Parental Ethnic-Racial Socialization and Children of Color's Academic Success: A Meta-Analytic Review

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Increased attention is being placed on the importance of ethnic-racial socialization in children of color's academic outcomes. Synthesizing research on the effects of parental ethnic-racial socialization, this meta-analysis of 37 studies reveals that overall the relation between ethnic-racial socialization and academic outcomes was positive, though the strength varied by the specific academic outcome under consideration, dimension of ethnic-racial socialization utilized, developmental age of the child receiving the socialization, and racial/ethnic group implementing the socialization. Ethnic-racial socialization was positively related to academic performance, motivation, and engagement, with motivation being the strongest outcome. Most dimensions of ethnic-racial socialization were positively related to academic outcomes, except for promotion of mistrust. In addition, the link between ethnic-racial socialization and academic outcomes was strongest for middle school and college students, and when looking across ethnic-racial groups, this link was strongest for African American youth. The results suggest that different dimensions of ethnic-racial socialization have distinct relationships with diverse academic outcomes and that the effects of ethnic-racial socialization vary by both youth developmental levels and racial/ethnic groups.

Ethnic-racial socialization, defined as "the mechanisms through which parents transmit information, values, and perspectives about ethnicity and race to their children" (Hughes et al., 2006, p. 747), has received increased attention as a developmental and cultural asset for children of color that buffers against racist encounters and aids in effective processing of stereotypes and microaggressions (Berkel et al., 2010; Neblett, Rivas-Drake, & Umaña-Taylor, 2012). Although researchers generally agree that ethnic-racial socialization has important consequences for child outcomes (Stevenson, Herrero-Taylor, Cameron, & Davis, 2002; Yasui, 2015; Wang, Henry, Smith, Huguley, & Guo, 2019), inconsistent results across studies may indicate effect variations as a function of several key moderators, especially regarding academic outcomes.

While several studies have demonstrated positive associations between the global construct of ethnic-racial socialization and academic motivation (Brown, Linver, Evans, & DeGennaro, 2009; Wang & Huguley, 2012), others have found the effects on academic performance vary depending on the dimensions of socialization considered (Brown et al., 2009; Caughy, O'Campo, Randolph, & Nickerson, 2002).

Indeed, contextualized developmental theories attribute these variations to individual and group characteristics that influence the nature of parenting practices involving ethnic-racial socialization (French, Coleman, & DiLorenzo, 2013; Hughes & Chen, 1997). Currently, no synthesized estimations of the direction or magnitude for these potential moderation effects exist, nor has scholarship estimated the summative effects of ethnic-racial socialization, whether measured globally or in more contextualized dimensions, on academic outcomes across a body of widely varied study findings. Accordingly, it is critical to identify the extent to which ethnic-racial socialization is positively related

to different academic outcomes and to build consensus around the key individual, developmental, and social contexts whereby ethnic-racial socialization is most effective.

Ethnic-Racial Socialization and Child Development

In response to the need for a theoretical framework explaining the distinct ecological contexts for children of color and the normative developmental processes therein, Garcia Coll et al. (1996) emphasized suboptimal environmental factors that socially subordinated individuals of color must navigate, such as racism, discrimination, and barriers to resources. Within this framework, parental ethnic-racial socialization is a method through which children of color receive important resources within their primary developmental environment in hopes of promoting positive development when in the context of subordinating systems and social hierarchies. Accordingly, ethnic-racial socialization involves a diverse set of approaches that parents tend to customize in response to the range of social experiences of ethnic minority groups in the United States, including diverse responses to intraracial differences in economic, geographic, and immigration histories, even within ethnic-racial groups.

One key developmental domain that is adversely impacted by ethnic-racial subordination is academic outcomes (Garcia Coll et al., 1996). Generally, it is well-established that parents of all ethnicities hold attitudes and employ specific socialization processes that are designed to influence children's academic expectations, values, and behaviors (Hill & Wang, 2015; McAdoo, 2002). Academic values and identities formed by the messages received in the home environment accompany children as they enter the school setting, and these values and identities shape children's motivation and performance in the learning process (Wang & Eccles, 2012a; Wigfield, Byrnes, & Eccles, 2006). Indeed, research on the direct and indirect relationships between parental practices and youth academic outcomes has suggested that the impact of parental academic socialization on achievement is largely mediated by the child's motivational beliefs (Wang, Hill, & Hofkens, 2014; Wang & Sheikh-Khalil, 2014).

Given the pervasive gaps in educational opportunity and achievement that their children typically face, parents of children of color have employed ethnic-racial socialization in ways that are expected to bolster their children's academic outcomes (Ward, 2007). The effectiveness of these socialization techniques is said to be facilitated by the

child's proachievement racial identities and resilience in the face of academic stereotypes and discrimination in school (Hughes, Witherspoon, Rivas-Drake, & West-Bey, 2009). In turn, this resilience and persistence bolsters the psychoeducational outcomes associated with academic performance (Banerjee, Rivas-Drake, & Smalls-Glover, 2017). Thus, for parents of children of color, socialization that supports motivational and engagement mechanisms of achievement are expected to include ethnic-racial socialization tailored to youth's distinct educational ecologies (Garcia Coll et al., 1996; Wigfield et al., 2006).

Given these possibilities, many researchers have sought to examine the impact of ethnic-racial socialization on various academic outcomes (Banerjee et al., 2017; Lesane-Brown, 2006; Wang & Huguley, 2012). However, across the research, the estimated effects of ethnic-racial socialization on the academic outcomes of children of color have varied widely in terms of magnitude and direction. We expect that many of these mixed results stem from a set of underexplored moderating variables, including (a) the differentiation of ethnic-racial socialization's effects on discrete academic outcomes, (b) the developmental level of child recipients of ethnic-racial socialization, and (c) the variation in socialization effects across racial/ethnic groups. The following sections review what is known to date about these potential moderating relationships while detailing noteworthy gaps in the extant literature.

Differential Effects of Specific Ethnic-Racial Socialization Approaches

Although many ethnic-racial socialization approaches have been conceptualized across the literature (Bentley-Edwards & Stevenson, 2015; Brown & Krishnakumar, 2007), Hughes et al. (2006) comprehensive review identified four prominent dimensions that are frequently considered across studies: cultural socialization, preparation for bias, promotion of mistrust, and egalitarianism. *Cultural socialization*, or *racial pride socialization*, refers to transmitting messages of cultural pride, engaging in cultural traditions, and sharing cultural knowledge. *Preparation for bias*, or *racial barrier messages*, describes the process through which racial/ethnic minority group members are warned about the possibilities of experiencing racism, discrimination, and other forms of prejudice. This preparation also involves the development of coping skills and knowledge on how to navigate these biased encounters. The third dimension, *promotion of*

mistrust, entails promoting caution when interacting with individuals from other racial/ethnic backgrounds. Last, *egalitarianism,* or *mainstream socialization,* refers to emphasizing shared similarities over racial/ethnic differences across groups.

