How Much Influence Does a Parent Have?  
The Relationship Between Perceived Parenting Style, Substance Use, and Academic Achievement Behaviors Among College Students

A thesis submitted to the Miami University Honors Program in partial fulfillment of the requirements for University Honors

by

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ABSTRACT

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Baumrind (1968, 1971, 1991) has identified three primary types of parenting styles: authoritarian, authoritative, and permissive. Studies have shown that the authoritative parenting style is often linked to low substance use behaviors and high academic achievement among adolescents compared to the authoritarian and permissive styles (Adalbjarnardottir & Hafsteinsson, 2001; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Gonzalez, Greenwood, & WenHsu, 2001; Radziszewska, Richardson, Dent, & Flay; 1996). The purpose of the present study was to investigate whether or not this same relationship exists at the college student level. The relationship between student substance use and academic achievement and perceived parenting style was examined for the mother, father, and parents as one unit. The findings of this study indicate that there is no difference between the substance use and academic achievement behaviors reported between students with authoritarian, authoritative, or permissive parents. Further research is needed in this area to assess whether or not perceived parenting style actually does influence college student behaviors.
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Approved by:

__________________________, Director,
University Honors Program
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title Page</td>
<td>ii</td>
</tr>
<tr>
<td>Abstract</td>
<td>iii</td>
</tr>
<tr>
<td>Approval Page</td>
<td>v</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>vii</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>viii</td>
</tr>
<tr>
<td>List of Figures</td>
<td>x</td>
</tr>
<tr>
<td>List of Tables</td>
<td>xi</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Method</td>
<td>7</td>
</tr>
<tr>
<td>Participants</td>
<td>7</td>
</tr>
<tr>
<td>Procedure</td>
<td>8</td>
</tr>
<tr>
<td>Measure of Parenting Style</td>
<td>8</td>
</tr>
<tr>
<td>Measure of Substance Use</td>
<td>9</td>
</tr>
<tr>
<td>Measure of Student Academic Performance</td>
<td>10</td>
</tr>
<tr>
<td>Measure of Parental Educational Level</td>
<td>11</td>
</tr>
<tr>
<td>Plan of Analysis</td>
<td>11</td>
</tr>
<tr>
<td>Results</td>
<td>12</td>
</tr>
<tr>
<td>Discussion</td>
<td>18</td>
</tr>
<tr>
<td>Limitations of this Study</td>
<td>20</td>
</tr>
<tr>
<td>Conclusions</td>
<td>21</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1: Mother Style.................................................................15
Figure 2: Father Style...............................................................16
Figure 3: Parent Style..............................................................16
LIST OF TABLES

Table 1: Means and Standard Deviations of the Dependent Measures for the Three Types of Mother Parenting Styles..............................................................13

Table 2: Means and Standard Deviations of the Dependent Measures for the Three Types of Father Parenting Styles..............................................................13

Table 3: Means and Standard Deviations of the Dependent Measures for the Three Types of Parent Parenting Styles................................................................14

Table 4: Summary of Multiple Regression Analysis for Variables Predicting Student Tobacco Use.........................................................................................17

Table 5: Summary of Multiple Regression Analysis for Variables Predicting Student Marijuana Use.......................................................................................17

Table 6: Summary of Multiple Regression Analysis for Variables Predicting Student Alcohol Use.........................................................................................18

Table 7: Summary of Multiple Regression Analysis for Variables Predicting Student GPA.................................................................................................18

Table 8: Summary of Multiple Regression Analysis for Variables Predicting Student Grades..........................................................................................18
INTRODUCTION

Previous research has indicated that perceived parenting style as reported by children and adolescents can serve as an accurate predictor of adolescent substance use and academic achievement (Adalbjarnardottir & Hafsteinsson, 2001; Adamczyk-Robinette, Fletcher, & Wright, 2002; Cross & Allen, 1969; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Gonzalez, Greenwood, & WenHsu, 2001; Hunt, 1974; Radziszewska, Richardson, Dent, & Flay; 1996; Strage & Brandt, 1999). Studies that have used both child and parent perceptions of parenting style as predictive measures have found that the child’s report is more highly associated with the child’s substance use and academic achievement behaviors (Cohen & Rice, 1997; Weiss & Schwarz, 1996). The purpose of the present study is to determine if college students’ perceptions of their parents’ parenting style has a relationship with tobacco, alcohol, and marijuana use and academic achievement.

