grade in a suburban school district in Northern CA
Pearce (2006)	Parents' report of expected highest level of education	Chinese American, European American	Yes	8th grade (time 1), 12th grade and 12 years later	8,522	National Education Longitudinal Study (NELS 88 and 2000)
Peng and Wright (1994)	Parents' report of expected highest level of education	African American, Asian American, European American, Latino, Native American, others	Yes	8th grade	9,685	National Education Longitudinal Study (NELS 88)
Phillipson and Phillipson (2007)	Parents' prediction of their children's expected scores in mathematics and language	Chinese, Anglo-Celtic	Yes	5th and 6th grade	158	Parents and children from three primary schools, two Chinese schools and one British International school in Hong Kong
Rätty (2006)	Parents' prediction of whether their child will enter gymnasium or vocational program	Not specified	No	1st grade (time 1) and follow up at 3rd grade	423	A nationwide random sample of parents with a 7-year-old child starting school in Finland
Rätty <i>et al.</i> (2002)	Parents' estimation of the probability of their child's entering gymnasium (higher education)	Not specified	No	3rd and 6th grade	501	A national sample in Finland
Reynolds (1998)	Parents' report of how far in school they think their child will get	African American	No	12 years olds	1,170	Chicago Longitudinal Study. Low-income ethnic minority who attended government-funded kindergarten programs in Chicago Public Schools
Rutchick <i>et al.</i> (2009)	Parents' report of how much education they expected their child to complete	African American, European American	No	Children aged 6 to 13. $M=9.75$	884	Child Development Supplement (CDS), an extension of the Panel Study of Income Dynamics (PSID). National sample targeted to low-income families from 48 states

Smith-Maddox (2006)	Parents' report of expected highest level of education	African American	No	8th grade	3,009	National Education Longitudinal Study (NELS 88)
Stevenson <i>et al.</i> (1990)	Parents' estimation of how far their child will go in school	African American, European American, Latino	Yes	1st, 3rd, 5th grade	968	Random selection of 2 classrooms in each 20 private and public elementary schools in Chicago
Suizzo and Stapleton (2007)	Parents' report of how far they expect their child to go in school	African American, Asian American, European American, Latino	Yes	Kindergarten	9,864	Early Childhood Longitudinal Study—Kindergarten (ECLS-K)
Sy and Schulenberg (2005)	Parents' report of how far they expect their child to go in school	Asian American, European American	Yes	Kindergarten	8,371	Early Childhood Longitudinal Study—Kindergarten (ECLS-K)
Sy <i>et al.</i> (2005)	Parents' report of how far they expect their child to go in school	Asian American, European American	Yes	Kindergarten	11,761	Early Childhood Longitudinal Study—Kindergarten (ECLS-K)
Trusty (2002)	Parents' report of expected highest level of education	African American	No	8th to 12th grade	1,749	National Education Longitudinal Study (NELS 88)
Trusty <i>et al.</i> (2003)	Parents' report of expected highest level of education	Mexican American	No	8th grade (time 1) and follow up 6 year later	1,185	National Education Longitudinal Study (NELS 88)
Vartanian <i>et al.</i> (2007)	Parents' report of expected highest level of education	Asian American, non-Asian American	Yes	8th grade (time 1) and follow up 12 years later	9,494	National Education Longitudinal Study (NELS 88 and 2000)
Zhan (2005)	Parents' report of how far they think their child will go in school	African American, European American, others	No	5 to 12 years old (time 1) and follow up 2 years later	1,370	The mother-child data set of the National Longitudinal Survey of Youth (NLSY)

Note. All studies featured correlational designs and employed quantitative analyses

^a Indication of whether the study compares parental expectations across racial/ethnic groups or examines the relations between parental expectations and academic performance in two or more racial/ethnic groups

^b Refers to number of parents or children in the sample; sample size often varies across analyses depending on missing data

that we reviewed; for consistency, we use the following terms to refer to these groups within the USA: African American, Asian American, Latino, and European American.

Evidence of Racial/Ethnic Differences in Parental Expectations

We found 14 reports that contrasted the expectations of parents in two or more groups. Of the eight articles that contrasted Asian parents with those in other groups, seven found that Asian American parents tend to hold higher expectations than do parents in other racial groups (Glick and White 2004; Hao and Bonstead-Burns 1998; Okagaki and Frensch 1998; Peng and Wright 1994; Suizzo and Stapleton 2007; Sy *et al.* 2005; Vartanian *et al.* 2007). For example, a study by Peng and Wright (1994) drawing upon the NELS data found that 80% of Asian American parents of eighth graders expected their children to attain at least a bachelor's degree, compared with 50% of Latino parents, 58% of African American parents, and 62% of European American parents. Four of these eight articles tested whether Asian parents' high expectations held up after controlling for parental socioeconomic status, and all of these found that they did (Glick and White 2004; Hao and Bonstead-Burns 1998; Suizzo and Stapleton 2007; Sy *et al.* 2005).

Findings pertaining to the expectations of Latino and African Americans relative to other groups are somewhat inconsistent. In four studies, Latino parents expressed significantly lower expectations than one or more other groups (Hao and Bonstead-Burns 1998; Okagaki and Frensch 1998; Peng and Wright 1994; Vartanian *et al.* 2007), but one recent analysis using the ECLS-K data found that Latinos had higher expectations for their kindergarteners than African American and European American parents after controlling for maternal education, family income and maternal depression (Suizzo and Stapleton 2007). Two articles found that African American parents held significantly higher expectations than European American parents after controlling for socioeconomic status (SES) (Glick and White 2004; Hao and Bonstead-Burns 1998), while one study reported no significant difference between the two groups after SES was controlled (Suizzo and Stapleton 2007).

