Testing a Model of Environmental Risk and Protective Factors to Predict Middle and High School Students' Academic Success

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Data from the School Success Profile generated by 19,228 middle and high school students were organized into three broad categories of risk and protective factors—control, support, and challenge—to examine the relative and combined power of aggregate scale scores in each category so as to predict academic success. It was hypothesized that higher control and higher support scores might predict higher grades; support might contribute more variance in grades for students reporting adequate control than students reporting inadequate control; higher challenge scores might predict higher grades; and with adequate control, challenge would contribute more variance in grades for students with high support scores than for students with low support scores. Multiple regression analyses produced evidence supporting all these hypotheses. The article concludes with a discussion of practical implications of results and suggestions for further research.

KEY WORDS: *academic success; high school; middle school; risk and protective factors; School Success Profile*

At a time when competing in the increasingly global job market demands, at minimum, a high school education, students demonstrate low academic achievement and high dropout rates. In 2013, only 42 percent of fourth graders and 35 percent of eighth graders who took the National Assessment of Educational Progress (NAEP) demonstrated mathematics skills at their grade level, and only 35 percent of fourth graders and 36 percent of eighth graders demonstrated grade-level reading skills (Nation's Report Card, 2013). Of the 717,000 fourth- and eighth-grade students who took the NAEP, well over half, around 450,000, scored "basic" or lower, indicating only a partial understanding of grade-level math and reading skills.

Graduation rates are low for American middle and high school students, especially among African American and Hispanic or Latino youths. The 2010 average freshman graduation rates ranged from just 57.8 percent in Nevada to 94.1 percent in Vermont, with one-fifth of U.S. students—over 872,000—not graduating on time, if at all. In 2011 the status dropout rate was 7.1 percent, representing over 1 million youths ages 16 to 24 who were neither enrolled in high school nor in possession of a high school degree (Stillwell & Sable, 2013).

Failing to meet grade-level educational standards and dropping out of school have been associated with unfavorable individual and societal consequences, including dependency on welfare, high demand for social services, health issues, criminal behavior, loss of national income, and high unemployment (Johnston, 2010; Stuitt & Springer, 2010). Those who graduate from high school tend to experience comparatively positive outcomes, including a higher income. In 2011 (the most recent year for which data were available), a boy who graduated high school was projected to earn a median of $40,100, whereas a boy who dropped out earned only $29,400. Education was even more critical for women's earning power; a woman with an associate's degree earned a median of $37,000, still less than a man with just a high school degree. For both men and women, a high school diploma translated into a 31 percent increase in earnings, from $22,860 to $29,950 (National Center for Education Statistics, 2012).

Resiliency, the guiding framework for the current study, describes a network of individual and environmental risk and protective factors that predict an individual's tendency to thrive under adverse conditions (McMahon, 2007). We organized environmental risk

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and protective factors into broad categories of control, support, and challenge informed by Maslow's (1943) hierarchy of needs model and Bronfenbrenner's (2005) bioecological systems framework, offering a rubric that allows an examination of the effects of these networked factors on academic success.

Environmental influences positively associated with high levels of resiliency that ensure a youth's safety, reinforce appropriate social behaviors, and establish boundaries for his or her everyday behavior constitute the category of control, which can be compared with Maslow's (1943) safety level (Armstrong, Birnie-Lefcovitch, & Ungar, 2005). Higher levels of personal safety reported by youths predict positive academic outcomes (Ratner et al., 2006). Conversely, students living in neighborhoods characterized by crime, disorder, and violence not only tend to experience fewer academic successes (Caughy et al., 2012), lower levels of engagement in school (Bowen, Rose, Powers, & Glennie, 2008), and decreased levels of self-esteem and involvement in school (Patton, Woolley, & Hong, 2012), but also are more likely to drop out of high school than children and youths living in safer neighborhoods (Harding, 2009).

Adult actions characterized by unconditional positive regard toward youths make up the category of support, similar to Maslow's (1943) love/belonging level. Laursen and Birmingham (2003) posited that when adults listen to, make time for, are empathetic toward, keep promises to, and maintain confidentiality on behalf of youths, the resulting relationship between the youth and the adult becomes characterized by mutual trust and respect. Such caring and supportive relationships across a youth's environments are not only powerful protective factors (McMahon, 2007) but also constitute a significant predictor of high academic performance (Woolley & Bowen, 2007; Woolley & Grogan-Kaylor, 2006).