Of these four dimensions of ethnic-racial socialization processes, most empirical research has focused on either cultural socialization, preparation for bias, or a combination of these two dimensions (Priest et al., 2014). Cultural socialization tends to be the most widely employed approach among parents of children of color (Hughes et al., 2009). Substantial research on cultural socialization has demonstrated its positive association with psychoeducational outcomes, including academic engagement (Neblett, Philip, Cogburn, & Sellers, 2006; Smalls, 2009; Wang & Huguley, 2012), academic self-esteem (Constantine & Blackmon, 2002), and attitudes toward school learning (Thomas, Coard, Stevenson, Bentley, & Zamel, 2009). These motivational constructs are known predictors of academic performance; thus, they are hypothesized mediators of the relationship between cultural socialization and academic success (Banerjee et al., 2017).

However, evidence espousing cultural socialization as a direct and positive contributor to academic performance (e.g., grades or test scores) is somewhat inconsistent. Although some studies have found a positive association between cultural socialization and academic performance (e.g., Banerjee et al., 2017; Wang & Huguley, 2012), others have found the relation between cultural socialization and academic performance among African American students to be insignificant (Constantine & Blackmon, 2002; Cooper & Smalls, 2010; Dotterer, McHale, & Crouter, 2009; Smith, Atkins, & Connell, 2003), and one study even found cultural socialization to be a negative predictor of academic performance (Neblett et al., 2006). On the whole, cultural socialization seems to be positively associated with academic and motivational outcomes, although variation across studies makes any reasonable estimation of the effect size uncertain.

Preparation for bias is another frequently used ethnic-socialization approach (Caughy et al., 2002; Hughes et al., 2006). In contrast to the general consensus in the research addressing cultural socialization effects, studies investigating the relation between preparation for bias and academic outcomes have largely produced mixed results. A number of studies have found that preparation for bias and its messages are related to lower academic performance (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002; Smith et al., 2003), whereas others have found this process to not be related to academic outcomes at all (Constantine & Blackmon, 2002; Neblett et al., 2006). Conversely, Bowman and Howard (1985) found positive relationships between preparation for bias and academic achievement among adolescent African Americans between the ages of 14 and 25, and Sanders (1997) reported that youth who received preparation for bias messages were among the highest achievers in their sample of African American middle school students. Still other findings have suggested that positive effects associated with preparation for bias are potentially catalyzed by the presence of other socializing factors, such as democratically involved parenting (Smalls, 2009) or cultural socialization (Wang & Huguley, 2012). Overall, findings for preparation for bias's impact on academic outcomes are mixed, and the contrast between these effects and those for cultural socialization support the need for a meta-analytic synthesis across the literature.

Aside from cultural socialization and preparation for bias, fewer studies have specifically investigated the role of promotion of mistrust and egalitarianism dimensions on academic outcomes. In one of the few promotion of mistrust studies to date, Huynh and Fuligni (2008) found messages of other racial group wariness to be negatively predictive of academic achievement in a sample of high school students from Mexican, Chinese, and European backgrounds. This finding suggests that for these populations of students, being socialized to adopt caution when interacting with other groups diminished their academic performance. We speculated that this negative association was due to an overall distrustful posture that students maintained in their relationships with both peers and teachers.

Regarding research examining egalitarian approaches to ethnic-racial socialization, African American adolescents in middle and high school who received egalitarian messages about interracial equality were found to be more engaged in the classroom (Neblett et al., 2006), suggesting that socializing adolescents to understand universal values among different racial groups creates more engaged students and classroom environments. In contrast, Constantine and Blackmon (2002) found that mainstream assimilation beliefs were negatively associated with school self-esteem for Black middle schoolers, indicating that egalitarian messages focused on racelessness have a negative impact on students' motivational beliefs regarding school and academic achievement. As suggested by these contrasting findings, qualitative distinctions within egalitarian socialization messages exist (e.g., diversity-valuing, cultural erasure),

although often not explicitly distinguished in extant studies. This blending of conceptual differences within an ethnic-racial socialization dimension may contribute to the field's uncertainty about the impact of ethnic-racial socialization on academic outcomes.

Developmental Level/Age as a Moderator

In general, parents tend to initiate conversations about race and ethnicity with their children as they become more cognitively able to comprehend its complexity and have greater capacity to make sense of the cultural landscape of their world (McAdoo, 2002; Quintana, 1998). When considering the specific dimensions of ethnic-racial socialization, research has found a trend of parents preferring the use of cultural socialization at every level of child development (McHale et al., 2006), whereas preparation for bias and promotion of mistrust were increasingly incorporated as their children become older (Hughes & Johnson, 2001; Johnston, Swim, Saltsman, Deater-Deckard, & Petrill, 2007). Nevertheless, little is known about the impact child age has on the relationship between ethnic-racial socialization and academic outcomes.

Given the various developmental demands of different ages, it seems possible that socialization messages would have differential impacts on the academic attitudes, behaviors, and achievement of youth across developmental stages. During early adolescence, youth are focused on identity formation, and as such, they become involved in seeking information about their racial-ethnic group (Pahl & Way, 2006). Early adolescence is also a time when academic motivation and engagement typically decline (Wang & Degol, 2014; Wang & Eccles, 2012b) and parental utility of cultural socialization and preparation for bias increases (Hughes & Chen, 1997). Hence, adolescence presents an opportunity for ethnic-racial socialization messages as they relate to academic outcomes to be better received, possibly due to adolescents' exploration of identity and volatility in academic attitudes. Increasing cognitive sophistication and the cumulative ethnic-racial socialization received prior to adolescence could also be important factors in potentially enhanced receptivity (Wang & Eccles, 2012a). As adolescence and early adulthood are eras highlighted by the distinct salience of the identity formation process in conjunction with increased educational demands, the link between ethnic-racial socialization and academic achievement may be stronger through these later developmental stages.

Race/Ethnicity as a Moderator

The association between ethnic-racial socialization and academic outcomes may also vary by racial or ethnic group membership, though empirical investigation of these differences is limited. Researchers have shown that differences in the amount, nature, and intent of ethnic-racial socialization messages do exist across racial/ethnic groups (French et al., 2013; Priest et al., 2014). Additionally, the types of messages utilized by parents is greatly influenced by variation in each population's history of social positioning as a minority, immigration timing, and motivations (e.g., voluntary, involuntary, enslavement) as well as youth's more contemporary experiences of institutional and interpersonal discrimination (Garcia Coll et al., 1996; Noguera, 2003).