Baumrind conducted a series of ground breaking studies in the area of parenting styles in an attempt to measure patterns of parental authority and the effects of these patterns on the behavior of preschool children to adolescents (1968, 1971, 1991). The studies resulted in the identification of seven general parenting styles. However, three of the styles identified by Baumrind have predominantly been used in research in the area of parenting styles and child behavior: authoritarian, authoritative, and permissive. These three categories will be the focus in this study. These parenting styles were defined by examining parental responsiveness and level of involvement with the child. Specific characteristics and behaviors relating to each of these styles have been identified and
used in other studies that have also examined the effects of these styles on children’s behavior.

The authoritarian parent is defined by her unwillingness to discuss issues within the home environment with the child. She believes in using control to shape the child’s behavior and expects unquestioned obedience. The authoritarian parent sets high expectations, but is not responsive to the child’s needs. She closely monitors and regulates the child’s behavior. The values of an authoritarian parent include respect of authority, adherence to a high standard of conduct, a well-defined set of rules, and the perpetuation of order and tradition (Baumrind 1968, 1991).

In contrast, the authoritative parent works with the child in a “give and take relationship” in order to mold the child’s behavior. She holds high expectations for the child’s behavior, but is also responsive to his needs. She is assertive in a non-threatening way. Open discussion is encouraged between the parent and child. The authoritative parent maintains a clear line of parent-child division of power, but encourages the child to make his own decisions. Standards of conduct are set, but the authoritative parent does not view herself as the only decision-making member of the household. The reasoning behind decisions made is discussed between the parent and child. The authoritative parent is responsive to the child’s needs and affirms the child’s qualities. It is the combination of authority and logical discussion that allow this parent to guide her child’s behavior that defines the authoritative parenting style (Baumrind 1968, 1991).

The permissive parenting style is defined by unwillingness on the part of the parent to establish her authority within the home. The permissive parent allows the child
to serve as the primary agent for shaping his behavior. She does not appear as a figure of authority, but rather as a consultant for the child to use if he so desires and is very responsive to the child’s needs. Household decisions are primarily made with the parent consulting the child first, and the rationale behind family decisions is explained in depth. High expectations are not set for the child; he is not expected to be responsible for many household duties. She dislikes confrontation and does what she can to avoid it within the home. The permissive parent is a passive actor; she is accepting, lenient, and undemanding (Baumrind 1968, 1991).

A number of studies using an adolescent sampling pool have established relationships between parenting styles and a number of behaviors including: alcohol use, tobacco use, and marijuana use (Adalbjarnardottir & Hafsteinsson 2001; Adamczyk-Robinette, Fletcher & Wright 2002; Cohen & Rice 1997; Radziszewska, Richardson, Dent & Flay 1996). The findings of these studies consistently indicated that adolescent perceived-parenting styles do have a strong relationship to the child’s use of substances, and that higher levels of parental authoritativeness are associated with the lowest levels of substance use.

Adalbjarnardottir and Hafsteinsson (2001) determined that parents who were categorized as authoritarian by adolescents at 14 years of age were not as successful at preventing alcohol abuse as authoritative parents were at that time. Permissive parents were the least successful at preventing early substance abuse. However, the researcher also found in this longitudinal study that the predictive nature of parenting styles was not consistent as the adolescent aged. In other words, the research indicated that parenting
style might be less effective in predicting substance use in later adolescence. Adamczyk-Robinette et al. (2002) also obtained results in support of authoritative parenting, and specifically found that parents play a key role in influencing levels of tobacco use among the child. Cohen and Rice (1997) examined adolescent alcohol and tobacco use behaviors and perceived parenting style as reported by the student. The researchers collected data regarding the parents’ perception of parenting style and student behaviors and found that student perceptions’ were the most accurate predictors of the behaviors examined.

In addition to examining the link between perceived parenting style and student substance use behaviors, researchers have also previously looked at the relationship between perceived parenting styles and adolescent academic performance. A link between authoritative parenting and higher academic achievement among students was reported, while authoritarian and permissive parenting styles exhibited a relationship with lower grades (Cohen & Rice, 1997; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Radziszewska, Richardson, Dent, & Flay, 1996). Dornbush et al. (1987) indicated that authoritarian and permissive styles were associated with lower grades across ethnic groups, and there were not significant differences in the grades reported across gender. However, females did report a slightly lower level of authoritarian parenting.

