

The Effect of School Climate and Parenting Style on Academic Achievement

Quinn Myers¹, Jason Scott¹

¹ The Neighborhood Academy, Pittsburgh, PA

SUMMARY

Previous research suggests that there are positive and negative relationships between parenting style and academic achievement and that school climate can potentially mediate the effects of parenting style. Research suggests that less effective styles of parenting tend to negatively affect grades, and more effective styles tend to produce higher grades. The purpose of this study is to verify previous research and confirm those relationships in a sample of African American students in a college preparatory program. We obtained students' perception of their school's climate and parent's parenting styles by conducting a Parental Authority Questionnaire and school climate survey on a sample of freshmen, sophomores, and junior high school students. We then correlated these perceptions to student grades. We found no significant relationship between school climate and academic achievement. However, permissive parenting, which is characterized by low responsiveness and demandingness, exhibited a negative relationship with academic achievement. Authoritarian parenting, a style high in demandingness and low in responsiveness, exhibited a positive relationship to academic achievement. These results suggest that while school climate has little relation to academic achievement, parenting style has a significant impact. The cultural implications for parenting styles and academic achievement are explored more in depth.

INTRODUCTION

A positive home and school environment can have a powerful impact on students' academic performance (1). In this study, we examine the relationship between parenting style, school climate, and academic achievement. This relationship is especially important for schools which try to mitigate the effects of negative parenting styles and/or low socioeconomic status on academic achievement. This study focuses on a school in which 58.3 % of students qualify for free and reduced lunch. The results of this study could have a powerful impact on how that school and others like it function.

School Climate & Academic Achievement

School climate influences a student's emotions, sociability, and academic performance in many ways (1). Freiburg and Stein define school climate as, "the heart and soul of the school. It is about the essence of a school that leads a child, a teacher, and an administrator to love the school and look forward to being there each school day" (2).

School climate has four components — community, safety, institutional environment, and academics — which are then broken down into three to four components of their own. School climate is associated with academic performance in primary and secondary school. Wang and Degol claim that schools that set high academic standards, stress commitment to students, exhibit effective leadership, and emphasize mastery goals tend to have higher-performing students (3). Warm teacher-student relationships, frequent communication between parents and schools, and appreciation for diversity, cultivate an environment that is conducive to learning and promotes optimal achievement and motivation among students. School environment and safety seem to be less significant when other factors are controlled for (3).

Davis and Warner conducted a study in New York City in which they study the effects of school climate on academic achievement. They analyzed surveys about school climate taken by teachers, students, and parents. Results demonstrated that parents, students, and teachers having positive perceptions of the school climate was positively associated with academic achievement (1). It was found that being eligible for free or reduced lunch was negatively associated with academic achievement. However school climate explained more of the variance in academic achievement than did background characteristics such as race and poverty. This is significant because being African American or Hispanic was negatively associated with academic achievement (1).

Parenting Style and Academic Achievement

Raul and Ahmed claimed there was a predictive association between parenting and academic performance in school students (4). Parental involvement is separated into seven variables: parent-child discussions about school, parental aspirations and expectations, parenting style, reading at home, checking homework, school involvement, and house rules and supervision (5). Parenting style was found to be the greatest predictor amongst the seven (5).

Parenting style is compartmentalized into three types: authoritative, authoritarian, and permissive. Each different type is specified based on the amount of responsiveness and demandingness from the parent (5). Responsiveness refers to how much a parent caters to their child's needs and feelings. However, demandingness refers to the amount of expectations and restrictions that a parent places on their child. Permissive parents are predominantly responsive. Singh's

study of parenting styles' relation to mental health and self-esteem concluded that permissive parents tend to produce low self-esteem children (6). Low self-efficacy was also negatively correlated with academic achievement (7). Therefore, drawing a direct connection between permissiveness and lower academic performance.

Authoritarian parents are predominantly demanding (5). Raul and Ahmed organized a study in Pakistan strictly focusing on the impact that authoritarian parenting had on a student's academic achievement. Through the study, some significant conclusions were drawn. Authoritarian parenting style was associated with lower academic performance. The dominating nature of authoritarian parenting practices demands children to strictly follow rules and regulations as the basis of their decisions. In the study, authoritarian parenting contributed significantly to the students' academic performance (38%), but in a negative way (4).