There may also be group variations in child and adolescent academic attitudes, engagement, and achievement that are attributable to the distinct schooling contexts of different groups of color (Murray, 2009; Wang & Eccles, 2012a). African American and Latinx/Hispanic students tend to be overrepresented in suboptimal educational settings with less qualified teachers, fewer opportunities to enroll in advanced courses, and inadequate material resources (Diamond & Huguley, 2014). Even within the same schools, African American students are often concentrated in lower academic tracks and experience more frequent and harsher discipline than their White peers of comparable behavioral histories (Amemiya, Mortenson, & Wang,).

In sum, studies utilizing comparative research designs to explore ethnic-racial socialization and academic outcome differences across racial/ethnic groups have been largely absent in the literature. With only a few exceptions (see Hughes, 2003; Huynh & Fuligni, 2008), the clear majority of literature examining ethnic-racial socialization and academic outcomes is comprised of single ethnic-racial group studies. Despite the drawbacks of comparative research designs with populations of color, a benefit of exploring group differences in the utility of cultural assets such as ethnic-racial socialization is a more nuanced understanding of how these supports can similarly or uniquely bolster youth outcomes across groups. Given racial/ethnic group differences in the utility of parental socialization as well as differences in educational contexts across race, it is plausible that the link between ethnic-racial socialization and academic outcomes varies by racial/ethnic group.

Current Study

Research on the relationship between ethnic-racial socialization and academic outcomes has produced mixed results. Although there is some general support for the notion that ethnic-racial socialization is positively associated with psychoeducational outcomes, wide variation exists across studies in the magnitude and direction of these relationships, particularly in regard to academic performance. To this end, this study uses a meta-analytic approach that is attentive to both global effects and the role of key moderators in the link between ethnic-racial socialization and academic outcomes among youth of color. In the process, we address four key questions: (a) What is the strength of the overall relationship between ethnic-racial socialization and academic outcomes? (b) Which specific academic outcomes are most strongly associated with ethnic-racial socialization? (c) Among the commonly studied ethnic-racial socialization domains, which have the strongest positive relations with academic outcomes? and (d) Does the strength of the relationship between ethnic-racial socialization and academic outcomes vary by children's age or racial/ethnic group?

On the basis of prior research, we propose the following corresponding hypotheses: (a) Across the literature, there will be a global positive relationship between ethnic-racial socialization and academic outcomes. (b) When looking at the relationship between ethnic-racial socialization and different academic outcomes, the effects will be strongest for indicators of academic motivation and engagement. (c) Among ethnic-racial socialization dimensions, cultural socialization will have the strongest association with academic outcomes. (d) The relationship between ethnic-racial socialization and academic outcomes will be stronger for adolescents than for younger children given that early adolescence and emerging adulthood presents simultaneous increases in educational demands and identity exploration. We also predict that the strongest effects will be in African American families, given their uniquely long history of social and economic subordination in the American educational context.

Method

Literature Search Procedures

We conducted literature searches in ERIC, JSTOR, ProQuest Dissertation and Theses, PsycINFO, and SocINDEX with a series of search terms: ("racial socialization" OR "ethnic socialization" OR "cultural socialization" OR "bias socialization" OR "preparation for bias" OR "promotion of mistrust" OR "egalitarianism") AND (parent* OR mother* OR father* OR patern* OR matern*). In addition, Social Sciences Citation Index was searched for studies citing Hughes et al. (2006) and Lesane-Brown (2006), the two widely cited narrative review studies on parental ethnic-racial socialization. Searches included both published and unpublished studies in English through the end of 2016. These searches resulted in 1,966 potentially relevant studies.

To supplement searches of electronic databases, the reference sections of relevant documents were examined for cited works that also might be relevant to the topic, resulting in 27 additional studies of potential relevance. Additionally, we used a direct contact strategy to request studies from researchers that might have access to relevant literature not included in the reference and citation databases. Prominent researchers in the parental ethnic-racial socialization area were contacted regarding any relevant documents that were not publicly available. We also reached out to researchers through mass emails to interest group listservs in relevant education and psychology research bodies. This effort resulted in an additional four studies, bringing the total number of potentially relevant studies 1,997. The research team then screened the title, abstract, and method section of each of these studies to determine their eligibility for further consideration based on two criteria: (a) Studies must have examined the relationship between parental ethnic-racial socialization and academic outcomes specifically, and (b) studies had to do so among samples that were within the range of preschool through college age. If both of these criteria were met, then the full study was obtained for further screening and full coding. This initial review process resulted in 91 documents.

Criteria for Meta-Analytic Inclusion

In addition to the two initial screening criteria, studies had to meet several other conditions to be included in the analysis. First, for analytic purposes, studies had to be correlational, including either a direct calculation of a bivariate correlation coefficient between parental ethnic-racial socialization and academic outcomes or enough information to allow for such an effect calculation. Second, studies had to employ conceptualizations of ethnic-racial socialization that fit within one or more of the four commonly explored dimensions of ethnic-racial socialization with sufficient coverage in the

literature for meta-analytic purposes (i.e., cultural socialization, preparation for bias, promotion of mistrust, and egalitarianism). Composites that operationalized ethnic-racial socialization as an overall unidimensional construct were included as global measures. Third, studies had to be published in English, and finally, studies that focused only on adopted children were excluded. Measurements of ethnic-racial socialization based on all reporters were eligible for analysis, and nearly all studies used either parent or child self-reports of ethnic-racial socialization (there was one observational study). After implementing these additional qualifications and accounting for duplicate records, 37 studies were retained for analysis.

Information Retrieved from Studies

Several characteristics of each study were documented when available, including: (a) whether the study was a published report, (b) the sample characteristics, (c) the measure of ethnic-racial socialization, (d) the measure of academic outcomes, and (e) the estimate of the relationship between socialization and academic outcomes. We used simple bivariate correlation coefficients, r, as measures of the direction and magnitude of the association.

Coder Reliability

We used a double-coded process that has demonstrated high reliability in prior studies (Rosenthal, 1987). All studies were independently coded twice, and all disagreements were resolved by a third independent coder. The initial agreement between two coders was 94% across all studies before discrepancies were discussed and resolved.

Methods of Data Integration

Before conducting statistical integration of the effect sizes, we counted the number of positive and negative effects and assessed the range of estimated effects. We also examined the distribution of sample sizes and effects sizes to determine whether any studies contained any statistical outliers. Grubbs's (1950) test was applied, and if outliers were identified, these values were winsorized by setting them at the value of their next nearest neighbor.