In summary, it appears likely that Asian American parents hold higher expectations than do parents in other groups, but it is difficult to draw a definitive conclusion regarding the relative expectations of African American, Latino, and European American parents. As we will discuss presently, it is likely that these inconsistent findings are partially attributable to differences across studies in the child's age at the time parental expectations were assessed, the way in which parental expectations were elicited, variability across racial/ethnic groups in family SES, and the tendency of most studies to compare large and heterogeneous categories (e.g., Latino) rather than more well-defined subgroups. We believe that, in addition to these methodological issues, it is also time to develop more nuanced theory pertaining to the factors predicting parental expectations as well as the processes by which parental expectations exert an effect on children's academic outcomes.

What Are the Predictors of Parental Expectations?

One of the central questions that theory needs to address is why there are racial/ethnic group differences with respect to parental expectations. In the past, theory and research on the determinants of parental expectations have not tended to focus on cultural explanations. Sociologists tend to rely on early theoretical work proposing that membership in a certain social class gives rise to a particular level of parental expectations which in turn affect students'

educational and occupational attainment (e.g., Sewell *et al.* 1969). Psychologists, in contrast, more often draw from a comprehensive model developed by Seginer (1983) that pinpoints intra-individual and school factors contributing to the formation of parental expectations. In particular, Seginer underscores the importance of feedback from the school about previous academic performance in shaping parental expectations about their children's future, along with parental estimates of students' intellectual ability and parents' aspirations for children's achievement.

Recent findings of relatively strong ethnic/racial differences in parental expectations suggest that neither social class nor intra-individual factors offer a complete explanation for the formation of parental expectations. In particular, they cast doubt on the role of previous performance as a predictor of parental expectations for all racial/ethnic groups. For example, in a study of South African parents' expectations about the long-term attainment of their 11th grade children, parental expectations were related to literacy/numeracy scores in eighth grade for “Whites” but not for “Blacks,” after controlling for parents' education (Beutel and Anderson 2008). Similar findings emerged in the USA, where Hossler and Stage (1992) found that minority parents had higher educational expectations than European American parents even though the GPAs of their ninth graders were lower than those of European Americans.

The relation between previous school performance and parental expectations is not similar across SES groups either. In two studies, the gap between previous academic performance and parental expectations for marks was larger for lower income families than for their higher income counterparts (Alexander *et al.* 1994; Balboni and Pedrabissi 1998). For example, in their longitudinal study, Alexander and colleagues (1994) found that, while parents' expectations for their early elementary children's grades in reading and math were above the children's actual grades regardless of ethnicity and SES, the gap between actual grades and expected grades was larger for lower SES parents. The gap between parental expectations and children's grades was also larger for African American than European American parents.

To help explain these findings, we propose three factors that might dilute the power of past performance as a determinant of parental expectations: parents' belief that effort rather than ability affects school performance; a lack of understanding or mistrust of feedback from the school about their children's performance; and low self-efficacy in supporting their children's future schoolwork (see Fig. 1). We suggest that these moderating factors are associated with membership in a particular racial/ethnic group. By pinpointing the explanatory factors, we are able to move beyond a “social address” comparison of racial/ethnic groups to develop a more process-oriented account of racial/ethnic differences (Bronfenbrenner 1986).

Parents' belief in effort as the primary determinant of school performance

Parental attributions about the causes of successful school performance are likely to affect the relation between students' prior performance and parents' expectations about future performance. Parents who attribute achievement outcomes primarily to ability or intelligence expect performance to be stable because ability tends to be viewed as a stable entity that is difficult for the individual to change (Weiner 2005). For parents with this belief system, past performance is likely to be seen as a reliable indicator of future attainment. Those who believe that students' effort—a more controllable and unstable commodity—is the primary cause of achievement are more likely to think that future performance can potentially be different from that of the past if the student changes the amount of effort they put into their schoolwork.

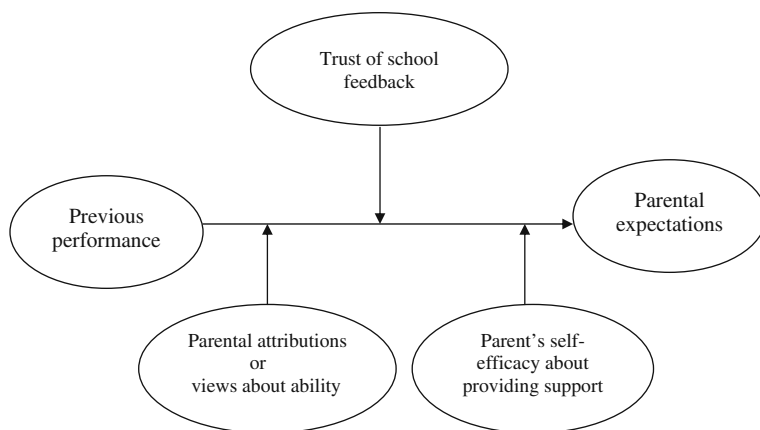


Fig. 1 Moderators between students' previous performance and parental expectations

It has been clearly established that there are cultural differences in parents' views about the factors that contribute to high achievement. Asian American parents are particularly likely to view academic success as a function of motivation and hard work rather than innate ability (Okagaki and Frensch 1998). International comparisons have also highlighted the tendency of Asian parents to emphasize the effect of effort more than innate ability on academic learning (Holloway 1988; Stevenson and Stigler 1992). This tendency of Asian and Asian American parents to focus on effort may contribute to a weaker relation between past performance and parental academic expectations for these groups because they believe that their children can always improve their performance at school by putting forth more effort, regardless of their previous level of attainment.

