



Published in final edited form as:

*Cultur Divers Ethnic Minor Psychol.* 2019 April ; 25(2): 220–231. doi:10.1037/cdp0000230.

## Skin Color and Academic Achievement in Young, Latino Children: Impacts across Gender and Ethnic Group

Yeonwoo Kim<sup>1</sup> and Esther J. Calzada<sup>2</sup>

<sup>1</sup>School of Kinesiology and Institute for Social Research, University of Michigan

<sup>2</sup>Steve Hicks School of Social Work, The University of Texas at Austin.

### Abstract

**Objectives:** The present study investigates the association between skin color and academic achievement in young Latino students.

**Methods:** Data were drawn from a longitudinal study of the early development of Latino children that took place in 24 public elementary schools in New York City. Students included in the present analyses (N=750) were 4- and 5-years old when they were enrolled (baseline) and were followed through the end of first grade. Structural equation models and bootstrapping mediation tests were conducted to examine the effects of skin color on academic achievement at the end of first grade, partially mediated by academic and social emotional domains of school readiness in pre-kindergarten or kindergarten. This study considered the intersectionality of ethnicity and gender in the models.

**Results:** The findings showed that for Dominican-origin boys, being “collectively black” was indirectly associated with lower academic achievement in first grade, mediated by lower teacher-rated adaptive behavior in pre-kindergarten or kindergarten.

**Conclusions:** Discussion focuses on the need for educational policies and practices to be conscious of phenotypicality bias.

### Keywords

skin color; academic achievement; Latino students; early childhood

### Introduction

Racism has been implicated as a cause of academic underachievement among minority students, especially boys (Limperopulos, 2015). At the institutional level, racism is reflected in intentional and unintentional racial prejudice embedded in policies, norms, and practices within social institutions (Boutte, Lopez-Robertson, & Powers-Costello, 2011; Utsey, Chae, Brown, & Kelly, 2002). At the individual level, racism is reflected in intentional and unintentional racial prejudice stemming from a person’s negative attitudes and behaviors (Boutte et al., 2011; Utsey et al., 2002). Both forms manifest in the educational setting

through exclusionary practices such as zero-tolerance discipline policies, negative stereotypes, low teacher expectations, and discriminatory teaching practices.

Latino students in the U.S. are both racially and ethnically diverse. Race refers to the physical, biological and genetic make-up of a group, while ethnicity refers to social grouping based on shared country of origin, language, values, and customs. Both are social constructs and they are often used interchangeably. For Latinos, however, there is little overlap between race and ethnicity. For example, Latinos who are ethnically Mexican have primarily white and indigenous racial heritage, and Latinos who are ethnically Dominican have primarily white and black racial heritage. Census data confirms this racial heterogeneity, with more than half of Latinos self-identifying as white, 3% as black, and 37% as “other” (Humes, Jones, & Ramirez, 2011). In the U.S., where understanding of race is largely based on skin color and ancestry (Kittles, Santos, Oji-Njideka, & Bonilla, 2007), Latinos are viewed as a population of color, even as they may not view themselves in terms of race (Darity, Dietrich, & Hamilton, 2005). But although racism is experienced by Latino students (Fernandez, 2002), limited attention has been given to issues of race in the Latino student population, especially before high school. To address this gap, the present study explored skin color as a predictor of academic achievement in first grade Latino students, with careful attention to intersectionality based on race, ethnicity and gender.

### Race in the Latino Population

According to *Critical Race Theory*, racism is an ordinary and daily experience faced by most people of color in the U.S. (Delgado & Stefancic, 2012; Parker & Lynn, 2002). For example, the non-Latino white dominant group often attributes human characteristics, such as intelligence, to race (Delgado & Stefancic, 2001). Historically, the Black-White paradigm has emphasized phenotype as a tool to distinguish and stratify individuals based on race, but with the diversification of the U.S. population due to immigration and interracial marriages, the binary Black-White paradigm has become somewhat obsolete. *Latino Critical Theory* (LatCrit) expands this paradigm using a more complex *tri-racial system* that incorporates other populations of color such as Latinos (Forman, Goar, & Lewis, 2002; Trucios-Haynes, 2000). The tri-racial system classifies traditional “whites” (e.g., white immigrants from Western Europe and Argentina) at the top of the hierarchy, a newly emerging group of “honorary whites” (e.g., light-skinned Latinos) in the middle, and a non-white group or the “collective black” (e.g., African Americans, dark-skinned Latinos) at the bottom (Bonilla-Silva, Forman, Lewis, & Embrick, 2003). According to this tri-racial system, Latinos may fall anywhere within the hierarchy (e.g., from white to collective black), depending on phenotypic characteristics such as skin color, facial features, and hair texture (Bonilla-Silva et al., 2003).

Phenotypicity bias confers social and psychological benefits to individuals whose physical appearance is similar to that of representative members of the dominant culture (Montalvo & Codina, 2001). Such bias may be implicit or explicit, conscious or unconscious. In fact, automatic evaluation of and reaction to physical characteristics may exist even for perceivers who disavow conscious evaluation of racial categorization (Livingston & Brewer, 2002; Maddox, 2004). The extant literature provides robust evidence of an unconscious and

implicit preference for light-skinned over dark-skinned people of color (Duster, 2008; Newheiser & Olson, 2012), and this bias exists among both whites and non-whites. Bias has implications for the well-being of Latinos. As a whole, darker-skinned Latinos earn less income and have a lower socioeconomic status (Ryabov, 2016; Telles & Murguia, 1990), perceive more discrimination (Arce, Murguia, & Frisbie, 1987), and experience higher levels of depression (Codina & Montalvo, 1994).

### Race and Academic Achievement

Racism is believed to shape students' learning and achievement (Boutte, 2008; Segura-Mora, 2009). The *integrative model of child development* (Garcia Coll et al., 1996) highlights the ways in which race, as a social position factor, influences developmental pathways indirectly through social mechanisms in the home, school and neighborhood environments. Educational outcomes, then, can be understood as a function of racism in educational philosophies, discourses, policies, practices, personnel, and resources that disfavor Latinos and other students of color. For example, the schools of Latino children are often large, overcrowded, and segregated (Llagas, 2003). Teachers of Latino students tend to be less experienced and have fewer qualifications (Eamon, 2005), and few have any training in cultural and linguistic diversity (Ray, Bowman, & Robbins, 2006).

While many variables may explain the association between race and academic achievement, including meso-level variables, like school climate (Dee, 2004; Lee, 2007), the bulk of the empirical literature implicates classroom-level processes. At the classroom level, phenotypicality bias has been found to contribute to low teacher expectations for the intellectual growth of dark-skinned Latino students (Murguia & Telles, 1996). Teachers communicate these expectations, often unwittingly, through tone of voice, facial expression, and posture in ways that are detected by students and impact learning (Hunter, 2016). Teachers also appear to have more negative perceptions of Latino and African American students compared with non-Latino white students (Tenenbaum & Ruck, 2007). An experimental study with non-Latino students (Okonofua & Eberhardt, 2015) showed that K-12 teachers rated the second infraction of children with a first name common in black communities (e.g., Deshawn) more negatively and in greater need of harsh disciplinary action than that of children with a first name common in white communities (e.g., Jake), even though all behaviors were minor and identical. Similar findings have been observed in preschool. Preschool teachers were asked to detect challenging behaviors among racially diverse students in a videotaped-classroom setting; although the video clips included no challenging behaviors, teachers spent a longer time gazing at black boys than black girls or non-Latino white children, and they reported that black boys required most of their attention (Gilliam et al., 2016).

Discipline records bear out these patterns. In preschool, black boys represent 19% of the student population, but 45% of students who are suspended (U.S. Department of Education, 2016). A recent experimental study showed that black boys are perceived to be older, more responsible for their actions, and less innocent than white boys (Goff, Jackson, Di Leone, Culotta, & DiTomasso, 2014). More generally, research documents widespread views of

darkskinned boys as aggressive, threatening, and criminal, even when they are as young as 5-years old (Todd, Thiem, & Neel, 2016).

