Perceptions of School Experiences During the First Semester of Middle School

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Abstract

Symbolic interaction and stage–environment fit theories were used to examine associations between several aspects of the perceived school environment and youths' school-related experiences during the first semester of middle school in a sample of 390 youth living in a southeastern U.S. county. Perceived school environment included learning climate, academic rigor, teacher support, and school safety. School-related experiences included school satisfaction, engagement in school, and successful efforts to avoid getting into trouble at school. School satisfaction was predicted by a positive learning climate, teacher support, and school safety. Engagement was predicted by a positive learning climate and teacher support. Trouble avoidance was predicted by school safety. Some of these associations differed by prior grades, for boys and girls, and for Black, Hispanic, and non-Hispanic White youth. The findings provide important information that can guide development of support systems for youth as they enter middle school.

Key Words: learning climate, middle school entry, school satisfaction, school environment, school engagement, teacher support, student perceptions, youth

Introduction

Starting middle school is a critically important experience during early adolescence (Holas & Huston, 2012). Youths' positive perceptions of school

experiences at this time point are associated with higher grades (Ryan, Shim, & Makera, 2013) and place youth on a trajectory of greater engagement in school and fewer socioemotional difficulties during adolescence (Bond et al., 2007; Loukas & Murphy, 2007). Adolescents' interpretations of the middle school environment are highly individualistic and subjective—an environment that may feel challenging and supportive to one student may appear hostile and overwhelming to another. Therefore, it is of interest to examine adolescents' own appraisals of the middle school environment and how these may relate to the experiences adolescents have in school. With this in mind, the purpose of the current study was to examine associations between youths' perceptions of their middle school environment and three aspects of their experiences during the first few months of sixth grade: school satisfaction, school engagement, and trouble avoidance. Aspects of the school environment included student perceptions of learning climate, academic rigor, teacher support, and school safety. The moderating effects of prior grades, youth gender, and youth race/ethnicity were examined to better understand how associations between school environment and youths' perceptions of school experiences might vary for students with different characteristics and backgrounds.

Background

Symbolic Interactionism and Stage–Environment Fit Theories

Symbolic interactionism (SI) posits that behavior and satisfaction are shaped by socialization processes, which include individuals' interactions with significant and important generalized others within and across various contexts (LaRossa & Reitzes, 1993). From an SI perspective, this socialization process involves individuals' agency within environments they select and/or in which they are placed, as well as individuals' perceptions of significant and generalized others' views of them and their behavior/accomplishments (Espinoza & Juvonen, 2011). Reflected appraisals are one of the ways in which socialization environments and agents shape individuals' sense of self (Cooley, 1902 and Mead, 1934 as cited in LaRossa & Reitzes, 1993). These basic constructs and propositions guided the current study by highlighting the need to examine youths' perceptions of school climate and relationships with teachers and other students when entering middle school. The transition from elementary school to middle school creates both opportunities and vulnerabilities, and the structure and experiences within the new contexts are salient to youths' experiences of school satisfaction and behavioral engagement/success (Holas & Huston, 2012; Waters, Cross, & Shaw, 2010).

Eccles and colleagues' (Eccles et al., 1993) developmental extension of stage–environment fit theory also helped shape hypotheses. This theory emphasizes important challenges that are present in early adolescence, as well as salient characteristics of the middle school environment. Eccles et al. proposed that youths' motivation across middle school is shaped by the fit between students' needs and capacities and the supports and challenges offered by the school environment. As such, "a facilitative and developmentally appropriate environment, even at this vulnerable age, should have a positive impact on children's perceptions of themselves and their educational environment" (Eccles et al., 1993, p. 92). Negatively perceived aspects of the school environment, such as inadequate support from teachers and feelings of insecurity or unsafeness, create vulnerabilities for youth. Alspaugh (1998) documented this potential vulnerability with regards to academic success when he found that achievement scores declined more during early adolescence for youth who attended middle school when compared with youth who attended K–8th grade schools. Differences between school administrators' perceptions of youths' needs and school-related supports versus students' perceptions of needs and supports also have illustrated a possible lack of system-environment fit (Elias, Gara, & Ubriaco, 1985). Youth characteristics that may affect vulnerability to unsupportive aspects of the school environment include grades received at the end of fifth grade (i.e., elementary school), youth gender, and youth race/ethnicity.

This stage–environment fit theory informed several decisions regarding the current study. First, data were collected during the first few months after entry into middle school (sixth grade) to capture students' perceptions as they were first adjusting to the middle school environment. Second, we focused on their perceptions of various aspects of their school environment as one of the mechanisms by which school organizational structure impacts youths' school behavior and success (Le, Lai, & Wallen, 2009; Midgley, Feldlaufer, & Eccles, 1989). Third, variation in experiences of middle school implied by the idea of "fit" was examined by testing the moderating effects of three factors: grades before beginning middle school (i.e., end of fifth grade), gender, and race/ethnicity. These moderating factors may conditionalize the effects of school environment on youths' experiences during the beginning of middle school in ways that can guide schools' and parents' prevention and support efforts during the critical change from elementary school into middle school.

School Environment and Youths' School Experiences

Eccles et al. (1993) suggested that organizational characteristics of middle schools (e.g., high levels of teacher control, low levels of student autonomy) affect students' motivation and school behavior by shaping youths' perceptions

of the general learning climate, teachers' expectations for learning, and support and care received from teachers (Midgley et al., 1989). Thus, in the current study, we assessed youth perceptions of the learning climate in their school and classes, academic rigor, and teacher support as three aspects of the school environment that may be associated with youths' school experiences during the first few months of middle school. We also assessed perceived school safety given this is a basic need for supporting students' ability to learn and grow during times of change and transition (Bowen & Bowen, 1999).

These aspects of the school environment have received empirical support as potential predictors of youths' well-being during early adolescence. The perceived learning climate of the school has been associated with school engagement (Marks, 2000), better grades (Niehaus, Rudasill, & Rakes, 2012), and school satisfaction (Zullig, Huebner, & Patton, 2011), as well as fewer problem behaviors (Simons-Morton, Crump, Haynie, & Saylow, 1999). Perceived academic rigor has been researched less often, but has been associated with school belongingness (Anderman, 2003) and participation (Wang & Holcombe, 2010). Teacher support has been associated with higher achievement motivation (Wentzel, 1999), feelings of belongingness (Wang & Eccles, 2012; Waters et al., 2010), school engagement (Reyes et al., 2012; Wang & Holcombe, 2010), and trouble avoidance (Wang et al., 2010). Oelsner and colleagues (2011) found that school bonding declined from sixth through eighth grades and that this decline was predicted by increases in substance use. Barber and Olson (2004) found that increases in perceived teacher support during the middle school transition were associated with increases in youths' self-esteem and decreases in depressive symptoms and loneliness. Wang and Dishion (2012) found that increases in teacher support during middle school were associated with decreases in youth problem behaviors. These change-oriented findings were not replicated in a longitudinal study by Way, Reddy, and Rhodes (2007), however, who found only associations among the intercepts of teacher support and psychological well-being (i.e., cross-sectional associations during sixth grade). Perceived school safety has been associated with better attendance, trouble avoidance during school, and higher grades (Bowen & Bowen, 1999), as well as greater school commitment (Jenkins, 1995).

