

**Associations Between Early Adolescent Relationships and Academic Achievement**

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Honors Thesis

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### **Abstract**

Adolescents' perceptions of support in parent and peer relationships affect their academic achievement, which has short- and long-term implications for workplace success, social life, and health. Past research focused on the direct relationship between parent support and academic achievement, but the possibility of interactions, or moderating influences of peer support relationships has been unexplored. Further research that investigated the perceptions of parent support and peer support came from international settings and may not be generalizable to the United States due to differences in educational systems and socio-cultural practices. This study examined how perceived peer support acts as a potential moderator for the association between perceived parental support and academic achievement in U.S. students. Middle school students (N=702; 41.8% female) completed a self-report questionnaire including measures of parent support, peer support, grades, and value on academic achievement. The two-way interaction between parent support and academic achievement (value on academic achievement and grades), or grades, were examined in separate hierarchical regressions. Parents positively influenced objective grades-earned and subjective value the child placed on their academics. These results are consistent with research over parental influence in academic settings. Given the shifting nature of peer and parent relationships, future research should continue to explore these relationships and provide necessary recommendations for parents and school systems.

Close relationships with parents and peers serve a fundamental role in academic development. Early adolescence marks a change in close relationships; children look to peers more often than parents for behavioral cues, are more prone to risk-taking, and are developing decision-making skills (Kaplan Toren, 2013). However, early adolescence has not received prominent attention in research.

Academic achievement has implications for long-term health and provides direction for policy-makers to adjust course curriculum and benchmark testing (Usher et al., 2019). A child's academic achievement can be marked by either their competency in individual subjects or their overall competency. It is important to study academic achievement across development. The focus of this study is the influence of parent and peer relationships on early adolescent academic achievement. This study will investigate the potential relationship between early adolescents' perceptions of parent and peer support and their academic achievement.

## **Early Adolescence**

### ***Developmental Context***

Adolescence is a significant period of biological, psychological, and social growth. During the first few years of adolescence, children undergo hormonal changes that result in sexual maturation and are associated with shifts in social priorities, drives, motivations, and psychology (Blakemore et al., 2010). Early adolescence (11-15 years old) also marks the beginning of brain reconstruction, moral thinking, and identity formation (Christie, 2005; Somerville et al., 2017). Identity formation is the process in which one develops a unique sense of self. As part of this process, children develop deeper moral thinking that lends itself to complex decision making and logical reasoning. They begin to form their own thoughts and

opinions about life, which are influenced by social relationships with parents, peers, and teachers.

Around early adolescence, the brain undergoes massive development in the prefrontal cortex, which is associated with task management, decision-making, organizational skills, and emotion-management. The amygdala, which processes emotion and memories is not filtered as much as in an adult brain. With this limited filtration, due to biological development, children are susceptible to impulsive decision-making and mental health issues (Christie, 2005; Somerville et al., 2017). Due to development of moral thinking and drastic hormonal changes, children become more concerned about what prominent social figures in their lives think of them. Social relationships are a double-edged sword in which perceived support nurtures academic achievement and lack of support impairs it.

### ***Social Relationships***

Bronfenbrenner (1995a) proposed that the social relationships (parents, peers, and teachers) of a child are bidirectional and become more complex over time. In a study examining the relationship between early adolescents' perceived social (parents and peers) support and their academic achievement, Ahmed et al. (2010) surveyed 238 Dutch grade 7 students. From the data, they found that positive perceptions of parent and peer support increased their motivation and decreased anxiety. Students who exhibited these effects performed better on mathematics tests and were more connected to their school environment. These findings are supported by other studies (Song et al., 2015; Lam & Ducreux, 2013; Côté et al., 2014).

While we know a lot about the direct relationship between parent support and academic achievement, little is known about the kinds of factors that may alter the impact of this relationship. More research into the impact of peer support on the relationship between parental

support and academic achievement is warranted for several reasons: (a) Social relationships with parents and peers have a significant influence on the behavior of young adolescents (Bronfenbrenner, 1986). (b) Parents are considered the most influential social figures in a child's life. Their support in academics remains constant throughout adolescence. (c) Early adolescents care more about how peers perceive them and in turn, adapt their behaviors based on those perceptions. For example, if their friends do not care about academic achievement, they may be likely to value academic achievement.