Developmental theories suggest that children may be attuned to race-based perceptions at young ages. Beginning around age 2, children become aware of social categories of difference based on gender, race, and ethnicity (Kohlberg, 1966), even though a full understanding of social categories and their meaning is not achieved until adolescence (Byrd & Chavous, 2011; Spears Brown & Bigler, 2005). According to the ethnic perspective-taking ability model (Quintana, 1994), 2- to 5-year old children can use labels based on race and ethnicity and recognize phenotypicality bias (Spears Brown & Bigler, 2005). For example, preschoolers report that some people might not like being Mexican American because of their skin color (Quintana, 1994).

Not surprisingly, then, teacher-student interactions tend to be more conflictual for dark-skinned boys than for other students (MacLin & Herrera, 2006; Maddox & Gray, 2002). In the absence of positive and supportive interactions, children's ethnic identity and self-esteem may be compromised, contributing to academic underachievement (Ferguson & Cramer, 2007; Thompson & Keith, 2001). Among black teenagers, for example, experiences of discrimination from teachers has been linked with fewer social skills and more externalizing behaviors (Nyborg & Curry, 2003; Swanson, Cunningham, & Spencer, 2003; Wong, Eccles, & Sameroff, 2003). Poor teacher-student relationships also directly impact academic achievement by interfering with learning opportunities (e.g., Denham et al., 2012; McEvoy & Welker, 2000; Peisner-Feinberg et al., 2001).

### **Race and Early Childhood: The Role of School Readiness**

School readiness refers to the foundational academic and social-emotional skills children need to succeed in school (Raver, 2002). These early skills have been shown to have immediate (Kim et al., 2018) and lasting (Duncan et al., 2007) effects on achievement. According to the developmental systems perspective of school readiness (Mashburn & Pianta, 2006), teacher-student relationships are critical to providing a learning context that facilitates children's acquisition of basic academic and social competencies. Studies show that positive teacher-student relationships promote academic readiness and prosocial skills in pre-kindergarten children, whereas negative teacher-student relationships, which are more commonly experienced by students of color (MacLin & Herrera, 2006; Maddox & Gray, 2002; Sadowski, 2006), are associated with fewer adaptive skills (Palermo, Hanish, Martin, Fabes, & Reiser, 2007). Still, no study to date has examined whether skin color is associated with school readiness (academic, socio-emotional) in Latino students. To the extent that skin color is associated with lower levels of school readiness in the first years of schooling, it is expected to impact achievement over time. Given the racial/ethnic gap observed on national standards of achievement through high school (Aud, Fox, & KewalRamani, 2010), the study of such associations in the Latino student population is highly significant.

### **Conceptual Framework**

As reviewed above, the integrative model of child development suggests that race serves as a critical social position factor that shapes the everyday environments of children, with

implications for child developmental competencies (Garcia Coll et al., 1996). Empirical studies provide evidence for a link between race and an array of psychological and academic outcomes among Latinos. For example, skin color, which is widely viewed as a proxy for race, has been associated with Latino educational attainment in adolescence (Thompson & McDonald, 2016); college enrollment in young adulthood (Ryabov & Goza, 2014); and total years of schooling in Mexican American adults (Murguia & Telles, 1996). Although the extant literature has focused exclusively on Latino adolescents and adults, developmental studies show that children understand the salience of race, and experience phenotypicality bias in the very first years of schooling (Quintana, 1994; Spears Brown & Bigler, 2005). Such biases are believed to play out in interactions that students have with their teachers and peers in the classroom, which shape the socio-emotional, behavioral and academic functioning of children of color (Mashburn & Pianta, 2006; Raver, 2002). These early indicators of functioning, collectively referred to as school readiness, serve as strong predictors of academic achievement throughout a student's education (Duncan et al., 2007). Thus, the theoretical link between race and academic achievement is believed to take shape across the lifespan, beginning in early childhood when children enter school and must develop the foundational competencies needed for learning (see Figure 1).

In addition, our model draws on intersectionality theory (Bauer, 2014) by acknowledging that social position variables, such as race, are best understood in relation to other social position variables that reflect categories of difference, such as ethnicity and gender. We apply this concept of intersectionality by considering children's race, ethnicity, and gender simultaneously. Given the racial/ethnic gap observed on national standards of achievement from pre-kindergarten through high school that is most pronounced among boys and for specific ethnic groups (Aud et al., 2010), the study of intersectionality and academic functioning in the Latino student population allows for a more nuanced understanding of risk.

### **The Present Study**

The present study tests a conceptual model that highlights race as a predictor of early academic achievement, mediated by school readiness. Specifically, we use longitudinal data to investigate the effect of skin color on academic achievement at the end of first grade in a sample of Latino students from two ethnic groups. Our sample includes Mexican-origin and Dominican-origin students who are racially diverse. Although current scholarship generally neglects subgroup differences, our consideration of ethnicity as a grouping variable is informed by intersectionality theory (as described above). Indeed, each group has a unique sociohistorical background (e.g., migration histories) that undoubtedly influences child development, albeit through paths not measured in our conceptual model, and a growing literature supports significant ethnic group differences in developmental competencies and pathways (Calzada et al., 2012; Calzada et al., 2015; Kim et al., 2018). Moreover, the racial background of each group is different, and phenotypic characteristics besides skin color, such as hair texture and nose width, may influence child development.

In addition to ethnicity, we consider the intersectionality of skin color and gender because of the potentially heightened phenotypicality bias experienced by boys of color (Gilliam et al.,

2016; Okonofua & Eberhardt, 2015; Tenenbaum & Ruck, 2007) and because boys are more likely to underachieve than girls (Hemphill & Vanneman, 2011; Snyder, de Brey, & Dillow, 2016). The following hypotheses guided the study: (1) dark skin color will negatively influence academic achievement in first grade, partially mediated by academic and social-emotional domains of school readiness; (2) skin color will influence school readiness and academic achievement more in Dominican-origin children (who are racially black) than in Mexican-origin children (who are racially indigenous); and (3) skin color will influence school readiness and academic achievement more in boys than in girls.

## Methods

### Participants

Participants were drawn from a longitudinal study of Latino early childhood development with Mexican American (MA) and Dominican American (DA) children. Inclusion criteria were: 1) a mother who self-identified as MA or DA; and 2) a child who was newly enrolled as a pre-kindergarten or kindergarten student in one of 24 public elementary schools in NYC. Mother-child dyads (N=750) were enrolled across four cohorts (between 2010–2013). A baseline assessment was conducted upon enrollment when the children were either in pre-kindergarten (n=326) or kindergarten (n=424), and a follow-up assessment was conducted when children were completing first grade. Nearly 70% of participants (n=518) remained in the study for the followup assessment. Compared with children who remained in the study, those who dropped out had darker skin color ratings (19.4% “black” versus 8.5%) and were more likely to live in poverty (73.8% “in poverty” versus 62.0%). There were no significant differences on any other characteristics, including school readiness.

The full sample included mothers who were 32 years (SD=6.73) of age on average, were mostly foreign-born (92.2%) and had lived in the U.S. for 12 years on average (SD=6.37). Most children were living in two-parent homes (75.3%) and in poverty (70.2%). About half (49%) of the children were boys. There were several significant differences between MA and DA families (see Table 1); MA mothers were more likely to be immigrants, have a low education level, and live in poverty compared with DA mothers.

### Measures

**Skin Color.**—A skin color rating scale was developed by the research team to represent variations in skin tone. We chose to use skin color ratings made by researchers, consistent with common measures described in the field (e.g., The National Longitudinal Study of Adolescent to Adult Health; The National Longitudinal Survey of Youth-1997). Drawing from shades of skin tone used by cosmetics companies that serve racially diverse Latina women, the research team selected shades from “white” to “black,” including several moderate skin tones to represent the Latino diaspora. Similar to Massey and Martin (2003), the final rating scale showed a series of twelve hands ranging from light to dark. High-quality color copies were printed and laminated to ensure nuances in skin tone colors were captured during data collection. The scale was used by research staff to rate children during regularly-scheduled assessments. To reduce assessor bias based on race/ethnicity (Hannon, 2014; Hannon & De Fina, 2014), only Latino raters were used in the present study. Two-



thirds of children (63%) were rated by more than one rater, and agreement between raters was acceptable ( $\kappa=.61$ ). When available, average ratings were used.

