

## RESEARCH ARTICLE

# School climate and ethnic-racial identity in school: A longitudinal examination of reciprocal associations

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## Abstract

The messages youth receive in schools about how they matter as individuals and as members of ethnic-racial groups are influential in constructing their developing ethnic-racial identities (ERI). However, the developing ERI students hold also have a role in shaping their experiences at school. The current study examined the longitudinal and reciprocal association between ERI (exploration and resolution) and school climate (support for cultural pluralism and teacher supportiveness) among 491 Black, Latino, and White middle school youth ( $M_{\text{age}} = 12.03$ ,  $SD = 1.05$ , range: 11–17) in the Midwest. Cross-lagged analyses revealed that greater perceptions of support for cultural pluralism within the school predicted greater exploration and resolution at later time points for all students. Moreover, greater exploration and resolution among White students was predictive of greater perceptions of support for cultural pluralism at the school. Higher quality teacher–student relationships predicted greater engagement in ERI exploration for all youth. The findings highlight the importance of school climate in helping shape ERI among youth attending a culturally diverse school and the role of such youth in shaping the climate at their school.

## KEYWORDS

adolescents, cultural pluralism, ethnic-racial identity, school climate, supportiveness, teacher

## 1 | INTRODUCTION

Adolescence is a time of significant identity development (Erikson, 1968), including ethnic-racial identity (ERI), which broadly refers to the meaning individuals ascribe to ethnic-racial group membership and how such meaning is crafted over time (Umaña-Taylor et al., 2014). ERI formation is considered a normative aspect of development among ethnic-racial minority youth (Williams, Tolan, Durkee, François, & Anderson, 2012) and one that is also salient to White youth

in ethnically and racially diverse settings (Xu, Farver, & Pauker, 2015). ERI has been associated with numerous positive psychosocial outcomes, such as greater academic engagement and self-esteem among ethnically and racially diverse U.S. youth (including Whites; e.g., Miller-Cotto & Byrnes, 2016; Rivas-Drake, Seaton et al., 2014; Rivas-Drake, Syed et al., 2014). Moreover, engaging in a process of “figuring out” one’s thoughts and feelings about ethnicity and race is thought to be an important precursor to racial empathy—a critical 21st century social–emotional skill (see, e.g., Smith, McGovern, Larson, Hillaker, & Peck, 2016; Stevenson, 2014).

For youth attending ethnically and racially diverse schools, their time there likely consists of many opportunities to learn about how race and ethnicity may matter in their lives, particularly in the messages youth receive about how valued and supported they are as individuals and as ethnic-racial group members. The purpose of the current study is to examine how students’ sense of (a) the opportunities to engage with the cultural diversity of their school and (b) the quality of teacher–student relationships influences ERI development among Black, Latino, and White youth attending an ethnically and racially diverse middle school. Given that the process of developing an ERI emerges as a function of social interactions that evolve over time, we also examine how ERI may inform students’ sense of opportunities to learn more about their diverse peers and of how teachers and students get along at the school. Thus, we conceptualized youths’ engagement in ERI as a barometer of race relations among youth attending a culturally diverse school, to the extent that all youth have opportunities to participate in learning about and gaining a sense of clarity about their identities in such spaces. Additionally, we examine how these associations vary between White students and Black and Latino students given that these groups have reported differential levels of ERI in early adolescence (e.g., French, Seidman, Allen, & Aber, 2006).

In this study, we employ Umaña-Taylor, Yazedjian, and Bámaca-Gómez’ (2004) conceptualization of ERI process, in which exploration and resolution are important for shaping adolescents’ sense of self and group membership; these facets of ERI are grounded in an Eriksonian perspective of identity. *Exploration* refers to the extent to which one works to understand and investigate the significance of their ethnic-racial group membership, such as seeking culturally relevant traditions, activities, foods, and values. *Resolution* refers to the extent to which youth have clarity around meaning of their ethnic-racial group membership. Both exploration and resolution have been positively associated with psychosocial outcomes in school contexts (e.g., Umaña-Taylor, Gonzales-Backen, & Guimond, 2009; Umaña-Taylor, Vargas-Chanes, Garcia, & Gonzales-Backen, 2008) and are found to increase gradually over the course of adolescence (e.g., Douglass & Umaña-Taylor, 2015; Gonzales-Backen, Bámaca-Colbert, & Allen, 2016; Umaña-Taylor et al., 2009).