Additionally, various sociocultural groups may differ in the way they conceptualize academic ability itself. On one hand, European American parents tend to view academic ability primarily as a composite of analytic and verbal abilities (Okagaki and Sternberg 1993). In contrast, racial/ethnic minority parents perceive other factors – including motivation, self-management, and social competence—as contributing to high achievement. For example, Mexican immigrant parents more often perceive that morals, social skills and academic attainment are inseparable, and Vietnamese and Filipino immigrant parents view motivation as an aspect of ability or intelligence (Delgado-Gaitan 1992; Goldenberg and Gallimore 1995; Okagaki and Sternberg 1993; Valdés 1996). And because motivational and personal qualities are somewhat more subject to the control of the individual than are more basic cognitive skills, parents to whom they are salient may feel more optimistic about the chance of improvement, whereas parents who focus solely on cognitive skills may be more likely to hypothesize that future performance will not depart strongly from past performance.

There is also some evidence that these variable definitions of the components of academic ability are associated with parents' educational experiences, with more highly educated parents more likely to view ability as independent of social skills and motivation to achieve. In a study of Finnish families, Rätty and colleagues (2002) found that highly educated parents tended to form expectations for their 7-year olds based on the children's cognitive competence in literacy and other academic subjects as well as their analytic problem solving skills, whereas vocationally trained parents were more likely to form expectations based on their children's creativity and social skills.

In sum, it appears likely that variability in how parents from different social class and sociocultural backgrounds interpret the causes of children's performance may explain culturally specific patterns in the relation between prior academic performance and parental expectations. If future studies include parental attributions as a moderator of the relation between parental expectations and students' prior academic performance, we will gain a clearer understanding of the processes affecting student response to parental expectations in different racial/ethnic groups.

Parents' differential understanding and trust of school feedback

In order for students' past performance to figure into parental expectations about the future, parents must rely on feedback from the school in the form of grades, test results, and teachers' assessments (Goldenberg *et al.* 2001; Seginer 1983). However, parents' assessment of children's performance differs depending on the sociocultural group to which the parents belong. For example, Alexander *et al.* (1994) found racial and SES differences in parents' attentiveness to performance feedback from the elementary school. They found that recall of previous year's marks in reading and math was more accurate among European American than African American parents, as well as among high-SES parents rather than low-SES parents. As noted earlier, parental expectations for future marks were closer to actual marks among European American than African American, and were closer among high-SES parents than their low-SES counterparts. For example, while approximately 25% of European American and African American parents expected their children to receive excellent marks, 1.5% of African American children actually received marks of this caliber, as compared with 10.1% of European American children. These findings suggest that European American parents are more attuned to the feedback from school and take more account of previous performance in constructing their expectations than African American parents.

We argue that the degree to which parents recall and give weight to school feedback about a student's performance depends on the nature of the relationships that parents are able to construct with school staff. The relatively lower accuracy of grade recall among African American parents in the work of Alexander and colleagues (1994) may be a function of their relationship with teachers and other school staff. Due to the history of racial discrimination within the United States, African American parents are more likely to mistrust the intentions and doubt the fairness of teachers (Lareau and Horvat 1999; Ogbu 2003). If parents perceive teachers as biased or untrustworthy, they may be less likely to see teacher evaluation as a legitimate reflection of their child's potential. Mistrust may, therefore, attenuate the relation of past performance to future expectations for these parents. Conversely, parents who think teachers have accurately and fairly assessed their children's performance are more likely to use that evaluation as a basis for future predictions. For this reason, future research should include both teachers' and parents' assessment of student's performance, and, more importantly, should continue investigating the institutional as well as psychological and cultural factors that undermine or support the trust of parents from varied racial/ethnic groups.

Parents' variable self-efficacy regarding involvement in children's schooling

A third reason why prior performance may be a less potent predictor of school performance among racial/ethnic minority and lower SES parents is that these parents may lack a sense of efficacy in helping their children succeed in school in the future, particularly as the

children move into the higher grades (Bandura 1982, 1986, 1997). Parents with limited education and fewer economic resources tend to feel less efficacious helping their children with school work than do more advantaged parents, and also feel less comfortable interacting with teachers and other education professionals (Coleman and Karraker 1997; Lareau 1989; Yamamoto 2007; Zhan 2005). These parents may develop low academic expectations for their children even when the children's previous school performance is relatively high if they worry that they will not be able to provide support in the future due to a lack of intellectual, cultural or material resources. Conversely, when parents believe that they are capable of helping their children succeed at school, they may retain high expectations concerning their academic performance (Bandura *et al.* 1996).

Parenting self-efficacy regarding the support of children's achievement is likely to be more strongly associated with a combination of ethnicity, immigrant status and SES than with race/ethnicity alone. Due to limited English proficiency, financial constraints, and limited experience with the educational system in the USA, immigrant parents often find it difficult to communicate and work with their children, and experience a lower parental sense of efficacy in helping children's schooling (Cooper *et al.* 1999; García Coll and Marks 2009; Suárez-Orozco and Suárez-Orozco 2001). Immigrant Latino parents are particularly “at risk” for experiencing a lack of efficacy with respect to schooling. While Asian immigrant parents are often available to draw on educational and financial resources within their community, Latino immigrant parents are more often on their own when it comes to support their children's schooling (Zhou and Kim 2006). In one early study, Stevenson *et al.* (1990) found that immigrant Latino mothers' sense of efficacy in helping their children with reading and mathematics in elementary school was significantly lower than that of European American and African American mothers. Non-immigrant Latino parents feel more confident about their children's chances for success than do those of the immigrant generation; for example, Hao and Bonstead-Burns (1998) found that immigrant Mexican parents had lower expectations for their eighth grader's future schooling than did Mexican-heritage parents born in the USA.

