

GLOBAL JOURNAL OF

Community Psychology Practice

PROMOTING COMMUNITY PRACTICE FOR SOCIAL BENEFIT



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Keywords: academic performance, peer relationships, adolescence, social support, adolescent high-risk behavior

Running head: ACADEMIC PERFORMANCE: FRIENDSHIP INFLUENCES

Recommended citation: Jacobson, L. T., & Brudsal, C. A. (2012). Academic Performance in Middle School: Friendship Influences. *Global Journal of Community Psychology Practice*, 2(3), 1-12. Retrieved Day/Month/Year, from (<http://www.gjcopp.org/>).

Academic Performance in Middle School: Friendship Influences

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Abstract

The results of the Peer/Performance Relationship Study build on previous research findings demonstrating relational significance of peer influences to academic performance during adolescence. Whereas family, teachers, and friends play a significant role in a student's academic career, extant literature about the relational dynamics between peers and academic achievement remains scarce. This study evaluated social support and negative interchanges in relation to self-reported grades in reading, mathematics, social studies, and science. Additionally, students' gender, race, and perception of a friend's level of school interest were measured. The sample consisted of 321 participants in the 6th, 7th, and 8th grade from three medium-sized suburban, public middle schools in the Midwest. Social support and negative interchanges were measured by scales of the Network of Relationships Inventory. Academic performance was measured as a grade point average of the scores for the four academic subjects. Results support the hypothesis that adolescents' relationships with peers influence academic performance. Specifically, the study's outcome demonstrates that social support was significantly and positively related to academic performance. Negative interchanges were not significantly related to academic performance. A positive correlation was found between level of school interest and academic performance. Furthermore, gender differences were found among social support, negative interchanges, and academic performance. There were no statistical differences for race. Altogether, these results are consistent with previous research findings and provide evidence for the importance of adolescent friendships and their impact on academic performance.

Introduction

Upon entry to middle school, young adolescents (age 11-14) experience an environment completely different from elementary school. For some, it provides an opportunity for a new start where they can focus on improving their academics, enroll in advanced courses, participate in extracurricular activities, and prepare for high school. Others may view the transition from elementary to secondary school as more challenging such as forming new bonds and friendships. In addition to contextual influences, young adolescents experience a multitude of relational and cognitive changes associated with early puberty (Wigfield & Eccles, 1994; Wigfield, Eccles, MacIver, Reuman, & Midgley, 1991; Wentzel, 1998; Wentzel, 1991). Especially during the transition from elementary to secondary school, the self-system changes including an overall decline in self-esteem, competency beliefs, and self-perceived ability in various academic disciplines (Wigfield & Eccles, 1994; Wigfield et al., 1991). Specifically, Eccles, Midgley, and Adler (1984) found that young adolescents adopt more negative views about themselves and school when transitioning to middle school. These changes in self-perception could be attributed to a different school and classroom

environment as well as the biological and social changes related to puberty (Wigfield et al., 1991; Glover, 1999). Against this background, the Peer/Performance Relationship Study (P/PRS) examines the relationship between social support and negative interchanges to academic performance.

The Role of Peers and Associated Risk and Protective Factors to Academic Achievement

Research findings show that peers exert considerable influence over the psychological well-being of young adolescents (Juvonen & Wentzel, 1996; Roseth, Johnson, & Johnson, 2008; Wentzel, 1993; Wentzel, 1998; Wentzel, McNamara Barry, & Caldwell, 2004). Because a comprehensive discussion of all risk and protective factors to academic achievement goes beyond the scope of this paper, only those factors pertaining to peer relationships and academic achievement are described.