The majority of the previous research in the area of perceived parenting styles, substance use, and academic achievement behaviors has primarily focused on an adolescent sample. However, there are a few existing studies that have examined these relationships among college students. Parents who were described as being less
“psychologically controlling,” which is a descriptive measure of the authoritative parenting style, were associated with lower reports of substance use and higher measures of academic achievement (Cross & Allen, 1969; Davis & Cross, 1973). Hunt (1974) found that users of marijuana had tendencies to be heavier users if they came from a perceived permissive family environment as opposed to a more authoritarian family environment, while the more authoritative styles used in her study were related to lowest levels of use. Findings of a study conducted by Strage and Brandt (1999) lend further support to the conclusion that students who perceived their parents as authoritative (as indicated by high scores in areas of autonomy granting, demandingness, and supportiveness) reported higher college grade point averages than students coming from authoritarian or permissive households. Strage and Brandt (1999) also found that although college students’ perceptions of their parents did not undergo significant changes as they advanced through their college career, these perceptions became less influential in contributing to students’ academic achievement. Senior college students’ academic success was not as closely related to their perceptions of their parents as in the findings of younger college students.

Previous research done in the area of perceived parenting styles and substance abuse and academic achievement behaviors has provided a strong background on which to build new and more detailed studies. However, many of these previous studies have not used a college student population to examine the relationship between perceived parenting style and alcohol, tobacco, and marijuana use, in addition to also looking at academic achievement. Therefore, many of the studies in the field do not provide a
complete picture as to the influence of perceived parenting style over the entire course of adolescent into early adulthood. Current research is needed to examine how pervasive the influence of perceived parenting style is on college student substance use and academic achievement behaviors.

The purpose of this study is to determine what relationship exists between perceived parenting styles and alcohol, tobacco, and marijuana use and academic achievement behaviors among college students, in an attempt to close any gaps that exist in the current body of research. This study will examine whether or not perceived parenting style is a significant predictor of these behaviors as adolescent progress into early adulthood. This research will investigate the importance of the student perception on the parenting style used in the primary home environment of college students during their childhood years on their behaviors as opposed to the parent perception. The Parental Authority Questionnaire (PAQ) developed by Buri (1991) will be used to measure the predominant parenting style for fathers, mothers, and the parents as one unit. This is a new approach in this area of research because separating the effects of the father’s style of parenting from the mother’s style of parenting and also comparing these influences individually to the influence of the parents together as one unit has not been done in previous studies. The findings of this study will aid college administrators in identifying student needs and planning campaigns to target substance abuse prevention and high academic achievement by providing more background information about students with potential substance abuse and/or academic problems.
The hypotheses of this study are:

1. There will be differences in the substance use and academic achievement behaviors reported by students with authoritative parents, authoritarian parents, and permissive parents. If differences are found, it is expected that students with authoritative parents will report lower substance use and higher academic achievement behaviors than students with authoritarian or permissive parents.

2. There will be differences in the number of students who categorize their parents as authoritarian, authoritative, or permissive. If differences are found, it is hypothesized that more students will categorize their parents as permissive due to the fact that they are more removed from parental influences.

METHOD

Participants

Two hundred ninety-four college students from a Midwestern public university completed this study. Students were recruited primarily from introductory level psychology classes but also from an upper level psychology statistics course. Family structure was assessed according to student reports of their parent or caregiver composition in their primary home residence during their childhood years. Only those participants who reported living with both biological parents were included in the final analyses (n = 242). Age and gender were self-reported measures. The ages of participants ranged from 18 to 41, with the mean age being 19.20 years old (SD = 1.01).
There were only three participants in the study who reported an age higher than 22 years old. Participants consisted of 177 females (60.61%) and 115 males (39.38%), with 2 incomplete reports of gender. Race was determined based on student selections from six given categories (American Indian/Alaska Native, Asian, Black/African-American/Haitian, Native Hawaiian/Pacific Islander, White, Hispanic/Latino). During the analyses, a seventh race category of “other” was added based on the survey responses. The ethnic breakdown of the participants is as follows: 89.6% Caucasian, 1.3% American Indian/Alaska Native, 2.8% Asian, 3.1% Black/African-American/Haitian, and 1.4% Hispanic/Latino. A final demographics measure asked students to report whether or not they currently lived at home with their parents during the academic year. Only students who reported that they did not live with their parents during the academic year were included in the final analyses ($n = 242$).

**Procedure**

Participants were asked to complete an 18-page survey during a 30-minute experiment session. All of the data collection sessions were held in classroom settings. Involvement in the study was voluntary, however students could be awarded class credit for participating.