Cultural models of parenting may also contribute to parents' perception that they can do little to promote high achievement in the future. Specifically, some evidence suggests that Latino parents of adolescents endorse a “child-directed” view that accords more of the decision-making power to the adolescent than the parent in selecting an educational path (Stanton-Salazar 2001). The question of what parents believe they *should* do and what they believe they *can* do to support their children's schooling thus depends on the role demands, stresses, and supports afforded by their cultural and socioeconomic background. To date, little work has examined parents' sense of efficacy in supporting their children's education as a moderator of the relation between students' performance and parental expectations. Future work in this area is warranted in order to better understand how immigrant and ethnic minority parents construct their educational expectations.

Evidence of an Association Between Parental Expectations and Students' Academic Achievement

We identified 21 articles examining the relation of parental expectations to student achievement including two reporting meta-analyses. In eight of these articles, researchers tested and found strong and consistent evidence of a positive association or significant pathways between parental expectations and achievement for European American families (Davis-Kean 2005; Entwisle and Alexander 1990; Neuenschwander *et al.* 2007; Okagaki

and Frensch 1998; Pearce 2006; Peng and Wright 1994; Phillipson and Phillipson 2007; Sy and Schulenberg 2005). None of the studies that examined the association between parental expectations of European American families and children's achievement failed to find an association. However, the findings were not consistent for Asian Americans or African Americans. On one hand, Okagaki and Frensch (1998) found that when SES and other parental involvement variables were controlled, a measure of parental expectations was a significant predictor of fourth and fifth graders' grades for European American and Asian American students. Similarly, Sy and Schulenberg (2005) conducted path analyses using the ECLS-K data and found that the pathways from parental expectations to kindergartners' achievement outcomes were similar for European American and Asian Americans. However, more recent research conducted by Vartanian and colleagues (2007) with 9,494 participants showed that parental expectations was a significant predictor of college completion for the non-Asians but not for Asian Americans after controlling for 8th grade GPA and standardized test scores. Davis-Kean (2005) studied 8 to 12-year-old children and found similar patterns with African Americans; parental expectations had a direct significant effect on academic achievement for European American but not for African American students.

With regard to Latino families, none of the studies we reviewed found a significant relation between parental expectations and student performance. The Okagaki and Frensch study (1998) described earlier found no evidence of an association between parental expectations and student grades for Latino students nor did two more recent longitudinal studies focusing on Latino immigrant families. A study by Goldenberg and colleagues (2001) assessed Latino families' parental expectations and their children's academic performance each year from kindergarten to sixth grade. Analyses conducted with a small sample of 57 found no significant paths from early parental expectations to later school performance (as measured by teacher ratings) or to reading and math test scores. Similar results emerged from a large study of 1,050 Latino immigrant students and families, which found that parental expectations assessed when children were 10th graders were not related to children's math achievement at 12th grade (Carpenter 2008).

These inconsistent findings raise questions about the mechanisms through which parental expectations exert an effect on students' educational processes. It is possible that parental expectations influence student's academic outcomes through a variety of mechanisms, some of which are more powerful for a particular racial/ethnic group. We have identified four such mechanisms linked to high parental expectations: (a) child's internalization of parents' valuation of achievement; (b) child's higher competency beliefs; (c) more intensive and effective parental involvement; and (d) more optimistic and positive teacher perceptions of child's capabilities (see Fig. 2). We now turn to the evidence for each of these mechanisms, and discuss the reasons why a particular mechanism may function differently for racial/ethnic minority families than for European American families.

High parental expectations indicate that parents value achievement

Parental expectations can function as a form of communication that conveys to students the value their parents place on achievement. Students perceive this communicated value as a norm, which becomes internalized as a standard that students strive to attain. The concept of the self-fulfilling prophecy was introduced by early sociologists who argued that parents' prophecy—or expectations—about future achievement boosts their children's motivation and expectations, and in turn leads them to high achievement (Haller and Portes 1973; Reitzes and Mutran 1980; Rosenthal 1974). Dumais (2006) extended this notion by

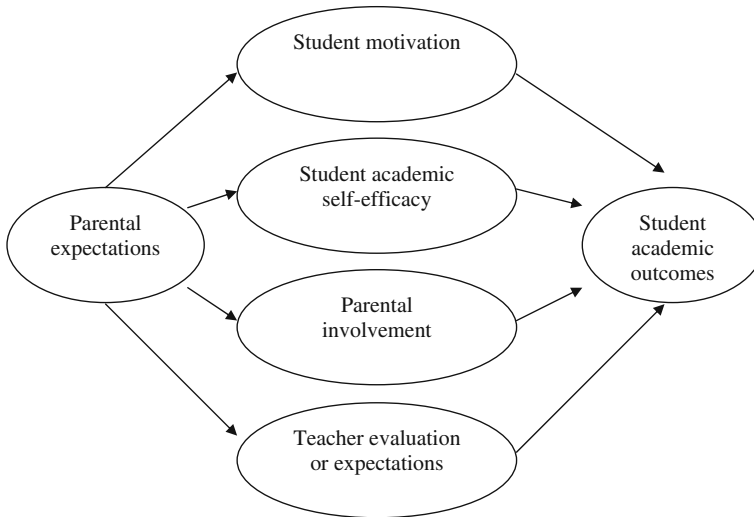


Fig. 2 Mediators between parental expectations and students' academic outcomes

characterizing student perceptions of parental expectations as the internalization of a social structure that “forms one's worldview and serves as a guide throughout an individual's life” (p.85). Psychologists have proposed a similar notion, describing parents as “expectancy socializers” (Eccles *et al.* 1982) and focusing on the ways in which parental expectations function as an “environmental press” that compels students to meet parental standards (Marjoribanks 1972).