### **Parental Support**

Parental support is emotional engagement in a child's academic and social life through behaviors such as verbal praise, quality time, and physical affection. These behaviors are essential to a child's academic performance and social well-being. Parents are some of the most influential figures in a child's life. It is important that parents be involved in their child's academics so that their child develops a positive mindset about academics and about their capability to succeed. Relationships between parents and children shift at the beginning of adolescence due to identity formation. As children enter adolescence, their perceived parent support declines (Song et al., 2015). Even so, perceived support in academic and emotional domains remains constant. Though early adolescents are becoming more independent, parental support remains paramount to their academic achievement (Bronfenbrenner, 1986).

Song et al. (2015) conducted a 3-wave longitudinal study following Korean students from grades 7 to 9. They assessed the potential relationships between Korean students' socialization experiences with their parents, peers, and teachers and their academic achievement. From the data, Song et al. reported that stronger perception of parental support predicted higher standardized test results and lower test anxiety. The data also suggested that early adolescents'

perceived parental support predicted self-efficacy, test anxiety, goal motivation, and achievement motivation. Socialization experiences with parents had a greater impact on academic achievement than with teachers or peers. These results are supported by theories of social and academic motivation from Wentzel (199) and Eccles et al. (1993). They note that sociocultural differences of a similar study may affect the strength, not nature, of the results. It is in the interest of the educational community to conduct a similar study in the United States because of its implications for parental support and academic achievement motivation.

Parental involvement influences adolescent self-efficacy, motivation, and well-being, and impacts academic achievement and emotional support (Lam & Ducreux, 2013; Song et al., 2015). Lam and Ducreux (2013) conducted a descriptive-exploratory study over the influence of middle school parents on their children, sampling from 32 parents of children at a middle school in Los Angeles County. They found a relationship that only approached significance between perceived parent-child communication and academic achievement, a pattern that is consistent with past research in parental involvement (Hill & Taylor, 2004; Sehee et al., 2010). In their other investigations, Lam and Ducreux did not find any significant relationship between parental involvement and academic achievement. It is possible that their choice of parental involvement as a variable limited their findings because it does not account for emotional support. Emotional support is influential to a relationship and thus should be included in related research.

Children who feel less competent in their academics tend to report less and lower quality of parental support (Côté et al. (2014). Parental support, which includes emotional support, plays a key role in children's self-concept and competence (Harter, 1992; Rogers, 1951; Rogers & Kinget, 1976). Harter et al. (1996) investigated the relationship between three perception of support variables [(a) quality of support, (b) level of support, and (c) hope about future support]



and true/false self-behavior. The researchers interviewed a total of 389 students from grades 6-12 from schools located in a residential neighborhood of lower- and middle-class families. The data showed that adolescents' perceived parental support was predictive of their hope of continued support in the future. Approximately sixty one percent of adolescents reported that they changed their behaviors because they desired to win approval from their parents. If parents do not show support towards certain behaviors, children do not see these behaviors as valuable.

As noted by Lam and Ducreux (2013), it is important to research the influences parents have on early adolescents' academics. Parents play a critical role in their early adolescents' academic achievement through the quality of their communication and presence of emotional support. There is some research examining the potential relationships between parental support and academic achievement, but few studies investigating early adolescents' *perceived* parental support and academic achievement. Parents should continue to show support in their child's academic life throughout adolescence. If their child believes that academic achievement is valuable and acts upon that belief, they increase their likelihood of future success and decrease the likelihood of engaging in delinquency and drug use (Wymbs et al., 2014; Ahmed et al., 2010).

### **Peer Support**

In early adolescence, peer relationships are a double-edge sword due to the bidirectional nature of their relationship and children's increased reliance on peer support. (Christie, 2005; Bronfenbrenner, 1995a). For example, peer groups may influence individual youths to engage in academic achievement or delinquent behavior such as drug use and drinking, which are linked to decreased academic achievement and health issues like depression (Lanza-Kaduce & Webb,

1992; Wymbs et al., 2014). However, positive peer relationships act as vital resources for social-emotional development and can be a buffer against maladaptive behaviors.