Our first step was to examine frequencies across the 12 skin tones with the aim of creating a set of meaningful categories (e.g., Fergus, 2009; Forman et al., 2002). In both the MA and DA samples, only about 3% of children were rated as “white” as depicted on the first three skin tones, suggesting that a distinction between “white” and “honorary white” skin tones was neither feasible nor necessary. Thus, we collapsed the first three “white” skin tones with the next three light skin tones to create an “honorary white” category. For the remaining six skin tones, we created a “moderately dark” and a “collective black” category (each corresponding to 3 skin tones).

**Socio-demographic Characteristics.**—A comprehensive demographic form was administered to mothers at baseline. The form included questions on age, gender, ethnicity, immigrant status, education level, household composition, and household income. To calculate a household income-to-needs ratio, we considered income relative to number of household members living in the home for whom the mother was financially responsible or with whom she was sharing household expenses using the federal poverty guidelines. A ratio below 1.0 indicates that the income for the respective household was below the official definition of poverty.

**Academic school readiness.**—The Developmental Indicators for the Assessment of Learning-Third edition (DIAL-3; Mardell-Czudnowski & Goldenber, 1998) was individually administered at baseline as a measure of academic school readiness. The DIAL-3 serves as a screener of pre-academic competencies for 3- to 6- year olds and has a substantial level of predictive validity of later student achievement (Spagnola, 2009; Walk, 2005). The DIAL-3, and its abbreviated version, the Speed DIAL, assess motor, conceptual and language development that is considered the foundation for successful academic learning. The DIAL has well-established psychometric properties and is available in Spanish and English. The Speed DIAL, which was used in the present study, consists of three subscales (motor, concepts, and language subscales) that are administered by trained interviewers using standardized procedures. The subscales were used to specify a latent variable of academic readiness. Children who scored  $>1$  SD below the mean were categorized as “delayed” in academic school readiness according to Mardell-Czudnowski and Goldenber (1998). Internal consistency was good (Cronbach’s  $\alpha=.84$ ) in this study.

**SEL School Readiness.**—The Behavior Assessment System for Children-2 (BASC-2; Reynolds & Kamphaus, 2004), a measure of social-emotional and behavioral functioning with well-established psychometric properties, was administered to teachers at baseline. Teachers rated 139 items in terms of how often the child has engaged in a behavior during the past 4 weeks on a 4-point scale (never=0 to almost always=3), and T-scores were calculated based on child age ( $M=50$ ,  $SD=10$ ). Children who scored  $\leq 60$  were categorized “at risk” for social-emotional problems (Reynolds & Kamphaus, 2004). We used a latent variable of *adaptive behavior* (social skills, adaptability, functional communication), and a measured variable of *aggression* in modeling testing. Internal consistencies were high in the present study (aggression:  $\alpha=.81-.91$ ; adaptive behaviors:  $\alpha=.87-.91$ ).

**Academic Achievement.**—Academic achievement was measured at the end of first grade using the Kaufman Test of Educational Achievement, Second Edition, Brief Form (KTEA-II; Kaufman & Kaufman, 2005). The KTEA-II provides a quick, reliable estimation of global academic skills by assessing the achievement domains of reading, mathematics, and written language ( $\alpha=.88$  in the present study). The Reading subtest includes word recognition (27 items) and reading comprehension (46 items). The Math and Writing subtests consist of 67 and 46 items, respectively. In the present study, children who scored  $>1$  SD below the mean on the Brief Achievement Composite ( $M=100$ ;  $SD=15$ ) were categorized at risk (Kaufman & Kaufman, 2005). For model testing, we used three measured variables of reading, math, and writing achievement to create a latent variable of academic achievement.

### Procedure

We sampled from pre-kindergarten and kindergarten students entering their zoned public elementary school. Participant enrollment took place exclusively in the initial 3-month period of the school year. At partner schools, research staff, fluent in Spanish and English, attended parent meetings and were present during daily school drop-off and pick-up times to inform mothers of the study.

Mothers were interviewed, teachers completed questionnaires, and children completed a baseline assessment in the fall when they entered pre-kindergarten or kindergarten and a followup assessment in the spring as they completed first grade (2–3 years after baseline). All mother and child assessments were conducted by a bilingual research assistant. Teacher ratings were collected after obtaining informed consent from both mothers and teachers. Most teachers (94%) participated, and there were no differences between children who had teacher rating data and those who did not.

### Analytic Plan

More than half of cases had valid, non-missing values for all variables of interest, and 38% had one or two missing values. Skin color ratings, in particular, were missing for 66 cases, with no significant differences between these children and the rest of the sample. We used a full information procedure, a method of deriving likelihood functioning based on all available data (Enders & Bandalos, 2001), for imputation in a structural equation model (SEM). To test skin color effects on academic achievement, we used baseline data for predictor variables (skin color, academic school readiness, adaptive behavior, aggression) and follow-up data for the outcome variable (academic achievement). We included mother's education level, household composition, and household income-to-needs ratio as covariates since they were significantly correlated with academic achievement in bivariate analyses.

Using the stratified sample of MA and DA children, we conducted a four-step analysis procedure. First, a measurement model was used to confirm the relation between the latent variables and their observed variables. Upon establishing the goodness of fit for the model, we then conducted a measurement invariance test, a prerequisite test of multi-group SEM. We constrained all factor loadings and compared the fit of the constrained model to the fit of the baseline model (in the baseline model, parameters were freely estimated) (Hong & Ho,



2005). For MA children, compared to the baseline model ( $\chi^2/df=181.37/118$ , RMSEA=.036, TLI=.920), a model with measurement invariance ( $\chi^2/df=195.27/124$ , RMSEA=.037, TLI=.915) showed a significantly higher chi-square value, higher RMSEA, and lower TLI, which indicates that some of the parameters were not equal between MA boys and girls. A multi-group SEM is thus inappropriate by child gender for the MA sample. For DA children, a model with measurement invariance ( $\chi^2/df=226.674/142$ ), RMSEA=.042, TLI=.924) showed statistically insignificant change in chi-square value, lower RMSEA, and higher TLI compared to the baseline model ( $\chi^2/df=224.065/136$ , RMSEA=.044, TLI=.918). Upon establishing invariance, we conducted a multi-group SEM by child gender for the DA sample.

The third step was to test a structural model to estimate the relations between latent variables. A bootstrapping approach with 5,000 samples was implemented to assess the indirect effect of skin color on academic achievement. For a multi-group SEM model in the DA sample, the final step was to constrain path coefficients across DA boys and girls and compare the chi-square values with and without constraints (Keith, 2014).

Our data have 750 children nested in 388 classrooms and 24 schools. We did not use multi-level analysis at the school level due to insignificant school-level residuals (MA:  $\tau_{00}=71.89$ ,  $p>.05$ ; DA:  $\tau_{00}=77.34$ ;  $p>.05$ ). We did not use multi-level analysis at the classroom level because three quarters of classrooms (292 classes) had one or two participating children. Analyses were conducted using SPSS and AMOS software programs.

## Results

### Descriptive Statistics

The sample consisted of 414 MA and 336 DA children, and 367 boys and 383 girls. As shown in Table 1, the majority (74%) of MA children were rated as “moderately dark,” and 27% were rated as “honorary white” on skin color ratings. None of the MA children were rated as “collective black.” Among DA children, 49% were rated “honorary white,” 22% were rated “moderately dark,” and 30% were rated “collective black.” On academic school readiness, 36% of MA children and 20% of DA children were categorized as delayed ( $\chi^2=21.70$ ,  $p<.001$ ). In first grade, 16% of MA and 22% of DA children were categorized as delayed on academic achievement, but the difference was insignificant ( $\chi^2=2.42$ ,  $p>.05$ ). Similarly, 32% of boys, compared with 26% of girls, were categorized as delayed on academic school readiness, and 21% of boys, compared with 17% of girls, were delayed on academic achievement in first grade; these gender differences were not statistically significant.

Table 2 presents descriptive statistics of study variables separately by gender within ethnicity (MA girls, MA boys, DA girls, DA boys). MA boys who were “moderately dark” had lower teacher-rated adaptive behavior at baseline and lower academic achievement test scores at follow-up compared to those who were “honorary white.” In fact, the risk for underachievement in first grade was twice as high among “moderately dark” (17%) than among “honorary white” (9%) MA boys. Darker skin color ratings were also associated with lower academic achievement at follow-up for DA children. In addition, maternal education

and household poverty status, as well as academic school readiness and adaptive behavior, were associated with academic achievement at follow-up for all children.