Previous research found that authoritative parents were equally demanding and responsive (5). A 2011 meta-analysis on parental involvement concluded that authoritative parenting was positively related to achievement (5). Raul and Amhed, although studying authoritarianism, found that firm and supportive parenting practices are associated with academic success (4). Other studies have also shown that authoritative parenting is correlated with higher student motivation in school (7).

School Climate, Parenting Style, and Academic Achievement

From 2008 to 2010, 1.5 million high school students from 92 public high schools were surveyed about their family structure, school climate, and grades. For single-parent and homeless children, school climate provided the greatest boost in GPA (8). For students in foster care, the effect was promotive but not protective (8). School climate boosted their GPAs, but the benefit they received was not as great as students in other groups.

Hopson and Weldon conducted another study investigating the impact of parental expectations on academic success in the context of school climate. Parental expectations had no effect on students with no connection to their school (9). Parental expectations are most impactful on students with a connection to their school. More than anything else, family income and gender had the greatest effect on grades (9). They concluded that school climate is a factor between parental expectations and grades, which magnifies the effect of "good" parenting, but does not help or negate the bad.

Berkowitz et. al ran another study seeking to determine the relationship between socioeconomic background, inequality, school climate, and academic achievement. A meta-analysis of 78 studies concluded that positive school climate contributes to higher academic performance and decreases the effects of poor socioeconomic status and other negative predetermining factors (10). The effect of school climate is mitigating, not eliminating. Also, they state that schools would

improve academic achievement if funding was directed towards school climate and not towards educational purposes (10).

In the current study, we investigated how school climate and parenting styles impact academic achievement. Overall, research suggests that there are connections between how students are parented, how they feel about their school, and how they perform academically. However, there is limited research on the connection between the three. Our study focused on African American students from a private college-preparatory high school called The Neighborhood Academy. We had all students, ninth through eleventh grade, take a survey about the school climate and a survey about the way they are parented. With consent, their grades were also pulled from the school information system.

We hypothesized that there is an association between GPA and parenting style. Research suggests that authoritative parenting styles are associated with higher performance (5). Second, we hypothesized there is a significant positive relationship between school climate and GPA. This is because students, parents, and teachers' perceptions of school climate positively affect academic progress (1). Finally, we hypothesized that there is a greater benefit of positive school climate on academic performance for less effective parenting styles. Research suggests students parented in less effective styles receive the greatest aid from a positive school climate (8).

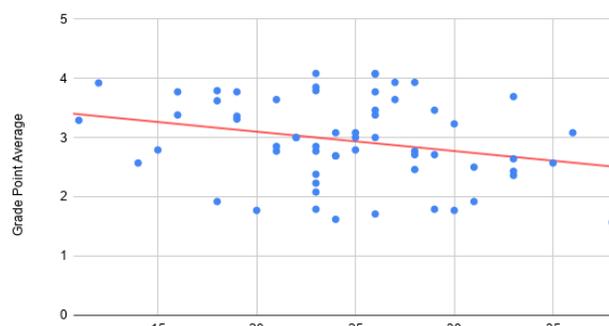


Figure 1. Permissive Parenting vs. GPA. Parenting style survey results were correlated to student GPA. Data were analyzed using a Pearson's correlation test ($r(59) = -0.26, p = 0.02$) enzyme inhibition.

RESULTS

We surveyed students to determine what style of parenting best fits that of their caregiver and to obtain their perception of their school's climate. Parenting styles include authoritarian (high demandingness and low responsiveness), authoritative (high demandingness and high responsiveness) and permissive (low demandingness and high responsiveness). We then correlated each student's GPA to the survey results.

Our first hypothesis was that parenting styles would be associated with students' GPA. We used all respondents' scores on the Parental Authority Questionnaire to investigate the parenting score with GPA. When we looked at the correlation between the parenting score and GPA there was a significant negative relationship between permissive parenting and GPA (Pearson correlation, $r(59) = -0.26, p =$

0.02) (Figure 1). Students who had more permissive parents seemed to have lower GPAs. There was a nonsignificant negative relationship between authoritative parenting and GPA (Pearson correlation, $r(59) = -0.009, p = 0.5$). However, there was a significant positive correlation between authoritarian parenting and GPA (Pearson correlation, $r(59) = 0.21, p = 0.049$) (Figure 2).