Research demonstrates that students who have a reciprocated friendship in middle school show increased levels of prosocial behavior and academic achievement (Wentzel et al., 2004). Nelson and DeBacker (2008) found a positive correlation between adolescents who experience positive relationships with their peers and student

achievement. Specifically, students who perceive to be valued and respected by their peers are more likely to report adaptive achievement motivation (Nelson & DeBacker, 2008). Additionally, they reported that having a best friend who values academics also contributes to adaptive achievement motivation. In this respect, prosocial behavior as well as being valued, respected, and having a best friend serve as protective factors for academic achievement. Other protective factors include connectedness to family or adults outside of the family unit, ability to discuss problems with parents, effective parental monitoring, involvement in social and extracurricular activities, commitment to school, and high IQ (Resnick, Ireland, & Borowsky, 2004).

Conversely, other studies indicate that students who associate with friends who reject school are more likely to perform poorly academically (Veronneau, Vitaro, Pedersen & Tremblay, 2008). Nelson and DeBacker (2008) report similar findings when they found that having a poor quality friendship relates to maladaptive achievement motivation. Most importantly, research findings demonstrate that adolescents who socialize and form friendships with deviant peers are at increased risk for developing a variety of psycho-social adjustment problems including substance use, youth violence, teenage pregnancy, and general school failure (Centers for Disease Control and Prevention [CDC], 2010; Fergusson, Woodward, & Horwood, 1999). Other risk factors include low socioeconomic status, poor parental monitoring, high levels of family disruption, and bullying (Lipsey & Derzon, 1998; Resnick et al., 2004).

Altogether, the literature points to a number of risk and protective factors in relation to academic performance. The overall research effort has focused on high-risk behaviors, which could also be regarded as the “by-products” of deviant peer relationships (a discussion reserved for another time). More importantly, engaging in high risk behaviors does not prove causation to low academic achievement. Further research is needed to determine whether the incidence of high-risk behavior leads to poor academic performance, whether poor academic performance leads to high-risk behavior, or whether some other factors not accounted for lead to either of these problems.

Peer/Performance Relationships

During the late 1990s, researchers and academicians alike started considering a more integrative approach to the negative perspective of the self and overall

school adjustment (Juvonen & Wentzel, 1996). Juvonen and Wentzel (1996) spearheaded this effort by looking into the social relationship processes including interpersonal relationships to understand an adolescent’s motivation to succeed academically. This study, the Peer/Performance Relationship Study (P/PRS), follows the path that Juvonen and Wentzel started. The purpose of the P/PRS was to enhance understanding of the nature of the relationship between peers and academic performance. It was hypothesized that adolescents’ relationships with peers were related to academic performance. The P/PRS was based on existing research regarding friendships that adolescents develop and scales were extracted from the Network of Relationships Inventory (NRI) designed by Wyndol Furman (Furman & Buhrmester, 1985). In addition to benefiting the scientific community, the use of an instrument such as the NRI with its strong psychometric properties make the outcome of this study valuable. In the adolescent and child literature, it is common that terminology with regard to the word “friend” is used interchangeably with the word “peer” (Yu Rueger, Kerris Malecki, & Kilpatrick Demaray, 2008). This study operationalizes the term “peers” as friends who are of the same or opposite gender; thus, peer relationships refer to specific relationships with friends that exist in and out of the classroom environment.

Method

Participants

Participants were recruited from the 6th, 7th, and 8th grade from three medium-sized suburban, public middle schools in the Midwest. Table 1 outlines the demographics of the sample population compared to each middle school. The sample consisted of 321 participants of which 156 were male and 165 were female. With regard to race, 265 participants (82.6%) were Caucasian and 56 participants (17.4%) were Non-Caucasian. Of the sample’s total male participants, 83.3% were Caucasian ($n = 130$) and 16.7% were Non-Caucasian ($n = 26$). Of the sample’s total female participants, 81.8% were Caucasian ($n = 135$) and 18.2% were Non-Caucasian ($n = 30$). Students from three separate grades were included in the sample: 41.4% were 6th graders, 31.2% were 7th graders, and 27.1% were 8th graders. The first middle school provided 13.7% of students to the total sample followed by 37.7% and 48.6% by the second and third middle schools respectively.