Longitudinal studies of ERI are rare, but they suggest that ERI may be increasing between early to middle adolescence for at least some youth. For example, although European American, African American, and Latino American early adolescents (aged 11) reported stable exploration levels across the transition to middle school, such exploration increased beginning at age 14 (French et al., 2006). In addition, Gonzales-Backen et al. (2016) reported increased exploration and resolution across 3 years among early and middle adolescent Mexican-origin girls. Other studies suggest that exploration of ERI might not follow a normative, linear trajectory across adolescence but rather as a type of individual difference (e.g., Kiang, Witkow, Baldelomar, & Fuligni, 2010). An important question, then, is what factors or experiences might help promote a sense that school is a safe space to explore and gain clarity around ERI among culturally diverse students. Such school factors may help to account for individual differences in exploration and resolution during the middle school years—a time when youth are beginning to examine who they are as individuals (Erikson, 1968).

## 1.1 | How schooling shapes ERI

Schools formally and informally socialize youth about race and ethnicity (Aldana & Byrd, 2015), and the interactions youth experience in school can influence and are influenced by their ERI development (e.g., Nasir & Cooks, 2009; Warikoo, 2010). Such interactions may reflect the school climate, a multidimensional construct that refers to student’s perceptions of school norms, values, and shared beliefs that both shape and are a product of social interactions among

school staff, teachers, and students in classrooms and in public spaces within the school (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). Positive perceptions of school climate have been found to consistently and positively relate to student psychological and academic adjustment (Thapa et al., 2013). With regard to teachers, specifically, we see that students who perceive their teachers as more caring and emotionally supportive are more likely to report greater motivation, self-regulation, and academic efficacy (e.g., Ryan & Patrick, 2001).

Studies of school climate and ERI, in particular, are scant. However, extant findings suggest that this aspect of schooling has potentially important implications for ERI in youth. For instance, Latino immigrant students aged 8–11 in the United States reported more positive ethnic-racial identities when they had teachers who reported highly valuing ethnic/racial diversity—in their curriculum, interactions with others, and for its benefits afforded to the youth they teach (Brown & Chu, 2012). In a study of primarily Turkish, Italian, and Croatian immigrant youth in Germany, who were on average 11 years old, Schachner, Noack, Van de Vijver, and Eckstein (2016) found that greater support for cultural pluralism was positively and prospectively predicted ethnic orientation (identity). In a study of Dutch and Turkish children in the Netherlands, Verkuyten and Thijs (2001) found that the more time teachers spent on time they spent on multicultural issues in their classrooms (e.g., talking about different cultures), the less students favoured their in-group relative to the out-group. Thus, we see that experiences in schools related ethnic-racial diversity and cultural pluralism, including experiences with teachers, have implications for how youth make sense of their ERI.

## 1.2 | How students' ERI shapes their experience of school

Research demonstrates that schools have an influential role in the development of adolescents' ERI. What is less understood, however, is how students' ERI shapes their experience of schooling. This is an important gap in the literature to address for two reasons. First, given the role that schools play in shaping students' ERI, understanding how a reciprocal association between students' ERI and school operates may help elucidate what aspects of both are relevant for long-term influences on youth. Second, recent activism among youth demonstrates that students can and do have agency in addressing issues of ethnicity and race. For example, Marley Dias, a Black elementary school student, gained national recognition for creating a campaign to catalogue 1,000 books with Black girl protagonists in response to her frustration over the lack of diverse racial representation in the books she was assigned to read in school (GrassROOTS Community Foundation, 2016). Youth activism in Arizona around access to ethnic studies (e.g., Cabrera, Meza, Romero, & Rodríguez, 2013) similarly underscores a desire among youth to feel they and their cultural heritages are valued in the process of schooling.

As youth engage in identity exploration or gain greater clarity about their identities, they may become increasingly attuned to the implicit and explicit ways schools convey the value for them as a member of a particular ethnic-racial group. Against the backdrop of particular ethnic-racial dynamics, moreover, youth also make sense of their interactions with adults at school more broadly. Therefore, in this study, we posit that youths' emergent sense of their group identity may shape their perceptions of (a) the ways adults at school convey that youths' culture of origin is valued and offers assets to their learning (i.e., support for cultural pluralism) and (b) the extent to which interactions with teachers are respectful and supportive (i.e., quality of teacher–student relationships). The latter is part of a youths' sense that they are valued, holistically, as a person and has been shown to be a critical aspect of youths' connections to school, more generally (cf. Ryan & Patrick, 2001; Valenzuela, 1999).