Although both published and unpublished studies were included in our search, it is possible that we did not obtain all studies examining the relationship between ethnic-racial socialization and academic outcomes. Thus, we examined evidence of publication bias using three approaches: trim-and-fill analyses to estimate effect sizes adjusted for publication bias (Duval & Tweedie, 2000), funnel plots with Egger's tests to look for asymmetrical distribution of studies around the mean effect sizes (Rothstein, Sutton, Borenstein, M., & Wiley-Blackwell Online Books 2005 Borenstein, & Wiley-Blackwell Online Books, 2005), and rank order correlation tests (Begg & Mazumdar, 1994).

We used the inverse-variance weighting procedure to calculate average effect sizes across all comparisons. All analyses were conducted by employing random-effects models (Hedges & Vevea, 1998), thereby assuming that studies differ beyond sampling errors and that true effect sizes vary across studies. Potential moderators of the relationship between ethnic-racial socialization and academic outcomes were examined via homogeneity analyses (Cooper & Hedges, 1994; Hedges & Olkin, 1985). To keep violations of independence to a minimum while retaining as much information as possible, we used a shifting unit of analysis approach (Cooper, 2015). In this approach, multiple correlations for the same outcome within a sample were averaged so that each sample contributed only one effect size to the overall analysis or each category of a moderator. All statistical analyses were conducted with the third version of the comprehensive meta-analysis Statistical Software Package (Borenstein, Hedges, Higgins, & Rothstein, 2005).

Results

We examined 304 effect sizes (174 published effect sizes and 130 unpublished effect sizes) from 37 studies (26 published and 11 unpublished). For dimensions of ethnic-racial socialization, 149 of the correlations measured cultural socialization; 77 measured preparation for bias; 6 measured promotion of mistrust; 30 measured egalitarianism; and 39 had a global score for ethnic-racial socialization. For academic outcomes, 122 measured academic performance; 119 measured academic motivation; and 63 measured school engagement. For grade levels, 96 were college samples; 33 were high school samples; 41 were middle school samples; 34 were elementary school samples; and 91 were mixed-grade samples. For ethnic/racial categories, 229 correlations were for African American/Black; 14 were Latinx/Hispanic; 6 were Native American; 2 were Asian American; and 43 were mixed-race youth. Sample sizes across studies ranged from 58 participants to 2,461 participants.

Main Effect

Initial analyses showed a modest but significant association between parent ethnic-racial socialization and academic outcomes, $r = .08$, CI [.04, .12], $p < .001$; $Q(36) = 126.85$, $p < .001$. The Grubbs test indicated just one extreme value, although it was not statistically significant ($z = 1.51$, $p = .132$). Funnel plots revealed a symmetrical distribution around the mean effect size, suggesting no evidence of publication bias. To resolve any uncertainty, we also used Egger's test of the intercept, revealing a significant intercept, two-tailed test ($B_0 = 1.38$), $t(36) = 3.24$, $p < .01$. We further used Begg and Mazumdar's (1994) rank order correlation test and found a non-significant rank order correlation (Kendall's $\tau b = .18$, $p = .102$). Subsequent trim-and-fill analyses showed that the relationship between parental ethnic-racial socialization and academic outcomes would still be positive and significantly different from zero after adjusting for publication bias. In addition, publication status (i.e., published studies vs. unpublished studies) was not a significant moderator, $Q(2) = 4.09$, $p = .12$.

Moderator Analyses

We found significant heterogeneity in effect size for the overall association between ethnic-racial socialization and academic outcomes based on Cochran's Q test, meaning that there was substantial variation in effect sizes across studies above and beyond sampling error. This finding validated the need to investigate moderators of the relation between ethnic-racial socialization and academic outcomes. Accordingly, we examined whether the link between parental ethnic-racial socialization and academic outcomes was moderated by the specific academic outcome assessed, dimension of parental ethnic-racial socialization captured, and the child's grade-level in school and racial/ethnic group. All four moderators were significant, suggesting that each plays a role in how ethnic-racial socialization relates to academic outcomes (see Tables 1 and 2).

Academic Outcomes

Academic outcome was a significant moderator, $Q(2) = 66.63$, $p < .001$. The mean effect for academic motivation was stronger ($r = .17$, 95% CI [.13, .19], $z = 11.11$, $p < .001$) than those of both engagement ($r = .09$, 95% CI [.05, .12], $z = 5.38$, $p < .001$) and academic performance ($r = .03$, 95% CI [.02, .04], $z = 2.62$, $p = .009$). However, the mean effects for all academic outcomes were still positive and

Table 1

Results of Moderator Analyses for Parent Ethnic-Racial Socialization Approaches and Academic Outcomes

Moderator	k	# of effect sizes	r	95% CI
Academic outcomes				
Parental ethnic-racial socialization $Q(6) = 10.82$, $p = .05$				
Preparation for bias	30	77	.09***	.06, .13
Egalitarian	11	30	.06*	.00, .13
Global socialization	9	39	.05*	.00, .09
Promotion of mistrust	4	6	.03	−.04, .10
Cultural socialization	35	149	.11***	.09, .13
Academic performance				
Parental ethnic-racial socialization $Q(6) = 29.15$, $p < .001$				
Preparation for bias	15	25	.05**	.02, .07
Egalitarian	5	10	.01	−.05, .03
Global socialization	5	21	−.06***	−.08, −.03
Promotion of mistrust	3	5	.03	−.04, .09
Cultural socialization	19	58	.04**	.02, .07
Academic motivation				
Parental ethnic-racial socialization $Q(4) = 3.81$, $p = .031$				
Preparation for bias	8	33	.17***	.11, .22
Egalitarian	4	11	.12**	.04, .24
Global socialization	2	14	.20***	.11, .28
Promotion of mistrust	1	1	.07	−.27, .39
Cultural socialization	9	60	.17***	.13, .21
School engagement				
Parental ethnic-racial socialization $Q(3) = 21.82$, $p < .001$				
Preparation for bias	7	19	.12	−.04, .07
Egalitarian	2	9	.03	−.06, .10
Global socialization	2	4	.10**	.02, .21
Promotion of mistrust	—	—	—	—
Cultural socialization	7	30	.15***	.10, .19

Note. k = number of studies.
*$p < .05$. **$p < .01$. ***$p < .001$.

significantly different from zero, suggesting they all were positively associated with ethnic-racial socialization.