Peer support occurs when people help each other emotionally, socially, and academically. Supportive peers can be a buffer against stress and anxiety (Song et al., 2015). Lack of social connection with peers can lead to social-emotional, cognitive, and long-term health issues (Gallardo & Barrasa, 2016). Gallardo and Barrasa (2016) investigated the correlation between positive peer relationships and academic performance in early and mid-adolescence. They conducted a 2-wave longitudinal study that surveyed 447 students aged 11 to 16 years from Spain. The researchers found that peer acceptance increased the likelihood of social well-being and academic achievement. Conversely, those who had trouble with peer relationships had poor academic performance and difficulty in school. Because the study was conducted in Spain, differences in educational systems and socio-cultural influences may limit the generalizability of the study to the United States. It is in the interest of each country's educational community, which includes school boards, teachers, and parents, to conduct a similar study because of its implications for social well-being and academic achievement.

Acceptance into peer groups is important for early adolescents because it provides emotional connection and stronger school engagement. The data from the Ahmed et al. (2010) study, some of which is outlined earlier in the paper, suggests that peer support helps develop competence, interest, and enjoyment. These factors are important in student motivation and the development of healthier behaviors. On the flip side, adolescents' perceived peer support is strongly predictive of engagement in false self-behavior (Harter et al., 1996). For example, in the previously discussed study by Harter et al. (1996), 67% of adolescents' reported the desire to please their peers as the main reason for changing the way they dress and act.

Research in child development has considered the direct relationship between peer support and academic achievement (Song et al., 2015; Gallardo & Barrasa, 2016), yet there is little if any research investigating it as a moderating variable. Peer support is a volatile yet important part of adolescents' lives. It can act as a buffer against stress and anxiety, a protective factor against delinquent habits, or a risk factor for any of these things. If an early adolescent perceives their relationship with their parents as supportive but feels the need to adapt their behaviors (e.g., "my peers don't care about academics, so I shouldn't") to be accepted by their peers, there may be consequences on the child's academic outcomes. Thus, it is important to explore peer support as a moderating variable in the context of early adolescence.

Of the studies that investigated peer support during early adolescence, one is not representative of the age group (Ahmed et al., 2010) because it only surveys grade 7 students (11-12 years old). A full representation of 11-15 years old is preferable because it allows for within-group comparisons of social priorities, drives and motivations, and psychology. Similar concepts to the Gallardo and Barrasa (2016) study should be conducted to test the validity of their study because it was conducted in Spain, whose education system differs from those in the West and in the East. Differences in the education system may limit the generalizability of their findings. Investigation of perception of peer support as a moderating variable is warranted because differences in perceived peer support may affect the strength in relationship between a perceived parental support and academic achievement in U.S. students.

## **Conclusions**

Academic achievement has been a topic of increasing interest in the scientific community due to its relationships with future success and social well-being. Close relationships have the strongest impact on academic achievement and thus increased parental support can influence a

child's academic success. A large amount of research has focused on early childhood, but there is little focusing on the nuances of close relationship support in early adolescence. Prior research that focused on close relationships with parents and peers has been conducted in countries other than the U.S. with differing education systems and thus the findings may not generalize to adolescents in the U.S. While there is some research on academic achievement and social relationships (Côté et al., 2014; Wentzel, 1998; Rogers, 1951), few studies focus on the role of peer support as a moderating variable in early adolescent academic achievement. This study will examine the associations between perceived parental support and the impact of peer support as a moderating variable on adolescents' academic achievement.

## **Materials and Methods**

### **Study Design Overview**

This study investigated how perceived parental support is related to academic achievement. It further explored how perceived peer support interacts with the relationship between perceived parental support and academic achievement. The study hypothesis is that adolescents' perceptions of their parental support is positively associated with higher academic achievement. Furthermore, peer support will magnify the relationship between parent support and academic achievement in both models. Specifically, there will be a stronger association between perceived parental support and academic achievement for adolescents with more perceived peer support while the association will be weaker for adolescents with less perceived peer support.

The study used select measures from the 2013 Promoting Healthy Youth Behaviors Study questionnaire (Kreitzberg et al., 2019; Golaszewski et al., 2018; Fernandez et al., 2017). The participants were middle school students, ages 11 to 15, in Central Texas. The primary independent variable was the perception of parent support. The primary dependent variables were middle school students' value on academic achievement and self-reported grades, which were related to parental support in separate analyses. Adolescents' perception of peer support was investigated as a moderating variable.