Thus, each of these aspects of the school environment may be an important predictor of youths' school well-being during the first few months of middle school. We contribute to this literature by including all four predictors in the same analysis in order to identify which particular environmental aspects are associated with specific, positive school experiences. This is important because various aspects of the school environment are interconnected, and the unique effects of particular environmental aspects need to be identified in order to adequately inform prevention and intervention efforts (Zullig et al., 2011).

Role of Youth Conditionalizing Factors: Youth-Environment Fit

The stage–environment fit perspective suggests that various aspects of the school environment interact with youths' individual characteristics in shaping school experiences during middle school. Previous research has suggested that youths' academic success prior to beginning middle school may affect their school experiences by the end of their first year in this new school environment (Dotterer & Lowe, 2011; Marks, 2000). Some researchers have recognized the importance of prior academic success by controlling statistically for previous grades in analyses (Holas & Huston, 2012; Marks, 2000; Roeser, Midgley, & Urdan, 1996; Ryan & Patrick, 2001; Wang & Holcombe, 2010). In one of the few studies we found that examined prior academic achievement as a moderator, lower achieving students were more vulnerable to the negative effects of inadequate teacher support in terms of predicting math-related beliefs and success (Midgley et al., 1989). Oelsner and colleagues (2011) found that declines in grades predicted decreases in school bonding across middle school, prompting them to call for increased school supports oriented around learning climate and teacher support for students who are struggling academically. In addition to these few empirical findings, the student–environment "fit" theoretical construct from stage–environment theory suggests that students who have had lower levels of academic success during fifth grade may be particularly vulnerable when experiencing less supportive learning climates, greater academic expectations, lower teacher support, and less safe school environments. This vulnerability, or potential "limited fit," may exacerbate the deleterious associations between less supportive school environments and youths' positive school experiences during the first few months of middle school.

Youth gender is another individual characteristic that may moderate the association between perceptions of school environment and school experiences during the first few months of middle school (Niehaus et al., 2012; Way et al., 2007). As with prior academic success, however, relatively few researchers have statistically tested for gender interactions. Of those who have estimated gender interactions, findings have been mixed. Some have found stronger association between school environment and girls' experiences (Loukas & Murphy, 2007), whereas others have found no gender interactions (Holas & Huston, 2012; Loukas, Suzuki, & Horton, 2006; Midgley et al., 1989; Zullig et al., 2011).

School experiences vary for Black, Hispanic, and non-Hispanic White youth, even in racially and ethnically diverse school settings (Le et al., 2009). Studies of school engagement and achievement have documented vulnerabilities for Black and Hispanic students during middle school (Akos & Galassi, 2004; Burchinal, Roberts, Zeisel, & Rowley, 2008; Espinoza & Juvonen, 2011;

Schneider & Duran, 2010). Theoretically, these vulnerabilities may be mitigated by perceptions of a positive school climate and support from teachers (Grogan-Kaylor & Woolley, 2010). As such, we hypothesize that positive perceptions of the school environment are particularly important for Black and Hispanic youth. Given there has been some evidence that classroom context may not provide enough protection for Black youth for certain school outcomes (Espinoza & Juvonen, 2011; Kelly, 2008), we conduct three separate moderating analyses in this study by comparing Black and Hispanic youth, Black and White youth, and Hispanic and non-Hispanic White youth.

Research Questions

The stage–environment fit theory and existing research on school experiences during the early months of entry into middle school were used to formulate four research questions:

RQ 1: To what extent are youths' appraisals of their school environment associated with their perceptions of school experiences during the transition into middle school?

RQ 2: Does the association between school environment and youths' perception of school experiences differ in strength for youth who received higher grades during fifth grade versus those who received lower grades during fifth grade?

RQ 3: Does the association between school environment and youths' perception of school experiences differ in strength for girls versus boys?

RQ 4: Does the association between school environment and youths' perception of school experiences differ in strength for Black, Hispanic, and non-Hispanic White students?

The examination of the moderating effects of prior grades, youth gender, and youth race/ethnicity is an important contribution to the literature on students' change from primary to middle school because prevention and intervention programs oriented toward easing the transition and promoting school engagement and success during early adolescence may be more effective if they consider students' differing needs.

Method

Sampling Procedures and Characteristics

The sample included 390 sixth grade youth attending two middle schools situated in a large, diverse county in the southeastern U.S. The two schools,

with high percentages of both African American and European American students, were invited and agreed to participate. Most (96%) sixth grade teachers chose to participate. Youth were given a packet that included a recruitment letter and consent form. The packet also included the questionnaire to be completed by youth. The sampling criteria for the study were that the focal youth was beginning sixth grade and was not in a dedicated special needs classroom.

Of the 607 eligible sixth graders enrolled in these two schools, 447 questionnaires were returned (74% response rate). Fifty-seven questionnaires were excluded because of missing signatures by parents, students, or both on the consent form. Thus, data from 390 youth were useable. There were 218 female students (see Table 1). In terms of race/ethnicity, about 51% of the youth self-identified as African American, 31% as European American, and 13% as Hispanic. In terms of adults living in the home, 91% of the youth reported their mother lived in the home; 54% reported their father lived in the home. About 20% of the youth reported their mother did not have education past high school. About 31% (120 youth) reported having mothers or someone they considered a mother who had received some college education, associate's degree, or specialized training. About 51% of the youth reported having a mother or mother-like figure who was employed full time (32 or more hours per week). About 27% of the youth reported their father did not have education past high school; 21% reported having a father or someone they considered a father who had received some college, an associate's degree, or specialized training. About 57% of the youth reported having a father or father-like figure employed full time.

Table 1. Demographic Characteristics

Characteristic	N	%	Characteristic	N	%
Youth gender			Mother's education		
Female	218	55.9	Did not graduate H.S.	20	5.1
Male	170	43.6	H.S. or GED	57	14.6
Missing	2	.5	Some college	120	30.8
			College graduate	95	24.4
Youth race/ethnicity			Graduate degree	32	8.2
Black/African American	198	50.8	Don't know/can't answer	61	15.6
Hispanic	51	13.1	Missing	5	1.3
Native American	3	.8			
Hmong/Southeast Asian	1	.3	Mother's employment		
Asian (not Hmong)	10	2.6	Full time (>31 hrs/wk)	200	51.3
White	119	31.2	Part time	67	17.2
Missing	8	2.1	Looking for work	32	8.2
			Homemaker	43	11.0
Lives with mother			Disabled/retired	13	3.3
Yes	354	90.8	Don't know/can't answer	31	7.9
No	35	9.0	Missing	4	1.0
Missing	1	.3			
			Father's education		
Lives with father			Did not graduate H.S.	37	9.5
Yes	210	53.8	H.S. or GED	68	17.4
No	179	45.9	Some college	82	21.0
Missing	1	.3	College graduate	88	22.6
			Graduate degree	31	7.9
Lives with stepmother			Don't know/can't answer	77	19.7
Yes	7	1.8	Missing	7	1.8
No	382	97.9			
Missing	1	.3	Father's employment		
			Full time (>31 hrs/wk)	224	57.4
Lives with stepfather			Part time	40	10.3
Yes	39	10.0	Looking for work	28	7.2
No	382	97.9	Homemaker	6	1.5
Missing	1	.3	Disabled/retired	14	3.6
			Don't know/can't answer	70	7.9
			Missing	8	2.1

Data Collection Procedures

Data were collected during the first three months of sixth grade. The first author and a graduate assistant met with sixth grade teachers and a school administrator from each school to build the community partnership that grounded this study. The school administrators acted as a supportive and organizing liaison between the research team and the sixth grade teachers. Both schools maintained a policy whereby weekly folders for parents containing important school information were sent home with students. To increase the likelihood that parents received our study materials, packets were included in every sixth-grader's weekly folder for several weeks (as needed) during late September and early October. Consent forms and questionnaires were returned to homeroom teachers. The majority of consent forms and completed questionnaires were returned within a week of distribution. Youth completed the questionnaire at home which (a) allowed them the time they needed to respond to questions, (b) provided them with needed privacy outside of the school environment to record their perceptions of their recent school-related cognitions and experiences, (c) minimized disturbance and influence from school mates while thinking about the study questions, and (d) did not intrude upon school instructional time.