Environmental influences that encourage youths to problem solve; act autonomously and confidently; have a sense of purpose; or participate in meaningful involvement in home, school, or community are encompassed by the challenge category, similar to Maslow's (1943) esteem level. Whereas high expectations are associated with student success (Kuklinski & Weinstein, 2001; Woolley, Strutchens, Gilbert, & Martin, 2010), lack of challenge and low expectations are associated with low levels of youths' confidence and predict low achievement levels in school (Henderson & Milstein, 2003).

Similar to the function of Maslow's (1943) hierarchical needs model, evidence exists that the magnitude of environmental influences in the categories of control, support, and challenge depends on adequate levels of each category (Caughy et al., 2012; Garcia-Reid, Reid, & Peterson, 2005; Klem & Connell, 2004; Woolley, 2009). Specifically, environmental assets in the challenge category only become fully effective when adequate levels of support and control are in place; resources in the support category become fully effective only in the presence of adequate levels of environmental control.

The current study examines the predictive value of various environmental influences related to control, support, and challenge on academic success. Though several studies, as described, have explored the effects of relevant predictors on academic success, the combined outcomes of these predictors within a resiliency framework may result in a broader understanding of how characteristics of youths' environments contribute to their academic success. We predict that (a) students with higher control scores will tend to have higher grades; (b) students with higher support scores will tend to also have higher grades; (c) the combination of having adequate control and high levels of support will have a greater impact on grades than inadequate control and high levels of support; (d) students reporting higher challenge scores will have higher grades; and (e) with adequate control, challenge contributes more variance in grades for students reporting high levels of support than for students reporting low levels of support.

METHOD

Measures

The School Success Profile (SSP) (Bowen & Richman, 2007), a self-report survey that assesses middle and high school students' experiences of and beliefs about their environments, was modified by combining items into three indices with multiple scales that measure predictors of control, support, and challenge. First, SSP subscales with items that adhered to each of the theoretical definitions of control, support, and challenge were identified and subjected to principal components analyses using SPSS Version 21 (2012) with Promax (oblique) rotation. Items that fell into a priori specified categories according to analytic results were retained and items that loaded at .40 or less or cross-loaded on factors with a difference of .10 or less were discarded. Correlation

matrices of all identified items were examined to identify instances of multicollinearity; correlations above .70 between two items resulted in one of those items being discarded. Cronbach's alpha for the new scales measuring control, support, and challenge ranged from .71 to 87.

Independent Variables. *Control* was operationalized as rules, guidelines, or boundaries imposed by an adult in a role of authority for the purpose of keeping the youth safe, keeping others around the youth safe, or imposing societal norms. Composed of seven subscales with a total of 36 items, the control scale produced Cronbach's alphas ranging from .75 to .87. An example of a control scale item in the neighborhood environment: "If I did something wrong, adults in my neighborhood who knew about it would probably tell the adults I live with."

Support was defined as any action taken or resource given unconditionally by an adult to a youth for the purpose of aiding or creating trust. This measure included five subscales with a total of 25 items; Cronbach's alphas for these subscales ranged from .72 to .91. An example of a support scale item in the school environment subscale: "I am respected and appreciated by my teachers."

Challenge was defined as any effort made by an adult to encourage a youth to take action on his or her own behalf to promote intellectual, social, or psychological growth. The challenge scale measurement included six subscales with a total of 19 items. Cronbach's alphas for all three subscales in the challenge category were the same, .76. An example of an item in the family environment subscale: "During the past 30 days, have you discussed selecting courses or programs at school with any of the adults who live in your home?"

Dependent Variable. Academic success was measured by student reports of average grades on most recent report card. Prior research with the SSP has demonstrated that student self-reporting of grades is a valid and reliable measure.

Covariates. Demographic variables measured by the SSP added to the analyses included (a) gender, (b) whether a student received free or reduced-price lunch, (c) self-reported race or ethnicity, and (d) whether a student had repeated (been held back) one or more grades. The race and ethnicity responses originally included black, white, Hispanic/Latino, Asian or Pacific Islander, Native American, multiracial, and other. However, because the latter four groups composed just 7.3 percent of the entire sample, it was determined that narrowing the categories to three (black, white, and Hispanic/Latino) for comparison purposes in the analyses was appropriate.

