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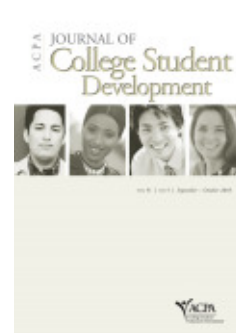
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The Influence of Parenting Styles, Achievement Motivation, and Self-Efficacy on Academic Performance in College Students

Erlanger A. Turner Megan Chandler Robert W. Heffer

Parenting styles have consistently been shown to relate to various outcomes such as youth psychopathology, behavior problems, and academic performance. Building on the research in the parenting style literature, along with examining components of self-determination theory, the present study examined the relations among authoritative parenting style, academic performance, self-efficacy, and achievement motivation using a sample of college students (N = 264). Results indicated that authoritative parenting continues to influence the academic performance of college students, and both intrinsic motivation and self-efficacy predicted academic performance. Additionally, the study tested the interaction between self-efficacy and authoritative parenting, but the interaction was not significant. Implications for future research and applications are discussed.

Parenting styles and techniques have consistently been shown to relate to various outcomes such as child psychological problems (e.g., aggression) and academic performance (Baumrind, 1967, 1991; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Querido, Warner, & Eyberg, 2002). Several conceptualizations of parenting styles or characteristics have been delineated. Most have focused on quantities and qualities of warmth, responsiveness, and control in the parenting repertoire (e.g., Coolahan, McWayne, & Fantuzzo, 2002). The majority of published studies on parenting styles have used some variation of the parenting style

construct delineated by Baumrind (1966, 1967). Baumrind (1966) has identified three parenting styles: authoritative, permissive, and authoritarian. Authoritative parenting is characterized by high levels of nurturance, involvement, sensitivity, reasoning, and encouragement of autonomy. Parents who direct the activities and decisions for their children through reasoning and discipline would be described as authoritative. Conversely, permissive parenting is characterized by making few demands, exhibiting noncontrolling behaviors, and using minimal punishment. For example, parents who do not establish rules and guidelines for their child's behavior would be described as possessing a permissive parenting style. Authoritarian parenting tends to fall at the other end of the continuum. Parents characterized as authoritarian exhibit highly directive behaviors, high levels of restriction and rejection behaviors, and power-asserting behaviors. These parents tend to have a philosophy that "it's my way or the highway."

A plethora of research exists building on the work of Baumrind (1966; e.g., Baumrind, 1991; Dornbusch et al., 1987; Querido et al., 2002; Strage & Brandt, 1999). In general, an authoritative parenting style emphasizing both responsiveness and demandingness appears superior in fostering higher academic performance (Reitman, Rhode, Hupp, & Altobello, 2002). Parenting styles and academic performance have been studied primarily in

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children and adolescents. In several studies (e.g., Baumrind, 1991; Baumrind & Black, 1967), Baumrind has reported on the positive associations between authoritative parenting style and academic performance. For example, Baumrind (1991) found that children (ages 4-15 years old) of parents who were characterized as authoritative were the most motivated, the most competent, and the most achievement oriented. In addition, Baumrind and Black (1967) found that authoritative parenting was positively associated with academic performance; and authoritarian and permissive parenting was negatively associated with grades.

This relation between authoritative parenting style and academic performance in children has been found across ethnic groups. However, some research has shown that this relation does not exist for Hispanic Americans and African Americans (e.g., Dornbusch et al., 1987; Park & Bauer, 2002). Further examination across ethnic groups have found that among African Americans, parenting style was not a significant predictor of grades (Dornbusch, Ritter, & Steinberg, 1991). In one study using a sample of African American adolescents (11-19 years old), Attaway and Hafer-Bry (2004) found that parental beliefs in high degrees of control predicted lower grades, but parental beliefs in responsiveness did not contribute to adolescents' grades. Regarding associations between parenting style and Asian Americans, parenting styles may not have the same influence as generally seen in other ethnic/racial groups. Asian American parents are often described as "controlling" or "authoritarian," and these parenting behaviors have typically been found to predict poor academic achievement (e.g., Attaway & Hafer-Bry; Baumrind & Black, 1967; Chao, 1994). Given these findings one would expect Asian American children to be less academically successful, but that is often not the case. Asian Americans generally show better academic