**Measure of Parenting Style**

Perceived parenting style was measured using the Parental Authority Questionnaire (PAQ: Buri, 1991). This questionnaire consists of 30 questions, which can be broken down into 10 permissive, 10 authoritarian, and 10 authoritative items. Responses to each of the items on the questionnaire can be selected from a 5-point Likert
scale ranging from strongly disagree (1) to strongly agree (5). Three separate forms of
the PAQ were used: one form to measure the parental authority of the mother, one form
to measure the parental authority of the father, and one form to measure the parental
authority of the parents together as one unit, for a total of 90 items. Cronbach coefficient
alpha values as reported by Buri (1991) for the six scales he developed are: 0.75 for
mother’s permissiveness, 0.85 for mother’s authoritarianism, 0.82 for mother’s
authoritativeness, 0.74 for father’s permissiveness, 0.87 for father’s authoritarianism, and
0.85 for father’s authoritativeness.

Measures of Substance Use

Student: Student tobacco use was self-reported according to how much tobacco
was smoked in a day. Students were classified as non-users (I don’t smoke), low users
(less than 10 cigarettes each day), moderate users (no more than 1 pack each day), and
high users (more than a pack each day). Marijuana use was self-reported according to a
scale developed by Hunt (1974), which was used to identify non users (I never smoke,
nor do I buy marijuana), low users (I occasionally smoke, but do not buy marijuana),
moderate users (I occasionally smoke and also buy marijuana), and high users (I often
smoke and also buy marijuana).

Student alcohol use was assessed according to two self-reported responses. The
first question asked the participant to select how often he consumes alcoholic beverages
within a month with responses between (1) Never, (2) 1-2 times a month, (3) 2-3 times a
month, (4) 3-4 times a month, and (5) more than 4 times a month. The second measure
asked students to report the number of drinks consumed in one sitting, with responses
ranging from (1) I don’t consume alcoholic beverages, (2) 1-2 drinks, (3) 3-4 drinks, (4) 5-6 drinks and (5) 6 drinks or more. Students were classified into 5 categories based on their combined responses to these two measures. Non-users scored 1 on both measures. Low users scored either 1 on the first measure and 2, 3, 4, or 5 on the second measure, or 2 on the first measure and 1 or 2 on the second measure. Moderate users scored either 2 or 3 on the first measure and 3 on the second measure, or 4 on the first measure and 1 or 2 on the second measure. High-moderate users scored either 2 on the first measure and 5 on the second measure, 3 on both measures, 4 on the first measure and 3 on the second measure, or 5 on the first measure and 1 or 2 on the second measure. High users scored either 3 on the first measure and 4 or 5 on the second measure, 4 on the first measure and 4 or 5 on the second measure, or 5 on the first measure and 3, 4, or 5 on the second measure. These classifications were determined by the researcher and modeled based on the scales used to categorize tobacco and marijuana use.

Parents: The student-reported levels of tobacco, marijuana, and alcohol use for both the mother and father separately according to the same measures and scales used to determine the participant’s level of substance use. The level of use for the mother and the father was classified according to the same standards used to classify the student’s behaviors.

Measures of Student Academic Performance

Two separate measures were used to assess academic achievement. Students were first asked to report their overall grades on a scale of (1) to (8): All A’s, Mostly A’s and B’s, All B’s, etc. The second question asked students to report their overall grade
point averages. A correlation was run between the two responses and a significant negative correlation was found between the two measures, $r(232) = -0.81, \ p < 0.01$, which indicated that overall reporting had been accurate, with higher GPA’s correlated with lower scores on the scale (but higher grades overall). However, since the correlation did not indicate a perfect negative relationship, both measures of academic achievement were included in the final analyses.

**Measure of Parental Educational Level**

The student was asked to report the obtained education level for the mother and the father separately. Responses for the measure ranged from (1) to (5): some high school, high school degree/GED, two year college/vocational school degree, four year college degree, and professional degree.

**Plan of Analysis**

A multivariate analysis of variance (MANOVA) was used to determine the relationship between parenting styles and substance use and academic achievement reported behaviors. In order to test for and tease out other effects, multiple regression equations were used to fit the data looking at obtained parental educational levels as predictors for student academic behaviors and using parental substance use behaviors as predictors of the corresponding student substance use behaviors. Chi-square analyses were performed to examine whether there were racial, gender, or age differences in reporting parenting styles. Chi-square analyses were also conducted to determine if there were significant differences between the number of cases for each predominant parenting style reported for the mother, father, and parents together. Sum scores were computed
based on responses to the PAQ questions for each of the three styles for mother, father, and parents as one unit. The sum scores were then converted to t-scores for each individual group: mother authoritative score, mother authoritarian score, mother permissive score, and so on for the father and the parents together. Once the scores had been standardized, it was possible to determine the predominant mother style, the predominant father style, and the predominant parent style for each participant. SPSS statistical analysis software, version 12, was used to conduct all of the calculations in this study.