## 1.3 | The current study

The current study examined the potentially reciprocal ways in which youths' ERI and their sense of being valued at school, as an ethnic-racial group member and as an individual, inform each other. We specifically examined ERI exploration and resolution as well as students' perceptions of how supportive their school is of cultural pluralism and the general emotional support students perceived teachers provide at their school. We posited that these relations

do not happen independently of one another. Accordingly, the current study tested models that allow examination of bidirectional relations between ERI and school climate. In addition, given the fluid nature of school climate, teacher influence, and ERI during adolescence, we sought to explore the association between these constructs over time. Using a longitudinal design allowed us to test a cross-lagged model that includes both concurrent and prospective relationships over three waves of data, ultimately providing insight on how one process may influence the other process. Furthermore, we explored whether and how these associations vary among White students and Black and Latino students, given the differential nature of ERI development across ethnic and racial minority and majority youth (e.g., French et al., 2006).

## 2 | METHOD

### 2.1 | Sample and context

Participants were 491 students ( $M_{\text{age}} = 12.03$ , standard deviation [SD] = 1.05, range 11–17; 51% boys) attending a middle school in the Midwest who self-identified as Black/African American ( $n = 199$ ), Hispanic/Latino ( $n = 87$ ), or White ( $n = 205$ ). The middle school is ethnically and racially diverse, with 29.2% identifying as Black/African American, 29% identifying as White, 12.8% identifying as Hispanic/Latino, 8.7% identifying as American Asian Pacific Islander, 11.6% identifying as Multiracial, 4.7% identifying as “Other,” and 1.4% identifying as Other/Native American. Approximately 23% of the sample reported being a child of an immigrant mother (i.e., a mother not born in the United States).

### 2.2 | Study design and procedure

The current study uses a cross-sequential design over the span of 1 calendar year. Data were collected at the end of the academic year (i.e., spring semester), the middle of the following fall semester, and then again at the end of the following spring semester. The cross-sequential design means that 8th graders at the first wave of data collection did not participate in the second and third wave of data collection (as they moved onto high school). Additionally, new participants were included at second and third wave of data collection (e.g., new class of 6th graders, transfer students). The sample for each wave thus reflects the population enrolled at that school on the date(s) of data collection for that wave (minus those who were absent on the day of data collection). Table 1 provides descriptive information by each wave of the study.

Data were collected in partnership with and on behalf of a school that sought to assess the social, emotional, and academic development of its students, given that staff were implementing a social-emotional learning program. Each homeroom teacher was provided with paper surveys and instructions for distributing them; surveys were self-administered, and teachers did not report issues regarding this procedure. Students were assured confidentiality with a written statement at the beginning of the survey. Students were also assured confidentiality by having them place the survey in a sealed envelope prior to dropping the survey into a collection box, which was then also sealed. The

**TABLE 1** Description of participants by grade and time point

	Wave 1 ( $n = 352^a$ ) $n$ (%)	Wave 2 ( $n = 375^a$ ) $n$ (%)	Wave 3 ( $n = 355^a$ ) $n$ (%)
6th graders	135 (38.4)	120 (32.2)	110 (31)
7th graders	121 (34.4)	140 (37.3)	118 (33.2)
8th graders	96 (27.2)	114 (30.4)	100 (28.2)
Missing	0 (0)	1 (0.3)	27 (7.6)

<sup>a</sup>Reflects the sample size for the wave.

surveys were then retrieved by a third-party consultant, who de-identified them prior to being shared with the university research team. This research was determined to be exempt by the authors' Institutional Review Board.

## 2.3 | Measures

### 2.3.1 | Ethnic-racial identity

ERI process was assessed with the exploration and resolution subscales of the Ethnic Identity Scale (Umaña-Taylor et al., 2004). Exploration was measured by six items that assess the extent to which individuals have participated in activities that have taught them about their ethnicity (e.g., "I have participated activities that have exposed me to my ethnicity"; W1-W3  $\alpha$  range = .88-.90). Based on results of a confirmatory factor analysis (available upon request), the seventh item of the original exploration subscale was removed. Resolution was measured by four items that assessed the sense of clarity one has regarding being an ethnic/racial group member (e.g., "I have a clear sense of what my ethnicity means to me"; W1-W3  $\alpha$  range = .91-.93). The Ethnic Identity Scale response options range from 1 (*does not describe me at all*) to 4 (*describes me well*) for both subscales, and higher mean values indicate greater exploration and resolution.