performance than do their counterparts (Peng & Wright, 1994). Some have stated that Asian American parents view "parental control" as a more organizational type of control that fosters smooth family functioning and harmony (Chao, 2001). Although the effects of parenting styles have been shown to be inconsistent across ethnic groups, research has generally found a positive relationship between authoritative parenting and academic performance (e.g., Baumrind, 1991, Ingoldby, Schvaneveldt, Supple, & Bush, 2003).

Over the past few years, the relationship between parenting characteristics and academic performance has been examined in college students, but inconsistent results have been found. Strage and Brandt (1999) examined the role of parenting styles in the lives of college students and found that previous parenting behaviors continue to be important in the lives of college students as with children and adolescents. They found that the more autonomy, demand, and support parents provided, the more students were confident and persistent academically. In other words, authoritative parenting was found to continue having an influence on students' academic performance. Conversely, researchers have found that parenting styles and college students' grade point average (GPA) are not related (Joshi, Ferris, Otto, & Regan, 2003). For the complete sample no significant relation was found, but results in a sub-sample of European American students found a significant correlation between academic performance (i.e., GPA) and parental (i.e., mother and father) strictness and paternal involvement. However, the method in which the study measured parenting styles was not consistent with Baumrind's (1966) prototypes, and this may have resulted in methodological limitations.

In conjunction with the effects of authoritative parenting on academic performance, students' motivation and self-efficacy may

also contribute to academic success. Self-determination theory (SDT; Deci & Ryan, 1985) posits that intrinsic versus extrinsic goal pursuits have positive effects on well-being (e.g., psychological health) and learning. SDT delineates three types of motivation: (a) *intrinsic motivation*—doing an activity for itself and the pleasure and satisfaction derived from participating; (b) *extrinsic motivation*—performing an activity as a means to an end, to satisfy an external demand, or reward contingency; and (c) *amotivation*—being neither intrinsically nor extrinsically motivated to perform an activity. The SDT framework was selected because it focuses on the interpersonal environment and the effects of that environment on autonomous and controlled motivation. Specifically, social contexts (e.g., home environment) are characterized in terms of the degree to which they are autonomy-supportive or “authoritative” versus controlling or “authoritarian,” with research confirming that autonomy-supportive contexts enhance autonomous motivation whereas controlling contexts diminish autonomous motivation and enhance controlled motivation (e.g., Deci, Eghrari, Patrick, & Leone, 1994). Vansteenkiste, Simons, Lens, Sheldon, and Deci (2004) have noted that engaging in learning behaviors with an intrinsic goal resulted in academic success and better test performance than engaging in behaviors with an extrinsic goal. Studies have also found that college students’ GPA and self-efficacy in performing academically were positively related (e.g., Strage & Brandt, 1999).

A family environment created by a particular parenting style may also influence one’s general sense of self-efficacy. Self-efficacy has been defined as the belief in one’s capabilities to organize and execute courses of action required to produce given attainments (Bandura, 1997). Self-efficacy has been shown to be influential in

the actions and success of individuals in many different areas, including overcoming fears, success in the workplace, hard life transitions, and academic performance (Bandura, 1986; Chemers, Hu, & Garcia, 2001). Researchers have recently broadened their study of academic self-efficacy to include the study of college students. Pajares (1996) found academic self-efficacy to be strongly associated with academic performance in college students, with positive correlations ranging from $r = .49$ to $r = .71$. Chemers et al. have also found that academic self-efficacy is a significant predictor of academic performance and expectations. Additionally, researchers have found that as students’ academic expectations and self-efficacy increase, they are more likely to show higher academic performance (Chemers et al.). Although research has not found a direct link between parenting styles and self-efficacy per se, studies have shown that an authoritative parenting style in a parent-child relationship predicts a child’s sense of mastery (i.e., belief in controlling one’s environment) early in life (Turner & Johnson, 2003).