### Model Testing: MA Students

The fit indices were good in the measurement model ( $\chi^2/df=1.846$ , RMSEA=.045, TLI=.947, CFI=.968) and in the structural model ( $\chi^2/df=1.900$ , RMSEA=.047, TLI=.933, CFI=.962). Academic school readiness and teacher-rated adaptive behavior both predicted later academic achievement at follow-up (see Figure 2). However, model results did not show a significant association between skin color and school readiness or later academic achievement.

### Model Testing: DA Students

The fit indices were good in the measurement model ( $\chi^2/df=1.687$ , RMSEA=.045, TLI=.913, CFI=.950) and in the structural model ( $\chi^2/df=1.648$ , RMSEA=.044, TLI=.918, CFI=.947). Figures 3a–3b present the results for boys and girls. DA boys rated as “collective black” had lower teacher-rated adaptive behavior compared with those rated “honorary white” ( $\beta=-.19$ ); adaptive behavior, in turn, was positively associated with later academic achievement ( $\beta=.27$ ). The results of bootstrapping with 5,000 samples showed that the indirect effect was significant at  $\alpha=0.05$  ( $-.19[\text{Total Effects}] = -.10[\text{Direct Effect}] + -.09[\text{Indirect Effect}]$ ). In other words, teacher-rated adaptive behavior significantly mediated the effect of being “collectively black” on academic achievement in first grade. For DA girls, skin color was not significantly associated with academic achievement in first grade. Notably, path coefficients for the “collective black”-adaptive behavior path showed a significant chi-square difference between DA boys and girls, indicating a significant structural difference in the model.

## Discussion

The present study examined skin color effects on academic achievement in young Latino students from two ethnic groups: Mexican-origin and Dominican-origin students. Our findings support past studies in showing a negative association between being “black” and academic achievement among boys. Given the disproportionate risk for underachievement among Latino students and especially boys, study findings have important implications for educational policy and practice.

### Skin Color, Ethnicity, Gender, and Academic Achievement

On the whole, the students in our sample had average achievement test scores, but 19% were significantly underachieving, with no statistically significant differences between boys (21%) and girls (17%), and DA (22%) and MA (16%) students. Based on skin color ratings and consistent with their racial heritage, 30% of DA children were rated as “collective black,” 22% as “moderately dark,” and 49% as “honorary white.” Among MA children, most (74%) were rated as “moderately dark,” 27% were “honorary white,” and none were “collective black.” These skin color ratings were associated with differences in achievement, though findings differed based on ethnicity and gender. For DA boys only, results of model testing showed that skin color predicted academic achievement. Our model allowed for a

direct effect of skin color on achievement, and an indirect effect via its association with student school readiness in academic and social-emotional domains in pre-kindergarten or kindergarten. For DA boys, being “black” was associated with lower ratings of adaptive behavior in the classroom during pre-kindergarten or kindergarten, which was negatively associated with academic achievement test scores nearly 2–3 years later (in first grade). Notably, despite mean-level group differences, skin color did not predict academic achievement in first grade among MA children and DA girls.

Considered together, the group-level differences and model testing results hint at a higher level of risk for boys than for girls. In their first year of schooling, boys had, on average, lower ratings of adaptive behavior and higher ratings of aggression, which are recognized as robust predictors of long-term school success (Duncan et al., 2007; Raver, 2002). For dark-skinned boys, teacher ratings of adaptive behavior were lower than for light-skinned boys (note, however, that we found no differences in ratings of aggression, possibly because these scores were relatively low overall, as has been shown in past studies with young Latino students; Weiss, Goebel, Page, Wilson, & Warda, 1999). On the other hand, there were no mean-level differences in teacher ratings between light- and dark-skinned girls, indicating that teacher perceptions of boys’ behavior may have been uniquely influenced by their skin color. This interpretation is consistent with past studies showing that societal biases may be strongest at the intersection of gender and race, potentially making dark-skinned boys the student population most vulnerable to phenotypicality bias within the education system (e.g., Gilliam et al., 2016; Goff et al., 2014; Okonofua & Eberhardt, 2015).

Indeed, the extant literature shows clear patterns of disproportionate risk for academic failure among male students of color, including Latinos, from pre-kindergarten through college (Hemphill & Vanneman, 2011; Snyder et al., 2016). By the time the boys in the present study had reached the end of first grade, boys with the darkest skin color rating had the lowest achievement scores, even though their academic school readiness was comparable to light-skinned boys before entering school. Specifically, when the “collective black” boys entered pre-kindergarten or kindergarten, 27% were academically delayed, and by the end of first grade, the percentage at academic risk had increased to 36%. In contrast, when the “honorary white” boys entered school, 30% were delayed on academic school readiness but only 21% were at risk by the end of first grade. Thus, given that only DA children were rated in the darkest skin color category, DA boys who are “collective black” emerged as the group at possible highest risk for academic underachievement. These patterns are based on two different tests of academic skills, and more research using the same test of achievement administered and over longer periods of time is needed to better understand how race influences achievement in Latino boys.

As noted above, skin color did not influence achievement in MA children, perhaps because no MA students were rated “collective black.” Given that the “black” ratings were assigned to children who were racially black, and the “brown” ratings were assigned to children who were racially indigenous, it is likely that other phenotypic characteristics differed significantly between MA and DA children. Research shows more negative views and stronger dislike of black individuals with thicker lips and a wider nose than those with the same skin color but thinner lips and a narrower nose (Hagiwara, Kashy, & Cesario, 2012). If

negative stereotypes and biases are strongest in the presence of Afrocentric facial characteristics, black children are likely to be more susceptible to the negative effects of racism than brown children (Byrd & Tharps, 2001; Rosette & Dumas, 2007), which may explain the present study findings. We also consider the unique experiences of the Mexican and Dominican immigrant populations in the U.S. in terms of migration histories, transnational patterns of living, and accessibility of social capital (Yoshikawa, 2011); these contextual differences undoubtedly “influence or create alternative developmental pathways” for children from different social groups (Garcia Coll et al., 1996; p. 1895).

### Limitations

The present study has several limitations. First, our measure of skin color was developed for the present study and has not been previously validated. There are currently no validated measures of skin color available in the literature (Ryabov, 2016; Thompson & McDonald, 2016). For example, in the National Longitudinal Study of Adolescent Health, skin color was rated based solely on the subjective evaluation of racially/ethnically diverse interviewers (Thompson & McDonald, 2016). In an effort to standardize skin color ratings in the present study, we provided specific instructions and high-quality color copies of skin tones representative of the Latino population to highly-trained Latino research assistants. Still, the psychometric properties of the rating scale have not previously been established. Also, by using skin color to measure race, we were unable to examine whether other phenotypic characteristics such as facial features and hair texture influence Latino children’s academic development.

Second, as noted above, our model was limited to individual child characteristics (i.e., school readiness) as mediators; we did not consider other variables implicated in the theoretical literature such as teacher perceptions (namely, phenotypicality bias) and expectations, teacher-student relationships, or peer relationships. In addition to biases, other race-based constructs such as the racial composition of the school and teacher-student racial matching have been found to influence academic achievement (Dee, 2004; Lee, 2007). At the student level, acculturation and racial/ethnic identity processes have been found to interact with skin color and academic achievement (Araujo Dawson & Quiros, 2014). Future research is needed to test more comprehensive models that include these possible mechanisms. Finally, we had moderate levels of attrition, and students with darker skin and lower academic school readiness were over-represented among study drop-outs, which may have biased our results.

### Implications

Despite these limitations, the present study contributed to our understanding of race and academic achievement among Latino students. As members of an ethnic minority group, Latino students are disadvantaged in the educational system regardless of their racial background. Our study shows that the disadvantage may be strongest for dark-skinned boys in particular, and highlights the importance of considering intersectionality in research with the diverse Latino population.