To further explore the connection between parenting style and GPA, we assigned each student a parenting style, based on the highest scoring style category. A one-way ANOVA test revealed that there was no significant difference in GPA between the three parenting styles ($F(2,56) = 0.64, p = 0.53$). Students who are parented by authoritarian (3.02 ± 0.71) or authoritative (2.97 ± 0.70) parents have similar GPAs, but students who are parented by permissive (2.53 ± 0.86) parents have a much lower GPA.

Regarding school climate and GPA, we found that there was an nonsignificant positive relationship between perception of school climate and GPA (Pearson correlation, $r(59) = 0.1, p = 0.22$) (Figure 3). Having a higher perception of the school climate did not necessarily mean a student also had a higher GPA.

To investigate how school climate and GPA interact within each parenting style, a linear regression was calculated for each parenting style. For students with authoritarian parents, there was a nonsignificant linear relationship ($p = 0.19, R^2=0.025$). GPA was predicted by the function $GPA = 0.19(C) + 2.3$, where C is the climate score. For every 1-point increase in school climate, there was on average a 0.19 increase in GPA. For students with authoritative parents, there was also a nonsignificant linear relationship ($p=0.4, R^2=0.002$). GPA was predicted by the function $GPA = -0.04(C) + 3.1$. For every 1 point in school increase in school climate, there was essentially no effect on GPA. Due to the low number of students with permissive parents in the sample ($n=5$), no regression was calculated.

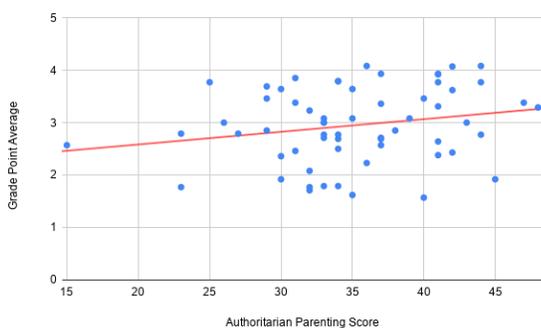


Figure 2. Authoritarian Parenting vs. GPA. Parenting style survey results were correlated to student GPA. Data were analyzed using a Pearson's correlation test ($r(59)=0.21, p=0.049$).

DISCUSSION

Our first hypothesis was that all parenting styles would influence GPA. This was partially supported with our data

(Figures 1 and 2). Two of the three styles had significant relationships with GPA — permissive (negative) and authoritarian (positive). We also hypothesized that school climate had a direct correlation to GPA, and we hypothesized that worse parenting styles would receive the greatest boost from school climate. Both these hypotheses were unsupported by our results (Figure 3).

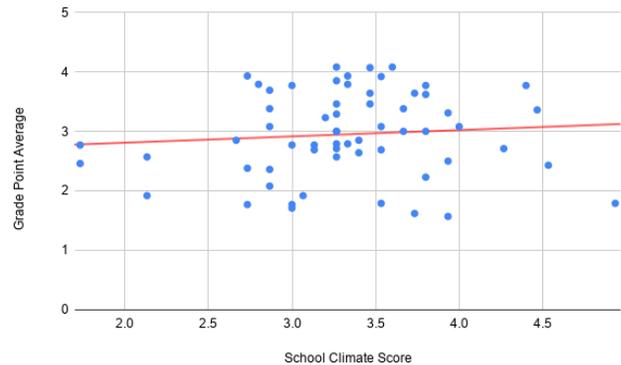


Figure 3. School Climate vs. GPA. Survey results for school climate scores were correlated with GPA. Data was analyzed using a Pearson's correlation test ($r(59)=0.1, p=0.22$).

Our results concerning the relationship between parenting style and GPA are partially consistent with previous research. Prior research found a negative relationship between authoritarian grade point average (4, 5), while we found a positive relationship. For permissive parenting style scores, our results were consistent with prior studies and found a negative relationship (6). Contrary to our findings, prior research says authoritative is the better parenting style as it balances demandingness and responsiveness (5). Culture may play a role in which parenting style is considered better. White middle-class families might value an even mixture of being demanding and responsive, but in a 100% black sample (mix of low and middle income), the values might be different. In a study of black and white parents conducted from 2008 to 2010, 47% of Caucasians prefer obedient children to self-reliant children, whereas 74% of African Americans do (11). Therefore, we argue that authoritarianism may be more valued amongst African Americans. Black parents averaged a score of 0.78 in authoritarianism, while white parents averaged a score of 0.60 (11). Nearly a 20% gap in the value placed in authoritarianism leads to culture seeming to be relevant in which parenting style is most effective. Black families may tend to value authoritarianism and whites may tend to value authoritativeness, which is consistent with our data.