All students who took home study materials received small school-related gifts. Teachers in participating classrooms received a $25 gift certificate to a local store. All eligible sixth grade classrooms had completion rates of at least 50%, and the majority had over 80% participation rates.

Measurement

Youth completed a questionnaire that asked about background information, youths' appraisals of their school environment (learning climate, academic rigor, teacher support, and safety subscales from the School Success Profile-SSP, Bowen & Richman, 2010), and youths' perceptions of current school experiences (satisfaction, engagement, and avoiding trouble subscales from the SSP). The SSP was developed by Dr. Gary L. Bowen and Dr. Jack M. Richman in a collaborative project between the School of Social Work at the University of North Carolina Chapel Hill and the private, nonprofit network Communities in Schools (Bowen & Richman, 2010). These partners were focused on promoting school success by helping "students overcome barriers to school success" (Bowen & Richman, 2010, p. 1). The SSP has been translated into several languages and has been completed by thousands of students in middle and high school. Unless noted otherwise, the SSP items were developed by the research team of Bowen and Richman.

Learning Climate of the School Environment

Learning climate was measured using the 7-item learning climate subscale of the SSP (Bowen & Richman, 2010). The stem of the subscale was: "Indicate your level of agreement with each of the following statements about your school." Sample items included "Student needs come first at this school," "Every student is important at this school," and "Students get a good education at this school." The 4-point response format was *strongly disagree* (1), *disagree* (2), *agree* (3), and *strongly agree* (4). Responses were averaged, and higher scores indicated a more positive learning climate (α = .74).

Academic Rigor Within the School Environment

Academic rigor was measured using the 10-item academic rigor subscale of the SSP (Bowen & Richman, 2010). One item was adapted from the School and Career for Me: CareerStart student survey (Orthner, 2007). The stem of the subscale was: "Please indicate your level of agreement with each of the following statements about your teachers at school. My teachers…". Sample items included "Assign work that makes me think," " Encourage me when they think I can do better," and "Let me know when I am doing less than my best work." The 4-point response format ranged from *strongly disagree* (1) to *strongly agree* (4). Responses were averaged, and higher scores indicated greater assessed academic rigor (α = .90).

Teacher Support as an Aspect of School Environment

Teacher support was measured using the 8-item teacher support subscale of the SSP (Bowen & Richman, 2010). Two items were adapted from the National Education Longitudinal Study of 1988: Eighth Grade Questionnaire (NELS:88; National Opinion Research Center, 1988). The stem of the subscale was: "Please indicate your level of agreement with each of the following statements about your teachers at school. My teachers…". Sample items included "Give me a lot of encouragement," "Care about me," and "Listen to what I have to say." The 4-point response format ranged from *strongly disagree* (1) to *strongly agree* (4). Responses were averaged, and higher scores indicated greater perceived support from teachers to students (α = .90).

Safety Within the School Environment

School safety was measured using the 11-item school safety subscale of the SSP (Bowen & Richman, 2010) adapted from the NELS:88. The stem of the subscale was: "How much of a problem is each of the following at your school?" Sample items were "Destruction of school property by students," "Students picking on other students," and "Students verbally abusing teachers (yelling, name calling)." The 3-point response format was *not a problem* (1),

a little problem (2), and *a big problem* (3). Responses were reverse scored and averaged so that higher scores indicated assessments of a safer school environment (α = .92).

Experience of School Satisfaction

School satisfaction was measured using the 7-item school satisfaction subscale of the SSP (Bowen & Richman, 2010). Two items were adapted from the Teenage Assessment Project (Small, 1991), and one item was adapted from the CareerStart student survey (Orthner, 2007). The stem of the subscale was: "How well does each of the following statements describe you?" Sample items were "I feel like I belong at this school," "I enjoy going to school," and "I feel close to other students at this school." The 3-point response format was *not like me* (1), *a little like me* (2), and *a lot like me* (3). Responses were averaged, and higher scores indicated greater satisfaction with school (α = .78).

Experience of Engagement in School

School engagement was measured using the 4-item school engagement subscale of the SSP (Bowen & Richman, 2010). Three of these items were adapted from the meaningfulness component of the Sense of Coherence measure (Antonovsky, 1987). The stem of the subscale was: "How well does each of the following statements describe you?" Sample items were "I look forward to learning new things at school" and "I look forward to going to school." The 3-point response format was *not like me* (1), *a little like me* (2), and *a lot like me* (3). Responses were averaged, and higher scores indicated greater engagement in school (α = .76).

Avoiding Trouble at School

Trouble avoidance was measured using the 11-item trouble avoidance subscale of the SSP (Bowen & Richman, 2010) adapted from the NELS:88. The stem of the subscale was: "During the past 30 days, how often did any of the following things happen?" Sample items were "I got in a physical fight with another student," "I cut class," and "A teacher gave me a warning because of my attendance or behavior." The response format was *never* (1), *once or twice* (2), and *more than twice* (3). Responses were reverse scored and averaged so that higher scores indicated assessments of better trouble avoidance (α = .71).

Moderating Variables

Students self-reported on their gender, ethnicity, and grades during the previous academic year. These data were used to create several dummy variables to test for moderating effects. First, a dummy variable was created to represent recent prior grades with *Bs and Cs* and lower previous grades coded 0, and *As and Bs* coded 1. A second dummy variable was created to represent youth

gender with boys coded 0 and girls coded 1. Finally, three dummy variables were created to represent comparisons between: (a) Black and Hispanic youth, (b) Black and White youth, and (c) Hispanic and non-Hispanic White youth.

Data Analysis Procedures

Descriptive statistics were calculated using SPSS (v. 20). The basic association between various assessments of school environment and various perceptions of school experiences was tested using structural equation modeling with manifest variables (AMOS, v. 20). Structural equation modeling (SEM) was used because it parsimoniously tests for associations between several predictors and several dependent variables (Byrne, 2001). Manifest rather than latent variables were used in the analytic models because multiple measures of each construct were not available, and the sample sizes were not large enough (particularly the moderating analyses that included Hispanic youth) to accommodate the use of individual survey items as manifest indicators of given construct. SEM was well-suited for this study because it easily accommodates manifest variables and adjusts for missing values using full information maximum likelihood estimations (FIML), which is a strong technique that minimizes biased estimates (Acock, 1995).