In the present study, the relations among parenting style, academic performance, self-efficacy, and achievement motivation were examined in a sample of college students. Building on the research of Baumrind and others (e.g., Baumrind, 1991; Baumrind & Black, 1967; Joshi et al., 2003; Strage & Brandt, 1999), along with examining components of SDT, the following hypotheses were examined: (a) authoritative parenting will be a significant predictor of academic performance, (b) intrinsic motivation will be a significant predictor of academic performance, (c) authoritative parenting and self-efficacy will be a significant predictor of academic performance, and (d) whether there is an interaction between self-efficacy and authoritative parenting.

TABLE 1.
Sample Demographic Characteristics
(*N* = 264)

Variable	<i>n</i>	%
<i>Ethnicity</i>		
European American	179	67.8
Hispanic American	48	18.2
Asian American	14	5.3
African American	13	4.9
Biracial	7	2.7
Other	3	1.1
<i>Gender</i>		
Male	92	34.8
Female	172	65.2
<i>Year in College</i>		
Freshman	179	67.8
Sophomore	36	13.6
Junior	25	9.5
Senior	15	5.7
Other	9	3.4
<i>Raised in a Two-Parent Home</i>		
Yes	206	78.0
No	58	22.0
<i>Mother's Education Level</i>		
Some High School	6	2.3
High School Graduate	43	16.3
Some College/Tech School	59	22.3
Associates Degree	22	8.3
Bachelors Degree	81	30.7
Masters Degree	36	13.6
Doctoral Degree	10	3.8
<i>Father's Education Level</i>		
Some High School	18	6.8
High School Graduate	32	12.1
Some College/Tech School	45	17.0
Associate's Degree	16	6.1
Bachelor's Degree	82	31.1
Master's Degree	49	18.6
Doctoral Degree	15	5.7

METHOD

Participants

Participants in the current study were 264 undergraduate students enrolled in psychology courses at a major university in the southwestern United States. The sample reflected the ethnic composition of the campus, composed primarily of European Americans ($n = 179$, 67.8%), African Americans ($n = 13$, 4.9%), Hispanic Americans ($n = 48$, 18.2%), Asian Americans ($n = 14$, 5.3%), self-identified as biracial ($n = 7$, 2.7%), and self-identified as "Other" ($n = 3$, 1.1%). Slightly less than two-thirds ($n = 172$, 65.2%) of participants were female. Sixty-eight percent ($n = 179$) of the sample were freshman, with the next highest percentage being sophomores ($n = 36$, 13.6%), followed by juniors ($n = 25$, 9.5%) and seniors ($n = 24$, 9.1%). The majority ($n = 206$; 78.4%) of participants reported being raised in a two-parent home. See Table 1 for additional demographic information.

Procedure

Researchers recruited participants from undergraduate psychology courses. Students voluntarily signed up to participate online using the psychology department's website and received course credit for their participation. Following informed consent, participants completed the study measures. Measures were counter-balanced, with the demographic questionnaire always administered first. Data were collected in group administrations with approximately 10-30 participants per session. The duration of each student's participation was approximately 30-60 minutes.

Measures

Demographic Variables. A demographic questionnaire was used to gather data on the participants' gender, age, ethnicity, year in school, study skills habits, GPA, and parenting

variables (e.g., level of education, parents in the household, general influence of parents, educational influence of parents).

Parenting Style. The Parental Authority Questionnaire (PAQ; Buri, 1991) was used to measure Baumrind's (1966) permissive, authoritarian, and authoritative parenting styles. The scale consists of 30 items, and each item was scored on a Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The measure was slightly adapted to be applicable to participants of either a single- or two-parent home. The original measure consists of separate measures for both fathers and mothers. In the current study, participants self-identified about which parent they would complete the measure. Scores on the PAQ range from 10 to 50 with higher scores indicating a greater level of the parenting style prototype measured. The reliability coefficients for the current study suggest good reliability for the three PAQ subscales as follows: authoritarian ($\alpha = .87$), authoritative ($\alpha = .81$), and permissive ($\alpha = .76$), similar to the original measure which ranged from $\alpha = .74$ to $\alpha = .87$ (Buri).