Table 1

Demographics - Participants and Middle School Based On The 2008-2009 Academic School Year

Participants	Total Enrollment						American	Males (%)	Females (%)	Free/Reduced Lunches (%)
	Middle School or P/PRS	White (%)	Black (%)	Asian (%)	Hispanic (%)	Multi-Ethnic (%)	Indian/Alaskan Native (%)			
P/PRS Participants	321	82.6	0.9	1.6	3.1	10.6	0.6	48.6	51.4	-
Middle School No. 1	629	87.6	1.3	0.5	3.7	6.2	0.8	51.4	48.6	28.9
Middle School No. 2	435	91.7	2.1	0.7	3.7	0.9	0.9	52.2	47.8	28.7
Middle School No. 3	516	88.0	-	-	-	-	-	51.2	48.8	44.0

Note. Statistical information regarding each middle school was extracted from the Kansas Department of Education, 2010. Figures for other racial groups besides Whites at Middle School No. 3 were not provided due to the Kansas Department of Education's policy that prevents disclosure of personally identifiable student information for racial categories in which less than ten students are classified. This policy is based on the Family Educational Rights and Privacy Act of 1974.

Procedure

Upon submission of signed parental consent forms, data was collected from 6th, 7th, and 8th grade students in late spring of the 2008-2009 academic school year for the first middle school and in late fall of the 2009-2010 academic school year for the second and third middle schools. During mid-afternoon, students took approximately 45 minutes to complete the questionnaire in the school's cafeteria where teachers and/or administrators were not present. The author/researcher read the questions out loud to students who answered them with pencil on the paper survey provided to them. Only those students who submitted signed parental consent forms were allowed to complete the questionnaire. Students also completed a student consent form acknowledging that they understood the purpose of the study and its voluntary nature.

Measures

The Peer/Performance Relationship Study questionnaire consisted of 52 questions; 44 questions were selected from the Network of Relationships Inventory (NRI) to measure social support and negative interchanges and 8 questions were created to measure academic performance. The subscales of companionship, instrumental aid, intimacy, nurturance, affection, and reliable alliance were based on Weiss's theoretical framework proposed in 1974 (Furman, 1996). Whereas Weiss suggested that individuals search for specific social provisions in their interactions with others, other researchers found that interpersonal relationships not only vary along such dimensions as warmth, but also along conflict or negative exchanges (Furman & Buhrmester, 1985; Furman, 1996). Accordingly, the NRI was further refined by the addition of the subscales of support, satisfaction, conflict, antagonism, criticism, dominance, and punishment (Furman, 1996). The

NRI factors of social support and negative interchanges were developed through principal components analyses and have acceptable internal consistency (Furman, 1996).

At the start of the questionnaire, participants were asked to provide demographic information including gender, race, and grade. Participants were then asked to identify the first name of a friend and instructed, verbally and in writing, that they could select someone who was their most important friend now or who was their most important friend earlier in the semester. Participants could not choose a sibling, relative, or boy/girl friend even if this person was their best friend. Furthermore, participants were instructed that if they would select a person with whom they were no longer friends, they had to answer the questions as if they were friends.

Self-Perceived Social Support and Negative Interchanges. Social support and negative interchanges were measured by subscales of the Network of Relationships Inventory (NRI) (Furman & Buhrmester, 1985). Social support contained eight subscales including: (1) companionship, (2) instrumental aid, (3) intimacy, (4) affection, (5) admiration, (6) reliable alliance, (7) support, and (8) satisfaction. Negative interchanges contained five subscales including: (1) conflict, (2) antagonism, (3) criticism, (4) dominance, and (5) punishment. Each subscale contained a 5-point Likert type question. A sample item from the questionnaire was "How much free time do you spend with this person?" upon which a respondent then selected an answer from the following anchors: 1 = *Little or None*, 2 = *Somewhat*, 3 = *Very Much*, 4 = *Extremely Much*, or 5 = *The Most*. Anchors for all subscales were identical. Each subscale consisted of three items. Table 2 shows that all subscales have adequate internal consistency. Overall, social support and negative interchanges

consisted of the average of scores for each subscale; average scores were computed separately for each subscale.