The adequacy of the SEM model was evaluated using the chi-square statistic and two fit indices. A nonsignificant chi-square indicated a good model fit. However, because of the relatively large sample size, a significant chi-square was expected for most models, and two additional fit indices were examined (Byrne, 2001). The comparative fit index (CFI; Bollen & Long, 1993) is based on a comparison of the hypothesized model and the independence model (e.g., there are no relationships between the variables in the model; Byrne, 2001). The CFI ranges from 0 to 1.00 with a cutoff of .95 or higher indicating a well-fitting model and .90 indicating an adequate fit (Byrne, 2001). Browne and Cudeck's (1993) root mean square error of approximation (RMSEA) compares the model to the projected population covariance matrix. RMSEA values below .05 indicate good model fit and values between .06 and .08 indicate an adequate fit (Browne & Cudeck, 1993; Byrne, 2001).

The moderating effects were tested using multiple-group SEM. Each moderator was examined in a separate set of analyses that compared the theoretical model across the two subsamples of students. A base model was first estimated in which all parameters were set to be equal across the two groups that represented the moderating variable. The chi-square from this analysis was then compared with the chi-square from an analysis in which the structural paths were allowed to vary across the two groups using the chi-square difference test. A significant difference in the two chi squares indicated a difference across

groups in some part of the model. The specific nature of differences was identified using critical ratio (C.R.) estimates in AMOS which distribute as Z scores; C.R.s greater than 1.96 are statistically significant ($p < .05$). The null hypothesis for the C.R. was no difference in a given partialized association between two variables (i.e., the regression coefficient). The alternative hypothesis was a group difference in the two regression coefficients. Once the specific locations of the differences were identified, the unstandardized and standardized regression coefficients were examined across the two groups to determine the direction and strength of the differences.

Results

Information on the distribution of measures and zero-order correlations is presented in Table 1. Correlations were in the expected directions, and most associations were statistically significant. In terms of school experiences, the correlation between school engagement and school satisfaction ($r = .57$, $p < .001$) was stronger than that between engagement and youth avoidance of trouble ($r = .14$, $p < .01$). In terms of school environment, the correlation was strong between teacher support and academic rigor ($r = .79$, $p < .001$) and low to moderate in strength among the other predictors ($rs = .05$, ns, to $.52$, $p < .001$). Student gender and prior grades were each associated with some aspects of school environment and some school-related experiences. Student race/ethnicity was not associated with youths' perception of the school environment but was associated with school-related experiences.

School Environment and School Experiences

Preliminary analysis using SEM indicated that a base model in which all associations were estimated indicated that this model was just identified with 0 degrees of freedom. This means that the estimates of model fit could not be calculated. In this model, however, two predictors were not correlated, and so a second model was estimated in which these nonsignificant correlations were set to 0 (i.e., school safety with teacher support and academic rigor). This created two degrees of freedom, and fit estimates could be calculated. The model fit the data well ($\chi^2 = 3.09$, $df = 2$, $p > .05$; CFI = .99; RMSEA = .037). The regression estimates did not differ between the two models, so the estimates calculated in the second model with 2 df are reported in Table 2.

Youth perceptions of school satisfaction were associated positively with the environmental aspects of the learning climate in the school ($\beta = .22$), teacher support ($\beta = .31$), and school safety ($\beta = .12$). These aspects of the school environment explained 25% of the variance in youths' perceptions of school

satisfaction. Youth reports of school engagement were associated positively with learning climate (β = .21) and teacher support (β = .25). These aspects of the school environment explained 18% of the variance in youths' reports of their engagement in school. Youth reports of avoiding trouble in school were positively associated with their feelings of school safety (β = .20). School safety explained 6% of the variance in youths' trouble avoidance.

Table 2. Descriptive Statistics and Correlations

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Perceived School Environment												
1. Learning climate	-											
2. Academic rigor	**.46**	-										
3. Teacher support	**.52**	**.79**	-									
4. School safety	**.15**	.05	.08	-								
School-Related Experiences												
5. School satisfaction	**.41**	**.36**	**.45**	**.18**	-							
6. School engagement	**.36**	**.31**	**.38**	.06	**.57**	-						
7. Trouble avoidance	.06	**.11**	**.14**	**.21**	**.24**	**.14**	-					
Student Moderating Characteristics												
8. Prior grades	**.11**	**.14**	.09	**.14**	**.20**	.06	**.24**	-				
9. Gender	.03	**.12**	**.15**	**-.10**	.10	**.11**	**.30**	.05	-			
10. Black - Hispanic	.05	.08	.04	-.04	**-.22**	-.10	**-.18**	.06	-.03	-		
11. Black - White	-.02	.00	-.03	-.09	-.04	**.20**	**-.22**	**-.24**	.02	na	-	
12. Hispanic - White	-.07	-.08	-.07	-.04	**.19**	**.29**	.00	**-.31**	.05	na	na	-
M	3.29	3.42	3.35	2.44	2.57	2.34	2.77	0.65	0.56	0.80	0.62	0.30
SD	0.41	0.50	0.55	0.52	0.38	0.51	0.22	0.48	0.50	0.40	0.48	0.46

Note. Prior grades were coded 0 for Bs/Cs and lower and 1 for As/Bs. Gender was coded 0 for boys and 1 for girls. #10: Black (1) –Hispanic (0). #11: Black (1) –non-Hispanic White (0). #12: Hispanic (1) –non-Hispanic White (0). Bolded correlations are significant at $p < .05$. NA means not applicable.

Moderating Effects of Prior Grades

The moderating effects of youths' prior grades (i.e., end of fifth grade) were examined by comparing this model across two groups of students: (a) students with lower prior grades defined as Bs and Cs or worse, and (b) students with higher prior grades defined as a mix of As and Bs. The association between school environment and perceptions of school experiences differed across these two groups of students ($\Delta\chi^2$ = 43.80, *df* = 12, *p* < .001). Five of 12 associations were moderated by recent prior grades (see Table 3 for narrative summary). The associations between learning climate and both youths' school satisfaction and engagement were stronger for youth with lower prior grades than for youth with higher prior grades (satisfaction: lower grades β = .37, *p* < .001 / higher grades β = .13, *p* < .05; engagement: lower grades β = .44, *p* < .001 / higher grades β = .12, *p* < .05). In contrast, the two associations between teacher support and school satisfaction and engagement were significant *only* for youth with higher prior grades (satisfaction: higher grades β = .43, *p* < .001 / lower grades β = .10, *ns*; engagement: higher grades β = .39, *p* < .001 / lower grades β = -.08, *ns*). Finally, the association between school safety and school satisfaction was only significant for youth with higher prior grades (satisfaction: higher grades β = .20, *p* < .001 / lower grades β = -.03, *ns*).

Table 3. Standardized Estimates Predicting Youths' School Experiences

School Environment Predictor	School Satisfaction	School Engagement	Trouble Avoidance
Learning climate	**.22**	**.21**	-.05
Academic rigor	.01	.02	.02
Teacher support	**.31**	**.25**	.14
School safety	**.12**	.00	**.20**

Note. Bolded coefficients are significant at *p* < .05. Covariances were significant for learning climate and academic rigor (*r* = .45), learning climate and teacher support (*r* = .51), learning climate and school safety (*r* = .11), and academic rigor and teacher support (*r* = .79). The disturbance terms were significantly correlated: school satisfaction and school engagement (.46), school satisfaction and trouble avoidance (.19), and school engagement and trouble avoidance (.10).