Academic Motivation. The Academic Motivation Scale—College Version (AMS-C; Vallerand et al., 1992) was used to measure students' motivation toward education. The scale is composed of seven subscales measuring three types of intrinsic motivation (IM), three types of extrinsic motivation (EM), and amotivation (see Vallerand et al. for a complete description). The measure consists of 28 items, with each item scored on a scale from 1 (*not correspond*) to 7 (*corresponds exactly*). The three types of intrinsic motivation described include: IM-to know (to do something for the satisfaction experienced while learning), IM-to accomplish (to do something for the pleasure experienced while trying to accomplish things), and IM-to experience stimulation

(to do something in order to experience stimulating sensations). The three types of EM described include: external regulation (to do something because of rewards or constraints), introjected regulation (to do something because one forces him or herself to do it), and identified regulation (to do something because one has decided to do it although it is not enjoyed). Conversely, amotivation is described as being neither intrinsically nor extrinsically motivated. These individuals are described as perceiving their behavior as being controlled by things out of their own control. For the current study, the IM-to know and IM-to accomplish subscales were combined to create a mean score. Additionally, the amotivation and external regulation (i.e., extrinsic motivation) scales were used in study analyses. Internal consistency for the AMS-C in the current study suggests good reliability for the individual scales with alpha coefficients ranging from .77 to .92.

Self-Efficacy and Study Skills. The Self-Efficacy and Study Skills Questionnaire (SESS) was used to measure students' beliefs in their abilities to complete academic tasks (e.g., how well can you motivate yourself to do your assignments; how well can you remember information presented in class). The SESS was developed by Gredler and Garavalia (1997, cited in Watson & Tharp, 2002). The SESS consists of 32 items rated on a Likert-type scale from 1 (*not well at all*) to 5 (*very well*) with scores ranging from 32 to 160. Higher scores indicate greater self-efficacy. Internal consistency for the SESS scale in the current study was $\alpha = .80$, indicating good reliability.

Academic Performance. For the current study, academic performance was measured using each student's self-reported GPA. The mean GPA for participants was 2.91 ($SD = .62$), ranging from 1.33 to 4.0.

TABLE 2.
Descriptive Statistics for
Study Variables ($N = 264$)

Variable	<i>M</i>	<i>SD</i>
Age	19.27	1.51
Year in College	1.63	1.08
GPA	2.91	0.62
Number of Credits	14.02	2.95
Hours Study per Week	13.14	9.56

RESULTS

Statistical Analysis

Descriptive statistics were examined to allow for the appropriate interpretations of the distribution and analyses. See Table 2 for descriptive statistics. For all inferential statistics, the alpha level was .05. Linear regression analyses were conducted to examine the relations between study variables. For all regression analyses, gender and ethnicity were

entered first to control for variance related to those variables. This method was used because the sample was slightly biased towards females and European Americans as noted in Table 1.

Bivariate Correlations for Study Measures

Pearson correlations were conducted to determine the relations among parenting styles, achievement motivation, academic self-efficacy, and academic performance. Correlations were also conducted for other important study variables. See Table 3 for correlations of major study variables.