Table 2

Cronbach's Alpha for Social Support and Negative Interchanges

Variable	Cronbach's Alpha
Social support	
1. Companionship	0.76
2. Instrumental aid	0.79
3. Intimacy	0.78
4. Affection	0.82
5. Admiration	0.84
6. Reliable alliance	0.82
7. Support	0.80
8. Satisfaction	0.86
Negative interchanges	
9. Conflict	0.74
10. Antagonism	0.77
11. Criticism	0.77
12. Dominance	0.76
13. Punishment	0.75

Self-Perceived Academic Performance. This construct was measured as an average of the scores for four academic subjects including reading, mathematics, social studies, and science. Before computing the grade point average of the scores for all four subject areas, a student's grade point average was calculated for each discipline separately. A student was asked to self-report his/her grades on reading, mathematics, social studies, and science for the last quarter and the subsequent quarter of the academic semester. When students reported their grades for the last quarter, they were instructed to report the grade for each subject as recorded on their most recent progress report. As the survey was administered past the midpoint of the subsequent quarter, students had adequate information regarding completed coursework to provide an accurate estimate of the grade they anticipated to earn during that quarter. Then, a student's grade point average for each subject was computed using both scores from the last and subsequent quarter. Anchors for all academic subjects included the grades of A, B, C, D, or F.

Data Analysis

The relationship between social support and negative interchanges to academic performance was examined through the use of correlational analyses, specifically Pearson's correlation coefficient (Pearson's r). Social support, negative interchanges, and academic performance in relation to gender and race were also investigated.

Results

The data were initially screened and all values were within acceptable range, the means and standard deviations were plausible, and outliers were non-existent. The distributions appeared normal. Pairwise deletion was used to deal with missing data for all calculations.

The Relationship of Social Support and Negative Interchanges to Academic

Performance

Table 3 shows the means and standard deviations for social support, negative interchanges, and academic performance. The relationship between these constructs is found in Table 4. The strongest relationship was between social support and academic performance, $r = 0.23$ and $r^2 = 0.05$. This is a small effect size and indicates that 5% of the variance of academic performance is accounted for by its linear relationship with social support. Negative interchanges was not significantly related to academic performance. Level of school interest was significantly related to social support, $r = 0.16$, but was not statistically significant for negative interchanges and academic performance.

Table 3

Means and Standard Deviations for Social Support, Negative Interchanges, and Academic Performance

Factor	M	SD
Social support		
1. Companionship	2.99	0.86
2. Instrumental aid	2.78	0.89
3. Intimacy	2.79	0.97
4. Affection	3.13	1.02
5. Admiration	3.39	0.96
6. Reliable alliance	3.63	0.96
7. Support	3.18	1.01
8. Satisfaction	3.99	0.91
Negative interchanges		
9. Conflict	1.62	0.61
10. Antagonism	1.75	0.75
11. Criticism	1.48	0.63
12. Dominance	1.87	0.70
13. Punishment	1.47	0.63
Academic performance		
14. GPA Reading	3.50	0.66
15. GPA Mathematics	3.45	0.69
16. GPA Social Studies	3.43	0.70
17. GPA Science	3.55	0.60

Table 4

Zero-Order Correlations for School Interest, Social Support, Negative Interchanges, and Academic Performance Variables

Variable	Interest in School	Social Support	Negative Interchanges	Academic Performance
Interest in School	-			
Social Support	0.16**	-		
Negative Interchanges	-0.07	-0.01	-	
Academic Performance	0.10	0.23**	-0.05	-

** $p < .01$ * $p < .05$

Social Support, Negative Interchanges, and Academic Performance in Relation to Gender and Race

An independent samples *t*-test indicated that gender was significantly related to social support, negative interchanges, and academic performance (gender with social support: $t(319) = -6.63, p < 0.01$; gender with negative interchanges: $t(319) = 2.56, p < 0.01$; and, gender with academic performance: $t(319) = -3.13, p < 0.01$). Cohen’s *d* for gender and social support was medium to large, $d = 0.74$. For gender and negative interchanges, Cohen’s *d* was small, $d =$