Sample

Data for the analyses were taken from a secondary sample of 37,354 middle and high school students in 318 schools across eight states who completed the SSP between September 2001 and July 2005. In February 2006, the data were approved by the behavioral institutional review board at the University of North Carolina at Chapel Hill for secondary analysis. The sample was limited to exclude respondents who answered less than 95 percent of the items and respondents at sites (a) with fewer than 50 students, (b) classified as special programs (for example, juvenile detention, teen court), or (c) where the SSP was previously administered between 2001 and 2005. The final data set, which included 20,749 middle and high school students in 67 schools, was further restricted for this analysis to respondents who identified as Hispanic/Latino, black, or white.

Analytic Strategy

Control was divided into two conditions, adequate and inadequate, with 50 percent of participants in each category. Both support and challenge were each divided into three conditions, low, medium, and high, with 33 percent of participants in each category. Five multiple regression analyses were run to determine the relative predictive power of the covariates and varying levels of control and support on the impact of support and challenge on academic success.

RESULTS

Descriptive statistics for all variables are displayed in Table 1. The first hierarchical multiple regression analysis was run to determine the predictive strength of covariates and levels of control on academic success; Model 1A and 1B results are presented in Table 2. These models show the relationships between the covariates and grades (1A) and control and grades (1B) for all students. All predictors, with the exception of Hispanic/Latino students as compared with black students ($p < .05$), were significant at $p < .001$. Demographic variables, including gender, race, grade level, and free/reduced-price lunch accounted for 5.8 percent of the variance [$R^2 = .058$, $F(4,\ 17,\ 169) = 266.22$, $p < .001$]. The strongest

Table 1: Descriptive Statistics for Model Variables						
	Male ($N = 9{,}500$)		Female ($N = 9{,}728$)		Total ($N = 19{,}228$)	
Variable	*n*	%	*n*	%	*n*	%
Race/ethnicity						
Black	4,389	46.2	4,730	48.6	9,119	47.4
Hispanic	1,039	10.9	1,017	10.5	2,056	10.7
White	4,072	42.9	3,981	40.9	8,053	41.9
Grade						
6	1,949	20.5	1,966	20.2	3,915	20.4
7	2,262	23.8	2,251	23.1	4,513	23.5
8	2,182	23.0	2,184	22.5	4,366	22.7
9	1,358	14.3	1,399	14.4	2,757	14.3
10	681	7.2	766	7.9	1,447	7.5
11	548	5.8	592	6.1	1,140	5.9
12	520	5.5	570	5.9	1,090	5.7
Free/reduced-price lunch						
No	4,203	44.2	4,169	42.9	8,372	43.5
Yes	4,899	51.6	5,395	55.5	10,294	53.5
Control						
Inadequate	3,314	34.9	2,862	31.2	6,140	31.9
Adequate	5,319	56.0	6,228	68.8	11,547	60.1
Support						
Low	3,454	36.4	2,932	32.4	6,386	33.2
Medium	2,980	31.4	3,159	34.9	6,139	31.9
High	2,244	23.6	2,972	32.8	5,216	27.1
Challenge						
Low	3,572	37.6	3,114	35.6	6,686	34.8
Medium	2,343	24.7	2,548	29.2	4,891	25.4
High	2,299	24.2	3,076	35.2	5,375	28.0
Letter grades						
Mostly Ds and Fs	593	6.2	306	3.2	899	4.7
Mostly Cs and Ds	1,063	11.2	674	6.9	1,737	9.1
Mostly Cs	913	9.6	618	6.4	1,531	8.0
Mostly Bs and Cs	3,185	33.5	2,754	28.3	5,939	31.0
Mostly As and Bs	3,721	39.2	5,354	55.0	9,075	47.3

Table 2: Control Score Predicts Grades						
	Model 1A Covariates Predict Grades $R^2 = .058^{**}$			Model 1B Control Predicts Grades $R^2\Delta = .045^{**}$		
Variable	*B*	*SE*	β	*B*	*SE*	β
(Constant)	4.80**	.07		3.85**	.07	
Gender	−0.38**	.02	−.16**	−0.34**	.02	−.15**
Hispanic/Latino	0.06*	.03	−.02**	−0.06*	.03	−.02**
White	0.10**	.02	.09**	0.16**	.02	.07**
Grade	−0.05**	.01	−.08**	−0.02**	.01	−.04**
Free/reduced-price lunch	−0.27**	.02	−.12**	−0.23**	.02	−.10**
Control				0.53**	.02	.22**