Authoritative Parenting, Motivation, and Self-Efficacy as Predictors of Academic Performance

Several questions were examined to test the relations among the study variables. First, we examined whether authoritative parenting style would predict academic performance. Regression analyses indicated that authoritative

TABLE 3.
Bivariate Correlations for Major Study Variables

	1	2	3	4	5	6	7	8	9	10	11
1. GPA	—	-.07	.13*	-.03	.07	-.18**	.12	.25**	.16**	.28**	.25**
2. AT		—	-.37**	-.53**	.07	.01	-.04	.02	.01	-.04	-.12
3. ATT			—	.12	.13*	-.10	.17**	.16**	.07	.18**	.21**
4. PER				—	-.08	.09	-.08	-.13*	-.05	-.03	-.12
5. EM					—	-.52**	.46**	.35**	.21**	-.03	.08
6. AM						—	-.34**	-.38**	-.18**	-.01	-.13*
7. IM							—	.46**	.25**	-.06	.02
8. SE								—	.31**	.09	.21**
9. STU									—	-.11	.08
10. MEd										—	.57**
11. FEd											—

Note. GPA = academic performance, AT = authoritarian, ATT = authoritative, PER = permissive, EM = extrinsic motivation, AM = amotivation, IM = intrinsic motivation, SE = self-efficacy, STU = study time (in hours), MEd = mother's education, FEd = father's education.

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

parenting significantly predicted students' academic performance, $F = 3.26, p = .022, R^2 = .037, \beta = .127$. Second, to test the hypothesis that intrinsic motivation would predict academic performance, regression analyses were conducted. Results indicated that intrinsic motivation was a significant predictor of academic performance, $F = 2.93, p = .034, R^2 = .033, \beta = .094$. Finally, authoritative parenting style and academic self-efficacy, serving together in a model, were found to be significant predictors of academic performance, $F = 5.53, p < .001, R^2 = .080$. However, academic self-efficacy was the only significant predictor in this model, $\beta = .24, t_{(3)} = 3.47, p = .001$.

As mentioned above, regression analyses indicated that both authoritative parenting and academic self-efficacy were significant predictors of academic performance. Given that both self-efficacy and authoritative parenting individually predicted academic performance, we also examined the interaction between those variable. Results indicated that the model including self-efficacy, authoritative parenting,

and the interaction term (self-efficacy \times authoritative parenting) was significant, $F = 6.88, p < .001, R^2 = .074$. However, academic self-efficacy was the only significant predictor in this model, $\beta = .24, t_{(3)} = 3.98, p < .001$. See Table 4 for regression analyses.

DISCUSSION AND CONCLUSION

The results of the current study corroborate the findings of previous research (e.g., Strage & Brandt, 1991) concluding that parenting characteristics such as supportiveness and warmth continue to play an important role in influencing a student's academic performance even after entering college. However, it should be noted that in the current study females, European Americans, and first-year college students were overrepresented compared to males, non-European Americans, and students beyond the first year. The current study found that authoritative parenting style significantly predicted academic performance, and no relation was found for permissive and authoritarian parenting styles. Findings

TABLE 4.
Regression Analysis for Predictors of Academic Performance

Variable(s)	F	p	R ²	β
Model 1				
ATT	3.26	< .05	.037	.127
Model 2				
IM	2.93	< .05	.033	.094
Model 3				
ATT	—	—	—	ns
SE	—	—	—	.240
Model 4				
ATT	—	—	—	ns
SE	—	—	—	.240
ATT \times SE	—	—	—	ns

Note. ATT = authoritative, IM = intrinsic motivation, SE = self-efficacy, ns = not significant.

also supported previous research based on SDT, which posits the relation between students being intrinsically motivated and academically successful. Although intrinsic motivation significantly predicted participants' academic performance, amotivation (i.e., lack of motivation) was also negatively associated students' performance.

Report of higher academic self-efficacy was, as hypothesized, significantly correlated with report of GPA. This supports the idea that the more a student believes she/he is capable of achieving in her/his academic studies, the more likely she/he is to actually succeed academically. This may prove to be a cycle of ever-improving performance in that the more a student succeeds, the more confident he/she will become of succeeding in the future. Also, the current study found that reports of longer amounts of time spent each week studying significantly correlated with academic self-efficacy. Of course when students study more, they are more likely to be confident in their knowledge of the material, which may also increase their academic success. However, when students spend little time studying, they are more likely to doubt their grasp of the material.