Ethnic-Racial Socialization Dimensions

Parent ethnic-racial socialization dimension was a significant moderator, $Q(6) = 10.82$, $p = .05$. Most ethnic-racial socialization dimensions were positively associated with academic outcomes, with exception of promotion of mistrust being unrelated ($r = .03$, 95% CI [−.04, .10], $z = 0.83$, $p = .405$). Among the dimensions with significant associations, cultural socialization was the strongest predictor of academic outcomes ($r = .11$, 95% CI [.09, .13], $z = 10.43$, $p < .001$) demonstrating a stronger association than preparation for bias ($r = .09$, 95% CI [.06, .13],

Table 2

Result of Moderator Analyses for Research Design, Measurement, Grade Level, Racial-Ethnic Groups, and Academic Outcomes

Moderator	k	# of effect sizes	r	95% CI
Study design $Q(1) = 5.54$, $p = .019$				
Cross-sectional study	29	242	.10***	.08, .12
Longitudinal study	9	62	.05***	.02, .07
Measurement of socialization $Q(2) = 18.42$, $p < .01$				
Child-reports	34	241	.10***	.08, .12
Parent-reports	2	62	.05***	.01, .10
Developmental period $Q(5) = 60.88$, $p < .001$				
Elementary school	7	34	.03**	.01, .06
Middle school	6	41	.13***	.09, .17
High school	8	33	.05*	.01, .09
College	6	96	.17***	.14, .21
Mixed-grade	9	91	.03**	.01, .06
Race/ethnicity $Q(5) = 28.02$, $p < .001$				
Asian American	1	2	−.16***	−.22, −.10
Black/African American	24	239	.11***	.09, .13
Latinx/Hispanic	4	14	.03	−.04, .11
Native American	1	6	.09	−.19, .01
Mixed-race	8	43	.05***	.02, .08
Academic outcome $Q(2) = 66.63$, $p < .001$				
Academic performance	26	122	.03**	.02, .04
School engagement	10	63	.09***	.05, .12
Academic motivation	13	119	.17***	.13, .19

Note. k = number of studies.
*$p < .05$. **$p < .01$. ***$p < .001$.

$z = 5.87$, $p < .001$), egalitarianism ($r = .06$, 95% CI [.00, .13], $z = 2.02$, $p < .05$), and global socialization measures ($r = .05$, 95% CI [.00, .09], $z = 2.30$, $p = .02$), though all three measures still were significantly and positively related with academic outcomes.

When examining the discrete associations between individual socialization dimensions and specific academic outcomes, each ethnic-racial socialization dimension was differentially related to academic performance, $Q(6) = 29.15$, $p < .001$, motivation, $Q(4) = 3.81$, $p = .031$, and engagement, $Q(3) = 21.82$, $p < .001$. Cultural socialization was positively related to academic performance ($r = .04$, $p = .003$), motivation ($r = .17$, $p < .001$), and engagement ($r = .15$, $p < .001$) alike, though the effects were notably stronger for academic motivation and school engagement. Preparation for bias was positively related to academic performance ($r = .05$, $p < .01$) and motivation ($r = .17$, $p < .001$), but not school engagement. Egalitarianism was positively related to motivation only ($r = .12$, $p = .003$). Promotion of mistrust was unrelated to either

academic performance or motivation, although the number of studies considering promotion of mistrust was notably small, and none of these studies examined this dimension's relationship with school engagement, specifically. Therefore, cultural socialization was the most consistent and strongest predictor of academic outcomes among socialization dimensions, with three of the four dimensions having at least some significantly positive associations with educational success.

Developmental Level/Age

The mean effects for all developmental levels were positive and significant, although the effect sizes demonstrated significant moderation, $Q(5) = 60.88$, $p < .001$. The mean effect for college students was the strongest ($r = .17$, 95% CI [.14, .21], $z = 9.75$, $p < .001$) relative to middle school students ($r = .13$, 95% CI [.09, .17], $z = 6.39$, $p < .001$), high school students ($r = .05$, 95% CI [.01, .09], $z = 2.42$, $p < .05$), elementary school students ($r = .03$, 95% CI [.01, .06], $z = 2.38$, $p < .01$), and mixed grade samples ($r = .03$, 95% CI [.01, .06], $z = 2.80$, $p < .01$). Results suggest that although the mean effects were significant at all developmental levels, associations are notably stronger among college and middle school students.

Race/Ethnicity

Racial/ethnic group was also a significant moderator, $Q(5) = 28.02$, $p < .001$. The mean effects were positive and significant for African American/Black students ($r = .11$, 95% CI [.09, .13], $z = 11.73$, $p < .001$) and mixed-race students ($r = .05$, 95% CI [.02, .08], $z = 3.77$, $p < .001$). The mean effect for Asian American students was also significant but negative ($r = −.16$, 95% CI [−.22, −.10], $z = −4.94$, $p < .001$), whereas the mean effects for Latinx/Hispanic students ($r = .03$, 95% CI [−.04, .11], $z = 0.87$, $p = .380$) and Native American students ($r = .09$, 95% CI [−.19, .01], $z = −1.68$, $p = .093$) were not significant.

Discussion

Ethnic-racial socialization is a widespread approach used by parents of ethnic minority youth in efforts to promote positive development (Neblett et al., 2012). To better understand the role of this culturally and contextually tailored parenting for children of color, we synthesized the extant research to

estimate the direction and strength of the relationships between global and specific ethnic-racial socialization dimensions and various academic outcomes while simultaneously addressing whether the magnitude of these relationships vary by children's age or racial/ethnic group.

Results suggest the overall strength of the relation between socialization and academic outcomes is positive, though this effect is modest ($r = .08$). A diminished effect of overall ethnic-racial socialization on academic achievement was not surprising, given the extant literature's underexploration of moderators and subsequent dearth of this information in this study's compiled effect estimations. As seen in the moderator analyses, there was extensive variation in the effects across ethnic-racial dimensions and their applied contexts, with correlations ranging from .02 to .20. Thus, this modest effect can be considered a conservative and encouraging estimate of the potential impact ethnic-racial socialization may have on academic outcomes, depending on the nature and context of its actual usage.

Additionally, ethnic-racial socialization was positively related to academic performance, motivation, and school engagement, with motivation being the strongest of these relationships. Aside from the promotion of mistrust, most dimensions of ethnic-racial socialization were positively related to academic outcomes, and the relationship between ethnic-racial socialization and academic outcomes was strongest for college and middle school students, and for African American youth. Ultimately, these findings corroborate the utility of ethnic-racial socialization as a global construct across its many configurations as it relates to academic outcomes. They also validate the need for increased attention to the distinct dimensions and contexts of ethnic-racial socialization's use as an academic support for children of color.