### **Participants**

The data for this study was collected from the Promoting Healthy Youth Behaviors Study (Kreitzberg et al., 2019; Golaszewski et al., 2018; Fernandez et al., 2017). Participants ages 10 to 15 years old ( $M = 12.16$ ;  $SD = .97$ ; 41.8% female) were recruited from 5 middle schools in Central Texas in the Fall of 2013. Out of the 5 schools, 1 school allowed all students to

participate, 1 school allowed only sixth graders to participate, and 3 schools allowed recruitment through physical education classes. Out of the total possible students eligible to be surveyed (N= 2,582), 30% (N= 773) had parental consent to participate; of those with parental consent, 90% (N=702) were present and provided assent. A total of 31 students declined to participate, 26 were absent from class, and 14 did not take the survey for other reasons (e.g., at the nurse's office).

Responses were not dropped unless they were missing all the sections of the questionnaire relevant to this study. Of the 702 participants, 577 were included in the final analyses. Of the participants included in the study, the demographic representation was 56.81% white, 28.11% Hispanic, 3.81% African American, 7.47% Asian, and 3.81% other (including American Indian/Alaskan Native).

## **Materials and Measures**

### ***Demographics***

Demographic information collected included age, race, gender, language spoken, and race. See Appendix A for a full list of demographic questions.

### ***Value on Academic Achievement Scale***

Value on academic achievement was conceptualized as the personal importance a student places on their academic success (Kreitzberg et al., 2019; Donovan & Molina, 2011). It was measured using five questions on a 3-point Likert scale. The prompt was "how important is it to you..." and students answered the following five questions with (a) "not so important," (b) "somewhat important," or (c) "very important." Items were summed across the twelve questions with higher scores indicating higher value on academic achievement. The Cronbach Alpha for this scale was 0.64. See Appendix B for questions.

### ***Academic Achievement- Grades***

As a second measure of academic achievement, students were asked which letter grades they usually get on their report cards. Because the data from the sample were very skewed toward A's, grades were bifurcated as "A"=1 and "any other grade"=0.

### ***Perception of Parent Support Scale***

Parent support is a subjective measure assessing the student's perception of encouragement, assistance, and inclusion in their home environment. The perception of parent support, derived from the Child and Adolescent Social Support Scale (CASSS; Malecki et al., 2000), is a five-point Likert agreement subscale containing twelve questions. Participants indicated their level of agreement from 1 (*never*) to 5 (*always*) with statements such as "my parents show they are proud of me" and "my parents listen to me when I need to talk." The items were averaged across the twelve questions with higher scores indicating higher perceived parental support. An analysis of the CASSS by Malecki and Demaray (2002) showed that the Parent Support Subscale is reliable and a reasonably valid indicator of perceived parent support in adolescents. The Cronbach Alpha from the current study was 0.95. See Appendix C for question format.

### ***Perception of Peer Support Scale***

The Student Personal Support Scale from the Classroom Life Instrument (Van Ryzin, et al., 2009; Johnson & Johnson, 1983) was used to evaluate perceived peer support. It is a subjective measure assessing the student's perception of encouragement, assistance, and inclusion in their social environment. The perception of peer support was measured using a five-point Likert-scale containing five questions, with items such as "other students in this school care about my feelings." Participants indicated their level of agreement with a statement from 1

(*never*) to 5 (*always*). Items were averaged across the five questions with higher scores indicating higher perceived peer support. The scale has shown acceptable reliability and validity (Klang, et al., 2020; Fernandez et al., 2017; Ghaith, G., 2002). The Cronbach Alpha from the current study was 0.90. See Appendix D for question format.

### **Procedures**

Participants could proceed with the questionnaire after both parental consent and child assent was given. They filled out a survey of 167 items including general demographic information, sleep habits, depression and anxiety scales, peer and parent relationships, and school life. The survey was administered during a 45-90 minute class period. Questions were read out loud by a member of the research team to account for varying literacy among middle school students, between the ages of 10 and 15 years. Students could skip any questions or stop at any point during the survey.

Students received a small token of appreciation (i.e., a pencil) for participation in the survey. All procedures and materials were approved by the Institutional Review Board of UT Austin for research with human subjects.

### **Statistical Analyses**

In the first set of models, hierarchical linear regression was used to determine the relationship between parent support and value on academic achievement as well as the interaction between parent support and peer support. In Step 1, students' grade level, ethnicity, sex, and whether they received free/reduced priced lunch were entered as covariates. In Step 2, parent support was entered to examine the main effect while controlling for the covariates. In Step 3, peer support was entered to examine if it was significantly associated with value on academic achievement beyond parent support and the covariates. In Step 4, the 2-way interaction



between parent support and peer support was entered to examine the moderating role of peer support.