### 2.3.2 | School climate

Two aspects of school climate were assessed: perceived support for cultural pluralism and perceived quality of teacher-student relationships (Brand, Felner, Shim, Seitsinger, & Dumas, 2003). Student perceptions of the school's support for cultural pluralism were assessed by three items: (a) "Students of many different races and cultures are chosen to participate in important school activities," (b) "You get to do something which helps you learn about students of different races and cultures at your school," and (c) "You work with students of different races and cultures in a school activity" (W1-W3  $\alpha$  range = .67-.74). Students' general perceptions of supportive student-teacher relationships on campus were measured by three items: (a) "Teachers go out of their way to help students," (b) "If students want to talk about something teachers will find time to do it," and (c) "Students really enjoy their classes" (W1-W3  $\alpha$  range = .74-.77). Response options range from 1 (*strongly disagree*) to 5 (*strongly agree*) with higher mean values indicating more positive perceptions of school climate.

### 2.3.3 | Demographic information

Ethnic-racial identification was obtained from youths' self-reported information. Students selected an ethnic/racial category in a close-ended question and wrote in a response to an open-ended question. From these two responses, ethnic/racial categories were created based on the six categories available in the U.S. Office of Civil Rights 2011-2012 report of school demographics (<http://ocrdata.ed.gov/>). Ethnic/racial group membership was dummy coded such that 0 = *Black and Latino* (students of colour) and 1 = *White*. Using participants' self-reported responses to a close-ended question, a dummy code was created to control for 6th grader status (0 = *non-6th grader* and 1 = *6th grader*), given that those transitioning into a school are likely to experience the school climate differently (Eccles et al., 1993). Immigrant status was obtained by participants' response to the question, "In what country was your mother born?" Participants were able to select the United States or "other" and write in their mother's country of origin. A dummy-coded variable was created (0 = *U.S. born* and 1 = *foreign*) and treated as a control variable, as children of immigrants are likely to report differential levels of ERI (e.g., Kim & Chao, 2009; Umaña-Taylor, Zeiders, & Updegraff, 2013).

## 2.4 | Analysis plan

To determine whether the relationships between ERI and school climate varied between White students and students of colour (i.e., Black and Latino students), a multigroup structural equation modelling (cross-lagged) approach was conducted using latent variables in Mplus 7.2 (Muthén & Muthén, 1998). Missing data were handled using full-information maximum likelihood. In the first model, all paths were allowed to vary freely across groups (i.e., fully free).

**TABLE 2** Means with standard deviations in parentheses among White, Black, and Latino participants by wave

	Wave 1			Wave 2			Wave 3		
	White M (SD)	Black M (SD)	Latino M (SD)	White M (SD)	Black M (SD)	Latino M (SD)	White M (SD)	Black M (SD)	Latino M (SD)
Exploration	2.16 (.84) <sup>a, b</sup>	2.78 (.60)	2.65 (.67)	2.21 (.81) <sup>a, b</sup>	2.87 (.67)	2.75 (.66)	2.19 (.80) <sup>a, b</sup>	2.88 (.75)	2.86 (.58)
Resolution	2.67 (.92) <sup>a, b</sup>	3.02 (.78)	3.00 (.80)	2.73 (.88) <sup>a, b</sup>	3.06 (.84)	3.15 (.81)	2.60 (.88) <sup>a, b</sup>	3.18 (.78)	3.14 (.66)
Cultural pluralism	3.98 (.79)	3.84 (.78)	3.76 (.89)	4.04 (.73) <sup>a</sup>	3.82 (.80)	3.96 (.79)	3.99 (.66) <sup>a</sup>	3.79 (.79)	3.86 (.75)
Teacher support	3.54 (.79)	3.56 (.79)	3.52 (.71)	3.60 (.83)	3.65 (.78)	3.68 (.77)	3.51 (.68)	3.53 (.85)	3.48 (.71)

Note. SD = standard deviation.

<sup>a</sup>Significant ( $p < .05$ ) difference between White and Black students.

<sup>b</sup>Significant ( $p < .05$ ) difference between White and Latino students.

In the second model, all paths were constrained to be equal across both groups (i.e., fully constrained). The difference in chi-square between the model in which all paths were allowed to vary freely and one in which all paths were constrained to be equal across groups was then assessed. If the chi-square difference test was significant, we proceeded to test each of the four cross-lagged paths (the primary paths of theoretical interest) to determine if these paths were different across groups. The four paths were tested sequentially, in the following order: (a) W1 ERI → W2 climate, (b) W2 ERI → W3 climate, (c) W1 climate → W2 ERI, and (d) W2 climate → W3 ERI. We considered absolute fit indices (root mean square error of approximation [RMSEA] and standardized root mean square residual [SRMR]), an incremental fit index (CFI), and the model chi-square to obtain a holistic assessment of model fit.