RESULTS

A MANOVA assessing the relationship between the mother’s style of parenting and all of the dependent measures (student tobacco, marijuana, and alcohol use, GPA, and grades) was non-significant, Wilks’s $\Lambda = 0.93$, $F(10, 414) = 1.62, p = 0.10, \eta^2 = 0.04$. However, Tukey’s HSD post-hoc analysis revealed that there was a significant difference between the mother permissive and authoritative styles in regards to student marijuana use, $p = 0.05$, GPA, $p = 0.03$, and grades, $p = 0.02$. Specifically, students who were found to have mothers with a predominantly authoritative style reported significantly lower levels of marijuana use, higher GPA’s, and higher grades overall. Despite the fact that the overall MANOVA test was found to be non-significant, it is appropriate to report these post-hoc analyses due to the fact that our test for homogenous subsets was not violated and because Tukey’s does not require a significant F value. A MANOVA assessing the relationship between the father’s style of parenting and student tobacco, marijuana, and alcohol use, and academic achievement was not significant, Wilks’s $\Lambda =$
0.95, $F(10, 418) = 1.02, p = 0.43, \eta^2 = 0.02$. A MANOVA examining the relationship between the parents’ predominant parenting style and the dependent measures was also not significant, Wilks’s $\Lambda = 0.97, F(10, 412) = 0.58, p = 0.83, \eta^2 = 0.01$. The Tukey’s HSD post-hoc tests for each of these analyses also indicated no significant differences between the different parenting styles. Tables 1, 2, and 3 below contain the means and standard deviations for each of the dependent measures for each of the three parenting styles for the mothers, fathers, and parents together.

Table 1
*Means and Standard Deviations of the Dependent Measures for the Three Types of Mother Parenting Styles*

<table>
<thead>
<tr>
<th>Parenting Style</th>
<th>Student Tobacco $M$</th>
<th>Student Tobacco $SD$</th>
<th>Student Alcohol $M$</th>
<th>Student Alcohol $SD$</th>
<th>Student Marijuana $M$</th>
<th>Student Marijuana $SD$</th>
<th>Student GPA $M$</th>
<th>Student GPA $SD$</th>
<th>Student Grades $M$</th>
<th>Student Grades $SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permissive</td>
<td>1.20</td>
<td>0.52</td>
<td>4.04</td>
<td>1.41</td>
<td>1.45</td>
<td>0.78</td>
<td>2.97</td>
<td>0.63</td>
<td>2.91</td>
<td>1.13</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>1.20</td>
<td>0.53</td>
<td>3.79</td>
<td>1.53</td>
<td>1.36</td>
<td>0.60</td>
<td>3.00</td>
<td>0.55</td>
<td>2.86</td>
<td>1.21</td>
</tr>
<tr>
<td>Authoritative</td>
<td>1.15</td>
<td>0.46</td>
<td>3.63</td>
<td>1.57</td>
<td>1.21</td>
<td>0.50</td>
<td>3.20</td>
<td>0.45</td>
<td>2.44</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Table 2
*Means and Standard Deviations of the Dependent Measures for the Three Types of Father Parenting Styles*

<table>
<thead>
<tr>
<th>Parenting Style</th>
<th>Student Tobacco $M$</th>
<th>Student Tobacco $SD$</th>
<th>Student Alcohol $M$</th>
<th>Student Alcohol $SD$</th>
<th>Student Marijuana $M$</th>
<th>Student Marijuana $SD$</th>
<th>Student GPA $M$</th>
<th>Student GPA $SD$</th>
<th>Student Grades $M$</th>
<th>Student Grades $SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permissive</td>
<td>1.19</td>
<td>0.52</td>
<td>4.08</td>
<td>1.40</td>
<td>1.42</td>
<td>0.72</td>
<td>2.97</td>
<td>0.60</td>
<td>2.85</td>
<td>1.14</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>1.13</td>
<td>0.43</td>
<td>3.73</td>
<td>1.57</td>
<td>1.32</td>
<td>0.62</td>
<td>3.06</td>
<td>0.61</td>
<td>2.80</td>
<td>1.25</td>
</tr>
<tr>
<td>Authoritative</td>
<td>1.20</td>
<td>0.54</td>
<td>3.66</td>
<td>1.54</td>
<td>1.29</td>
<td>0.57</td>
<td>3.12</td>
<td>0.47</td>
<td>2.63</td>
<td>0.92</td>
</tr>
</tbody>
</table>
Table 3
Means and Standard Deviations of the Dependent Measures for the Three Types of Parenting Styles