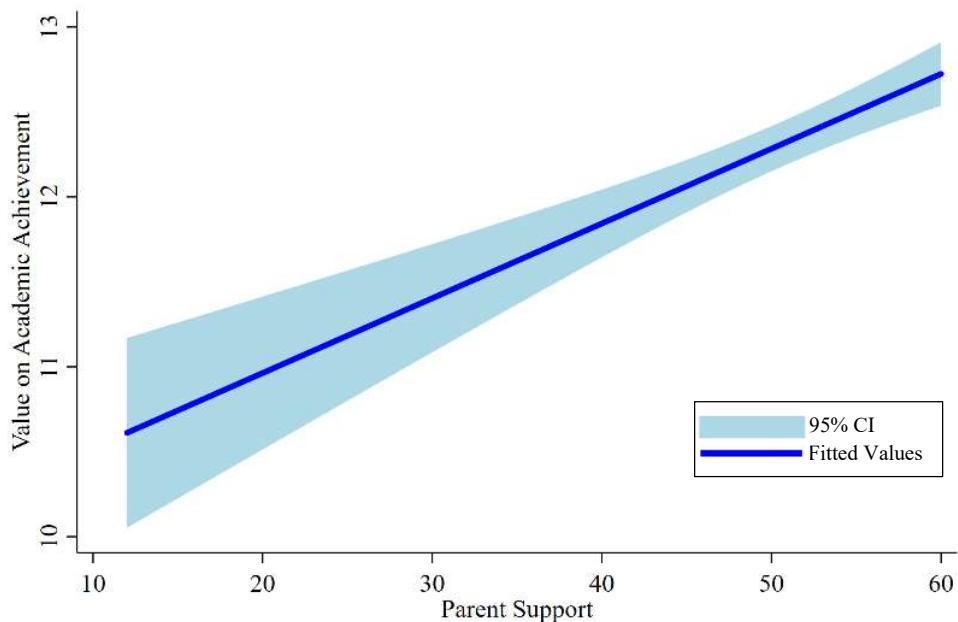
In the second set of models, hierarchical logistic regression was used to determine the relationship between parent support and grades earned as well as the interaction between parent support and peer support. In Step 1, students' grade level, ethnicity, sex, and whether the received free/reduced priced lunch were entered as covariates. In Step 2, parent support was entered to examine the main effect while controlling for the covariates. In Step 3, peer support was entered to examine if it was significantly associated with grades beyond parent support and the covariates. In Step 4, the 2-way interaction between parent support and peer support was entered to examine the moderating role of peer support. Stata (StataCorp, 2013) was used for all analyses.

## Results

Approximately 71.95% (n=495) of students reported A's as their most commonly earned grade. The mean value on academic achievement, where scores could range from 5 to 15, was 12.30 (SD= 1.73). Perceived parental support had a mean at 50.53 (SD=9.40; range 12-60). Perceived peer support had a mean of 18.23 (SD=4.33; range 5-25).

### Relationships between Parent support, Peer support, and Value on Academic Achievement

There was a significant association between gender and value on academic achievement (Step 1) (See Table 1). There was a significant association relationship between race and value on academic achievement, with Black/African American students reporting lower value on academic achievement- as compared to white students. No significant differences existed between the other covariates and value on academic achievement.



**Figure 1.** Relationship between parent support and value on academic achievement. Higher parent support scores were significantly associated with higher value on academic achievement. Unadjusted model.  $p < .001$ .

After adjusting for grade level, sex, and receipt of free/reduced price lunch, and race/ethnicity, parent support was positively associated with value on academic achievement (Step 2). In Step 2, when adding parental support to the model, parent support was significant after controlling for all covariates. The main effects model (see Table 1) accounted for 12% ( $\Delta R^2=.12$ ) of the variance in value on academic achievement. After adding peer support to the model (Step 3), parental support remained significant. Peer support was also significant. However, the 2-way interaction (Step 4) between parent support and peer support was not significant, which suggests that peer support did not change the relationship between parent support and value on academic achievement.