Ethnic-Racial Socialization Effects on Specific Academic Outcomes

Among academic outcomes, socialization results showed positive associations with all three academic outcomes assessed, suggesting that overall, youth of color who receive ethnic-racial socialization messages tend to have higher motivation toward learning, engagement in school, and academic performance. Differences in effect sizes, however, do suggest that ethnic-racial socialization is most robustly associated with motivational beliefs, particularly in comparison to effects on grades and test scores. These findings are consistent with prior research on the potential

mediating effects of motivational constructs on the link between parental socialization and academic achievement more broadly (Hill & Wang, 2015; Wang & Degol, 2014; Wang & Sheikh-Khalil, 2014). It is sensible that being a cognitive resource, ethnic-racial socialization experiences most directly inform school-related values and attitudes, which in turn enhance other cognitive and behavioral processes that are more proximal to actual academic performance (Banerjee et al., 2017; Wigfield et al., 2006). It follows, then, that ethnic-racial socialization exerts its strongest effect on how children value and feel about school (i.e., motivational beliefs) relative to indicators captured by explicit performance outcomes. Nonetheless, confirmed strength in ethnic-racial socialization's link with academic motivation is remarkable. Not only is there a wealth of evidence showing motivation's direct relationship with grades and school performance, but positive motivational beliefs are also linked to greater psychological well-being (Binning, Wang, & Amemiya, 2018; Deci & Ryan, 2000).

In addition, research on the educational ecology of youth of color suggests that even when motivation and engagement levels are high among students with similar socioeconomic backgrounds, the distinctly under-resourced educational contexts of African American and Latinx/Hispanic youth often inhibit motivation and engagement from translating to corresponding academic performance (Diamond & Huguley, 2014). A large body of research has documented that even when accounting for socioeconomic differences, African American students in particular tend to be concentrated in less resourced home communities and schools that have less exposure to rigorous curriculum and less qualified teachers relative to their White counterparts (Hentges, Galla, & Wang, 2018; Kelly, 2009). Thus, although ethnic-racial socialization may yield motivational gains for students of color, it is plausible that disadvantaged educational ecologies serve as an inhibiting factor for that motivation to translate into actual performance in school.

Another possible contributor to the small effect size on academic performance is inconsistency in the operationalization and measurement of cultural socialization subdimensions across the literature. For cultural socialization, there are both significant content differences—such as emphasis of transmitting cultural history and traditions versus transmitting cultural values (Brown et al., 2009; Caughy et al., 2002)—and variability in ethnic-racial socialization scales used across studies (Yasui, 2015). Future studies should attempt to disentangle the differential effects of specific cultural socialization

subdimensions to better understand their distinct relationships with academic performance.

The Effects of Ethnic-Racial Socialization Dimensions

Results of this study also provide a more nuanced understanding of how distinct dimensions of ethnic-racial socialization are related to academic outcomes for youth of color. As expected, cultural socialization had the strongest and most consistent associations with academic outcomes among the prominently studied ethnic-racial socialization dimensions, lending credence to previous findings suggesting that youth of color who receive more cultural socialization tend to have more educational success (Hughes et al., 2009; Wang & Huguley, 2012). These findings may lend further support to literature on culturally relevant pedagogies, particularly to the importance of integrating cultural histories and values into the curriculum and teaching of ethnic minority youth (Gay, 2010; Ladson-Billings, 1995). Although large-scale empirical support of these approaches is limited, there are compelling theoretical and ethnographical arguments for culturally infused pedagogy as a facilitator of students' stronger engagement in learning (Spencer, Noll, Stoltzfus, & Harpalani, 2001).

Consistent with a seminal finding from Bowman and Howard (1985), preparation for bias had positive and significant associations with academic performance and motivation across studies. This result may be explained by the fact that parents' preparation for bias usage tends to include specific coping strategies regarding how to overcome biases encountered, including providing evidence of those who have achieved success despite those barriers (Hughes et al., 2006; Lesane-Brown, 2006). Such messages can inspire children to stay encouraged and persistent toward accomplishing their academic goals in the face of racial adversity. As with cultural socialization, it is likely that variation in measurement in the preparation for bias dimension and its discrete effects on academic outcomes may further attenuate its effect size.

Egalitarian beliefs were also positively related to academic outcomes across studies, although this effect was limited to academic motivation and was smaller than those of cultural socialization and preparation for bias. This finding suggests that youth of color who receive more messages of universal values and interracial equality tend to have higher academic motivation. Such a result may be attributable to the capacity of egalitarian beliefs to passively counter negative ability stereotypes that exist about most minority populations. Given the wealth of negative stereotypes about the academic abilities of most students of color (Steele & Aronson, 1995), ethnic minority youths' awareness of these social messages around equality and universal values may subtly counteract stereotypical messages about racial differences in intellectual ability, thereby further motivating students (McKown & Weinstein, 2003). Although most research on ethnic-racial socialization and psychological or emotional outcomes has overlooked the role of egalitarianism, egalitarian beliefs may indeed play a unique role in cultivating positive academic motivation in youth of color. Caution should be employed, though, when generalizing these findings to different populations and contexts because there are differences in how studies operationalized and assessed egalitarianism. Future studies should consider whether the effects of egalitarian beliefs differentiate between a focus on equality or universal values versus mainstream assimilation or color-blindness. Such a distinction would likely result in markedly different outcomes (Hughes et al., 2006).

Developmental Differences

The hypothesis that the strongest age effects would be found during adolescence was partially supported. Findings indicate that the association between ethnic-racial socialization and academic outcomes was strongest for middle school and college-aged individuals in comparison to elementary and high school-aged youth. This bimodal pattern may be attributable to the fact that middle school and college are times of intensive transitions related to identity development and exposure to academic rigor (Lerner & Steinberg, 2009). For students of color, the transition from elementary to middle school typically involves the beginning of the ethnic-racial identity exploration process (Rotheram & Phinney, 1988); a heightened awareness of stigma, bias, and stereotypes; and trajectory-altering exposure to rigorous academic content (McKown, 2004; Quintana, 1998). These transitions parallel those that occur from high school to college, where dramatic increases in rigor and autonomy increase the primacy of self-reliance, the integration of academic and social identity, and the strength of motivational beliefs (Eccles et al., 1993). For students of color, these two transitions are also critical periods marking divergent academic trajectories for African American and Latinx/Hispanic students relative to their White and Asian American counterparts, as evidenced by the academic achievement and school

climate gap literatures (Amemiya & Wang, 2018; Wang & Degol, 2016).