## 3 | RESULTS

### 3.1 | Preliminary analyses

In order to ascertain that Black and Latino students could be pooled together for analytic purposes, we examined equality of means and covariance matrices. Box's M test, which typically is tested at the  $p < .01$  or  $p < .001$  level due to its sensitivity (e.g., Raykov & Marcoulides, 2012), was not significant, suggesting that the covariance matrices between the Black and Latino groups are equal (Box's  $M = 128.81, p = .039$ ). Analyses of mean differences revealed no significant differences between Black and Latino students in the four constructs of interest (see Table 2). However, significant mean differences between Black and White students as well as Latino and White students emerged (see Table 2). Additionally, independent sample  $t$ -tests revealed three significant mean differences in ERI between White students and students of colour (i.e., Black and Latino students combined). At W1, Black and Latino students ( $M = 2.65, SD = .70$ ) reported significantly more exploration than White students ( $M = 2.16, SD = .84$ ),  $t(312) = 5.62, p = .029$ ; Black and Latino students ( $M = 3.02, SD = .78$ ) also reported greater resolution than White students ( $M = 2.67, SD = .92$ ) at W1,  $t(313) = 3.65, p = .019$ . At W3, Black and Latino students ( $M = 3.17, SD = .74$ ) reported significantly greater resolution than White students ( $M = 2.60, SD = .88$ ),  $t(314) = 6.21, p = .008$ . Correlations among variables for White students and students of colour are presented in Table 3.

For Black and Latino students, all W1 variables were significantly and positively associated ( $r$  range = .26–.57, all  $p$  values  $< .01$ ), with one exception: W1 resolution was not significantly correlated with W1 teacher supportiveness,

**TABLE 3** Correlations between variables of interest by group

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Exploration W1	—	.57**	.28**	.26**	.43**	.31**	.16	.19*	.45**	.19	.17	.20
(2) Resolution W1	.67*	—	.34**	.14	.34**	.58**	.23*	.32**	.24*	.32**	.32**	.30**
(3) Cultural pluralism W1	.05	.06	—	.53**	.32**	.28**	.58**	.38**	.17	.20*	.46**	.39**
(4) Teacher support W1	.18*	.17*	.46*	—	.33**	.21*	.33**	.45**	.25**	.25*	.37**	.44**
(5) Exploration W2	.51**	.40**	.28*	.40**	—	.71**	.23**	.16*	.56**	.40**	.31**	.23**
(6) Resolution W2	.43**	.67**	.16	.38**	.63**	—	.26**	.18*	.42**	.47**	.32**	.19*
(7) Cultural pluralism W2	.29**	.36**	.58**	.54**	.32**	.29**	—	.55**	.12	.14	.55**	.33**
(8) Teacher support W2	.13	.24*	.42**	.68**	.25**	.22*	.54**	—	.16*	.12	.48**	.54**
(9) Exploration W3	.50**	.39**	.37**	.26*	.64**	.39**	.25**	.23**	—	.65**	.22*	.24**
(10) Resolution W3	.35**	.51**	.33**	.31**	.50**	.50**	.30**	.27**	.74**	—	.16*	.13
(11) Cultural pluralism W3	.42*	.39**	.43**	.55*	.26**	.19	.59**	.44**	.26**	.27**	—	.72**
(12) Teacher support W3	.22	.144	.30*	.48**	.24*	.13	.30**	.39**	.18	0.13	.47**	—

Note. White students are presented below the diagonal; Black and Latino students are presented above the diagonal.

\* $p < .05$ .

\*\* $p < .01$ .

$r(177) = .38, p = .070$ . For White students, all W1 variables were significantly and positively associated ( $r$  range = .18–.67,  $p$  range <.05–<.01) with two exceptions: W1 support for cultural pluralism was not related to W1 exploration,  $r(135) = .05, p = .56$ ; or W1 resolution,  $r(136) = .06, p = .46$ . For all students, W2 variables were all significantly and positively associated ( $r$  range = .16–.71,  $p$  range <.05–<.01). All W3 variables were significantly and positively associated for Black and Latino students ( $r$  range = .16–.72,  $p$  range <.05–<.01) with one exception: W3 resolution and W3 teacher supportiveness,  $r(169) = .13, p = .08$ . For White students, W3 teacher supportiveness was not associated with W3 exploration,  $r(117) = .18, p = .06$ ; or resolution,  $r(116) = .13, p = .17$ , though teacher supportiveness was significantly and positively associated with support cultural pluralism,  $r(117) = .47, p < .001$ . All W1 variables were autocorrelated at W2 and W3 ( $r$  range = .32–.68, all  $p$  values <.01), as well as between W2 and W3 ( $r$  range = .39–.64, all  $p$  values <.01).