The results of this study demonstrate that parental influence plays an important role in young adults' academic performance even during a time of transition to life away from home. Although university students venture out on their own, previous experiences with their parents seem to continue to affect the students' success in college. For example, students who viewed that their parents encouraged their development of communication skills and autonomy while providing a set of boundaries to work within (i.e., authoritative parenting style) were predicted to have better academic success. These students not only tended to report higher GPAs, but also tended to have a higher academic self-efficacy.

Based on the relation between authoritative parenting, intrinsic motivation, and academic performance, the results of the current study could be applied to educational program development to improve the academic success of students. For example, one application could be promoting parenting programs that encourage home environments of warmth and autonomy throughout adolescence to help students be more academically successful throughout their education. This would enable students to develop skills that an authoritative home environment imparts, such as elements of mastery and persistence, which are important for success in college (Strage & Brandt, 1999). Although these strategies may particularly benefit young children and teenagers, alternative methods to increase motivation and self-efficacy may also be implemented at the college level. For example, college administrators could play a role by encouraging students to enroll in study skills enhancement courses during their first year of college. This may improve their motivation and self-efficacy, which may promote academic success. Some researchers have suggested that, in order to enhance students' motivation for learning, it is useful to point out the relevance of the learning material, especially in cases in which students have low spontaneous interest in the material (Vansteenkiste, Lens, & Deci 2006). Considering difficulties associated with first generation students entering college, this could especially benefit those students.

Limitations

Although the present study supported several findings relating authoritative parenting, intrinsic motivation, and academic performance, some caveats exist regarding the interpretation of these results. First, the majority of participants were raised in a two-parent household, and their parents were highly educated. These characteristics, such as

having a parent with a college education, may have influenced how these students performed academically and how they were motivated to succeed. Second, the participants in the current study consisted mostly of European American students, and these results may not generalize to other ethnic groups. Some studies have found that authoritative parenting style is associated with academic performance in minority students (e.g., Attaway & Hafer-Bry, 2004, Taylor, Hinton, & Wilson, 1995), whereas others have found that this relation does not exist (Dearing, 2004). Another potential limitation is the way in which self-efficacy was measured. Although the SESS demonstrated good reliability in the current study, future studies may use a self-efficacy measure with more established psychometric properties.

Future Directions

Future research may examine the potential ethnic differences in parenting style and academic performance in college students. Due to limited participants from ethnic backgrounds in the current study, ethnic differences could not be examined. Additionally, examining whether

intrinsic motivation and academic self-efficacy moderates the relation between authoritative parenting and academic performance should be tested with samples of ethnic minority students (e.g., African American, Hispanic American, Asian Americans). Hall and Bracken (1996) found different parenting style trends between European Americans and African Americans. In their study, students completed the PAQ to report perceptions of their mothers' parenting styles, and 41.1% of African American students classified an authoritarian parenting style versus 18.2% of Caucasian students. Some researchers have argued that differences arise because the influence of authoritative parenting styles is not the same across cultures (Chao, 1994; Hill, 1995). It is possible that students from certain ethnic groups may not be negatively influenced by an authoritarian parenting style and authoritarian parenting may act as a protective or motivational factor to academic success.