As it pertains to their social world, middle school students begin to have more conversations about race and become more comfortable in their racial identity and preference for their own group (McAdoo, 2002). At the same time, these students often remain stereotypical in their understanding of racial differences, leading to increased misinformation and misattributions (Quintana, 1998). In college, students often experience greater levels of interpersonal discrimination and bias, especially for youth of color in predominantly White institutions (Sellers, Chavous, & Cooke, 1998). Mirroring these social transitions are new academic challenges at both educational levels. For example, middle school presents the pivotal intersection of identity development and important changes in school structure, such as more visible ability grouping and consequently more public evaluations of their academic competencies (Graham & Taylor, 2002). College, on the other hand, is an experience where students are fully immersed in an educational environment where there are longer class meetings, increased self-guided studying, and more difficult assessments of content mastery.

With the amplified stress and demands that accompany transitions into middle school and college as well as the racialized patterns in access to rigor and exposure to academic stereotypes (Steele & Aronson, 1995), it is possible that ethnic-racial socialization messages become a coping mechanism whereby parents help contextualize some of the racialized challenges that youth of color may be experiencing. For example, researchers have found that feelings of "imposterism" (i.e., the concern that one's academic accomplishments are undeserved and the associated anxiety about being "found out" as not being smart) are a common experience of racial/ethnic minority youth, particularly during college years (Fischer, 2010). Youth of color who experience these feelings of imposterism frequently have lower reports of academic self-efficacy (Thompson, Davis, & Davidson, 1998), which is particularly concerning given that experiencing racialized feelings of academic stigma (e.g., stereotype threat) has been shown to have negative consequences for achievement at various developmental levels (Kellow & Jones, 2008; Osborne, 2001). Overall, youth of color's awareness and exposure to these racial stereotypes and stressors likely have an impact on how they view themselves as students; thus, these transitional epochs may be particularly fertile for ethnic-racial socialization stimuli (Murry, Berkel, Brody, Miller, & Chen, 2009).

Racial/Ethnic Differences

The link between ethnic-racial socialization and academic outcomes was positive and significant only for African Americans. This distinctly strong and positive effect for African American youth is potentially due to several contextual factors. Primarily, the dialog of race and discrimination in the United States has traditionally focused on Black-White achievement gaps. The constant measuring of one racial group against another in conjunction with its theorized negative impact on the cultural identity and esteem of African American youth has in part laid the foundation for several aspects of ethnic-racial socialization (Thornton, Chatters, Taylor, R, & Allen, 1990). It has been suggested that by transmitting messages of cultural pride, instilling an appreciation for ethnic-racial history, and preparing youth for potential bias and discrimination, African American youth in particular would be equipped with psychological resources to help shift their understanding of the origins and nature of pervasive negative stereotypes regarding intellectual and racial inferiority concerning their group (Cokley, 2014; Hughes et al., 2006). Hence, the heightened degree of stereotypes perpetuated in the media, within institutions, and in the scholarly literature about the academic abilities of African Americans may explain the exceptionally strong positive link between parental ethnic-racial socialization and academic outcomes for this group.

Despite the relatively small number of studies included in this synthesis, it may be informative to consider the nonsignificant associations between ethnic-racial socialization and academic outcomes for Native American and Latinx/Hispanic populations. Given that these groups have also experienced institutionalized or systematic racism and bias in America, it could be hypothesized that the links between ethnic-racial socialization and academic outcomes for these groups would also be positive if a larger number of studies were available. If these relatively modest effect sizes were to persist across further studies, such variation may be attributable to differences in the specific dimension of ethnic-racial socialization used across these groups (Hughes et al., 2006). Indeed, notable differences in how Latinx/Hispanic and African American mothers provide culturally specific academic socialization do exist, despite a wealth of overlapping strategies and values (Suizzo, Pahlke, Yarnell, Chen, & Romero, 2014). It is also possible that the types of cultural socialization and preparation for bias that are popular in African American families

(e.g., discussing racial histories of overcoming oppression vs. practicing linguistic cultural elements) differ from those used in other groups and that these approaches are uniquely conducive to academic outcomes (French et al., 2013).

Similarly, differences in ethnic-racial socialization dimensions may explain the negative link between ethnic-racial socialization and academic outcomes for Asian American youth. Prior research suggests Asian American parents primarily utilize promotion of mistrust (Huynh & Fuligni, 2008), an ethnic-racial socialization that has been negatively associated with academic achievement (Huynh & Fuligni, 2008). Although not yet studied widely enough for meta-analytic studies, there are also other dimensions of ethnic-racial socialization, such as self-worth messages (Neblett et al., 2012) or spiritual coping (Stevenson, 1994), that may be differentially applied across ethnic-racial groups in ways that impact global links between ethnic-racial socialization and other academic outcomes. Ultimately, caution should be taken to not overgeneralize these findings, given the limited numbers of empirical estimations of the association between ethnic-racial socialization and academic outcomes among Asian American, Latinx/Hispanic, and Native American groups. Future work should examine differences in the uses and effects of ethnic-racial socialization comparatively across multiple racial/ethnic groups while using a wider range of specific ethnic-racial socialization dimensions.

Post Hoc Moderation Analyses

Several other potential moderators of import to the validity of our findings were not included in the main analysis either because of methodological considerations that were beyond the scope of this study or because they could only be partially explored due to data limitations. Regarding methodological moderators, we first examined whether there were differences in ethnic-racial socialization's link with academic outcomes as a function of whether the socialization was reported by children ($n = 34$) or parents ($n = 2$). Results suggested that the reporting source was a significant moderator, $Q(2) = 7.79$, $p < .05$, with the effects for child-report studies ($r = .10$, 95% CI [.08, .12], $z = 10.34$, $p < .001$) being stronger than those of parent reports ($r = .05$, 95% CI [.01, .10], $z = 2.64$, $p < .01$). This effect size favoring child-reports is understandable given that academic outcomes were typically also reported by children. As such, we can expect measures with the same reporters to be more

strongly related than measures with different informants. What is critically important is that effects for both reporters were significant, thereby validating results across these analyses. We also explored whether effects varied by cross-sectional versus longitudinal designs, finding that effects were significant for both (cross-sectional: $r = .10$, $p < .001$; longitudinal: $r = .05$, $p < .001$). Taken together, these post hoc analyses provided additional validation of the hypothesized effect directions in this study.

Other moderators of substantive interest were only partly analyzed due to being underexplored across the extant literature. We examined socioeconomic status (SES) moderations using the limited available and categorizable differences across studies, delineating study samples as either low SES (3 studies), mixed SES (24 studies), or no SES information reported at all (10 studies). Results using these basic SES configurations indicated that SES was a significant moderator of overall ethnic-racial socialization effects across studies, $Q(3) = 29.85$, $p < .001$, though the mean effects varied and were not significant among studies with no SES indicator ($r = .03$, 95% CI [$-.27$, .34], $z = 0.20$, $p = .840$) and studies with mixed SES ($r = -.06$, 95% CI [$-.37$, .24], $z = -0.38$, $p = .701$) and low-income samples ($r = -.10$, 95% CI [$-.18$, .43], $z = 0.63$, $p = .445$). However, much more empirical support is needed to determine both the generalizability of this finding and context specificity of SES effects given that existing studies do not allow for using more fine-grained SES categorizations and examining intersections of SES and race, particularly across social settings (e.g., school quality and neighborhood factors).