0.29. For gender and academic performance, Cohen’s *d* was small to medium, $d = 0.35$.

Table 5 shows the means and standard deviations for males ($n = 156$) and females ($n = 165$) in relation to subscales under social support, negative interchanges, and academic performance. Girls scored higher than boys on all social support subscales whereas boys scored slightly higher on all subscales related to negative interchanges. Under social support, the largest difference between boys ($M = 2.78, SD = 1.02$) and girls ($M = 3.57, SD = 0.84$) was for the subscale of support. The smallest difference between boys ($M = 2.58, SD = 0.85$) and girls ($M = 2.96, SD = 0.88$) was for instrumental aid. Generally, girls scored highest on satisfaction ($M = 4.23, SD = 0.77$) and boys scored lowest on intimacy ($M = 2.46, SD = 0.95$). Differences between boys and girls for scales related to negative interchanges were minimal.

Table 5

Means and Standard Deviations for Gender and Social Support, Negative Interchanges, and Academic Performance

Variable	Male		Female	
	M	SD	M	SD
Social support				
1. Companionship	2.78	0.89	3.18	0.78
2. Instrumental aid	2.58	0.85	2.96	0.88
3. Intimacy	2.46	0.95	3.10	0.89
4. Affection	2.81	1.01	3.43	0.94
5. Admiration	3.11	0.95	3.66	0.88
6. Reliable alliance	3.38	1.01	3.87	0.85
7. Support	2.78	1.02	3.57	0.84
8. Satisfaction	3.74	0.98	4.23	0.77
Negative interchanges				
9. Conflict	1.69	0.68	1.55	0.53
10. Antagonism	1.80	0.75	1.70	0.74
11. Criticism	1.57	0.68	1.40	0.58
12. Dominance	1.98	0.76	1.77	0.63
13. Punishment	1.54	0.72	1.40	0.53
Academic performance				
14. GPA Reading	3.39	0.75	3.60	0.55
15. GPA Mathematics	3.37	0.79	3.51	0.59
16. GPA Social Studies	3.31	0.76	3.51	0.63
17. GPA Science	3.47	0.65	3.60	0.56

Race was dichotomized into Caucasian and Non-Caucasian. Table 6 shows the means and standard deviations for Caucasians ($n = 265$) and Non-Caucasians ($n = 56$) in relation to social support, negative interchanges, and academic performance. Further examination of the data revealed that social support and negative interchanges in relation to academic performance were not significant for Caucasians and Non-Caucasians.

Table 6

Means and Standard Deviations for Race and Social Support, Negative Interchanges, and Academic Performance

Variable	Caucasian		Non-Caucasian	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Social support	3.23	0.80	3.24	0.74
Negative interchanges	1.64	0.54	1.62	0.49
Academic performance	3.48	0.51	3.50	0.51

Discussion

The results of the Peer/Performance Relationship Study (P/PRS) are consistent with previous research findings that demonstrate a positive correlation between adolescents who experience positive peer relationships and academic performance (Nelson & DeBacker, 2008; Roseth et al., 2008; Veronneau et al., 2008; Wentzel, McNamara-Barry, & Caldwell, 2004). Similar to results reported by other researchers, the effect size between social support and academic performance in this study was small ($r^2 = 0.05$). This small effect size is consistent with Nelson and DeBacker's findings (2008) who reported modest outcomes in the relationship between academic achievement and high quality friendships. Erath and colleagues (2008) reported similar results as well. In their study, friendship support and mutual friendships were significantly related to academic competence with small effect sizes ($r^2 = 0.04$ and $r^2 = 0.17$ respectively). Wentzel, McNamara-Barry, and Caldwell (2004) also reported small to moderate effect sizes when they found that 6th grade students performed better academically when having a reciprocated friend. These findings lead one to question if small effect sizes indeed do matter. Do they have cumulative effects over time as Berndt & Keefe (1995) claim or do we worry needlessly about the influence of adolescent friendships on academic performance?