<table>
<thead>
<tr>
<th>Parenting Style</th>
<th>Tobacco</th>
<th>Alcohol</th>
<th>Marijuana</th>
<th>GPA</th>
<th>Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permissive</td>
<td>1.18</td>
<td>3.84</td>
<td>1.36</td>
<td>2.98</td>
<td>2.83</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>1.16</td>
<td>3.84</td>
<td>1.32</td>
<td>3.04</td>
<td>2.81</td>
</tr>
<tr>
<td>Authoritative</td>
<td>1.16</td>
<td>3.69</td>
<td>1.26</td>
<td>3.16</td>
<td>2.57</td>
</tr>
</tbody>
</table>

Chi-square analyses were conducted to determine if there were significant differences across genders, ages, and races in the type of predominant parenting style reported for the mother, father, and parents overall. There were no significant differences found between genders in the number of cases reported for the three types of parenting styles for mothers, Pearson $\chi^2 (2, n=223) = 1.94, p = 0.38$, fathers, Pearson $\chi^2 (2, n=225) = 0.60, p = 0.74$, or the parents together, Pearson $\chi^2 (2, n=222) = 1.80, p = 0.41$. A chi-square analysis looking at differences in reported parenting styles across ages revealed no significant differences in the number of cases reported for each style for mothers, Pearson $\chi^2 (8, n=223) = 7.79, p = 0.45$, fathers, Pearson $\chi^2 (8, n=225) = 2.29, p = 0.97$, or parents, Pearson $\chi^2 (8, n=222) = 7.75, p = 0.46$. A significant difference was found between the number of cases reported across races for the mother’s predominant style between the three groups, Pearson $\chi^2 (10, n=221) = 21.44, p = 0.02$, but no significant differences were found for the number of cases reported for the father, Pearson $\chi^2 (10, n=223) = 8.27, p = 0.60$, or the parents, Pearson $\chi^2 (10, n=220) = 14.02, p = 0.17$. However, this difference between races in the number of cases reported for the three different predominant styles for the mother should be interpreted with extreme caution.
given the highly unequal nature of the counts in the categories due to the low number of participants in some of the racial groups.

Chi-square analyses were also used to assess if there were significant differences in the number of mothers, fathers, and parents who were classified in each of the three parenting style categories by the students. There were no significant differences in the number of mothers reported for each of the parenting styles, Pearson $\chi^2 (2, n=268) = 0.37, p = 0.83$, father, Pearson $\chi^2 (2, n=270) = 2.02, p = 0.36$, or the parents, Pearson $\chi^2 (2, n=265) = 4.17, p = 0.12$. Figures 1, 2, and 3 below illustrate the breakdown in the percentage of cases reported for each of the three parenting styles for the mother, father, and parents.

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**Figure 1**

**Mother Style**

- Permissive: 31%
- Authoritarian: 9%
- Authoritative: 29%
- Missing: 31%
A multiple regression analysis using father tobacco use and mother tobacco use as predictors for student tobacco use was significant, $F(2, 237) = 5.13$, $p < 0.01$. The sample multiple correlation coefficient was 0.20, and the adjusted $R^2$ value was 0.03, indicating that about 3% of the variance in student reported levels of tobacco use can be
accounted for by the parent’s levels of use, which is a relatively small effect (Cohen, 1988). Multiple regression analysis looking at father and mother marijuana use as predictors of student marijuana use was not significant, $R=0.12$, $Adj \ R^2=0.01$, $F(2, 238)=1.81$, $p=0.17$, and neither was a multiple regression analysis examining father and mother alcohol use and predictors of student alcohol use, $R=0.11$, $Adj \ R^2=0.01$, $F(2, 237)=1.51$, $p=0.22$. However, an analysis using father and mother obtained educational level as predictors for the student’s reported GPA was significant, $F(2, 232)=3.19$, $p=0.04$, with an $R$ value of 0.16 and an adjusted $R^2$ value of 0.02. A final analysis using father and mother obtained educational level as predictors for student’s grades was significant as well, $F(2, 238)=5.02$, $p<0.01$, with an $R$ value of 0.20 and an adjusted $R^2$ of 0.03. The regression tables below provide the unstandardized beta coefficients, standard errors, standardized beta coefficients, t statistic values, and p-values for each of the predictors in the multiple regression equations.