To investigate the possible operation of this “internalization of norms” mechanism, we examined those studies that assessed the relation between parental expectations and students' own expectations or aspirations. This motivational function of parental expectations is supported by eight articles demonstrating a strong association between parental expectations and students' expectations or aspirations (Benner and Mistry 2007; Beutel and Anderson 2008; Carpenter 2008; Hao and Bonstead-Burns 1998; Rutchick *et al.* 2009; Smith-Maddox 2000; Trusty 2002; Trusty *et al.* 2003). A recent longitudinal study of 884 children aged 6 to 13 years when the study began demonstrated the long-lasting effect of parental expectations on children's expectations. The authors found that parental expectations were closely related to students' expectations 5 years later even after controlling for demographic variables and children's previous achievement scores. Parental expectations also influenced their children's later achievement scores via the mediating effect of children's expectations (Rutchick *et al.* 2009).

In three of these studies, there was evidence that the strength of the linkage between parents' expectations and students' expectations differed across racial/ethnic groups (Beutel and Anderson 2008; Carpenter 2008; Hao and Bonstead-Burns 1998). Carpenter (2008) noted that correlations between parental expectations and expectations of 10th to 12th graders were weaker for Latino students with an immigrant parent compared with non-Latino students with an immigrant parents. Beutel and Anderson (2008) found that South African parents' expectations when their children were in the 8th grade was a significant predictor of students' educational expectations at 11th grade for Asian and mixed race students but not for Blacks after controlling for parents' education, previous literacy/numeracy scores, and whether or not the student was enrolled in school at the time of 11th grade.

What may account for this pattern of weaker relations between parental and student expectations for racial/ethnic minorities than for European American families? One explanation may be related to variability across families in the degree to which parents and children communicate about schooling. For immigrant families, it may be more difficult to communicate clearly about schooling because parents are less familiar with the US educational system. Additionally, relations between immigrant parents and their children can be affected by language difficulties and other elements of acculturative stress (García Coll and Marks 2009; Qin *et al.* 2008). Hao and Bonstead-Burns (1998) analyzed Asian and Mexican immigrant and native-born Mexican American, African American, and European American eighth graders' expectations in relation to their parents' expectations. They found high agreement between parents and children within Asian immigrant families, but not within Mexican immigrant families. In general, parents who participated in more frequent discussions with their children and were more involved in their children's educational activities were more likely to hold similar expectations to their children than those reporting less frequent interactions.

Parents in some racial/ethnic groups may be particularly explicit in their communication of academic expectations. One qualitative study of low-income ninth grade Asian American students found that parents of these students tended to articulate their educational expectations quite strongly and forcefully, leaving no doubt regarding the high value they placed on achievement (Li *et al.* 2008). In contrast, it appears that Mexican immigrant parents also view education as important but are less likely to communicate their views to their children in an emphatic manner. Early evidence regarding this distinction emerged in a study of Japanese and Mexican immigrant families conducted by Matute-Bianchi (1986), which found that Mexican parents were less likely than the Japanese parents to discuss their academic expectations with their children (see also Stanton-Salazar 2001).

High parental expectations boost student academic self-efficacy

Another way in which parental expectations may affect student achievement is by conveying messages about their child's abilities and capabilities which in turn enhance students' competency beliefs and sense of efficacy about their academic trajectory (Eccles *et al.* 1982; Eccles *et al.* 1998). In general, students who perceive themselves as capable tend to obtain better grades and higher test scores than students with lower capability beliefs. For example, the mediating role of students' competency beliefs emerged in a comparative study of sixth and seventh grade students in the USA and Switzerland (Neuenschwander *et al.* 2007). Path analyses indicated that parental expectations influenced early adolescents' self-concept of ability which in turn affected their grades and standardized scores in math and native language.

Studies of students in racial/ethnic minority groups suggest that parental expectations also appear to be related to academic self-efficacy among African American and Latino students. A study conducted by Benner and Mistry (2007) tested the mediating role of student competency beliefs among 522 youth aged 9–16 years old, most of whom were African Americans and Latinos from low-income families. Path analyses demonstrated that maternal expectations were associated with students' perceptions of their academic skills and ability to learn new concepts in math and reading. These self-perceptions were in turn related to achievement test scores and parental ratings of academic performance (but not teacher evaluations of academic performance).

Evidence regarding the mediating role of academic self-efficacy among Asian American students is scarce, but a study by Eaton and Dembo (1997) found that, on average, Asian

American ninth graders had lower academic self-efficacy beliefs but higher achievement behaviors compared to non-Asian American students, suggesting that academic self-efficacy may not be responsible for the high achievement of this group. Correlations indicated that fear of failure was significantly associated with academic achievement for the Asian American students, but that self-efficacy beliefs were not.

These findings are consistent with a cultural pattern of self-criticism that has been noted in Asian countries (e.g., Holloway 2010; Lewis 1995). To the extent that Asian American students are encouraged to remediate their weaknesses rather than dwell on their accomplishments, the mediating role of student competency beliefs would function differently for these students than for those in other groups. In the future, it would be of interest to conduct studies examining the mediating role of academic competency or self-efficacy beliefs among Asian American students. Such studies will increase our understanding of the pathway through which parental expectations increase students' academic outcomes for this group.

High parental expectations foster parental involvement in schooling

Another pathway by which parental expectations are thought to affect student achievement is by fostering greater parental involvement in children's academic activities. Parental involvement in children's education generally refers to the extent and quality of help with homework, communication with the teacher, participation in school activities, and facilitation of cognitively stimulating activities (Hoover-Dempsey and Sandler 1997; Sy and Schulenberg 2005; Trusty 2002). The relation of parental involvement to children's academic achievement is well documented (see Pomerantz *et al.* 2007 for a review). Additionally, parental involvement has been found to affect students' achievement-related beliefs, including their perceived competence and aspirations regarding academic achievement (Grolnick and Slowiaczek 1994). Of particular relevance to this review is evidence suggesting that parents who placed higher value on education and have higher expectations about their child's educational attainment tend to be more engaged in achievement-related activities, including reading to their children, sending them to extracurricular lessons, and monitoring their academic progress (Halle *et al.* 1997; Sy *et al.* 2005).