Another interesting outcome of this study is that no statistical significance was found in the relationship between negative interchanges and academic performance. This finding is in contrast to findings reported by Nelson and DeBacker (2008) and Wentzel et al. (2004) who found that a poor quality friendship or no friendships are related to low academic performance. Indeed, several studies show that peer victimization, defined as having negative peer experiences, results in decreased grade point averages (Erath, Flanagan, & Bierman, 2008; Juvonen, Nishina, & Graham, 2000; Nishina,

Juvonen, & Witkow, 2005). In light of this literature, the outcome of this study is shocking especially considering its large sample size. One would expect to see a relationship between negative exchanges and performance in the classroom, but none was found.

Last, a friend's level of school interest was significantly related to social support, but was not significant for negative interchanges and academic performance. This means that when adolescents hang out with peers who like school, their social support network is strengthened or vice versa (as when an adolescent's increased social support makes it easier to develop friendships with peers who like school). Interestingly, Veronneau and colleagues (2008) reported that adolescents who associate with friends who do not like school are more likely to perform poorly academically leading to academic failure. In light of their findings, one would expect to see that a friend's level of school interest is related to academic performance rather than to social support only. However, the results of this study do not corroborate these findings.

Altogether, due to the correlational nature of this study, causation and direction of effects cannot be assessed. Further research is needed to determine whether social support leads to high academic performance, high academic performance leads to social support, or other factors lead to high academic performance. Above all, the outcome of this study shows that negative interchanges are not related to academic performance at all. This is an interesting finding considering the literature that focuses on low academic performance being associated with a variety of adolescent high-risk behaviors (Fergusson et al., 1999; CDC, 2010). To date, there is no empirical evidence showing that high-risk behaviors cause low academic performance or academic failure (CDC, 2010). Therefore, researchers should continue considering alternative factors that lead to high or low academic performance. The outcome of this study provides one of these alternatives: the nature of the relational dynamics of peers and academic performance. The findings of this study provide evidence for the importance of adolescent friendships with peers and their effect on academic performance even though the effect size was small. However, further examination into the nature of negative peer relationships and academic performance is definitely needed.

Effect of Gender and Race on Social Support, Negative Interchanges, and Academic Performance.

Overall, gender was significantly related to social support, negative interchanges, and academic performance. Girls scored higher on social support than boys whereas boys scored slightly higher on negative interchanges. Specifically, both boys and girls scored highest on satisfaction indicating that both groups place a high value on satisfaction in their relationships. The largest difference in scores between boys and girls lay in the subscale of support followed by intimacy and affection. This finding may be interpreted in light of girls focusing more on relationships than boys who may focus on fewer defining requirements for a satisfying relationship. The smallest difference in scores between boys and girls was for instrumental aid indicating that both boys and girls view each other as resources for assistance. The differences between boys' and girls' scores on negative interchanges were minimal indicating that boys and girls have similar experiences within their relationships.

After race was dichotomized as Caucasian and Non-Caucasian, social support and negative interchanges in relation to academic performance were not statistically significant. This shows that regardless of race, students place high value on social support when performing in the classroom while allowing less interference from the negative interchanges they experience with each other. Overall, this finding is somewhat unexpected given the literature that supports the stereotype that Non-Caucasian males in particular experience more conflict and appear to be more aggressive, which frequently lead to academic failure (CDC, 2010). One of the reasons for the outcome of this study could be because of its small sample size ($n = 26$) for Non-Caucasian male participants.

Limitations and Future Directions

One of the limitations of this study points to adolescents' self-reported scores. Teacher and parent assessments were not included and should be addressed in future research efforts. Additionally, the response rate was fairly low (20.3%) and this study's generalizability is limited because more than 80% of students in all three middle schools were Caucasian.