Educational policies and practices may help to offset such disadvantages. Multicultural teacher trainings hold promise, though there is mixed evidence of their effectiveness (Sleeter, 2001). It may be that to be effective, such trainings should target teacher perceptions and phenotypicality biases explicitly. In the classroom, using culturally-responsive curricula may help teachers and students of color form positive relationships (Gay, 2010). At the school level, an institutional support and accountability system that fosters a racially-inclusive school climate may reduce phenotypicality bias both in and out of the classroom. Hiring policies that favor a diverse teaching force (male teachers, teachers of color) may also promote the academic functioning of students of color (Torres, Santos, Peck, & Cortes, 2004). With these kinds of investments in inclusive practice and policy, the field may be more successful in promoting long-term educational success in Latino students.

## Acknowledgments

Funding: This work was supported by grant R01HD066122 from the National Institutes of Health.

## References

- Araujo Dawson B, & Quiros L (2014). The effects of racial socialization on the racial and ethnic identity development of Latinas. *Journal of Latina/o Psychology*, 2(4), 200–216. 10.1037/lat0000024
- Arce CH, Murguia E, & Frisbie WP (1987). Phenotype and life chances among Chicanos. *Hispanic Journal of Behavioral Sciences*, 9(1), 19–32. 10.1177/073998638703090102
- Aud S, Fox MA, & Ramani Kewal A. (2010). Status and trends in the education of racial and ethnic groups. Washington DC: National Center for Education Statistics.
- Bauer GR (2014). Incorporating intersectionality theory into population health research methodology: Challenges and the potential to advance health equity. *Social Science & Medicine*, 110, 10–17. 10.1016/j.socscimed.2014.03.022 [PubMed: 24704889]
- Bonilla-Silva E, Forman TA, Lewis AE, & Embrick DG (2003). It wasn't me: How will race and racism work in 21st century America. *Research in Political Sociology*, 12(1), 111–134. 10.1016/S0895-9935(03)12005-0
- Boutte GS (2008). Beyond the illusion of diversity: How early childhood teachers can promote social justice. *The Social Studies*, 99(4), 165–173. 10.3200/tsss.99.4.165-173
- Boutte GS, Lopez-Robertson J, & Powers-Costello E (2011). Moving beyond colorblindness in early childhood classrooms. *Early Childhood Education Journal*, 39(5), 335–342. 10.1007/s10643-011-0457-x
- Byrd CM, & Chavous T (2011). Racial identity, school racial climate, and school intrinsic motivation among African American youth: The importance of person-context congruence. *Journal of Research on Adolescence*, 21(4), 849–860. 10.1111/j.1532-7795.2011.00743.x
- Byrd AD & Tharps LL (2001). *Hair story: Untangling the roots of black hair in America* (1st ed.). New York: St. Martin's Press.
- Calzada EJ, Huang KY, Anicama C, Fernandez Y, & Brotman LM (2012). Test of a cultural framework of parenting with Latino families of young children. *Cultural Diversity and Ethnic Minority Psychology*, 18(3), 285–296. 10.1037/a0028694 [PubMed: 22686147]
- Calzada EJ, Huang K, Hernandez M, Soriano E, Acra CF, Dawson-McClure S, ... Brotman L (2015). Family and teacher characteristics as predictors of parent involvement in education during early childhood among Afro-Caribbean and Latino immigrant families. *Urban Education*, 50(7), 870–896. doi:10.1177/0042085914534862 [PubMed: 26417116]
- Codina GE & Montalvo FF (1994). Chicano phenotype and depression. *Hispanic Journal of Behavioral Sciences*, 16(3), 296–306. 10.1177/07399863940163007
- Darity WA, Jr, Dietrich J, & Hamilton D (2005). Bleach in the rainbow: Latin ethnicity and preference for whiteness. *Transforming Anthropology*, 13(2), 103–109. 10.1525/tran.2005.13.2.103

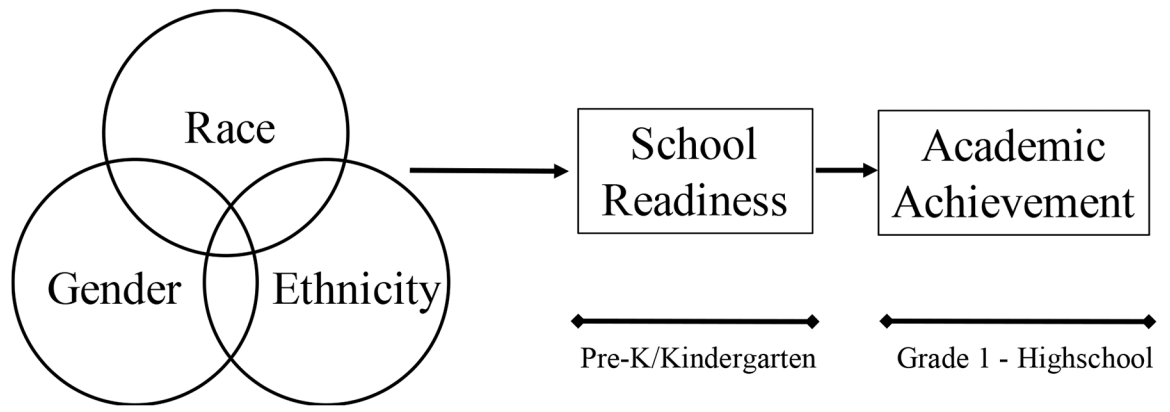
- Dee T (2004). Teachers, race, and student achievement in a randomized experiment. *The Review of Economics and Statistics*, 86(1), 195–210. 10.1162/003465304323023750
- Delgado R, & Stefancic J (2001). California's racial history and constitutional rationales for race-conscious decision making in higher education. *UCLA Law Review*, 47(6), 1521–1614. Retrieved from <https://ssrn.com/abstract=1310299>
- Delgado R, & Stefancic J (2012). *Critical race theory: An introduction* (2nd ed.). New York, NY: New York University Press.
- Denham SA, Bassett HH, Thayer SK, Mincic MS, Sirotkin YS, & Zinsser K (2012). Observing preschoolers' social-emotional behavior: Structure, foundations, and prediction of early school success. *The Journal of Genetic Psychology*, 173(3), 246–278. 10.1080/00221325.2011.597457 [PubMed: 22919891]
- Duncan GJ, Dowsett CJ, Claessens A, Magnuson K, Huston AC, Klebanov P, ... & Sexton H (2007). School Readiness and Later Achievement. *Developmental Psychology*, 43(6), 1428–1446. 10.1037/0012-1649.43.6.1428 [PubMed: 18020822]
- Duster T (2008). Introduction to unconscious racism debate. *Social Psychology Quarterly*, 71(1), 6. 10.1177/019027250807100102
- Eamon MK (2005). Social-demographic, school, neighborhood, and parenting influences on the academic achievement of Latino young adolescents. *Journal of Youth and Adolescence*, 34(2), 163–174. 10.1007/s10964-005-3214-x
- Enders CK, & Bandalos DL (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling*, 8(3), 430–457. 10.1207/s15328007sem0803\_5
- Fergus E (2009). Understanding Latino students' schooling experiences: The relevance of skin color among Mexican and Puerto Rican high school students. *Teachers College Record*, 111(2), 339–375. Retrieved from <https://eric.ed.gov/?id=EJ829115>
- Ferguson GMA, & Cramer P (2007). Self-esteem among Jamaican children: Exploring the impact of skin color and rural/urban residence. *Journal of Applied Developmental Psychology*, 28(4), 345–359. 10.1016/j.appdev.2007.04.005
- Fernandez L (2002). Telling stories about school: Using critical race and Latino critical theories to document Latina/Latino education and resistance. *Qualitative Inquiry*, 8(1), 45–65. 10.1177/1077800402008001004
- Forman TA, Goar C, & Lewis AE (2002). Neither Black nor White? An empirical test of the Latin Americanization thesis. *Race and Society*, 5(1), 65–84. 10.1016/j.racsoc.2003.12.005
- Garcia Coll C, Lamberty G, Jenkins R, McAdoo HP, Crnic K, Wasik BH, & Garcia HV (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67(5), 1891–1914. 10.1111/j.1467-8624.1996.tb01834.x [PubMed: 9022222]
- Gay G (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.). New York, NY: Teachers College.
- Gilliam SW, Maupin NA, Reyes RC, Accavitti M, & Schic F (2016). Do early educators' implicit biases regarding sex and race related to behavior expectations and recommendations of preschool expulsions and suspensions? New Haven, CT: Yale Child Study Center.
- Goff PA, Jackson MC, Di Leone BAL, Culotta CM, & DiTomasso NA (2014). The essence of innocence: Consequences of dehumanizing Black children. *Journal of Personality and Social Psychology*, 106(4), 526–545. 10.1037/a0035663 [PubMed: 24564373]
- Hagiwara N, Kashy DA, & Cesario J (2012). The independent effects of skin tone and facial features on Whites' affective reactions to Blacks. *Journal of Experimental Social Psychology*, 48(4), 892–898. 10.1016/j.jesp.2012.02.001
- Hannon L (2014). Hispanic respondent intelligence level and skin tone: Interviewer perceptions from the American national election study. *Hispanic Journal of Behavioral Sciences*, 36(3), 265–283. 10.1177/0739986314540126
- Hannon L, & De Fina R (2014). Just skin deep? The impact of interviewer race on the assessment of African American respondent skin tone. *Race and Social Problems*, 6(4), 356–364. 10.1007/s12552-014-9128-z