Yet, several studies have found variability across different groups in terms of the ways in which parents become involved in their children's schooling. For example, Peng and Wright's (1994) analysis of the NELS data demonstrated that Asian American students had significantly higher parental expectations and achievement scores than Latino, African American and European American students. Yet, the Asian American parents were significantly less likely to discuss their children's school experiences with them, nor did they assist their children with their school work as much as did African American or European American parents. Compared with African American and Latino parents, Asian American parents provided more learning opportunities in the form of after-school lessons and activities, and disciplined their children to spend longer hours doing homework than African American, Latino, or European American parents. Thus, it is also crucial to recognize that various ethnic groups differ in the extent to which they engage in particular kinds of parental involvement.

Studies also highlight the powerful role of parental involvement as a mediator between parental expectations and students' academic outcomes for European American parents, but not for Asian American parents. Research conducted to date suggests that parental help with children's homework yields little positive influence on Asian American and Asian

immigrant students' academic achievement even though such involvement appears to boost European American students' educational performance. In their analysis of the ECLS-K data on 514 Asian American and 7,857 European American kindergartners, Sy and Schulenberg (2005) found that for Asian parents, *low* parental expectations appeared to trigger parental involvement in school activities while for European American parents, *high* expectations prompted parental involvement. Furthermore, while the authors found that parental expectations and involvement predicted child outcomes in both groups, there were some differences in the pattern of effects. Specifically, parents' school participation was not significantly associated with Asian American student's math and reading scores, even though it was for European American children. For both groups, parents' involvement in home literacy was associated with children's reading outcomes, and for European Americans but not Asian Americans it was associated with math outcomes.

There is little evidence regarding the association of parental expectations to parental involvement among Latino families. However, research conducted to date suggests that Latino parents are less likely than European Americans to become involved in certain kinds of supportive activities with their children. For example, Latino parents are significantly less likely to read to their young children than are European American parents (Bradley *et al.* 2001; Raikes *et al.* 2006). To a large extent, this pattern may be a function of language barriers, low levels of schooling, and lack of knowledge about American education among Latino immigrants (Cooper *et al.* 1999; García Coll *et al.* 2002). Culturally bounded beliefs about the parental role may also have an effect. Several studies have found that Latino parents with young children view their primary role as one of guiding their children's moral development and protecting them from negative peer influences rather than providing direct support of academic learning (Cooper 2002; Cooper *et al.* 1999; Holloway *et al.* 1997; Valdés 1996). If Latino parents are generally less likely to provide certain forms of support concerning achievement, then such support is unlikely to serve as a mediator linking parental expectations to student achievement. These factors all help explain why parental involvement is not a strong mediator between parental expectations and student achievement for all groups, but the evidence is sparse, particularly with respect to groups other than Asian Americans.

High parental expectations and involvement increase teachers' expectations of students

A final route through which parental expectations may increase students' academic success is by influencing teachers' perceptions and evaluations of the child. Teachers may find it motivating to pay particular attention to children whose parents hold high expectations and are clearly involved in their children's schooling because the teachers believe that their efforts in the classroom are being reinforced at home. Teachers who perceive parents as holding high expectations for their children may also raise their own expectations for those particular students and increase their educational commitment to them (Bandura *et al.* 1996).

Lareau (1989) provides a detailed view of the way in which parental expectations are perceived by teachers and used in making educational decisions about children. In her ethnographic study of working class and middle class families, she found that decisions to promote a child to the next grade depended on the teacher's perception of parental involvement. Low-achieving students whose parents appeared to be involved in their children's schooling were likely to be promoted, while similarly challenged students whose parents were not perceived as involved were required to repeat the year. While Lareau's study did not examine ethnic/racial differences, her work showed that teachers tended to

view parents of lower SES as less involved than those of higher SES backgrounds. In a quantitative study of kindergarten children and their parents, Dumais (2006) found that lower SES parents tended to feel less welcome at the school than did higher SES parents, and these perceptions were in turn associated with lower teacher perceptions regarding their children's academic skills.

There is ample evidence that teachers treat students differently depending on their expectations of the students. When teachers hold high academic expectations for a student, they are likely to provide a more positive and challenging learning environment for that individual. In her qualitative study of elementary school students, Weinstein (2002) found that teachers were more likely to praise students of whom they held high expectations, ask them to lead classroom activities, and give them more academic choices. On the other hand, teachers provided negative feedback to students, of whom they held low expectations, giving them limited attention and recommending placement in low-track classes. Interviews conducted with the children revealed how they came to perceive their academic competence as it was reflected in the eyes of their teachers (see also Benner and Mistry 2007).

Even when parents are attempting to support their children's schooling, teachers may not realize that this is the case, or may view such effort as detrimental rather than supportive of student achievement. For example, in their qualitative study examining parental involvement in children's schooling, Lareau and Horvat (1999) found that teachers may discount or misinterpret the concerns of African American parents about racial discrimination in the classroom, thereby missing an opportunity to understand a potentially important explanation for a child's failure to achieve. In short, "cultural mismatches" may cause teachers to de-value or misunderstand parental goals and actions, and may result in inaccurate expectations on the part of the teacher about the students' potential. If this is the case, the relation between parental involvement and student achievement is not likely to be as strong for racial/ethnic minority parents as for their European American counterparts. At this point, evidence is only suggestive concerning the pathway from parental expectations and involvement to teacher expectations and involvement with students from various racial/ethnic groups, and the topic deserves further study.