Interestingly, the middle school that provided the largest number of participants also had the largest proportion of students (44%) receiving free or reduced lunches, a federal indicator of poverty. The average per capita income in 1999 for all three school districts was around \$21,086 compared to \$20,008 for the nearest urban school district and \$20,692 for the larger statistical metropolitan area (National Center for Education Statistics, 2010). This indicates

that the student body of suburban middle schools does not necessarily reflect middle- to upper-middle class families. As most research in middle schools focuses on specific social groups, researchers expect to discover, and usually find, significant results. This study shows that students in suburban areas experience differences in academic performance as well.

Selection bias and instrumentation may have posed minor threats to the study's overall results. The sample was proportionally overrepresented by the number of 6th graders (133 students), followed by 7th graders (100 students) and 8th graders (87 students). Adjustment related issues due to the transitioning process from elementary to secondary school affect 6th graders more than 7th or 8th graders and this may have affected responses to the questionnaire. Furthermore, as all students completed the questionnaire toward the end of the semester, testing fatigue may have been a factor in their responses.

Last, as this study was correlational in nature, a causal relationship between social support and negative interchanges to academic performance cannot be established. Future researchers should also direct their attention to the use of qualitative methods such as focus groups. When used in tandem, it is thought that a mixed design approach adds strength to a study than either quantitative or qualitative research would do alone (Creswell, 2008). Based on this premise, focus groups with youth, parents, and teachers may be a nice follow-up to the results of this study and provide further insight into the needs of the target population.

Conclusion

Altogether, these findings provide evidence for the importance of adolescent friendships with peers and their effect on academic performance. One major outcome of this study - social support being significantly and positively related to academic performance - is consistent with previous research findings. The other outcome - negative interchanges not being significantly related to academic performance - conflicts with current research findings. Nevertheless, the results of this study serve as an important building block in the understanding of the relationship between adolescent behavior and academic achievement. It provides insight into the dynamics of peer relationships and their contribution to academic achievement.

References

- Berndt, T. J., & Keefe, K. (1995). Friends' influence on adolescents' adjustment to school. *Child Development, 66*, 1312-1329.
- Centers for Disease Control and Prevention. Youth Violence: Facts at a Glance 2010. Retrieved from <http://www.cdc.gov/violenceprevention/pdf/YV-DataSheet-a.pdf>
- Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Student Health and Academic Achievement 2010. Retrieved from http://www.cdc.gov/healthyyouth/health_and_academics/
- Centers for Disease Control and Prevention, Office of Surveillance, Epidemiology, and Laboratory Services. Youth Risk Behavioral Surveillance—United States, 2009. Morbidity and Mortality Weekly Report 2010, 59, SS-5. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss5905.pdf>
- Creswell, John W. (2008). *Research Design: Qualitative, Quantitative, and Mixed Method Approaches* (3rd Ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- Eccles, J. S., Midgley, C., & Adler, T. (1984). Grade-related changes in the school environment: Effects on achievement motivation. In J. G. Nicholls (Ed.), *The development of achievement motivation* (pp. 283-331). Greenwich, CT: JAI Press.
- Erath, S. A., Flanagan, K.S., & Bierman, K. L. (2008). Early Adolescent School Adjustment Associations with Friendship and Peer Victimization. *Social Development, 17*(4), 853-870.
- Family Educational Rights and Privacy Act of 1974, 20 U.S.C.A. § 1232 *et seq.* (Cum. Supp. 1976).
- Fergusson, D. M., Woodward, L. J., & Horwood, L. J. (1999). Childhood Peer Relationship Problems and Young People's Involvement with Deviant Peers in Adolescence. *Journal of Abnormal Child Psychology, 27*(5), 357-370.
- Furman, W. (1996). The measurement of friendship perceptions: Conceptual and methodological issues. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 41-65). Cambridge, MA: Cambridge University Press.
- Furman, W., & Buhrmester, D. (1985). Children's Perceptions of the Personal Relationships in Their Social Networks. *Developmental Psychology, 21*(6), 1016-1024.
- Glover, R. J. (1999). Coming of Age: Developmental Norms of the Adolescent Years. *National Association of Secondary School Principals, NASSP Bulletin, 83*, 62-69.
- Juvonen, J., Nishina, A., & Graham, S. (2001). Self-views versus peer perceptions of victim status among early adolescents. In J. Juvonen, & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 105-124). New York, NY: Guilford.
- Juvonen, J. & Wentzel, K. R. (1996). *Social motivation: understanding children's school adjustment*. New York, NY: Cambridge University Press.
- Kansas Department of Education. Sedgwick County District and School Reports 2008-2009. Retrieved from http://svapp15586.ksde.org/k12/county.aspx?cnty_no=087
- Lipsey, M. W., & Derzon, J. H. (1998). Predictors of violent and serious delinquency in adolescence and early adulthood: a synthesis of longitudinal research. In R. Loeber & D. P. Farrington (Eds.), *Serious and violent juvenile offenders: risk factors and successful interventions* (pp. 86-105). Thousand Oaks, CA: Sage Publications.
- National Center for Education Statistics, U.S. Department of Education, Institute of Education Sciences. School District Demographics System (SDDS) Map Viewer, 2000 U.S. Census. Retrieved from <http://nces.ed.gov/surveys/sdds/ed/>
- Nelson, R. M., & DeBacker, T. K. (2008). Achievement Motivation in Adolescents: The Role of Peer Climate and Best Friends. *The Journal of Experimental Education, 76*(2), 170-189.
- Nishina, A., Juvonen, J., & Witkow, M. R. (2005). Sticks and stones may break my bones, but names will make me feel sick: The psychosocial, somatic, and scholastic consequences of peer harassment. *Journal of Clinical Child and Adolescent Psychology, 34*, 37-48.
- Resnick, M. D., Ireland, M., & Borowsky, I. (2004). Youth violence perpetration: what protects? What predicts? Findings from the National Longitudinal Study of Adolescent Health. *Journal of Adolescent Health, 35*(424), e1-e10.
- Roseth, C. J., Johnson, D. W., & Johnson, R. T. (2008). Promoting Early Adolescents' Achievement and Peer Relationships: The Effects of Cooperative, Competitive, and Individualistic Goal Structures. *Psychological Bulletin, 134*(2), 223-246.