Note: Reference category for Hispanic/Latino and white is black.
*$p < .05$. **$p < .001$.

predictor of academic success was gender; male students were predicted to earn about half a letter grade lower than female students ($B = -0.38$). Level of control was shown to be a significant predictor of academic success, controlling for demographic variables, at $R^2\Delta = .045$ [$F\Delta(1, 17, 168) = 861.84$, $p < .001$], accounting for 4.5 percent of the variance in grades. Specifically, an increase in control from inadequate to adequate predicts an increase on the academic grade scale of 0.53 points, about half a letter grade ($B = 0.53$), with a large effect size of .53 (Cohen, 1988).

The second and third regression analyses (Models 2A and 2B, shown in Table 3) were run to determine whether the power of support to predict academic success differed for students who reported inadequate control versus adequate control. These models detail the relationship between covariates, support and grades for students who report inadequate control. Models 3A and 3B (see Table 3) display the relationship between the same covariates for students who report adequate control. For students reporting inadequate control, level of support accounted for 0.9 percent of variance in academic grades [$R^2\Delta = .009$, $F\Delta(1, 5, 465) = 52.96$, $p < .001$], controlling for academic variables, with a moderate .23 effect size (Cohen, 1988). In comparison, 1.9 percent of the variance in academic grades for students who reported adequate levels of control was accounted for by support [$R^2\Delta = .019$, $F\Delta(1, 10, 574) = 218.65$, $p < .001$], with a moderate effect size of .33 (Cohen, 1988).

The fourth and fifth analyses (Models 4A and 4B; see Table 4) were run to determine whether the power of challenge to predict academic success differed between students who reported adequate levels of control and low levels of support and those who reported adequate levels of control and high levels of support. Findings from the sixth and seventh analyses (Models 5A and 5B) are displayed in Table 4. When students reported adequate levels of control and low levels of support, level of challenge was not a significant predictor of academic success. For students who reported adequate levels of control and high levels of support, however, challenge accounted for 0.4 percent of the variance [$R^2\Delta = .004$, $F\Delta(1, 3, 956) = 19.01$, $p < .001$], controlling for demographic variables, with a small .14 effect size (Cohen, 1988).

An interesting although not hypothesized finding can be seen in Tables 3 and 4. Whereas before add-

Table 3: Support Score Predicts Grades for Students Reporting Adequate or Inadequate Control

Variable	Model 2A Covariates Predict Grades, Inadequate Control $R^2 = .02^{**}$			Model 2B Support Predicts Grades, Inadequate Control $R^2\Delta = .01^{**}$			Model 3A Covariates Predict Grades, Adequate Control $R^2 = .06^{**}$			Model 3B Support Predicts Grades, Adequate Control $R^2\Delta = .02^{**}$		
	B	*SE*	β	*B*	*SE*	β	*B*	*SE*	β	*B*	*SE*	β
(Constant)	4.47**	.13		4.18**	.14		4.87**	.07		4.50**	.08	
Gender	−0.37**	.03	−0.14**	−0.36**	.03	−.14**	−0.31**	.02	−.16[b]	−0.29**	.02	−.15**
Hispanic/Latino	−0.15*	.05	0.04*	0.17**	.05	−.05**	−0.01	.04	−.001	−0.04	.04	−.01
White	0.05	.04	0.02	0.04	.04	.02	0.19**	.02	.10[b]	0.15**	.02	.07**
Grade	−0.003	.01	−0.003	0.000	.01	−.001	−0.03**	.01	−.05[b]	−0.03**	.01	−.04**
Free/reduced-price lunch	−0.15*	.04	−0.06*	−0.15**	.04	−.06**	−0.26**	.02	−.13[b]	−0.24**	.02	−.12**
Support				0.02**	.003	.10**				0.02**	.001	.14**

Note: Reference category for Hispanic/Latino and white is black.
$^*p < .05$. $^{**}p < .001$.