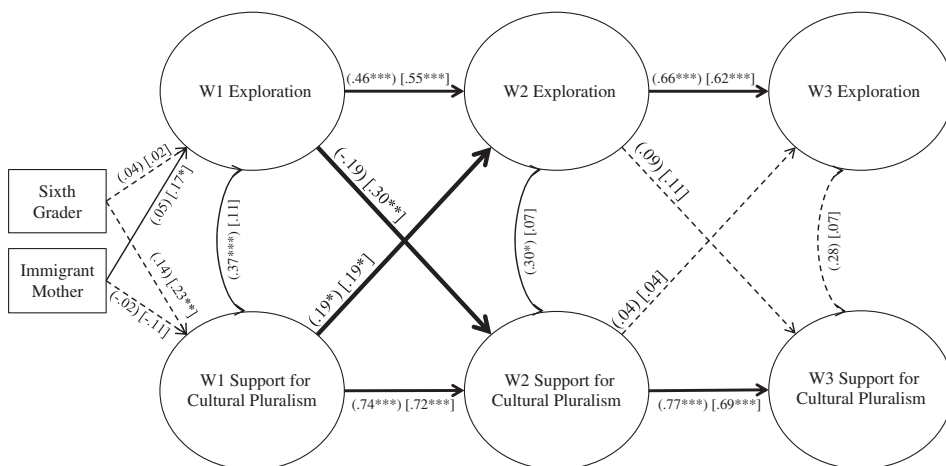
## 3.2 | Primary analyses

### 3.2.1 | Exploration and cultural pluralism

The fit of the fully free model was significantly different from the fully constrained model ( $\Delta\chi^2 = 94.46, \Delta$ degrees of freedom [ $df$ ] = 64,  $p = .008$ ). Following the sequential testing approach delineated above, we found that the first path of interest, W1 exploration  $\rightarrow$  W2 support for cultural pluralism, was significantly different across both groups ( $\Delta\chi^2 = 11.66, \Delta df = 1, p < .001$ ). The remaining three paths were not significantly differently across both groups. Thus, the final model constrained three of the four cross-lagged paths to be equal. The model demonstrated adequate fit to the data: RMSEA = .04, 90% confidence interval [CI .03, .05], CFI = .92, SRMR = .08. For the White students, W1 exploration predicted greater perceptions that the school was supportive of cultural pluralism at W2 ( $b = .50$ , standard error [SE] = .21,  $p = .018$ ). For both White students and students of colour, perceiving that the school was supportive of cultural pluralism at W1 predicted greater levels of exploration at W2 ( $b = .23, SE = .11, p = .035$ ; see Figure 1).

### 3.2.2 | Resolution and cultural pluralism

The fit of the fully free model was significantly different from the fully constrained model ( $\Delta\chi^2 = 81.52, \Delta df = 50, p = .003$ ). Analyses revealed that the first path of interest, W1 resolution  $\rightarrow$  W2 support for cultural pluralism, was significantly different across both groups ( $\Delta\chi^2 = 8.69, \Delta df = 1, p = .003$ ). The remaining three paths were not significantly differently across both groups. The final model, which constrained three out of the four cross-lagged paths to be equal across groups, demonstrated adequate fit to the data: RMSEA = .04, 90% CI [.03, .05], CFI = .95, SRMR = .08. For the



**FIGURE 1** Standardized estimates for final model shown. Coefficients for Black and Latino students are presented in parentheses, and those for White students are presented in brackets. Dashed lines = non-significant pathways.