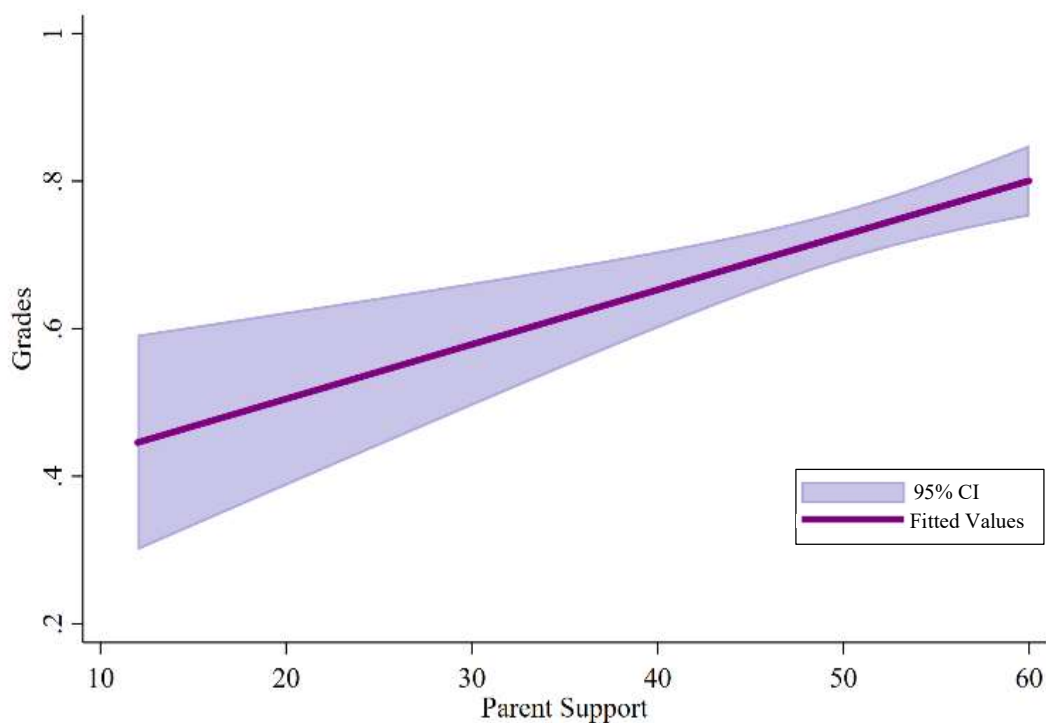
**Table 1***Relationships Between Parent Support, Peer Support, and Value on Academic Achievement*

	Step 1	Step 2	Step 3	Step 4
Covariates				
Free/Reduced Price Lunch	-.35	-.19	-.22	-.22
Gender	-.30*	-.26	-.13	.13
Ethnicity (White is reference)				
Black/African American	-1.27*	-1.22*	-1.14*	-1.14*
Hispanic, Latino, or Mexican American	-.31	-.24	-.15	-.14
Asian American or Pacific Islander	-.21	-.15	-.24	-.24
American Indian or Alaskan Native	.52	.46	.78	.78
Other	-.25	-.23	-.22	-.22
Grade (6 <sup>th</sup> is reference)				
7 <sup>th</sup>	-.03	-.25	-.24	-.24
8 <sup>th</sup>	-.03	-.08	-.01	-.01
Main effect				
Parent Support		.04**	.03**	.03
Peer support			.08**	.07
2-way interaction				
Parent Support by Peer Support				.0001
$\Delta R^2$	.04	.09	.12	.12

Note: n=577. \*p<.05; \*\*p<.001.

### Relationships between Parent Support, Peer Support, and Grades

There was a significant association between gender and grades (Step 1) (see Table 2). Similar to value on academic achievement, there was a significant association with race, with Black/African American Students and Hispanic/Latino/Mexican American students less likely to report getting A's as compared to white students. No significant differences existed between the other covariates and grades.



**Figure 2.** Relationship between parent support and grades. Higher parent support scores were significantly associated with increased odds of getting A's. Unadjusted model.  $p < .001$ .