Moderating Effects of Student Gender

This school environment–experience model also was compared across boys and girls. Student gender was a significant moderator ($\Delta\chi^2$ = 53.80, *df* = 12, *p* < .001) with three associations differing for boys and girls. The associations between teacher support and both school satisfaction and engagement were significant only for boys (satisfaction: boys' β = .46, *p* < .001 / girls' β = .08, *ns*; engagement: boys' β = .42, *p* < .001 / girls' β = .04, *ns*). Also, the association

between school safety and youth trouble avoidance was stronger for boys (β = .40, p < .00) than for girls (β = .19, p < .01).

Moderating Effects of Student Race/Ethnicity

Three separate moderating analyses were conducted that compared: (a) Black and Hispanic students, (b) Black and non-Hispanic White students, and (c) Hispanic and non-Hispanic White students. The first analysis compared the school environment–school experiences model across Black and Hispanic students. The model differed across the two groups ($\Delta\chi^2$ = 24.53, df = 12, p < .001) with 2 of 12 associations varying across Black and Hispanic students. The associations between learning climate, academic rigor, and school safety with the various school experiences were similar across Black and Hispanic students (see Table 4).

The association between teacher support and school satisfaction, however, was significant for Black students (β = .29, p < .01) but not for Hispanic students (β = -.15, p = .125). Similarly, the association between teacher support and school engagement was significant for Black students (β = .21, p < .01) but not for Hispanic students (β = -.24, p = .182). Given the negative association for Hispanic youth was unexpected, we conducted follow-up bivariate correlational analyses with the subsample of 51 Hispanic students. The zero-order correlations were positive and statistically nonsignificant (r = .11, .12, respectively). As such, the inverse association for this group of Hispanic students may have occurred by chance or due to some unusual statistical artifact.

The second analysis compared the school environment–school experiences model across Black and non-Hispanic White students. The model differed across the two groups ($\Delta\chi^2$ = 42.55, df = 12, p < .001) with 2 of 12 associations varying across Black and White students. The associations between learning climate and school safety with the various school experiences were similar across Black and White students. The positive association between teacher support and school satisfaction, however, was stronger for White students (β = .61, p < .001) than for Black students (β = .26, p < .01), although statistically significant for both groups of students. In addition, the association between academic rigor and school engagement was positive (but nonsignificant) for Black students (β = .11, p = .27) and negative (but nonsignificant) for White students (β = -.21, p = .09).

The third analysis compared the school environment–school experiences model across Hispanic and non-Hispanic White students. The model differed across the two groups ($\Delta\chi^2$ = 38.25, df = 12, p < .001) with 4 of 12 associations varying across Hispanic and White students. Perceived school safety was the only aspect of school environment that was associated similarly with school

experiences across Hispanic and non-Hispanic White students. Teacher support was associated with school satisfaction and engagement in school for White students (β = .64, .54, p < .001, respectively) but not for Hispanic students (β = -.22, p = .32; β = -.23, p = .25, respectively). The association between learning climate and school satisfaction, however, was significant for Hispanic students (β = .43, p < .01) but not for non-Hispanic White students (β = .07, p = .46). Finally, the association between academic rigor and school engagement was positive (but nonsignificant) for Hispanic students (β = .39, p = .06) and negative (but nonsignificant) for non-Hispanic White students (β = -.22, p = .11).

Table 4. Summary of Results of Moderating Effects of Prior Grades, Youth Gender, and Youth Race/Ethnicity

School Environment → School Experience Association	Prior Grades Moderator	Youth Gender Moderator	Black Compared with His-panic	Black Compared with non-Hispanic White	Hispanic Compared with non-Hispanic White
Learning climate → School satisfaction	Lower grades > Higher grades				Hispanic only
Learning climate → School engagement	Lower grades > Higher grades				
Teacher support → School satisfaction	Higher grades only	Boys only	Black only	White > Black	White only
Teacher support → School engagement	Higher grades only	Boys only	Black only		White only
School safety → School satisfaction	Higher grades only				
School safety → Trouble avoidance		Boys > girls			

Discussion

The purpose of this study was to examine the association between several aspects of the school environment and youths' school-related experiences during the first semester of middle school. The moderating effects of prior grades, youth gender, and youth race/ethnicity also were tested. Several important findings emerged. The first finding is that youth were more satisfied with their new schools when they perceived that those schools encompassed a positive learning climate, support from teachers, and a safe environment. Second, youth were more engaged in their educational experiences when they perceived a positive learning climate at school and support and care from their teachers. Third, youth were more likely to report avoiding getting into trouble at school when they perceived a safer school environment. Academic rigor, sometimes labeled as teacher expectations in related literature, was correlated strongly with teacher support but was not uniquely associated with youths' school satisfaction, engagement, or trouble avoidance. Fourth, prior grades (end of fifth grade) conditionalized some of these associations. The benefits of positive learning climates were stronger for youth with lower prior grades than for those with higher prior grades (although important for both). The benefits of support and care from teachers were accrued only for youth with *higher* prior grades. In addition, several aspects of the school environment mattered more for boys' school-related experience than for girls' experiences. Finally, students' race/ethnicity interacted with the perceived learning climate and support from teachers. A positive learning climate was particularly salient for Hispanic students, whereas support from teachers was particularly salient for non-Hispanic White and Black students.

Students' School-Related Experiences

Before discussing the main effects of the school environment, it is important to note some of the interconnections among youths' school-related experiences during the early months of middle school. These interconnections were taken into consideration empirically in the present study because structural equation modeling was used to estimate a model that included all three aspects of experiences as outcomes within one analysis: school satisfaction, school engagement, and trouble avoidance. School satisfaction and engagement in school were conceptually related and empirically correlated. This finding replicates that of Danielsen and colleagues in their study of school satisfaction and youths' academic initiative (Danielsen, Breivik, & Wold, 2011). We speculate that students who reported greater satisfaction with their school experiences may translate this satisfaction into behaviors that positively impact their academic

and social functioning, including their engagement in school experiences. This speculation that school satisfaction serves as a facilitating and motivating force for students during early adolescence has been supported by Elmore and Huebner (2010) in their finding that school satisfaction during sixth grade was associated with students' school engagement during seventh grade (assessed via reduced withdrawal and resistant/aggressive classroom behaviors).

Youths' successful efforts to avoid getting into trouble at school were positively correlated with school satisfaction and school engagement. Getting into trouble at school during the first few months of middle school may not bode well for future academic success or for socioemotional well-being during middle adolescence; therefore, it is important for teachers and administrators to structure the school environment so as to minimize teasing, bullying, and fighting (Bowen & Bowen, 1999).

School Environment and Students' School-Related Experiences

A positive learning climate, teacher support, and school safety each were uniquely associated with at least one of the school experiences assessed in this study (i.e., satisfaction, engagement, trouble avoidance). One of the important contributions of the current study was to build on previous research that utilized global measures which combined many school-related dimensions (e.g., Oelsner et al., 2011) by disaggregating various aspects of school climate and youths' school experiences.

Positive Learning Climate

A positive learning climate was positively associated with youths' satisfaction with school and engagement in school activities and experiences. These findings replicated those reported by Zullig et al. (2011) when predicting school satisfaction and Niehaus et al. (2012) when predicting school engagement. Youth perceptions that students' needs are primary and that their school is providing students with a good education were associated with feelings of belongingness and enjoyment, as well as motivation for learning and achievement. As such, perceptions about the quality of their school as a global context (not just their classrooms and teachers) were associated uniquely with satisfaction in school.