<table>
<thead>
<tr>
<th>Table 4</th>
<th>Summary of Multiple Regression Analysis for Variables Predicting Student Tobacco Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>$B$</td>
</tr>
<tr>
<td>Constant</td>
<td>0.93</td>
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<tr>
<td>Mother tobacco use</td>
<td>0.23</td>
</tr>
<tr>
<td>Father tobacco use</td>
<td>0.01</td>
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</table>

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Summary of Multiple Regression Analysis for Variables Predicting Student Marijuana Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
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<tr>
<td>Constant</td>
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<tr>
<td>Mother marijuana use</td>
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<tr>
<td>Father marijuana use</td>
<td>0.01</td>
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Table 6
Summary of Multiple Regression Analysis for Variables Predicting Student Alcohol Use

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
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<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
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<td>0.27</td>
<td></td>
<td>12.77</td>
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<td>Mother alcohol use</td>
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<td>0.09</td>
<td>0.07</td>
<td>1.03</td>
<td>0.30</td>
</tr>
<tr>
<td>Father alcohol use</td>
<td>0.01</td>
<td>0.07</td>
<td>0.07</td>
<td>0.98</td>
<td>0.33</td>
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</table>

Table 7
Summary of Multiple Regression Analysis for Variables Predicting Student GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.68</td>
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<td>17.25</td>
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</tr>
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<td>0.04</td>
<td>0.07</td>
<td>1.06</td>
<td>0.29</td>
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<tr>
<td>Father education</td>
<td>0.01</td>
<td>0.04</td>
<td>0.12</td>
<td>1.76</td>
<td>0.08</td>
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</tbody>
</table>

Table 8
Summary of Multiple Regression Analysis for Variables Predicting Student Grades

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.67</td>
<td>0.30</td>
<td></td>
<td>12.29</td>
<td>&lt;0.01*</td>
</tr>
<tr>
<td>Mother education</td>
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<td>0.07</td>
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<tr>
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<td>0.07</td>
<td>-0.16</td>
<td>-2.31</td>
<td>0.02*</td>
</tr>
</tbody>
</table>

* indicates significance at the 0.05 level.

**DISCUSSION**

The results of this study do not support the hypothesis that there would be differences in the substance use and academic achievement behaviors of students with parents from the three parenting style groups. Students who perceive their parents as more authoritative were not more likely than students who perceive their parents as permissive or authoritarian to receive higher grades or to engage in lower levels of substance use. These findings also do not confirm that students who perceived their parents as more permissive reported lower levels of substance use and higher academic achievement than students with more authoritarian parents. There were essentially no
differences in the behaviors reported by students with authoritative parents or fathers compared to students with permissive or authoritarian parents or fathers. While it was found that students who perceive their mothers to be more authoritative report lower levels of marijuana use and higher GPA’s and grades than students who perceive their mothers to be more permissive, there were no differences between either of these two styles when compared to the authoritarian mother style.

There were no significant differences between the number of mothers, fathers, or parents overall perceived to be authoritative, permissive, or authoritarian in this sample. This indicates that each of the parenting styles had statistically equal numbers of cases reported for the mothers, fathers, and parents (as one unit) of the students in the study. There were also no significant differences in the number of mothers, fathers, or parents together labeled as permissive, authoritative, or authoritarian across genders or ages. Although there was a significant difference in the number of mothers labeled permissive, authoritative, and authoritarian, between races, this finding is somewhat inconclusive given the extremely low counts in some of these categories due to the low number of minority participants in this study.

Based on the results of the multiple regression analyses, it appears that parental levels of tobacco use have an association with student levels of tobacco use. Students with parents who engaged in higher levels of tobacco use were more likely to report higher levels of tobacco use themselves. It was also found that parents’ obtained education levels have a significant relationship to student’s academic achievement. Students whose parents had obtained higher educational degrees were more likely to
report higher levels of academic achievement as measured by both GPA and overall grades.