Table 4: Challenge Score Predicts Grades for Students Reporting Adequate Control with Either Low or High Level of Support

Variable	Model 4A Covariates Predict Grades, Adequate Control with Low Support $R^2 = .03^{**}$			Model 4B Challenge Predicts Grades, Adequate Control with Low Support $R^2\Delta = .001$			Model 5A Covariates Predict Grades, Adequate Control with High Support $R^2 = .07^{**}$			Model 5B Challenge Predicts Grades, Adequate Control with High Support $R^2\Delta = .004^{**}$		
	B	*SE*	β	*B*	*SE*	β	*B*	*SE*	β	*B*	*SE*	β
(Constant)	4.69**	.18		4.59**	.20		4.94**	.11		4.7**	.12	
Gender	−0.34**	.05	−.15**	−0.34**	.05	−.15**	−0.24**	.03	−.14**	−0.2**	.03	−.1**b
Hispanic/Latino	0.01	.09	.001	0.05	.03	.04	−0.03	.05	−.01	−0.02	.05	−.01
White	0.08	.05	.04	0.08	.05	.04	0.18**	.03	.10**	0.18**	.03	.10
Grade	−0.03	.02	−.04	−0.02	.02	−.03	−0.02*	.01	−.05*	−0.02*	.01	−.04*
Free/reduced-price lunch	−0.13*	.05	−.06*	−0.13*	.05	−.06*	−0.28**	.03	−.17**	−0.28**	.03	−.16**
Challenge				0.000	.000	.03				0.001**	.000	.07**

Note: Reference category for Hispanic/Latino and white was black.
*$p < .05$. **$p < .001$.

ing measures of control to the models there were significant differences, with students of color reporting lower grades, when white and black students reported inadequate control in their environments no significant difference in reported grades were found. Further, white, black, and Hispanic/Latino students who reported adequate control and low support also showed no significant differences in reported grades despite differences reflective of widely found long-standing achievement gaps prior to entering measures of control and support.

DISCUSSION

The analyses confirmed all three of our hypotheses. First, high levels of control—adequate rules, guidelines, and boundaries for students—predicted higher grades. Second, high levels of support—frequent and effective actions taken by adults to create trust with students—also predicted higher grades. In addition, when both control and support levels were high, student grades were higher than when only support was at high levels. Third, higher levels of challenge—adult encouragement of student growth—predicted higher grades. Moreover, when control and support levels were both high, student grades were higher than when only control and challenge levels were high, but support levels were not.

Our results suggest that although support is important for student success, control is the most foundational of the three constructs. Students who do not feel comfortable or safe in their environment may be less likely to achieve their full academic potential. The findings regarding the role of control and support are supported by current research. For example, Carlson and Corcoran (2001) conducted a study in which destabilizing environmental factors in children's homes, such as multiple changes in parental structure or presence, low income, or mental illness in the mother, predict significant decreases in math and reading scores, and increases in behavioral problems. Moreover, Rice, Barth, Guadagno, Smith, and McCallum (2013) found that high levels of social support predicted significant increases in students' positive attitudes toward and perceptions of their own efficacy in math and science.

Although the results of our study should be interpreted with caution, the evidence indicates that students may benefit from social workers' support and development of community, school, and government programs designed to increase the level of safety and consistency in students' home, neighborhood, and

school environments. Students who do not feel safe or cannot expect a basic level of consistency in their lives every day cannot be expected to perform well academically. For example, schools could work with parents, business owners, police, and other individual community members and organizations to create a community neighborhood watch program that would integrate and address the safety needs of all individuals who live and work in the community.

Results of this study support a community school model (for example, Blank, Jacobson, & Melaville, 2012; Lubell, 2011) in which schools and school social workers address challenges in students' environments by partnering with key individuals and organizations in the school's community to create a system of open communication that could result in a more integrated, holistic, and effective model of services for students. We suggest that school administrators and social workers concentrate their efforts of creating this expanded system of communication within the community as a whole, from which new programs might naturally evolve based on the specific needs of the students and the individuals in that community. We understand that school social workers often have limited time in which to address students' home environments; therefore, strong partnerships between social workers in schools, social workers in communities, and agencies serving youths in the community might, by increasing communication between these entities, lead to more targeted and effective actions for students that could not only reduce the burden on school social workers, but also increase students' chances for success.

There are existing school and community interventions supported by the current findings. For example, the What Works Clearinghouse (Institute of Education Sciences, U.S. Department of Education [IES, ED], 2006) reports that ALAS (Spanish for "wings"), a comprehensive program that intervenes in areas of control, support, and challenge across environments, shows one of the highest success rates of school programs with social work components. ALAS provides students with individualized support and attention in school through administrators, teachers, counselors, and mentors to address various issues in the school, home, and community environments. Another program, Check & Connect, also shows positive effects for dropout prevention and a high success rate compared with other such programs (IES, ED, 2006). Several studies of various designs have been conducted on ALAS (Larson & Rumberger, 1995) and Check & Connect programs (Anderson, Christenson, Sinclair, & Lehr, 2004; Sinclair, Christenson, Lehr, & Anderson, 2003), and the results have shown promise.