After adjusting for grade level, sex, and receipt of free/reduced price lunch, and race/ethnicity (Step 1), parent support was positively associated with grades (Table 2). For every

one-unit increased in parent support, the odds of getting As increased 1.02 times. The main effects model (Step 2) accounted for 17% ( $\Delta R^2=.17$ ) of the variance in value on academic achievement. Once peer support was added to the model (Step 3), parent support was no longer significant. Peer support, however, was significantly associated with grades, over and above the covariates and parental support. For every one unit increased in peer support, the odds of getting As increased 1.03 times. The 2-way interaction (Step 4) between parent support and peer support was not significant, indicating that peer support does not change the relationship between parent support and grades.

**Table 2***Relationships Between Parent Support, Peer Support, and Grades*

	Step 1	Step 2	Step 3	Step 4
Covariates				
Free/Reduced Price Lunch	.37**	.37**	.37	.36
Gender	1.46	1.46	1.37	1.37
Ethnicity (White is reference)				
Black/African American	.20*	.20*	.20*	.21*
Hispanic, Latino, or Mexican American	.23**	.23**	.24**	.24**
Asian American or Pacific Islander	1.81	1.81	1.71	1.72
American Indian or Alaskan Native	.37	.37	.42	.43
Other	.84	.84	.84	.84
Grade (6 <sup>th</sup> is reference)				
7 <sup>th</sup>	.51*	.51*	.51*	.52*
8 <sup>th</sup>	.38**	.38**	.39*	.40*
Main effect				
Parent Support		1.02*	1.02	1.00
Peer support			1.03*	.98
2-way interaction				
Parent Support by Peer Support				1.00
Pseudo $\Delta R^2$	.17	.17	.17	.18

Note: n=577. \*p<.05; \*\*p<.001.

### Discussion

Findings from this study support the hypothesis that parental support is associated with value on academic achievement. In model one, this indicates a positive association between parent support and value on academic achievement. While previous research has found that parent support is associated with grades-earned (i.e., standardized tests, subject-area grade), this is the first study to support a positive association between parent support and value on academic achievement. Peer support was not found to be a moderator in the association between parent support and value on academic achievement. However, peer support was positively associated with value on academic achievement, thereby supporting previous research that indicates the benefits of peer support.

Findings from this study support the hypothesis that parental support is associated with grades. In model two, findings indicate a positive association between parent support and grades. In the main effects portion of this model, peer support was associated with parent support. Interestingly, parent support was no longer associated with grades, but peer support was. Peer support did not moderate the relationship between parent support and grades. This finding indicates that the more peer support you receive the more likely you are to get As, even after accounting for parental support but that peer support does not further enhance parental support.

Previous research examining early adolescent relationship outcomes has only used numeric measures of academic achievement such as grades (Song et al., 2015; Ahmed et al., 2010). These studies showed that parent support is positively associated with grades and/or standardized testing. The current study complements these studies in that it broadens the age range and considers the adolescents' perspective on academics. A child can do well in academics, yet not value the work they put in. It may be that an adolescent is simply putting in



the work to appease others or happens to get good grades and does not care. Pairing grades-earned and value on academic achievement may encompass a broader picture of academic achievement. A focus on academic achievement more broadly is important as it has been associated with factors such as well-being and life expectancy (Hahn & Truman, 2015; Usher et al., 2019).

The findings also indicate that peers play a role in the value adolescents' place on their academic achievement, and the grades they earn. In fact, peer support was more strongly associated with value on academic achievement and grades than parental support. Students who feel like they have more supportive peers place a higher value on their academic achievement and the more peer support a student perceives, the more likely they are to receive A's. Of my sample, 55.89% were grade 6 students. These students are adjusting to new schools, finding new friend groups, and dealing with physiological and identity changes. Peers play a key role in this transition: they can be sources of emotional support, buffers against health issues brought on by these changes, or the foundation of delinquent behaviors (Lanza-Kaduce & Webb, 1992; Wymbys et al., 2014).

Findings from this study did not support the hypothesis that peer support would moderate the relationship between parent support and academic achievement, measured by value on academic achievement and grades. Future studies may take a more expansive approach to examine these relationships. To grasp the nature of these changing relationships, future research could consider administering a similar study at two or more time points.

There are several limitations to this study. The data is cross-sectional, which only allows examination from a single time point. Participants included in this study are not a nationally representative sample, which limits the generalizability of the sample. However, the sample had

a diverse ethnic make-up. Another limitation is that this was a self-report study. However, Value on Academic Achievement, Perception of Parent Support, and Perception of Peer Support Scale were best measured using this method. Furthermore, the Cronbach's alpha for Value on Academic Achievement was moderate and there were only five questions. It might be beneficial for future studies to create a scale that better encompasses the construct of value on academic achievement.