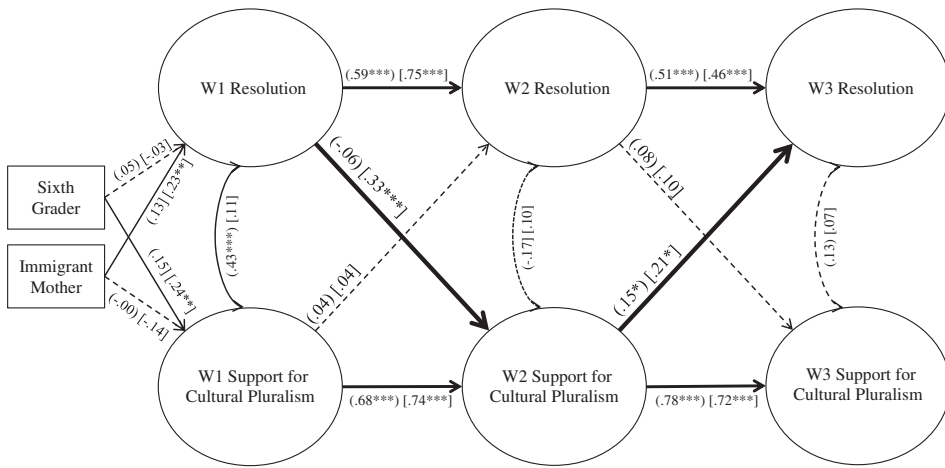
\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$



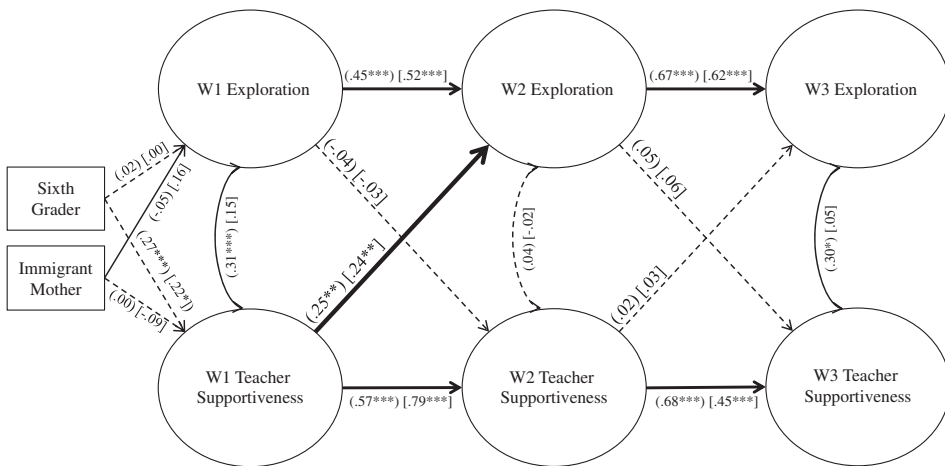
White students, greater W1 resolution predicted greater perceptions that the school was supportive of cultural pluralism at W2 ( $b = .57, SE = .23, p = .015$ ). For both White students and students of colour, perceiving that the school was supportive of cultural pluralism at W2 predicted greater levels of resolution at W3 ( $b = .14, SE = .06, p = .015$ ; see Figure 2).

### 3.2.3 | Exploration and teacher supportiveness

The fit of the fully free model was not significantly different from the fully constrained model ( $\Delta\chi^2 = 82.91, \Delta df = 64, p = .056$ ). Thus, the final model constrained all paths to be equal across groups and demonstrated an adequate fit to the data: RMSEA = .05, 90% CI [.04, .05], CFI = .92, SRMR = .08. For all students, perceiving that the teachers in their school were supportive of students at W1 predicted increased levels of exploration at W2 ( $b = .30, SE = .10, p = .002$ ; see Figure 3).



**FIGURE 2** Standardized estimates for final model shown. Coefficients for Black and Latino students are presented in parentheses, and those for White students are presented in brackets. Dashed lines = non-significant pathways. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$



**FIGURE 3** Standardized estimates for final model shown. Coefficients for Black and Latino students are presented in parentheses, and those for White students are presented in brackets. Dashed lines = non-significant pathways. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### 3.2.4 | Resolution and teacher supportiveness

The fit of the fully free model was not significantly different from the fully constrained model ( $\Delta\chi^2 = 59.63$ ,  $\Delta df = 49$ ,  $p > .05$ ). Thus, the final model constrained all paths to be equal across groups and demonstrated an adequate fit to the data: RMSEA = .05, 90% CI [.04, .05], CFI = .94, SRMR = .14. No significant cross-lagged pathways emerged between resolution and student perception of the teacher–student relationships.

## 4 | DISCUSSION

Schools are an important context for academic, social, and emotional learning of children and youth. This study examined the ways in which school climate and ERI processes might be associated among Black, Latino, and White middle school students attending an ethnically and racially diverse school. Specifically, participating students offered perceptions of support for cultural pluralism and of general teacher–student relationships, as well as their level of ERI exploration and resolution. The use of longitudinal data allowed us to shed some initial light on issues of directionality in these relationships for both White students and students of colour.