The current study has three notable weaknesses. SSP is a self-report measure that requires a youth to sit for 30 minutes or longer to answer several questions, many of which might be difficult for respondents in terms of recall, emotional effects, or fatigue, potentially reducing the validity of the results. Further, the exclusions of respondents detailed in the sample section reduced the sample size by 55.5 percent, possibly biasing results. For example, students in juvenile detention or teen court who were excluded from the study composed a subsample that might best demonstrate the academic effects of inadequate control and low support, assuming that these youths' environments outside of the program significantly contributed to their being placed in a special program. Moreover, systematic differences might exist between the schools that were included in the sample and schools with fewer than 50 students, which were excluded from the sample. Finally, because the SSP was not designed using the control, support, and challenge conceptual model, new scales had to be formulated from established subscales, which presents additional potential validity and reliability challenges.

An additional issue, the fact that control, support, and challenge account for such small variances, might be considered a weakness. However, we did find a large effect size ($d = .53$) (Cohen, 1988) for control and moderate effect sizes for support with adequate or inadequate control ($d = .23$ for support with inadequate control, $d = .33$ for support with adequate control) (Cohen, 1988). Only a small effect size ($d = .14$) (Cohen, 1988), was found for challenge. Our model predicts decreasing effect sizes, with control as the most important aspect of a child's environment, followed by support and then challenge.

Our study proposes a model that reflects the validated resiliency framework but organizes it into a more user-friendly and intuitive form based on current literature that is easily accessible by researchers outside of the discipline as well as social work practitioners and school administrators. We recommend that future research use measures specifically designed to assess control, support, and challenge across students' environments. With such measures and additional student samples, we expect predicted variances to be higher. Our result that was not hypothesized—

that race differences in grades disappear when control and support are controlled for—is a significant and exciting finding that adds evidence to the literature and might play a small part in dispelling deep-seated prejudices about the lower academic abilities of students of color as compared with those of white students.

Our findings reinforce a social work perspective that examines student academic success in the context of the student's home, neighborhood, and school environments. Results of this study also support a full-service community school model in which schools address social environment issues by increasing the number and quality of supportive relationships, advancing the safety of students in and outside the school, and providing community and school programming that challenges students to learn, grow, and succeed. CS

REFERENCES

Anderson, A. R., Christenson, S. L., Sinclair, M. F., & Lehr, C. A. (2004). Check & Connect: The importance of relationships for promoting engagement with school. *Journal of School Psychology, 42*, 95–113.

Armstrong, M. I., Birnie-Lefcovitch, S., & Ungar, M. T. (2005). Pathways between social support, family well being, quality of parenting, and child resilience: What we know. *Journal of Child and Family Studies, 14*, 269–281.

Blank, M. J., Jacobson, R., & Melaville, A. (2012). *Achieving results through community school partnerships: How district and community leaders are building effective, sustainable relationships*. Washington, DC: Coalition for Community Schools & Institute for Educational Leadership.

Bowen, G. L., & Richman, J. M. (2007). *The School Success Profile: A results-focused approach to assessment and intervention planning*. Retrieved from http://www.uncssp.org/publications/SSP%20Bowen%20&%20Richman%202007%20Description.pdf

Bowen, G. L., Rose, R. A., Powers, J. D., & Glennie, E. J. (2008). The joint effects of neighborhoods, schools, peers, and families on changes in the school success of middle school students. *Family Relations, 57*, 504–516.

Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage Publications.

Carlson, M. J., & Corcoran, M. E. (2001). Family structure and children's behavior and outcomes. *Journal of Marriage and Family, 63*, 779–792.

Caughy, M. O., Franzini, L., Windle, M., Dittus, P., Cuccaro, P., Elliott, M. N., & Schuster, M. A. (2012). Social competence in late elementary school: Relationships to parenting and neighborhood context. *Journal of Youth and Adolescence, 41*, 1613–1627.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

Garcia-Reid, P., Reid, R. J., & Peterson, N. A. (2005). School engagement among Latino youth in an urban middle school context: Valuing the role of social support. *Education and Urban Society, 37*, 257–275.