- Hemphill FC, & Vanneman A (2011). Achievement gaps: How Hispanic and White students in public schools perform in mathematics and reading on the national assessment of educational progress. Washington DC: National Center for Education Statistics.
- Hong S, & Ho HZ (2005). Direct and indirect longitudinal effects of parental involvement on student achievement: Second-order latent growth modeling across ethnic groups. *Journal of Educational Psychology*, 97(1), 32–42. 10.1037/0022-0663.97.1.32
- Humes K, Jones NA, & Ramirez RR (2011). Overview of race and Hispanic origin, 2010. US Department of Commerce, Economics and Statistics Administration, US Census Bureau.
- Hunter M (2016). Colorism in the classroom: How skin tone stratifies African American and Latina/o students. *Theory into Practice*, 55(1), 54–61. 10.1080/00405841.2016.1119019
- Kaufman A, & Kaufman N (2005). Kaufman test of educational achievement-brief form manual. (2nd ed.). Circle Pines, MN: AGS Publishing.
- Keith TZ (2014). *Multiple Regression and Beyond: An Introduction to Multiple Regression and Structural Equation Modeling*. New York, NY: Routledge.
- Kim Y, Calzada EJ, Barajas-Gonzalez RG, Huang KY, Brotman LM, Castro A, & Pichardo C (2018). The role of authoritative and authoritarian parenting in the early academic achievement of Latino students. *Journal of Educational Psychology*, 110(1), 119–132. 10.1037/edu0000192
- Kittles RA, Santos ER, Oji-Njideka NS, & Bonilla C (2007). Race, skin color and genetic ancestry: Implications for biomedical research on health disparities. *California Journal of Health Promotion*, 5, 9–23. Retrieved from [http://www.cjhp.org/Volume5\\_2007/IssueSp/009-023-kittles.pdf](http://www.cjhp.org/Volume5_2007/IssueSp/009-023-kittles.pdf)
- Kohlberg LA (1966). A cognitive-developmental analysis of children's sex-role concepts and attitudes In Maccoby EE (Ed.), *The development of sex differences* (pp. 82–173). Stanford, CA: Stanford University Press.
- Lee H (2007). The effects of school racial and ethnic composition on academic achievement during adolescence. *The Journal of Negro Education*, 76(2), 154–172. Retrieved from <https://www.jstor.org/stable/40034554>
- Limperopulos N (2015). Our forgotten sons: The underachievement of boys of color in America's urban centers In Esposito MK, Normore AH, Esposito MK, Normore AH (Eds.), *Inclusive practices and social justice leadership for special populations in urban settings: A moral imperative* (pp. 165–187). Charlotte, NC: IAP Information Age Publishing.
- Livingston RW, & Brewer MB (2002). What are we really priming? Cue-based versus category-based processing of facial stimuli. *Journal of Personality and Social Psychology*, 82(1), 5–18. 10.1037//0022-3514.82.1.5 [PubMed: 11811634]
- Llagas C (2003). *Status and Trends in the Education of Hispanics*. Washington DC: National Center for Education Statistics.
- MacLin MK, & Herrera V (2006). The criminal stereotype. *North American Journal of Psychology*, 8(2), 197–208. Retrieved from <http://psycnet.apa.org/record/2006-09074-002>
- Maddox KB (2004). Perspectives on racial phenotypicity bias. *Personality and Social Psychology Review*, 8(4), 383–401. 10.1207/s15327957pspr0804\_4 [PubMed: 15582860]
- Maddox KB, & Gray A (2002). Cognitive representations of Black Americans: Reexploring the role of skin tone. *Personality and Social Psychology Bulletin*, 28(2), 250–259. 10.1177/0146167202282010
- Mardell-Czudnowski C, & Goldenberg DS (1998). *Developmental indicators for the assessment of learning*. Monterey, CA: American Guidance Service.
- Mashburn AJ, & Pianta RC (2006). Social relationships and school readiness. *Early Education & Development*, 17(1), 151–176. 10.1207/s15566935eed1701\_7
- Massey SD & Martin AJ (2003). The NIS skin color scale. Retrieved from <http://nis.princeton.edu/downloads/NIS-Skin-Color-Scale.pdf>
- McEvoy A, & Welker R (2000). Antisocial behavior, academic failure, and school climate: A critical review. *Journal of Emotional and Behavioral Disorders*, 8(3), 130–140. 10.1177/10634266000800301
- Montalvo FF, & Codina GE (2001). Skin color and Latinos in the United States. *Ethnicities*, 1(3), 321–341. 10.1177/146879680100100303

- Murguia E, & Telles EE (1996). Phenotype and schooling among Mexican Americans. *Sociology of Education*, 69(4), 276–289. 10.2307/2112715
- Newheiser AK, & Olson KR (2012). White and Black American children's implicit intergroup bias. *Journal of Experimental Social Psychology*, 48(1), 264–270. 10.1016/j.jesp.2011.08.011 [PubMed: 22184478]
- Nyborg VM, & Curry JF (2003). The impact of perceived racism: Psychological symptoms among African American boys. *Journal of Clinical Child and Adolescent Psychology*, 32(2), 258–266. 10.1207/s15374424jccp3202\_11 [PubMed: 12679284]
- Okonofua JA, & Eberhardt JL (2015). Two strikes: Race and the disciplining of young students. *Psychological Science*, 26(5), 617–624. 10.1177/0956797615570365 [PubMed: 25854276]
- Palermo F, Hanish LD, Martin CL, Fabes RA, & Reiser M (2007). Preschoolers' academic readiness: What role does the teacher-child relationship play? *Early Childhood Research Quarterly*, 22(4), 407–422. 10.1016/j.ecresq.2007.04.002
- Parker L, & Lynn M (2002). What's race got to do with it? critical race theory's conflicts with and connections to qualitative research methodology and epistemology. *Qualitative Inquiry*, 8(1), 7–22. 10.1177/107780040200800102
- Peisner-Feinberg ES, Burchinal MR, Clifford RM, Culkin ML, Howes C, Kagan SL, & Yazejian N (2001). The relation of preschool child-care quality to children's cognitive and social developmental trajectories through second grade. *Child Development*, 72(5), 1534–1553. 10.1111/1467-8624.00364 [PubMed: 11699686]
- Quintana SM (1994). A model of ethnic perspective-taking ability applied to Mexican-American children and youth. *International Journal of Intercultural Relations*, 18(4), 419–448. 10.1016/0147-1767(94)90016-7
- Raver C (2002). Emotions matter: Making the case for the role of young children's emotional development for early school readiness. *Social Policy Report*, 16(3), 3–19. Retrieved from <https://www.cde.state.co.us/cpp/emotionsmatter>
- Ray A, Bowman B, & Robbins J (2006). Preparing early childhood teachers to successfully educate all children: The contribution of state boards of higher education and national professional accreditation organizations. Chicago, IL: Erikson Institute.
- Reynolds CR, & Kamphaus RW (2004). *BASC-2: Behavior Assessment System for Children*. (2nd edition). Circle Pines, MN: AGS Publishing.
- Rosette A & Dumas TL (2007). The hair dilemma: Conform to mainstream expectations or emphasize racial identity. *Duke Journal of Gender Law Policy*, 14(1), 407–422. Retrieved from <https://scholarship.law.duke.edu/djglp/vol14/iss1/13/>
- Ryabov I (2013). Colorism and school-to-work and school-to-college transitions of African American adolescents. *Race and Social Problems*, 5(1), 15–27. 10.1007/s12552-012-9081-7
- Ryabov I (2016). Educational outcomes of Asian and Hispanic Americans: The significance of skin color. *Research in Social Stratification and Mobility*, 44, 1–9. 10.1016/j.rssm.2015.11.001
- Ryabov I, & Goza FW (2014). Phenotyping and adolescence-to-adulthood transitions among Latinos. *Race and Social Problems*, 6(4), 342–355. 10.1007/s12552-014-9132-3
- Sadowski M (2006). The school readiness gap. *Harvard Education Letter*, 22(4), 4–7. Retrieved from [http://hepg.org/hel-home/issues/22\\_4/helarticle/the-school-readiness-gap](http://hepg.org/hel-home/issues/22_4/helarticle/the-school-readiness-gap)
- Segura-Mora A (2009). What color is beautiful In Au W (Ed.), *Rethinking multicultural education: Teaching for racial and cultural justice* (pp. 263–268). Milwaukee, WI: Rethinking School, Ltd.
- Sleeter CE (2001). Preparing teachers for culturally diverse schools research and the overwhelming presence of whiteness. *Journal of Teacher Education*, 52(2), 94–106. 10.1177/0022487101052002002
- Snyder TD, de Brey C, & Dillow SA (2016). *Digest of education statistics 2014*. Washington DC: National Center for Education Statistics.
- Spagnola KTQ (2009). Assessing the stability of the predictive validity of age of entry and the Developmental Indicators for the Assessment of Learning-(DIAL-3) on school achievement. Queens, NY: St. John's University.

