Academic Performance in Middle School: Friendship Influences

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Abstract. The results of this study build on previous research findings demonstrating relational significance of peer influences to academic performance during adolescence. Whereas family, teachers, and peers 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 the constructs of social support and negative interchanges in relation to academic performance. 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 public middle schools in the Midwest. Results supported the hypothesis that adolescents’ relationships with peers influence academic performance.

Keywords: academic performance, peer relationships, early adolescence, social support, negative interchanges

The Role of Peers to Academic Performance

Upon entry to middle school, young adolescents experience contextual, physiological, relational, and cognitive changes associated with early puberty (Eccles, Wigfield, Midgley, Reuman, Maclver, & Feldlaufer, 1993). Research demonstrates that students who have a reciprocated friendship in middle school show increased levels of prosocial behavior and academic achievement (Wentzel, McNamara, & Caldwell, 2004). Hence, friendships may serve as a protective factor for academic performance. Other studies indicate that students who associate with friends who reject school are more likely to perform poorly academically (Veronneau, Vitaro, Pederson & Tremblay, 2008; Nelson & DeBacker, 2008). These students may be at increased risk for substance use, violence, pregnancy, and general school failure (Fergusson, Woodward, & Horwood, 1999).

The Current Study

The literature on relational dynamics between peers and academic achievement remains scarce. Existing preventive intervention programs that exclusively focus on building healthy peer relationships do not exist. The Peer/Performance Relationship Study (PPRS) enhances understanding of the nature of the relationship between peers and academic performance. The current study operationalizes the term “peers” as friends who are of the same and opposite gender.

Method

Participants were recruited from the 6th, 7th, and 8th grade from three medium-sized suburban, public middle schools in the Midwest. The sample consisted of 321 participants of which 49% were male and 51% were female. Caucasians comprised 82.6% of the total sample population. The overall response rate was 19.7%. Only students who submitted signed parental consent forms were allowed to complete the questionnaire. The PPRS consisted of 52 questions. Social support and negative interchanges were measured by sub-scales of the Network of Relationships Inventory (Furman & Buhrmester, 1985). Academic performance was measured as a grade point average of the scores for four academic disciplines.

Results

Assumptions of normality, linearity, and homoscedasticity were met.

Are Social Support and Negative Interchanges Related to Students’ Academic Performance?

Correlations Among Variables. Table 1 shows the means and standard deviations for the constructs under social support, negative interchanges, and academic performance. Table 2 describes zero-order correlations for these factors along with level of school interest. The factor of social support was significantly and positively related to academic performance, \( r = 0.23 \) and \( r^2 = 0.05 \). This is a moderate effect size and indicates that 5% of the variance of academic performance is accounted for by its linear relationship with social support. All social support constructs were significantly and positively related to academic performance. The factor of negative interchanges was not significantly related to academic performance. The level of school interest was significantly related to social support, \( r = 0.16 \).

Table 1

<table>
<thead>
<tr>
<th>Factor</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Companionship</td>
<td>2.99</td>
<td>0.86</td>
</tr>
</tbody>
</table>
negatively related to academic performance, 

Non-Caucasian males was significantly and school interest, the variance of academic performance for Non-Caucasian males was accounted for by its linear relationship with negative interchanges.

Discussion

Research findings. Results support the hypothesis that adolescents’ relationships with peers are related to academic performance. Specifically, this study shows that social support is positively related to academic performance. Overall, negative interchanges did not relate significantly to academic performance; however, it did adversely affect academic performance for Non-Caucasian males. Additionally, it was discovered that friends’ level of interest in school affects the level of social support one receives, or vice versa. Furthermore, gender was significantly related to social support, negative interchanges, and academic performance. Its greatest influence was on social support. Overall, girls scored higher on social support ($M = 3.50, SD = 0.70$) than boys did ($M = 2.95, SD = 0.77$). These findings may be interpreted in light of girls being more relationship oriented than boys who tend to focus on fewer defining requirements for a satisfying relationship. Also, boys scored slightly higher on negative interchanges ($M = 1.72, SD = 0.59$) than girls did ($M = 1.56, SD = 0.45$) indicating that boys and girls experience few differences within their relationships.

Conclusion

These findings provide evidence for the importance of adolescent friendships with peers and their effect on academic performance. Due to the lack of empirical evidence in causation between academic failure and high-risk behaviors, we must continue to consider other alternatives that lead to poor academic performance. The P/PRS provides one alternative: the relational dynamics of peers and academic performance. This study enhances our understanding in this area so that prevention programs may use this information in their relationship building training modules.

Student Demographic Differences. Gender was statistically significant in its relationship to social support, negative interchanges, and academic performance with $r = 0.35$, $r = -0.14$ and $r = 0.17$ respectively. Further examination of the data revealed that gender and race were statistically significant for males, but not for females. Social support for Caucasian males was significantly related to academic performance, $r = 0.25$, and level of school interest, $r = 0.31$. Negative interchanges for Non-Caucasian males was significantly and negatively related to academic performance, $r = -0.44$ and $r^2 = -0.19$. This shows that nearly 20% of the variance of academic performance for Non-Caucasian males was accounted for by its linear relationship with negative interchanges.

**Table 2**
Zero-Order Correlations for Interest in School, Social Support, Negative Interchanges, and Academic Performance Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Interest in School</th>
<th>Social Support</th>
<th>Negative Interchanges</th>
<th>Academic Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest in School</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Social Support</td>
<td>0.16**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Negative Interchanges</td>
<td>-0.07</td>
<td>-0.01</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Academic Performance</td>
<td>0.10</td>
<td>0.23**</td>
<td>-0.05</td>
<td>-</td>
</tr>
</tbody>
</table>

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

**Table 2**

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