A positive learning environment also was associated with greater success at avoiding getting into trouble at school. This finding was consistent with Simons-Morton et al. (1999) who found an inverse association between school climate and youths' problem behaviors. These researchers measured problem behaviors broadly by focusing on delinquent behaviors such as smoking and stealing, but justified the focus on youth problem behavior during the middle

school transition by suggesting that inadequate social and academic skills at this point in time create youths' antisocial tendencies. We extend their finding by focusing on avoiding problems in school that can result in warnings or suspension from teachers and school administrators. Thus, we provide support for Simons-Morton et al.'s contention that "adolescent problem behavior can be seen in part as the failure of schools to capture students' sense of social affiliation and provide for educational experiences and a social context within which adolescents can develop social competence (Harter, 1982) and experience success (Bandura, 1986)" (1999, p. 101). We support this assertion by finding that a positive learning climate protects and motivates youth as they strive to avoid or minimize negative behaviors in school that may result in structural warnings or suspensions. Thus, a positive school learning climate provides important support and control functions for youth during this transition period.

The findings from this study extend previous research on the role of the school learning climate in relation to students' school-related experiences during the first few months of middle school by considering the moderating roles of prior grades, youth gender, and race/ethnicity. We found that a positive learning climate particularly benefited youth with lower prior grades when compared with youth who had higher prior grades (although a positive learning climate was beneficial for both groups) with regards to school satisfaction and engagement. Youths' perceptions of a positive learning climate may reflect the effectiveness of school-level policies that have been enacted to support students such as those observed in the studied schools, for example, school themes adopted to promote inclusiveness and support for youths' personal agency, as well as structural efforts to support lower achieving students, such as tutoring and peer mentoring. We also found that, when compared with non-Hispanic White students, the positive association between the learning climate and school satisfaction only characterized Hispanic students. This finding supported recent work by Espinoza and Juvonen (2011) regarding the heightened sensitivity among Latino students during the transition to middle school. This finding suggests that school-level policies that support a positive learning climate within schools may be particularly important for students who are multilingual and/or have a Hispanic cultural background.

Teacher Support

Support from teachers was associated with greater school satisfaction and engagement. These findings are consistent with previous research on satisfaction and feelings of belongingness (Anderman, 2003; Roeser et al., 1996), as well as engagement in learning activities (Marks, 2000; Wang & Holcombe,

2010). Teachers shape classroom experiences and provide opportunities for personal care, instruction, and encouragement. These experiences that shape and provide opportunity and feedback are pivotal with regards to enhancing students' feelings of efficacy and agency.

We extend previous research on teacher support by finding significant moderating effects by prior grades, student gender, and race/ethnicity. First, we found that the positive associations between teacher support and school satisfaction and engagement only were present for youth with higher prior grades. This is a new finding in the literature and will need to be replicated. It may be that students have difficulty distinguishing teachers' roles as evaluators from teachers' roles as supporters and confidants. Students who have received high grades in the recent past (in this case, fifth grade) may see their new teachers as supporters and encouragers, whereas students who have received lower grades recently may see their new teachers as evaluators and jurors. This possible perceptual bias may create obstacles for middle school teachers as they try to support and encourage students who have recently received lower grades.

We also found that teacher support was more relevant for boys' school satisfaction and engagement than for girls' satisfaction and engagement. Again, this significant interaction between teacher support and youth gender is a new finding that will require replication. It may indicate the success of needed support. Boys tend to have greater difficulty with the transition into middle school than do girls and tend to be more at risk in terms of academic achievement during the middle school years (Lam et al., 2012). Thus, support provided by teachers to male students may be particularly salient for their school experiences because care and encouragement are particularly needed to bolster satisfaction and maintain engagement for boys.

Teacher support also interacted with student race/ethnicity in the prediction of school satisfaction and engagement. Controlling for a positive learning climate, support and care from teachers benefitted White and Black students. There was no such association among Hispanic youth. This finding differs from that reported by Schneider and Duran (2010) who found that Hispanic students benefitted more from teachers' support than did White or Asian students. These researchers did not distinguish between a positive learning climate and support from teachers, so the differences in these findings may suggest a need to distinguish between these two aspects of the school environment in order to provide needed supports for students with various cultural backgrounds.

School Safety

School safety was positively associated with school satisfaction. Although previous research has not explicitly linked perceptions of school safety with students' satisfaction with schools, perceived safety has been linked with a

number of demonstrated correlates of satisfaction, including school commitment (Jenkins, 1995), better attendance, and higher grades (Bowen & Bowen, 1999). Perceived safety may be a foundational need in regards to experiencing satisfaction during the transition into middle school.

We also found that school safety was associated with students' trouble avoidance. This finding replicates that reported by Bowen and Bowen (1999) who also found an association between school safety and trouble avoidance, even when controlling for neighborhood crime and violence. We extend these findings by considering school safety, controlling for the other three aspects of the school environment. This is an important finding, because students who get into trouble at school are less likely to be academically successful (McIntosh, Flannery, Sugai, Braun, & Cochrane, 2008). Thus, our findings suggest that school safety, as part of the overall school environment, served a relatively unique function in promoting felt security so that students could harness their attention toward academic activities and positive social interactions. Perceived safety provided a context that minimized behaviors such as cutting class, misbehaving in class, and fighting with other students. We agree with Simons-Morton and colleagues (1999) when they contend that youths' problem behaviors during school call upon schools to create environments that provide educational and social experiences needed to develop and enhance social competence as well as academic efficacy and success. Behavior in school and academic success are inextricably linked, indicating that school success is broader than just grades and test scores.

The findings from this study also suggested that the link between school safety and trouble avoidance may be particularly relevant for boys. Boys are more at risk for problem behaviors than are girls (Miller, Malone, & Dodge, 2010), and perceptions of school safety may support boys in accessing behavioral repertoires that focus more on prosocial than on antisocial behaviors. Support that comes from feeling safe and from being provoked or goaded less often may bode well for male students' behavioral and academic success during middle school.

Revisiting Stage–Environment Theory

This study was framed, in part, by a stage–environment fit theory that focuses on the changes from primary to middle school (Eccles et al., 1993). This framing resulted in several key decisions, including collecting information from students during the first few months of middle school, asking students about their perceptions of several important aspects of their new school environment, and including prior grades, gender, and race/ethnicity as potential moderating factors. Our findings were consistent with the basic tenets of this

theory. First, important aspects of the middle school environment that are perceived by students as supportive and needed (i.e., a positive learning climate, teacher support, perceived safety) are linked with positive school experiences, including satisfaction, engagement, and trouble avoidance. Second, the benefits conferred by the school environment are not uniform across students, but rather vary in meaningful ways based on student gender, race/ethnicity, and the academic histories of individual students.

The findings from this study, situated within the lens of this stage–fit theory, have the potential to inform the manner in which teachers and administrators structure the school experiences of distinct groups of students so as to support cognitive, social, and psychological development during middle school. In general, students will benefit from positive learning climates and supportive teachers during the critical first semester of this new school experience. Middle schools need to continue to make it a priority to structure curriculum, classrooms, and teacher trainings to maximize student perceptions of positive learning climates. Increased attention may be needed to help students who have compromised academic histories perceive and trust the support and encouragement provided by their teachers. Teachers may need guidance regarding how to best overcome potential barriers incurred through students' negative biases that may have formed due to prior difficulties in school. Increased attention also may be needed to support girls who perceive problems with school safety because of the lack of connections with school satisfaction, engagement, or trouble avoidance in this sample of female students.