- Spears Brown C, & Bigler RS (2005). Children's perceptions of discrimination: A developmental model. *Child Development*, 76(3), 533–553. 10.1111/j.1467-8624.2005.00862.x [PubMed: 15892777]
- Swanson DP, Cunningham M, & Spencer MB (2003). Black males' structural conditions, achievement patterns, normative needs, and "opportunities". *Urban Education*, 38, 608–633. 10.1177/0042085903256218
- Telles EE, & Murguía E (1990). Phenotypic discrimination and income differences among Mexican Americans. *Social Science Quarterly*, 71(4), 682–696. Retrieved from <http://www.jstor.org/stable/42862790>
- Tenenbaum HR, & Ruck MD (2007). Are teachers' expectations different for racial minority than for European American students? A meta-analysis. *Journal of Educational Psychology*, 99(2), 253–273. 10.1037/0022-0663.99.2.253
- Thompson MS, & Keith VM (2001). The blacker the berry: Gender, skin tone, self-esteem, and self-efficacy. *Gender & Society*, 15(3), 336–357. 10.1177/089124301015003002
- Thompson MS, & McDonald S (2016). Race, skin tone, and educational achievement. *Sociological Perspectives*, 59(1), 91–111. 10.1177/0731121415580026
- Todd AR, Thiem KC, & Neel R (2016). Does seeing faces of young black boys facilitate the identification of threatening stimuli? *Psychological Science*, 27(3), 384–393. 10.1177/0956797615624492 [PubMed: 26833757]
- Torres J, Santos J, Peck NL, & Cortes L (2004). Minority teacher recruitment, development, and retention. Providence, RI: Northeast and Islands Regional Educational Laboratory LAB.
- Trucios-Haynes EF (2000). Why "race matters": LatCrit theory and Latina/o racial identity. *La Raza Law Journal*, 12(1), 1–42. 10.15779/Z38VQ11
- U.S. Department of Education (2016). 2013–2014 Civil rights data collection a first look: Key data highlights on equity and opportunity gaps in our nation's public schools. Retrieved from <https://www2.ed.gov/about/offices/list/ocr/docs/2013-14-first-look.pdf>
- Utsey SO, Chae MH, Brown CF, & Kelly D (2002). Effect of ethnic group membership on ethnic identity, race-related stress and quality of life. *Cultural Diversity & Ethnic Minority Psychology*, 8(4), 367–378. 10.1037/1099-9809.8.4.367
- Walk RA (2005). Evaluating the predictive validity of the Speed DIAL version of the DIAL-3, Developmental Indicators for the Assessment of Learning. Johnson City, TN: East Tennessee State University.
- Weiss SJ, Goebel P, Page A, Wilson P, & Warda M (1999). The impact of cultural and familial context on behavioral and emotional problems of preschool Latino children. *Child Psychiatry and Human Development*, 29(4), 287–301. 10.1023/A:1021397032359 [PubMed: 10422353]
- Wong CA, Eccles JS, & Sameroff A (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socioemotional adjustment. *Journal of Personality*, 71(6), 1197–1232. 10.1111/1467-6494.7106012 [PubMed: 14633063]
- Yoshikawa H (2011). *Immigrants raising citizens: Undocumented parents and their young children*. New York, NY: Russell Sage Foundation.



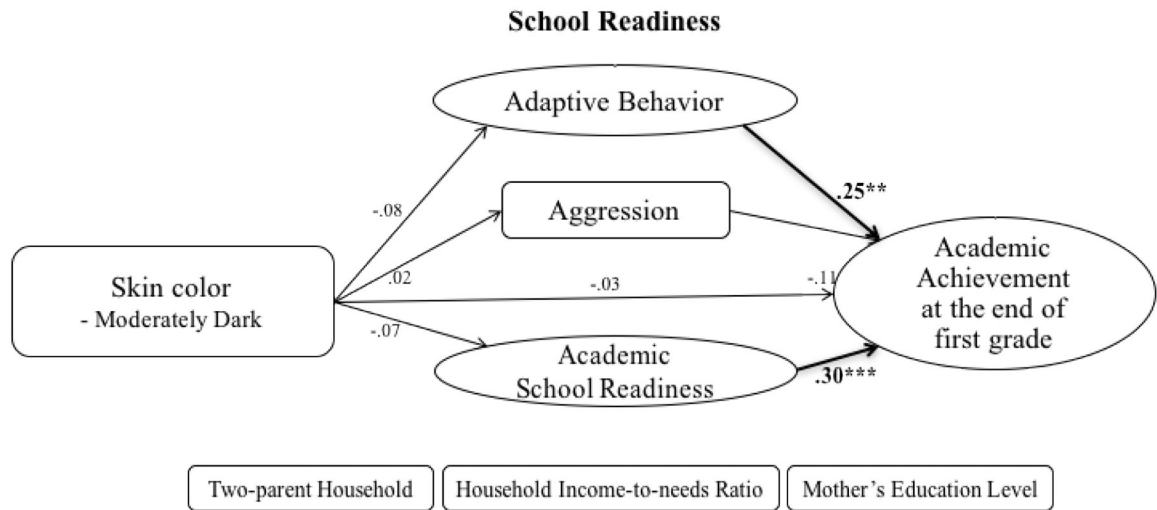
**Figure 1.**  
Conceptual framework of this study