Summary and Conclusions

The goal of this review was to examine the available evidence concerning the association between parental expectations and students' academic performance across diverse racial/ethnic groups. We found evidence that parental expectations are higher among Asian American families than other racial/ethnic groups. The evidence regarding educational expectations of Latino and African American families is somewhat mixed and merits further investigation. We also found that, while students' prior academic performance is one of the strongest predictors of parental expectations among European American families, it is not a particularly strong predictor for racial/ethnic minority families.

To explain this pattern, we identified three factors that moderate the relation of previous performance to parental expectations about the future and that are likely to be associated with membership in a racial/ethnic minority group. We argued that parents who believe that effort is the key determinant of academic success are not likely to base their expectations on past performance because effort is relatively controllable and hence less stable over time. In contrast, those parents who believe that performance is a function of native ability, which is frequently perceived as relatively stable over time, are more likely to see past achievement as a reliable indicator of future performance. To the extent that Asian Americans are

particularly likely to focus on the role of effort in achievement, the effects of past performance are likely to be less salient for them in predicting future performance than for other groups.

Second, parents' own experiences with school institutions and their perceptions of how school personnel treat members of their ethnic or cultural group affect the degree to which parents accept teachers' assessment of their children's school progress. Mistrust of teachers among minority or low-SES parents, especially among African American parents, may lessen parents' reliance on school feedback when evaluating their children's academic performance, and thus diminish its value in predicting how the child will do in the future. And third, parents' sense of self-efficacy in supporting their children's schooling is conditioned by available resources and sources of support. Parents with limited resources and support, especially low-SES and/or immigrant parents, may underestimate the likelihood of their children's future academic success even when past performance has been high because they do not feel personally capable of helping their children attain the required skills.

Our review also suggested that parental expectations are strongly related to student performance among European American families, but less so among minority families. To explain this pattern, we addressed four processes through which parental expectations influence children's academic trajectories: (a) raising student motivation; (b) instilling higher student competency beliefs; (c) stimulating greater parental involvement; and (d) increasing teachers' expectations of student promise. Our review suggests that these processes do not occur in the same way or to the same degree in all racial/ethnic groups. We showed how communication difficulties or other problems in the parent-child relationship, which is sometimes conditioned by ethnic background and immigrant status, may diminish the motivational effect of high parental expectations. Additionally, it appears that Asian American parents may more forcefully articulate their expectations, which may make it more likely that students will understand and internalize them.

We also suggested that for some groups, particularly Asian Americans, student beliefs about their academic competence may not be as strongly determinative of achievement as for other groups. As we noted, more studies examining students' competency beliefs across ethnic groups are necessary in order to compare the importance of this belief as a mediator between parental expectations and student outcomes. Regarding the association between parental expectations and their involvement in schooling, we reviewed work suggesting that for some groups, particularly Latinos, higher parental expectations did not necessarily translate into the type of parental involvement that is directly related to academic achievement. It is critical to have studies which investigate various types of parental involvement contributing to students' academic achievement across diverse groups. And finally, we explored the possibility that teachers make academic decisions based on their perceptions of parental support, but may not always have a full understanding of the nature and effectiveness of that support. More quantitative research that includes teachers' perceptions about parental expectations and involvement in their children's schooling is necessary to test this model.

Directions for future research

In our review, we have tried to move beyond examination of ethnic and racial categories, which are at best proxies for complex and shifting sets of norms and social positions, by sketching out the interpersonal and intrapsychic processes by which parents in these various groups form and communicate their ideas. Consistent with a sociocultural perspective, we believe that this work should be extended in the future by conducting studies that take a

nuanced view of cultural processes as shifting and contested responses to institutional structures and other features of the immediate context (Gjerde 2004). In so doing, researchers will obtain a deeper understanding of the dynamic processes by which family members interact with each other and with other actors in the home, school, and community (Weisner 2002).

We look forward to more studies that focus on the ways in which parental expectations emerge within the intertwined context of families' socio-economic position and their culturally constructed understandings. For example, to fill the gap in our knowledge about Latino families and schooling in the United States, it would be interesting to build from the pioneering work of Goldenberg *et al.* to explore the varied ways in which subgroups of Latino parents conceptualize their role and that of the teacher, and to learn how these culturally based perceptions play into their expectations about what their children can and will achieve in school (e.g., Goldenberg and Gallimore 1995; Goldenberg *et al.* 2001; Reese and Gallimore 2000). Additional qualitative work is needed to learn more about the ways Latino parents judge their ability to assist their children attain academic outcomes commensurate with their potential. We also need to learn more about whether and how parents reflect on the effects of their expectations on their children. What do they see, for example, as the motivational value of holding high expectations? Are they aware of or concerned about negative effects of inaccurate or unrealistic expectations? How do they balance their own perceptions of their children and those that they receive from teachers and other professionals? And finally, it will also be interesting to learn more about the ways that the mediators and moderators we have identified are related to each other within each racial/ethnic group and across groups. It is likely, for example, that parental involvement exerts an effect on academic achievement through more than one of the mediating processes we have identified. We have much more to learn about the ways that these various mechanisms may complement or even offset each other.

Additionally, we hope that a sociocultural approach can be applied more systematically across the age span. We were able to report on a number of studies involving 8th and 10th graders because of the availability of National Educational Longitudinal Study (NELS) data, but far fewer studies are available on children at other age periods. We found no studies that examined parental expectations of preschool children, for example. By conducting studies with parents of preschool-aged children we will be better able to identify when parents start to form their expectations, whether the relations between parental expectations and academic performance differ across ethnic groups at this young age, and if such patterns continue through adolescence.