Limitations and Directions for Future Research

Limitations of the current study included a reliance on cross-sectional data and youth self-reports of both the school environment and school-related experiences. The cross-sectional design limits inferences regarding the directionality of associations. Some of these associations may form a cascade over time in which perceived environments shape school experience which then shape the environments through students' collective behavior and agency. Employing all youth-reported measures increased the chance of inflated estimates due to shared method variance, although the presence of nonsignificant findings (e.g., school safety was not associated with school engagement) suggested minimal inflation of statistical estimates. The presence of several significant moderating effects by student characteristics also provided evidence that method bias due to the sole use of youth reports was minimal. Finally, although the schools were diverse ethnically and in terms of socioeconomic status, the generalizability of the findings is limited because data were collected from youth living in a single county situated within a single region of the United States.

Future research is needed that focuses on the school environment, youths' school-related experiences during the first few months of middle school, and youth characteristics but that also overcomes some of the limitations incurred in the present study. Longitudinal designs that assess each of these aspects several times across middle school would be informative, particularly as changes over time may shed light on youth who indicated particular vulnerabilities during the first few months of middle school. Information on the school environment obtained from school personnel and/or observations (Holas & Huston, 2012; Reyes et al., 2012) would help provide information that could be used to provide triangulated assessments of environmental constructs such as learning climate and teacher support. Teacher reports of students' engagement and trouble avoidance also could be triangulated with youth reports of these important school experiences (Wang & Dishion, 2012). Only one study of those we reviewed used multiple measures to assess the same construct (Dotterer & Lowe, 2011), and construct validity in this literature would be enhanced by greater use of measure triangulation. For example, it might be helpful to incorporate the use of daily diaries to assess youths' perceptions of the school environment in combination with youth responses to more traditional questionnaire measures. The effect sizes reported in this study fell within the range of effects reported using larger and more nationally representative samples of students in middle school, but sampling a larger number of schools from several regions of the U.S. would further enhance the generalizability of these findings. The effect sizes reported in the current study replicated findings in previous research that used multiple methods but might be a bit elevated due to shared informant bias.

An expanded substantive focus also is needed that considers *why* the predictions of school-related experiences are differentially linked with various aspects of the school environment and only for students with particular characteristics. It is important to note that one of our indicators of perceived school environment, trouble avoidance, has rarely been examined as an important aspect of the early phases of this school transition. Future research would profit from including trouble avoidance as one of several important aspects of youths' school-related experiences during this important developmental and school transition period.

Conclusion

Despite these limitations, the current study makes a number of important contributions to current knowledge concerning students' experiences as they enter middle school. These include (a) a better understanding of the association

between school environment and youths' school experiences upon entry into middle school by focusing on several important aspects of both environment and experiences, and (b) increasing the specificity of this understanding of these associations across girls and boys; across Black, Hispanic, and non-Hispanic White students; and across youth who enter middle school with higher and lower recent grades.

The findings we have reported here offer a critical window into the minds of young adolescents as they navigate their school environments during a period of time filled with developmental change. We have learned that when youth perceive their school environments to be positive, safe, and supportive, they experience the first semester of middle school as enjoyable and are engaged in the learning process in a manner that supports academic success. A recognized goal of educators is to ensure that such benefits extend to all students. Our findings offer critical suggestions as to how we might move forward in attaining such a goal, making entry into middle school not just a universal experience, but a universally positive one.

References

Acock, A. C. (2005). Working with missing values. *Journal of Marriage and Family, 67,* 1012–1028.

Akos, P., & Galassi, J. P. (2004). Gender and race as variables in psychosocial adjustment in middle and high school. *The Journal of Educational Research, 98,* 102–108. doi:10.3200/JOER.98.2.102-108

Alspaugh, J. W. (1998). Achievement loss associated with the transition to middle school and high school. *The Journal of Educational Research, 92,* 20–25. doi:10.1080/00220679809597572

Anderman, L. H. (2003). Academic and social perceptions as predictors of change in middle school students' sense of school belonging. *The Journal of Experimental Education, 72,* 5–22. doi:10.1080/00220970309600877

Antonovsky, A. (1987). *Unraveling the mystery of health: How people manage stress and stay well.* San Francisco, CA: Jossey-Bass.

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology, 4,* 359–373.

Barber, B. K., & Olsen, J. A. (2004). Assessing the transition to middle and high school. *Journal of Adolescent Research, 19,* 3–30. doi:10.1177/0743558403258113

Bollen, K. A., & Long, J. S. (1993). *Testing structural equation models.* Newbury Park, CA: Sage.

Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., Bowes, G., & Patton, G. (2007). Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health, and academic outcomes. *Journal of Adolescent Health, 40,* 357.e9–357.e18. doi:10.1016/j.jadohealth.2006.10.013

Bowen, N. K., & Bowen, G. L. (1999). Effects of crime and violence in neighborhoods and schools on the school behavior and performance of adolescents. *Journal of Adolescent Research, 14,* 319–342. doi:10.1177/0743558499143003

Bowen, G. L., & Richman, J. M. (2010). The School Success Profile: Assessing the social environment and the individual adaptation of middle and high school students. *Studia Universitatis Babes-Bolyai, Sociologia, LV*, 11–29.

Browne, M. Y. C., & Cudeck, R. R. (1993). Alternative ways of assessing model fit. In K. A. Bollen, & J. S. Long (Eds.), *Testing structural equation models* (pp.136–162). Newbury Park, CA: Sage.

Burchinal, M. R., Roberts, J. E., Zeisel, S. A., & Rowley, S. J. (2008). Social risk and protective factors for African American children's academic achievement and adjustment during the transition to middle school. *Developmental Psychology, 44*, 286–292. doi:10.1037/0012-1649.44.1.286

Byrne, B. M. (2001). Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument. *International Journal of Testing, 1,* 55–86. doi:10.1207/S15327574IJT0101_4

Danielsen, A. G., Breivik, K., & Wold, B. (2011). Do perceived academic competence and school satisfaction mediate the relationships between perceived support provided by teachers and classmates and academic initiative? *Scandinavian Journal of Educational Research, 55,* 379–401. doi:10.1080/00313831.2011.587322

Dotterer, A. M., & Lowe, K. (2011). Classroom context, school engagement, and academic achievement in early adolescence. *Journal of Youth and Adolescence*, *40*, 1649–1660. doi:10.1007/s10964-011-9647-5

Eccles, J. S., Wigfield, A., Midgley, C., Reuman, D., MacIver, D., & Feldlaufer, H. (1993). Negative effects of traditional middle schools on students' motivation. *The Elementary School Journal, 93,* 553–574.