- Veronneau, M. H., Vitaro, F., Pedersen, S., & Tremblay, R. E. (2008). Do Peers Contribute to the Likelihood of Secondary School Graduation Among Disadvantaged Boys? *Journal of Educational Psychology, 100*(2), 429-442.
- Wentzel, K. R. (1991). Relations between Social Competence and Academic Achievement in Early Adolescence. *Child Development, 62*, 1066-1078.
- Wentzel, K. R. (1993). Does Being Good Make the Grade? Social Behavior and Academic Competence in Middle School. *Journal of Educational Psychology, 85*(2), 357-364.
- Wentzel, K. R. (1998). Social Relationships and Motivation in Middle School: The Role of Parents, Teachers, and Peers. *Journal of Educational Psychology, 90*(2), 202-209.
- Wentzel, K. R., McNamara Barry, C., & Caldwell, K. A. (2004). Friendships in Middle School: Influences on Motivation and School Adjustment. *Journal of Educational Psychology, 96*(2), 195-203.
- Wigfield, A., & Eccles, J. S. (1994). Children's Competence Beliefs, Achievement Values, and General Self-Esteem: Change Across Elementary and Middle School. *Journal of Early Adolescence, 14*(2), 107-138.
- Wigfield, A., Eccles, J. S., Mac Iver, D., Reuman, D. A., & Midgley, C. (1991). Transitions During Early Adolescence: Changes in Children's Domain-Specific Self-Perceptions and General Self-Esteem Across the Transition to Junior High School. *Developmental Psychology, 27*(4), 552-565.
- Yu Rueger, S., Kerres Malecki, C., & Kilpatrick Demaray, M. (2008). Gender Differences in the Relationship Between Perceived Social Support and Student Adjustment During Early Adolescence. *School Psychology Quarterly, 23*(4), 496-514.