Our preliminary analyses uncovered a noteworthy difference between White students and students of colour: Black and Latino students reported greater exploration and resolution than their White classmates. This finding makes sense in the context of prevailing White privilege and racial discrimination in the United States. As part of the racial majority in U.S. society, White youth may feel less compelled to ponder how to negotiate their ethnic-racial group membership and related status. This is less true for students of colour, who must grapple with how to understand and navigate stereotypes and discrimination associated with their group membership and may have begun doing so by the time they reach middle school (Brown & Chu, 2012).

Although such mean level differences might be expected, group differences in the primary pathways of interest (i.e., relations between school climate and ERI over time) were more exploratory. Indeed, our hypothesis that school climate would influence students' ERI development was supported for both White students and students of colour. Specifically, perceived support for cultural pluralism in school was a fairly robust predictor of student exploration and resolution. Given that schools serve as socializing environments for youth about race and multiculturalism (Aldana & Byrd, 2015), students who perceive cultural support from school may feel more receptive of socialization messages encouraging them to further explore and find clarity in their ERI. In addition, with regard to supportive teacher–student relationships, results indicated that experiencing such relationships can create a school context in which students can then engage in exploration of their ERI. Students have reported more positive school experiences and outcomes when they perceived their teachers as supportive (e.g., Ryan & Patrick, 2001) and culturally sensitive (Brown & Chu, 2012). This suggests that creating a school environment in which the social norms are supportive of cultural pluralism among students and in the dynamics between teachers and students may be able to later encourage and normalize identity development across ethnic-racial groups and regardless of students' current ERI level.

Our primary analyses also supported our hypothesis that ERI development would influence school climate, although these findings did not appear for the entire sample. Whereas support for cultural pluralism predicted students' exploration and resolution for the entire sample, ERI exploration and resolution only predicted perceptions of support for cultural pluralism among White students. This demographic difference may be due to students' readiness to be perceptive of cultural pluralism practices in school. Although support for cultural pluralism may be present for all students, it may not become salient for White students until they are engaged in their own exploration or have achieved higher levels of resolution. Thus, for White students, it seems that ERI must first be present to later observe issues around cultural pluralism and diversity.

Alternatively, it may be that students, especially students of colour, need to first be confident that the space is safe before they will delve more fully into identity development processes. The pattern for the resolution dimension is noteworthy in this regard, as it is here that we find the study's only longitudinal and transactional relationship. That is, White students who reported high levels of resolution later saw their school as culturally supportive, and

subsequently White students and students of colour who saw their school as culturally supportive later reported high levels of resolution. It may be that their White classmates need to demonstrate a measure of ERI consciousness before Black and Latino students begin to be comfortable and clear in their ERI. If such is the case, these findings shed light not only on the interplay of school climate and ERI development in youth over time but also on how disparate ERI development in youth of different ethnic-racial groups may influence one another in a shared, multicultural school environment.

#### 4.1 | Limitations and future directions

The current study, in exploring the relationships between school climate and ERI development among White students and students of colour, offers numerous directions for future research and practice; however, they must be considered in the context of important limitations. For example, although our findings included a handful of instances where White students contrasted from the sample at large, it is still currently unclear when such differences emerge. In addition, the study relied on data from one school that was quite ethnically and racially diverse, which limits the generalizability of the findings, given the well-established segregation of U.S. schools (e.g., Orfield, Kucsera, & Siegel-Hawley, 2012). Examining the link between climate and ERI in schools with varying levels of diversity is thus an important future direction. The study also relied on self-reported data from youth, which may introduce monomethod bias. Although ERI should be self-reported, having multiple reports of school climate would be helpful in minimizing such potential bias. Finally, our sample size limited our ability to look at differences in these processes between the Black and Latino students, and having to pool the data for these two groups is a major limitation of the study. Although both groups are underrepresented minorities in the United States, it is possible that their perceptions of school climate and ERI reflect different experiences. Thus, future research would benefit from addressing such questions and limitations.

#### 4.2 | Conclusion

The current study provides the field with greater understanding of the reciprocal associations that emerge between ERI and school climate among early adolescents attending a culturally diverse school. The changing demographics in the country highlight that we must equip our youth with the interpersonal skills necessary to navigate a society that reflects many different backgrounds and viewpoints. Our results suggest that schools have an important role to play in helping Black, Latino, and White students explore and understand their ethnic-racial group membership in productive ways.

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