More generally, we need additional longitudinal research that examines changes in parental expectations over time across and within ethnic groups. To date, the effects of parental expectations on children's academic achievement have typically been examined at a single point in time. This limits our understanding of the dynamic aspect of parental expectations, and their influence on their behavior and on their children's educational trajectories. Careful study should focus on understanding what happens when students do not behave in accordance with parental expectations. What are the ways parents respond to unexpected developments and which are these associated with positive adaptation on the part of the children? Longitudinal study will also allow us to understand whether there are critical periods in which parental expectations are particularly likely to affect students' academic achievement.

There are a number of methodological concerns that deserve attention in future research. We have noted that sample size varies substantially across the studies conducted over the past two decades, with some earlier studies drawing from samples of fewer than 100

families to more recent large-scale studies with samples of 10,000 or more. Clearly, the small studies are somewhat hampered by low power to detect meaningful relationships. Even within larger data sets, the sample size often varies across ethnic groups, making it difficult to compare the strength of relations detected in within-group modeling exercises. As researchers increasingly turn their attention to inter-group comparisons, it is important that efforts are made to ensure a sample of adequate size for each focal group.

While the incorporation of parental expectations measures into large studies such as the NELS and ECLS-K certainly enables the researchers to engage in more powerful analyses, the cost of this practice is that such measures are typically quite short due to constraints of space and time. The compressed assessments possible in these very large data sets should be balanced with studies that delve more deeply into the assessment of parental expectations. At the least, researchers should consider measuring parents' grade expectations in addition to their expectations concerning their children's academic trajectory.

Although the number of studies including diverse racial/ethnic groups is growing, there is still a gap in our understanding of certain groups. As we have noted, the role of parental expectations in Latino families, especially in comparison with other racial/ethnic groups, is still poorly understood. To gain clarity with respect to these groups, future work should attend more carefully to the interactions among ethnicity, socioeconomic status, and immigrant status. While non-immigrant and immigrant families within the same ethnic group may share similar cultural beliefs, immigrant parents often face numerous challenges including limited English proficiency and a lack of knowledge about educational system in the USA due to their migration experiences. Studies that examine parental expectations from various socioeconomic strata or both immigrant and later-generation within the same ethnic group will help us understand whether the models we proposed are applicable to specific ethnic groups or are moderated by their socioeconomic or immigrant status. It would also be preferable to draw more focused samples in future studies rather than relying upon large and heterogeneous categories such as Asian and Latino.

Finally, it is necessary to note that a few studies suggest that academic pressure derived from high parent expectations can undermine children's psychological well-being and academic motivation (Agliata and Renk 2009; Luthar and Becker 2002). Academic pressure has been found to be a predictor of suicidal ideation and behavior among Asian adolescents (Ang and Huan 2006; Juon *et al.* 1994). As we have demonstrated, most studies focus on positive aspects of parental expectations on students' educational processes rather than negative aspects. Understanding the processes through which expectations produce both positive and negative outcomes in diverse racial and ethnic groups will further extend our insight into the processes by which families serve as an important educational context for children.

Educational implications

It is possible to derive several implications for educational practice from the findings of this review. Our review suggests a need for teachers to obtain a clearer understanding of the beliefs that parents in various ethnic/racial groups hold concerning their children. For example, while many teachers may be aware of the high academic expectations held by Asian American parents, they may not understand how those expectations play out in terms of student performance. It is unlikely that teachers realize that parental expectations may be unrelated to students' prior performance in this group, nor are they necessarily aware that parental expectations may not be linked to students' perception about their academic competence. Teachers who hold a clear and accurate understanding of the dynamic process by which parental expectations are formed and interpreted by children will be in a better position to

assist their students in overcoming the effects of overly high or excessively low parental expectations.

Our review suggests that there is a great deal of variability in the academic expectations held by racial/ethnic minority parents other than Asian Americans. Currently, many teachers may have the erroneous impression that Latino and African American parents are uniformly less likely to value education or to hold high expectations for their children than do parents in other groups. Teachers can be discouraged from making assumptions about parental expectations based on their ethnic or racial background, and encouraged to become sensitive to cultural and ethnic values. Respecting parents' heritage will also help teachers form trusting relationships with parents from racial/ethnic minority groups and work on communicating clearly with them about their children's academic performance. Pre-service or in-service teacher education programs can help teachers increase their understanding of cultural diversity.

Our reviews especially indicate the need for better communication between school personnel and racial/ethnic minority parents. Promoting open communication with parents and providing guidance about how to interpret grades and reports will help parents construct realistic expectations for their children and will raise their sense of self-efficacy in supporting them in school. Providing clear guidance to parents about how to support their children's academic progress at home will also increase their involvement in their children's education. As Hoover-Dempsey and her colleagues suggest (Hoover-Dempsey and Sandler 1997; Hoover-Dempsey *et al.* 2005), teacher invitation is one of the critical elements that facilitates parents' decisions to be involved in their children's education.

Our findings also suggest implications for parent education. First, studies suggest that for some parents there is a gap between students' previous academic performance and parental expectations about the future. Parents with unrealistic expectations about their children's future performance may have difficulty knowing what they can do to maximize their children's academic potential. Our review also brought renewed attention to the fact that some ethnic minority parents mistrust their children's teachers or may have difficulty communicating with them due to cultural and economic differences. Accurate assessment of their child's school progress and academic progress is necessary for parents to form realistic expectations concerning their children's academic future. To address the difficulty that some parents have in assessing their children's potential, it may be beneficial for schools to offer parent seminars or peer-group interventions that illustrate strategies for initiating contact with their children's teachers and developing trusting and supportive relationships with them.

Lastly, parents' expectations have to be communicated to their children and accepted by them in order for them to have an effect on children's internal standards and self-perceptions. Schools and other supportive organizations may be able to help parents reflect on the importance of communicating clear expectations to their children and the effects of these communications on their children's perceptions of academic self-efficacy.

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