Our results concerning the lack of relationship between school climate and GPA are inconsistent with previous research. According to prior research, school climate tends to be positively correlated to grade point average (1). The discrepancy between our results and others might result from the fact that the extreme scores in our school climate produced lower grades, and higher performers had a middling school

climate. If a student likes school too much, he or she might not be there to learn, while those who hate it may not work. High performers might feel stress and therefore view teachers and school differently. This difference may stem from the college preparatory agenda that the school has, which may be unlike the public schools that were used in the other studies.

Although we did not directly find a connection between school climate and academic achievement, we did notice an interesting trend in how the students responded to questions. Participants had a mean score of 3.3 for perception of school climate (scale 1–5), with a standard deviation of 0.7. We also found the average score of each question and identified the scores that fell outside of one standard deviation as outliers. Questions 8, 9, and 15 fell below and questions 2, 4, and 6 were above.

Statement 8, which had an average score of 2.2, reads “At school, I help decide things like class activities or rules.” Statement 9, which averaged a score of 2.5, reads, “At school, I do things to make a difference.” Averaging a score of 2.2, statement 15 says, “The teachers at this school treat students fairly.” These statements mostly directly related to the student’s personal involvement at school.

Statement 2, which averaged a score of 4.0, says, “At my school, there is an adult who tells me when I do a good job.” Statement 4, which averaged a 4.3, reads, “At my school, there is an adult who always wants me to do my best.” Averaging a score of 4.2, statement 6 says, “At my school, there is an adult who believes I will be a success.” All these statements are related to their interactions with an individual adult in the building. This suggests that school climate may be made up of different smaller concepts, some of which might be more relevant to student success in this sample.

Our results relating the proposed relationships between parenting styles and GPA are not consistent with prior research. The values of the slopes of the regressions +0.19 (authoritarian) and -0.04 (permissive) are consistent with the directions found in previous research (4, 5, 7), although the relationships were not significant. Authoritarian parenting is positive and permissive parenting is negative, as research suggests they should be, but the lack of significance means it is hard to draw any conclusions. Parents might have less influence due to the sample school’s extended (9-hour) school day, and the school’s authoritarian rule structure, which we already know is associated with improved grade point average. Our small sample for permissive students (n=5) makes it impossible to reflect on the effects of the parenting style. In a private, competitive school such as this sample, there may be selection pressure that forces out permissively parented students.

One limitation is that parenting styles have overlapping characteristics, since they all consist of different proportions of the same factors — demandingness and responsiveness. Despite these overlapping characteristics, students are assigned to only one parenting style. For example, a student scoring only one point higher on the authoritative parenting

style would still be assigned to only that category, despite scoring very highly on the other two parenting styles as well.. Twenty-five of sixty-one students were placed in a category, while another parenting was within 5 points of the score. Another limitation would be the lack of parenting style variation. Nearly all students viewed their parents as authoritative and authoritarian, but there were only three students who viewed their parents as predominately permissive. This may be because permissively parented children are not commonly admitted to the school in this study, or it could be because permissiveness is so normal that it goes unnoticed by the students. Also, the demographics of the school could be a factor. The study school is 100% African American and a mix of middle- and lower-class students, and other studies were typically middle-class white students. These limiting factors may have led to some of the observed differences from prior research.

For future research, we would study a group with more variation in socioeconomic class and races so that if parenting is culturally based, there can be a more accurate comparison between the effects of parenting styles of different cultural groups. We would also survey the parents to see if how they view their parenting differs from how the students view the parenting. This will potentially give two lenses into how the child is parented therefore providing more accurate results.

Having a higher perception of school climate does not necessarily mean there will be a higher GPA in a school environment, particularly in a school which has its own strong culture, extended hours, and stress. However, our data suggest authoritarian parenting may be beneficial to a student’s academic achievement in an environment and permissive parenting may be detrimental. In our study, authoritative parenting did not have a significant relationship to students’ academic achievement, in contrast to other studies which found that authoritative parenting is associated with better grades. Due to culture seeming to be a significant factor, results may vary as environments change. While GPA is important for future opportunities, such as college, it is not the only measure of parenting quality. Therefore, we suggest parenting decisions should not be decided based solely on GPA, as it is not necessarily the most important aspect of a child’s development.