Limitations of this Study

There are many limitations of this study which should be taken into account when examining these results. One of the potential problems with these findings is that the Parental Authority Questionnaire was administered three times to examine the mother’s style, the father’s style, and the parent’s style overall, which might have led to inaccurate reports due to participants “tiring out” (also known as response burden) and not paying attention to the specific wording of the questions. There were also a large number of participants who reported being non-users for tobacco and marijuana. There were 210 participants or 87.13% of the sample who reported being non-users of tobacco. Out of 242 participants, 177 or 73.14% of the sample were classified as non-users of marijuana. It is possible that differences in reported usage levels for these two substances between the different parenting styles might be present when examining a larger sample size. It is also important to note that levels of student substance use for each of the substances examined (tobacco, marijuana, and alcohol) were determined based on responses on only one or two measures. It is possible that these measures were not precise enough to adequately classify the student’s actual level of use and did not allow us to account for more subtle differences in usage levels. Another note regarding the measures for student substance use is that all reports of substance use were self-reported. It might be that there were inaccurate reports of current behaviors that could not be checked for using these measures. A final limitation to note is that the participants used in this study were a
pretty homogenous group overall. Given the fact that 89% of our population self-reported their race as Caucasian, it is very difficult for the results of this study to generalize to minority college student populations. Extreme caution should be used when interpreting any differences due to race in this study.

There are also variables that might have influenced the results of this study that were not accounted for in the survey. In regards to substance use, there was no question that asked about the time at which substance use first began. It could be that there are differences between lifetime substance users versus recent substance users that were not investigated in this study. Although the participants were asked to report on the caregivers that were present during their childhood years, there was no measure on the survey that assessed whether or not the participants grew up in an environment with siblings. There was also no measure on the survey that asked about the current family environment for either the student (marital status, is the student now a parent) or the student’s family. In addition, there were no assessments examining other factors of the parent-student relationship including level and type of attachment, quality of relationship, and amount of contact (by phone or in person). A final measure that was absent from the survey was a question to assess family income. While it could be hypothesized that family income and the parents obtained educational level might be highly correlated, this is factor that was not accounted for which might have played a role in these findings.

Conclusions

These findings indicate that perceived parenting style as reported by the student is not an accurate predictor of student substance use or academic achievement. There were
also no differences in the frequency of parents who were identified as permissive as opposed to authoritative or authoritarian. However, it does appear that the actual behaviors exhibited by the parents as expressed in terms of reported levels of parents’ tobacco use and obtained education are accurate predictors of student levels of tobacco use and academic achievement.

One possible explanation for these findings is that unlike adolescents, college students are physically separated from their parents and therefore may be less susceptible to the effects of perceived parenting style than younger students. Consequently, using perceived parenting style as a predictor of student substance use or academic achievement is less effective in late adolescence or early adulthood. It is possible that once students no longer live with their parents, the memories of their parents’ parenting styles are less influential in their decision making processes than the memories of their parents’ actual behaviors. It is also important to recognize that the social norms regarding acceptable types of substance use behaviors are different on a college campus than they are in other parts of society. In the college environment, where engaging in substance use is considered more acceptable by one’s peers and is a more prevalent part of social life, it may be that students are less influenced by their parents and more influenced by their peers. They may be disregarding the influence of their parents’ parenting style in favor of a desire to “fit in” and do what is “normal.”

The results of this study illustrate some support for the idea that “actions really do speak louder than words.” In the long run, it may be that the type of parenting style used within the home plays a relatively minor role in the child’s decisions regarding substance
use and academic achievement during early adulthood; however the actions of the parents themselves in regards to these behaviors may be much more predictive of the child’s future path. This is a somewhat interesting finding given the fact that college is a time in which students enjoy a higher degree of autonomy and may seek to establish an identity separate from that of their parents. Instead, students may be turning out to be more like their parents than they would have hoped or thought. Based on these findings, college administrators working on substance abuse prevention and learning assistance programs should try to take into account family background when working with students in order to maximize the student’s chance for success in the future.

Future research in this area should attempt to examine this relationship between perceived parenting style, student substance use and academic achievement at the college student level. Despite the fact that there is a good amount of evidence in support of the positive effects of authoritative parenting during adolescence, the body of research is lacking in regards to the effects of parenting style on college students. A longitudinal study tracking the relationship between perceived parenting style and student behaviors over a longer period of time might provide a more accurate depiction of the relationship between these factors. Future studies should also consider this relationship between perceived parenting style and student behaviors among students of different ages, racial identities, and socioeconomic statuses. It is also important for studies to attempt to separate the effects of the mother’s parenting style from the father’s parenting style. It is possible that there are differences in student reported behaviors depending upon different combinations of parenting styles used by the primary caregivers. Researchers should
consider searching for measurement scales that will account for the different styles between parents without repeating measures and contributing to carry-over or tiring out effects.
REFERENCES