Immigration status has also been hypothesized to be an important factor for the use and effects of ethnic-racial socialization (Hughes et al., 2006). Although the lack of studies attending to the immigration statuses of their samples prevents a definitive test of the issue, we were able to examine differences in ethnic-racial socialization effects as a function of whether study samples represented non-immigrant participants exclusively ($n = 14$), a mixture of both immigrants and nonimmigrants ($n = 9$), or samples where immigration status was not at all considered ($n = 15$; we found no studies with samples of exclusively immigrant populations). Results suggested that ethnic-racial socialization's links with academic outcomes were positive and significant for all three sample types, $Q(1) = 3.92$, $p = .047$, with the significant effects occurring within the group that had no

immigration status reported ($r = .03$, CI [.00, .06], $z = 2.57$, $p = .01$) and the nonimmigrant samples ($r = .03$, CI [.00, .07], $z = 1.98$, $p = .04$). Results may suggest stronger effects of ethnic-racial socialization on academics for nonimmigrant samples, although more targeted studies are needed to validate this assertion.

If this immigration effect holds across future studies, it could be attributable to the aforementioned differences in the types and degree of ethnic-racial socialization dimensions employed across immigration subgroups (French et al., 2013; Rivas-Drake, Hughes, & Way, 2009), which in turn would moderate the effects of socialization overall. It has been suggested that even within specific ethnic-racial socialization dimensions (e.g., cultural socialization), there are differences between immigrant and nonimmigrant groups in terms of the degree and type of specific socializing actions employed, such as native language use (Hughes et al., 2006). Given that Latinx/Hispanic and Asian American families have higher proportions of immigrant families than do African Americans in the United States (Pew Research Center, 2015), it is possible that differences in immigration histories and the associated differences in ethnic-racial socialization usage translate to overall variation in the effects of ethnic-racial socialization across ethnic groups within their unique educational contexts. Alternatively, nonimmigrant samples within the United States have long histories with social subordination and racial bias, particularly in educational contexts, and as a result, the use of ethnic-racial socialization may be more influential on their academic outcomes in comparison to immigrant groups. Much more research attentive to immigration status and corresponding differences in ethnic-racial socialization dimensions needs to be conducted before we can understand how these distinct usages and contexts translate into differential effects on academic outcomes.

Limitations and Future Directions

This study has a few important limitations that should be considered when interpreting its findings. First, although there is substantial theoretical support for the direction of effects discussed in this study, these correlational results do not establish causation (Cooper, 2015). As such, the directionalities hypothesized should be further examined using quasi-experimental designs whenever possible to further support the proper sequencing of these effects. Nevertheless, the directional interpretations between ethnic-racial socialization and

developmental outcomes are generally well-supported in prior research, including path analyses that capture directionality (Gartner, Kiang, & Supple, 2014; see Neblett et al., 2012 for a review). Our results provide further substantiation of much of the existing theory on ethnic-racial socialization and academic outcomes.

Although our focus was on parental ethnic-racial socialization, a second limitation of this study lies in the fact that there are other potential sources of ethnic-racial socialization affecting youth's academic outcomes. Youth undoubtedly receive messages about race and identity from peers, media, and institutions that they encounter regularly in their lives, and our findings do not parse out the variation in socialization effects that are attributable to other contextual factors. Future efforts should seek to estimate the discrete effects of multiple socialization sources. Furthermore, our findings are likely biased toward the African American family experience as the vast majority of studies on the link between ethnic-racial socialization and academic outcomes have focused on African American samples. This bias could underestimate ethnic-racial socialization's effects given that African Americans are more likely to use preparation for bias in higher proportions, a socialization dimension that has a weaker association with academic outcomes than does cultural socialization (Hughes et al., 2006). Hence, additional studies are needed to explore the link between ethnic-racial socialization and academic outcomes for non-African American groups.

In addition, it was beyond the scope of the current meta-analysis to empirically consider the potential mediation effects of motivational beliefs or engagement as the link between ethnic-racial socialization and academic achievement. With the strong theoretical and emerging empirical support for these mediation effects (Banerjee et al., 2017), future research should explore these effects in depth. Similarly, theoretically important moderators such as gender, geographic region, and community contexts could not be considered due to data limitations across studies. We recommend that future inquiries take into consideration the roles of theorized mediators and moderators in efforts to produce a more complete picture of the effect pathways of ethnic-racial socialization to academic achievement.

Although this study focused on the four most common dimensions of ethnic-racial socialization, the substantial variation in how researchers have conceptualized and measured ethnic-racial socialization exists (Brown & Krishnakumar, 2007; Stevenson, 1994). Although meta-analyses are

inherently restricted to widely considered constructs, scholars' choice of dimensions should be based not only on which constructs are most commonly used but also in terms of which construct(s) fit best in consideration of the population being investigated and underlying theoretical framework. Researchers should continue to be explicit about the dimensions of ethnic-racial socialization they are examining in their study as well as the theoretical framework that supports their selection.

Finally, our study did not explore intersecting effects of various dimensions of ethnic-racial socialization, specific academic outcome, and either children's age or specific racial/ethnic group. It is plausible, for example, that the effect of a specific socialization dimension varies across ethnic-racial groups. These in-depth intersectional effects across multiple moderators were too expansive to explore given the topical breadth of this study, but future inquiries should target specific intersecting moderations to add further precision to what is known about ethnic-racial socialization's nuanced associations with academic outcomes.

Conclusion

Racial disparities in academic outcomes have presented a dilemma to the families, practitioners, and researchers faced with these challenges. For parents of color, our findings generally support their long-standing efforts to leverage the transmission of ethnic-racial beliefs, values, and practices for the purposes of advancing the academic performance and long-term prospects of their children. African American families may be particularly encouraged to engage in ethnic-racial socialization activities, especially in terms of cultural socialization and preparation for bias dimensions. These activities may also be uniquely important in key educational transition eras such as the middle school and college years. Although much more work is needed to further understand the precise contours of optimal ethnic-racial socialization dimensions and contexts, our findings suggest a positive association with academic outcomes that serve as a critical conduit for long-term positive youth development and success in adulthood.

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Appendix S1. References