It is critical that parents, in the interest of their child's future well-being and overall lifespan, maintain active involvement in their child's academics. This study along with others shows that parents are influential to the success of their children in the academic arena. In an increasingly competitive professional world, it is likely that the predictive power of academic success will only strengthen. As such, school systems should also attend to these findings and attempt to foster a positive peer environment. For example, schools can implement group-based activities where possible, or establish peer mentoring programs. It remains important for parents, teachers, policymakers, and peers to consider how supportive relationships help adolescents and to work to establish programs and foster environments that reflect such results.

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## Appendix A

### Miscellaneous Measures

<p><b>4. What is your gender?</b></p> <p><input type="radio"/> Female</p> <p><input type="radio"/> Male</p>	<p><b>6. What is the language most often spoken in your home?</b></p> <p><input type="radio"/> English</p> <p><input type="radio"/> Spanish</p> <p><input type="radio"/> Some other language, please write here: _____</p>
<p><b>5. What grade are you in right now?</b></p> <p><input type="radio"/> 6th grade</p> <p><input type="radio"/> 7th grade</p> <p><input type="radio"/> 8th grade</p> <p><input type="radio"/> other</p>	<p><b>7. How do you describe yourself?(race/ethnicity)</b></p> <p><input type="radio"/> White, Caucasian or European American</p> <p><input type="radio"/> Black or African American</p> <p><input type="radio"/> Hispanic, Latino or Mexican American</p> <p><input type="radio"/> Asian American or Pacific Islander</p> <p><input type="radio"/> American Indian or Alaskan Native</p> <p><input type="radio"/> Other, please write here: _____</p>
<p><b>10. Which letter grades do you usually get on your report card for your school subjects?</b></p> <p><input type="radio"/> mostly A's</p> <p><input type="radio"/> mostly B's</p> <p><input type="radio"/> mostly C's</p> <p><input type="radio"/> mostly D's</p> <p><input type="radio"/> mostly F's</p>	<p><b>11. Do you receive free or reduced-price lunches at school?</b></p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Don't know</p>

*Q1-Q12 from the Promoting Healthy Youth Behaviors Survey (2013).*

**Appendix B**

## Value on Academic Achievement Scale

<b><i>How important is it to you...</i></b>	<b><i>Not too important</i></b>	<b><i>Somewhat important</i></b>	<b><i>Very important</i></b>
13. To get good grades in school?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. That your teachers think you're smart?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. That other kids think you're smart?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. To get high scores on tests at school?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. To have kids in your class ask you for help?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Q13-Q17 from the Promoting Healthy Youth Behaviors Survey (2013).*

## Appendix C

## Perception of Parent Support Scale

<b>Great! We're almost done!</b> <i>The next section asks about your family.</i>	Never	Almost Never	Sometimes	Almost Always	Always
104. My parents listen to me when I need to talk	①	②	③	④	⑤
105. My parents show they are proud of me	①	②	③	④	⑤
106. My parents help me practice my activities	①	②	③	④	⑤
107. My parents make suggestions when I don't know what to do	①	②	③	④	⑤
108. My parents take time to help me decide things	①	②	③	④	⑤
109. My parents give me good advice	①	②	③	④	⑤
110. My parents help me solve problems by giving me information	①	②	③	④	⑤
111. My parents understand me	①	②	③	④	⑤
112. My parents reward me when I've done something well	①	②	③	④	⑤
113. My parents tell me I did a good job when I do something well	①	②	③	④	⑤
114. My parents nicely tell me when I make mistakes	①	②	③	④	⑤
115. My parents get me many of the things I need	①	②	③	④	⑤

*Q104-Q115 from the Promoting Healthy Youth Behaviors Survey (2013). Taken from the CASS*

2000.

## Appendix D

### Perception of Peer Support Scale

99. Other students in this school think it is important to be my friend	①	②	③	④	⑤
100. In this school, other students like me the way I am	①	②	③	④	⑤
101. In this school, other students really care about me	①	②	③	④	⑤
102. Other students in this school like me as much as they like the others	①	②	③	④	⑤
103. Other students in this school care about my feelings	①	②	③	④	⑤

*Q99-Q103 from the Promoting Healthy Youth Behaviors Survey (2013).*