Harding, D. J. (2009). Collateral consequences of violence in disadvantaged neighborhoods. *Social Forces, 88*, 757–784.

Henderson, N., & Milstein, M. M. (2003). *Resiliency in schools: Making it happen for students and educators*. Thousand Oaks, CA: Corwin Press.

Institute of Education Sciences, U.S. Department of Education. (2006). *ALAS: Report from the WWC Intervention Dropout Prevention report*. Retrieved from http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/WWC_Project_ALAS_100506.pdf

Johnston, J. H. (2010). *Dropout prevention: A research brief.* Fairfield, CT: Education Partnerships, Inc.

Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Psychology, 74*, 262–273.

Kuklinski, M. R., & Weinstein, R. S. (2001). Classroom and developmental differences in a path model of teacher expectancy effects. *Child Development, 72*, 1554–1578.

Larson, K. A., & Rumberger, R. W. (1995). ALAS: Achievement for Latinos through academic success. In H. Thorton (Ed.), *Staying in school: A technical report of three dropout prevention projects for middle school students with learning and emotional disabilities* (pp. A-1–A-71). Minneapolis: University of Minnesota, Institute on Community Integration.

Laursen, E. K., & Birmingham, S. M. (2003). Caring relationships as a protective factor for at-risk youth: An ethnographic study. *Families and Society, 84*, 240–246.

Lubell, E. (2011). *Building community schools: A guide for action*. New York: Children's Aid Society.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*, 370–396.

McMahon, B. J. (2007). Resilience factors and processes: No longer at risk. *Alberta Journal of Educational Research, 53*, 127–142.

National Center for Education Statistics. (2012). Median annual earnings of full-time year-round workers 25 to 34 years old, by sex, race/ethnicity, and educational attainment: Selected years, 1995 through 2011. *Digest of Education Statistics*, Table 439. Retrieved from http://nces.ed.gov/programs/digest/d12/tables/dt12_439.asp

Nation's Report Card. (2013). *2013 mathematics and reading*. Retrieved from http://nationsreportcard.gov/

Patton, D. U., Woolley, M. E., & Hong, J. S. (2012). Exposure to violence, student fear, and low academic achievement: African American males in the critical transition to high school. *Children and Youth Services Review, 34*, 388–395.

Ratner, H. H., Chiodo, L., Covington, C., Sokol, R. J., Ager, J., & Delaney-Black, V. (2006). Violence exposure, IQ, academic performance, and children's perception of safety: Evidence of protective effects. *Merrill-Palmer Quarterly, 52*, 264–287.

Rice, L., Barth, J. M., Guadagno, R. E., Smith, G.P.A., & McCallum, D. M. (2013). The role of social support in students' perceived abilities and attitudes toward math and science. *Journal of Youth and Adolescence, 42*, 1028–1040.

Sinclair, M. F., Christenson, S. L., Lehr, C. A., & Anderson, A. R. (2003). Facilitating student engagement: Lessons learned from Check & Connect longitudinal studies. *California School Psychologist, 8*, 29–41.

SPSS Statistics, Version 21. (2012). Boston: International Business Machines Corp.

Stillwell, R., & Sable, J. (2013). *Public school graduates and dropouts from the Common Core of Data: School year 2009–10: First look (provisional data)* (NCES 2013-309rev). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Stuitt, D. A., & Springer, J. A. (2010, September). *California's high school dropouts: Examining the fiscal consequences.* Indianapolis, IN: Foundation for Educational Choice. Retrieved from http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/574/California-s-High-School-Dropouts---Examining-the-Fiscal-Consequences.pdf

Woolley, M. E. (2009). Adult relationships supporting school success among Latino youth: Educational expectations, social support, and academic press. *Prevention Researcher, 16*, 9–12.

Woolley, M. E., & Bowen, G. L. (2007). In the context of risk: Supportive adults and the school engagement of middle school students. *Family Relations, 56*, 92–104.

Woolley, M. E., & Grogan-Kaylor, A. (2006). Protective family factors in the context of neighborhood: Promoting positive school outcomes. *Family Relations, 55*, 95–106.

Woolley, M. E., Strutchens, M. E., Gilbert, M. C., & Martin, W. G. (2010). Student motivation and the math success of black middle school students: Direct and indirect effects of teacher expectations and reform practices. *Negro Educational Review, 61*, 41–59.

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