Elias, M. J., Gara, M., & Ubriaco, M. (1985). Sources of stress and support in children's transition to middle school: An empirical analysis. *Journal of Clinical Child Psychology*, *14*, 112–118. doi:10.1207/s15374424jccp1402_3

Elmore, G. M., & Huebner, E. S. (2010). Adolescents' satisfaction with school experiences: Relationships with demographics, attachment relationships, and school engagement behavior. *Psychology in the Schools, 47,* 525–537. doi:10.1002/pits.20488

Espinoza, G., & Juvonen, J. (2011). Perceptions of the school social context across the transition to middle school: Heightened sensitivity among Latino students? *Journal of Educational Psychology, 103,* 749–758. doi:10.1037/a0023811

Grogan-Kaylor, A., & Woolley, M. E. (2010). The social ecology of race and ethnicity school achievement gaps: Economic, neighborhood, school, and family factors. *Journal of Human Behavior in the Social Environment, 20*, 875–896. doi:10.1080/10911359.2010.494927

Harter, S. (1982). The perceived competence scale for children. *Child Development*, *53*, 87–97.

Holas, I., & Huston, A. C. (2012). Are middle schools harmful? The role of transition time, classroom quality, and school characteristics. *Journal of Youth and Adolescence, 41*, 333–345. doi:10.1007/s10964-011-9732-9

Jenkins, P. H. (1995). School delinquency and school commitment. *Sociology of Education, 68,* 221–239. doi:10.2307/2112686

Kelly, S. (2008). Race, social class, and student engagement in middle school English classrooms. *Social Science Research, 37*, 434–448.

Lam, S., Jimerson, S., Kikas, E., Cefai, C., Veiga, F. H., Nelson, B.,…Zollneritsch, J. (2012). Do girls and boys perceive themselves as equally engaged in school? The results of an international study from 12 countries. *Journal of School Psychology, 50*, 77–94. doi:10.1016/j.jsp.2011.07.004

LaRossa, R., & Reitzes, D. C. (1993). Symbolic interactionism and family studies. In P. Boss, W. Doherty, R. LaRossa, W. Schumm, & S. Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 135–408). New York, NY: Plenum. doi:10.1007/978-0-387-85764-0

Le, T. N., Lai, M. H., & Wallen, J. (2009). Multiculturalism and subjective happiness as mediated by cultural and relational variables. *Cultural Diversity and Ethnic Minority Psychology, 15,* 303–313. doi:10.1037/a0015507

Loukas, A., & Murphy, J. L. (2007). Middle school student perceptions of school climate: Examining protective functions on subsequent adjustment problems. *Journal of School Psychology, 45,* 293–209. doi:10.1016/j.jsp.2006.10.001

Loukas, A., Suzuki, R., & Horton, K. D. (2006). Examining school connectedness as a mediator of school climate effects. *Journal of Research on Adolescence, 16*, 491–502. doi:10.1111/j.1532-7795.2006.00504.x

Marks, H. M. (2000). Student engagement in instructional activity: Patterns in the elementary, middle, and high school years. *American Educational Research Journal, 37*, 153–184. doi:10.3102/00028312037001153

McIntosh, K., Flannery, K. B., Sugai, G., Braun, D. H., & Cochrane, K. L. (2008). Relationships between academics and problem behavior in the transition from middle school to high school. *Journal of Positive Behavior Interventions*, *10*(4), 243–255. doi:10.1177/1098307708318961

Midgley C., Feldlaufer, H., & Eccles, J. S. (1989). Student/teacher relations and attitudes toward mathematics before and after the transition to junior high school. *Child Development, 60*, 981–992.

Miller, S., Malone, P. S., & Dodge, K. A. (2010). Developmental trajectories of boys' and girls' delinquency: Sex differences and links to later adolescent outcomes. *Journal of Abnormal Child Psychology, 38,* 1021–1032.

National Opinion Research Center. (1988). National education longitudinal study of 1988: Eighth grade questionnaire (NELS: 88; OMB No. 1850–0593). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Niehaus, K., Rudasill, K. M., & Rakes, C. R. (2012). A longitudinal study of school connectedness and academic outcomes across sixth grade. *Journal of School Psychology, 50,* 443–460. doi:10.1016/j.jsp.2012.03.002

Oelsner, J., Lippold, M. A., & Greenberg, M. T. (2011). Factors influencing the development of school bonding among middle school students. *The Journal of Early Adolescence, 31*, 463–487. doi:10.1177/0272431610366244

Orthner, D. K. (2007). *School and career for me: CareerStart student survey*. Chapel Hill, NC: The University of North Carolina at Chapel Hill.

Reyes, M. R., Brackett, M. A., Rivers, S. E., White, M., & Salovey, P. (2012). Classroom emotional climate, student engagement, and academic achievement. *Journal of Educational Psychology*, *104*, 700–712. doi:10.1037/a0027268

Roeser, R. W., Midgley, C., & Urdan, T. C. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioral functions in school: The mediating role of goals and belonging. *Journal of Educational Psychology, 88,* 408–422. doi:10.1037/0022-0663.88.3.408

Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal, 38,* 437–460. doi:10.3102/00028312038002437

Ryan, A. M., Shim, S. S., & Makara, K. A. (2013). Changes in academic adjustment and relational self-worth across the transition to middle school. *Journal of Youth and Adolescence, 42,* 1372–1384.

Schneider, S. H., & Duran, L. (2010). School climate in middle schools: A cultural perspective. *Journal of Research in Character Educations, 8,* 25–37.

Simons-Morton, B. G., Crump, A. D., Haynie, D. L., & Saylow, K. E. (1999). Student–school bonding and adolescent problem behavior. *Health Education Research, 14,* 99–107. doi:10.1093/her/14.1.99

Small, S. (1991). *Teenage assessment project question bank.* Madison, WI: University of Wisconsin–Madison, School of Family Resources and Consumer Sciences.

Wang, M. T., & Dishion, T. J. (2012). The trajectories of adolescents' perceptions of school climate, deviant peer affiliation, and behavioral problems during the middle school years. *Journal of Research on Adolescence, 22,* 40–53. doi:10.1111/j.1532-7795.2011.00763.x

Wang, M. T., & Eccles, J. S. (2012). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development, 83*, 877–895. doi:10.1111/j.1467-8624.2012.01745.x

Wang, M. T., & Holcombe, R. (2010). Adolescents' perceptions of school environment, engagement, and academic achievement in middle school. *American Education Research Journal, 47*, 633–662. doi:10.3102/0002831209361209

Wang, M. T., Selman, R. L., Dishion, T. J., & Stormshak, E. A. (2010). A tobit regression analysis of the covariation between middle school students' perceived school climate and behavioral problems. *Journal of Research on Adolescence*, *20*, 274–286. doi:10.1111/j.1532-7795.2010.00648.x

Waters, S., Cross, D., & Shaw, T. (2010). Does the nature of schools matter? An exploration of selected school ecology factors on adolescent perceptions of school connectedness. *British Journal of Education Psychology, 80*, 381–402. doi:10.1348/000709909X484479

Way, N., Reddy, R., & Rhodes, J. (2007). Students' perceptions of school climate during the middle school years: Associations with trajectories of psychological and behavioral adjustment. *American Journal of Community Psychology, 40*, 194–213. doi:10.1007/s10464-007-9143-y

Wentzel, K. R. (1999). Social influences on school adjustment: Commentary. *Educational Psychologist, 34,* 59–69.

Zullig, K. J., Huebner, E. S., & Patton, J. M. (2011). Relationships among school climate domains and school satisfaction. *Psychology in the Schools, 48,* 133–145. doi:10.1002/pits.20532

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