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

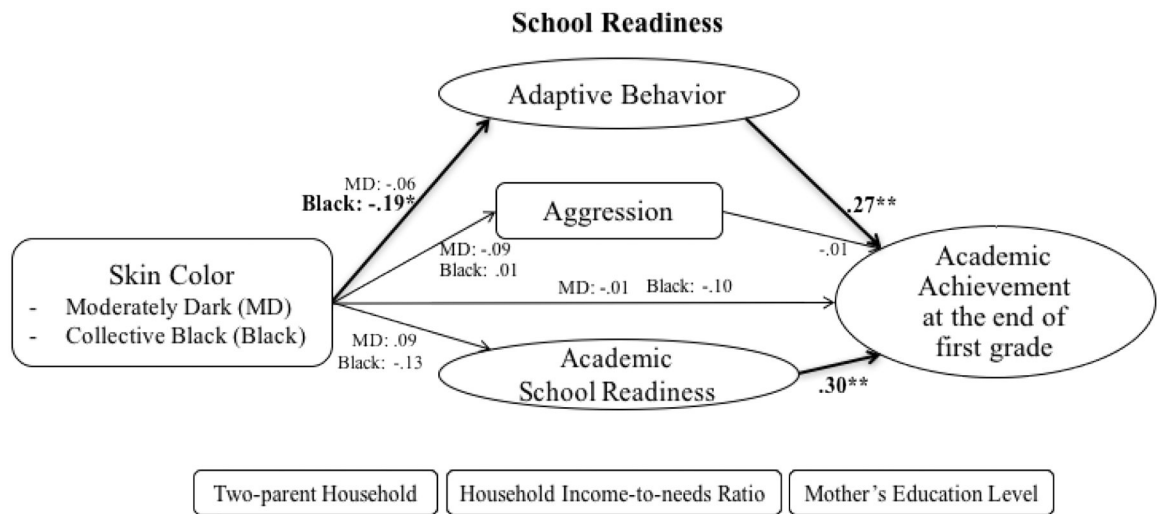


**Figure 2.**

Structural model in MA students with significant standardized estimates

*Note.* Bold lines and numbers indicate significant paths and standardized coefficients; Reference group is white or honorary white for skin color, single-parent household for household composition, and high school graduate or above for mother's education level.

\*\*  $p < .01$ , \*\*\*  $p < .001$



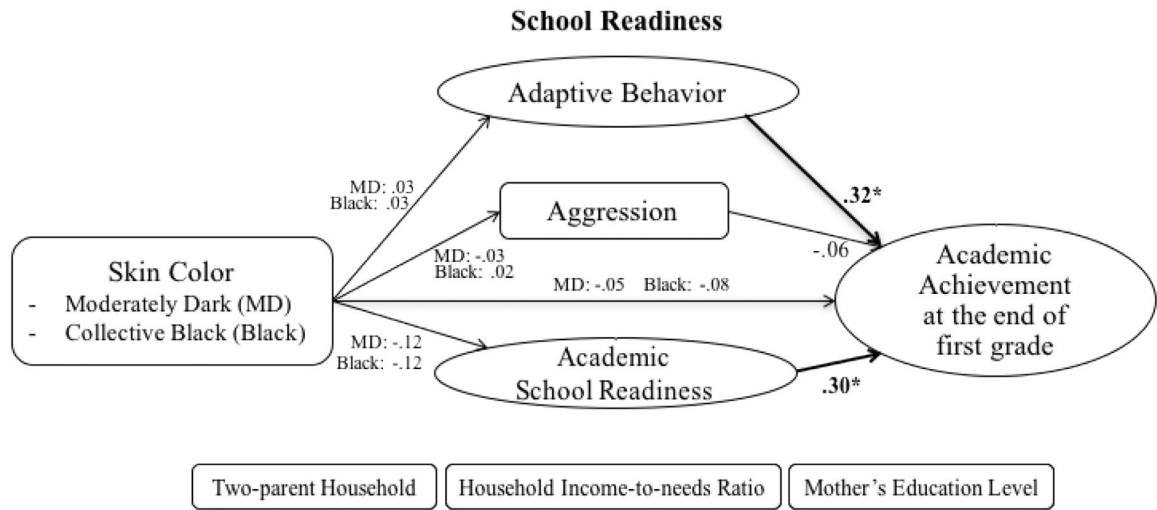
**Figure 3a.**

Structural model in DA boys with significant standardized estimates

*Note.* Bold lines and numbers indicate significant paths and standardized coefficients; Reference group is white or honorary white for skin color, single-parent household for household composition, and high school graduate or above for mother's education level.

\*  $p < .05$ , \*\*  $p < .01$





**Figure 3b.**  
 Structural model in DA girls with significant standardized estimates  
*Note:* Bold lines and numbers indicate significant paths and standardized coefficients;  
 Reference group is white or honorary white for skin color, single-parent household for  
 household composition, and high school graduate or above for mother's education level.  
*Note.* \*  $p < .05$

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

**Table 1.**

## Demographic characteristics, by child ethnicity

Characteristics	MA (%)	DA (%)	$\chi^2$
Total Sample	55.2	44.8	
Child's skin color			191.61 ***
Honorary white	26.5	48.7	
Moderately dark	73.5	21.8	
Collective black	0	29.5	
Child's immigration status			37.58 ***
US-born	97.5	85.2	
Immigrant	2.5	14.8	
Mother's immigration status			51.28 ***
US-born	1.5	15.6	
Immigrant	98.5	84.4	
Maternal education level			101.03 ***
Less than high school	59.9	23.1	
High-school or above	40.1	76.9	
Household composition			67.03 ***
Single-parent household	13.0	39.2	
Two-parent household	87.0	60.8	
Household income-to-needs ratio			57.25 ***
In poverty	82.1	56.0	
Not in poverty	17.9	44.0	

Note.

\*\*\*  
 $p < .001$

**Table 2.**

School readiness and academic achievement by child gender, ethnicity and skin color

Characteristics	SEL School Readiness						Academic school readiness		Academic achievement	
	Adaptive behavior		Aggression		Total score	Potential delay (%)	Total score	At-risk (%)	Total score	At-risk (%)
	Teacher-rated T score (SD)	Mother-rated T score (SD)	Teacher-rated T score	At-risk (%)						
<b>MA Boys<sup>a</sup></b>										
Honorary white	46.85* (8.75)	45.89 (9.09)	46.04 (6.56)	6.4	45.62 (7.80)	4.3	21.64 (6.96)	34.0	100.37* (12.26)	8.6
Moderately dark	43.76* (8.15)	46.72 (10.09)	47.07 (8.48)	8.8	46.36 (8.16)	8.0	20.09 (7.18)	39.0	95.26* (13.16)	17.3
<b>MA Girls<sup>b</sup></b>										
Honorary white	45.78 (9.32)	47.29 (9.92)	45.19 (5.16)	3.7	46.37 (8.52)	6.8	20.68 (7.22)	30.5	95.68 (13.51)	19.1
Moderately dark	45.01 (9.50)	47.62 (9.07)	45.30 (6.99)	5.8	45.41 (7.80)	4.1	20.01 (7.42)	37.2	95.62 (12.31)	15.8
<b>DA Boys<sup>c</sup></b>										
Honorary white	46.83 (9.90)	51.16 (8.97)	49.18 (10.98)	10.9	47.68 (9.32)	12.7	23.42 (6.93)	26.3	97.53 (18.82)	30.2
Moderately dark	45.56 (7.60)	51.48 (9.71)	47.24 (6.59)	8.1	48.18 (11.74)	10.0	24.05 (7.71)	24.4	97.21 (16.71)	24.2
Collective black	43.93 (9.51)	48.51 (10.23)	49.49 (8.12)	14.0	48.84 (9.42)	9.3	21.41 (7.75)	27.3	89.82 (13.71)	36.4
<b>DA Girls<sup>d</sup></b>										
Honorary white	48.58 (9.97)	53.95 (8.75)	47.22 (8.00)	9.6	45.44 (7.66)	5.3	25.37 (6.78)	15.8	100.10 (15.77)	14.5
Moderately dark	49.17 (8.33)	54.94 (9.08)	46.53 (5.48)	3.3	46.31 (7.85)	11.4	23.75 (6.45)	16.7	96.82 (10.14)	10.7
Collective black	48.86 (10.36)	54.58 (8.34)	47.52 (8.53)	13.8	47.58 (11.78)	9.1	23.73 (6.27)	18.2	96.95 (15.22)	19.0

Note.

<sup>a</sup> n = 139 to 188;

<sup>b</sup> n = 161 to 207;

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

$n = 98$  to  $142$ ;

$d = .111$  to  $.145$ ;

Adaptive behaviors and aggression were measured by the Behavior Assessment System for Children-2 (BASC-2); Academic school readiness was measured by the abbreviated version of the Developmental Indicators for the Assessment of Learning-Third edition (Speed DIAL-3) at baseline; Academic achievement was measured by the Kaufman Test of Educational Achievement, Second Edition, Brief Form (KTEA-II) at the end of first grade. Because a full information procedure (FIML) estimates parameters for missing data based on all available data instead of imputing, the number of cases differs.;

\*  $p < .05$