MATERIALS AND METHODS

The participants were students from 9th through 11th grade from The Neighborhood Academy, a college preparatory, private high school. There were 61 students requested to participate, 24% male and 76% female. All 61 students accepted and completed the surveys. The materials were the Parental Authority Questionnaire (PAQ) and a school climate survey. The PAQ is a survey used to identify the parenting style of an individual’s caregiver (12). The school climate survey was used to identify the way an individual perceives their relationships, opportunities, school safety, and school connectedness (8). We modified the PAQ to be

comprehensive to all students and applicable to all family situations. The word “mother” was replaced with “caregiver” so that students who are not parented by their mother can apply the questions to their life.

After modifying the PAQ, both the PAQ and the school climate survey were given to the 61 study participants over a one-week period. On the PAQ, those surveyed were to rate how much the question related to their caregiver on a scale of one to five. The participants were categorized by summing up their scores on specific questions. All questions were associated with either authoritative, authoritarian, or permissive parenting. For the school climate survey, participants were to score each statement relating to school climate on a scale of one through five based on their agreement of the statement. The score of the school climate survey was evaluated by averaging their scores. The surveys were completed during class and participants were not given any incentives.

Students’ grade point averages were gathered and used as data as well. The anonymized grades were directly obtained from the school’s grading system to avoid potential inaccuracy of self-reported grade point averages. Permission to view anonymized participants’ grade point averages was granted by the school on the condition of individual student consent, which was obtained at the time of the survey was given.

Received: April 9, 2020

Accepted: November 21, 2020

Published: December 16, 2020

REFERENCES

1. Davis, Jonathan Ryan, and Nathan Warner. “Schools Matter: The Positive Relationship Between New York City High Schools’ Student Academic Progress and School Climate.” *Urban Education*, vol. 53, no. 8, 2015, pp. 959-980.
2. Freiberg, H J. & Stein, T.A. *School Climate: Measuring, Improving, and Sustaining Healthy Learning Environments*. New York: *Routledge Falmer*, 1999.
3. Wang, Ming-Te, and Jessica L. Degol. “School Climate: A Review of the Construct, Measurement, and Impact on Student Outcomes.” *Educational Psychological Review*, vol. 28, 2015, pp. 315-352.
4. Rauf, Junaid, and Khalida Ahmed. “The Relationship of Authoritarian Parenting and Academic Performance in School Students.” *Pakistan Journal of Psychology*, vol. 48, no. 2, 2017, pp. 61-71.
5. Shute, Valerie J, et al. “A Review of the Relationship between Parental Involvement and Secondary Students’ Academic Achievement.” *Education Research International*, 2011.
6. Singh, Shweta. “Parenting Style in Relation to Children’s Mental Health and Self-Esteem: A Review of Literature.” *Indian Journal of Health and Well-being*, vol. 8, no. 12, 2017, pp. 1522-1527.
7. Rivers, Jewell, et al. “Relationships Between Parenting Styles and the Academic Performance of Adolescents.” *Journal of Family Social Work*, vol. 15, no. 3, 2012, pp. 202-216.
8. O’Malley, Meagan, et al. “School Climate, Family Structure, and Academic Achievement: A Study of Moderation Effects.” *School Psychology Quarterly*, vol. 30, no. 1, 2015, pp. 142-157.
9. Hopson, Laura, and Patricia Weldon. “Parental Expectations and Academic Success in the Context of School Climate Effects.” *Families in Society: Journal of Contemporary Human Services*, vol. 94, no. 1, 2013, pp. 45-52.
10. Berkowitz, Ruth, et al. “A Research Synthesis of the Associations Between Socioeconomic Background, Inequality, School Climate, and Academic Achievement.” *Review of Educational Research*, vol. 87, no. 2, 2017, pp. 425-469.
11. Perez, Efren O. and Marc J. Hetherington. “Authoritarianism in Black and White: Testing the Cross-Racial Validity of the Child Rearing Scale.” *Political Analysis*, vol. 22, no. 3, 2014, pp. 398-412.
12. Buri, John R. “Parental Authority Questionnaire.” *Journal of Personality Assessment*, vol. 57, no. 1, 1991, pp. 111-119.

Copyright: © 2020 Myers and Scott. All JEI articles are distributed under the attribution non-commercial, no derivative license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>). This means that anyone is free to share, copy and distribute an unaltered article for non-commercial purposes provided the original author and source is credited.