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REFERENCES

- Attaway, N., & Hafer-Bry, B. (2004). Parenting style and Black adolescents' academic achievement. *Journal of Black Psychology, 30*, 2, 229-247.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Baumrind, D. (1966). Effects of Authoritative Parental Control on Child Behavior. *Child Development, 37*, 4, 887-907
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs, 75*, 43-88.
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence, 11*(1), 56-95.
- Baumrind, D., & Black, A.E. (1967). Socialization practices associated with dimensions of competence in preschool boys and girls. *Child Development, 38*, 291-327.
- Buri, J. (1991). Parental Authority Questionnaire. *Journal of Personality Assessment, 57*(1), 110-119.
- Chao, R. K. (1994). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development, 65*, 1111-1119.
- Chemers, M. M., Hu, L., & Garcia, B. F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology, 93*(1), 55-64.
- Coolahan, K., McWayne, C., & Fantuzzo, J. (2002). Validation of multidimensional assessment of parenting styles for low-income African-American families with preschool children. *Early Childhood Research Quarterly, 17*(3), 356-373.
- Dearing, E. (2004). The developmental implications of restrictive and supportive parenting across neighborhoods and ethnicities: Exceptions are the rules. *Journal of Applied Developmental Psychology, 25*, 555-575.
- Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: The self-determination perspective. *Journal of Personality, 62*, 119-142.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Dornbusch, S., Ritter, P., Leiderman, P. H., Roberts, D., & Fraleigh, M. (1987). The relation of parenting style to adolescent school performance. *Child Development, 58*, 1244-1257.
- Dornbusch, S., Ritter, P., & Steinberg, L. (1991). Community influences on the relation of family statuses to adolescent school performance: Differences between African Americans and Non-Hispanic Whites. *American Journal of Education, 99*, 4, 543-567.
- Hall, W. N., & Bracken, B. A. (1996) Relationship between maternal parenting styles and African American and White adolescents' interpersonal relationships. *School Psychology International, 17*, 253-267.
- Hill, N. E. (1995). The relationship between family environment and parenting style: A preliminary study of African American families. *Journal of Black Psychology, 21*(4), 408-423.
- Ingoldby, B., Schvaneveldt, B., Supple, A., & Bush, K. (2003). The relationship between parenting and behaviors and adolescent achievement and self-efficacy in Chile and Ecuador. *Marriage and Family Review, 35*(3), 139-159.
- Joshi, A., Ferris, J., Otto, A., & Regan, P. (2003). Parenting styles and academic achievement in college students. *Psychological Reports, 93*, 823-822.
- Pajares, F. (1996). Self-efficacy in academic settings. *Review of Educational Research, 66*, 543-578.
- Park, H., & Bauer, S. (2002). Parenting practices, ethnicity, socio-economic status and academic achievement in adolescents. *School Psychology International, 23*(4), 386-396.
- Peng, S. S., & Wright, D. (1994). Explanation of academic achievement of Asian American students. *Journal of Educational Research, 87*(6), 346-352.
- Querido, J., Warner, T., & Eyberg, S. (2002) Parenting styles and child behavior in African American families of preschool children. *Journal of Clinical Child Psychology, 31*(2), 272-277.
- Reitman, D., Rhode, P., Hupp, S. D. A., & Altobello, C. (2002). Development and validation of the Parental Authority Questionnaire-Revised. *Journal of Psychopathology and Behavioral Assessment, 24*, 119-127.
- Strage, A., & Brandt, T. S. (1999). Authoritative parenting and college students' academic adjustment and success. *Journal of Educational Psychology, 91*(1), 146-456.
- Taylor, L., Hinton, I., & Wilson, M. (1995). Parental influence on academic performance in African-American students. *Journal of Child and Family Studies, 4*(3), 293-302.
- Turner, L. A., & Johnson, B. (2003). A model of mastery motivation for at-risk preschoolers. *Journal of Educational Psychology, 95*(3), 495-505.
- Vallerand, R., Pelletier, L., Blais, M., Brière, N., Senécal, C., & Vallières, E. (1992). A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement, 52*, 1003-1017.
- Vansteenkiste, M., Lens, W., & Deci, E. L. (2006). Intrinsic versus extrinsic goal contents in self-determination theory: Another look at the quality of academic motivation. *Educational Psychologist, 41*(1), 19-31.
- Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K. M., & Deci, E. L. (2004). Motivating learning, performance, and persistence: The synergistic role of intrinsic goals and autonomy-support. *Journal of Personality and Social Psychology, 87*, 246-260.
- Watson, D. L., & Tharp, R. G. (2002). *Self-directed behavior: Self-modification for personal adjustment* (8th ed.). Pacific Grove, CA: Brooks/Cole.