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The Relationship Between Parenting Styles, Learning Autonomy, and Scholastic Achievement in Undergraduate College Students

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THE RELATIONSHIP BETWEEN PARENTING STYLES, LEARNING AUTONOMY, AND
SCHOLASTIC ACHIEVEMENT IN UNDERGRADUATE COLLEGE STUDENTS

by

Meghan L. Starr

A Thesis

Presented to the Faculty of
Bucknell University
In Partial Fulfillment of the Requirement for the Degree of
Master of Science in Education

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I, Meghan L. Starr, do grant permission for my thesis to be copied.

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Abstract

Throughout the years, the role that parents play with regard to a child's academic achievement has been the source of considerable research. The type of parenting style employed by parents, whether it is authoritarian, authoritative, or permissive, has and continues to be a major theme in these studies. One area of particular interest that has been overlooked in these studies, however, is the influence that parents may have on a student's learning autonomy. Learning autonomy is the idea that a student has internal motivation to learn or achieve. The purpose of this study was to investigate the relationship among the three styles of parenting, learning autonomy, perceived parental autonomy support, and scholastic achievement in undergraduate college students. Sixty-one participants were recruited at a small liberal arts college in the northeastern United States to complete questionnaires, which measured perceived parental authority of the participants' parents, perceived parental autonomy support, and students' own learning autonomy. The participants were also asked to list their grade point average. The results revealed positive and negative correlations between many of the variables in the study; however, simple regression analyses did not yield any statistically significant relationships between parental authority, learning autonomy, perceived autonomy support, and scholastic achievement.

Chapter 1

Introduction

“Student achievement involves all aspects of learning including cognition, decision-making, and adjustment and has mediating factors that are confounding to students, parents, and educators alike” (Brown & Iyengar, 2008, p. 15). One such mediating factor is the effect of parenting style. There is a substantial body of research on parenting styles and their effects on child and adolescent development. There is somewhat less research into the effects of parenting style on college student achievement, specifically in the relationships that might exist between parenting style, the child’s tendency to be autonomously regulated, and subsequent academic achievement. This study seeks to determine the extent of these relationships with a sample of college students. An examination of these relationships with older, more independent children is important to advance our understanding of the longer-term implications of parenting styles and child outcomes. It is not unexpected that parenting styles would exert a considerable influence over children while the children are still at home and quite dependent on the parents for day-to-day functioning. However, how much residual influence might parenting style have once the children leave home for college? Will the strong relationships that have been found with children and adolescents still at home be found with young adults who attend college away from home?

There are four main types of parenting style, authoritarian, authoritative, and permissive, which was later split into permissive-indulgent and permissive-indifferent or

neglectful (Darling & Steinberg, 1993). For the purposes of this study, the permissive types will be grouped together. “The permissive parent attempts to behave in a non-punitive, accepting, and affirmative manner toward the child’s impulses, desires, and actions” (Baumrind, 1966, p. 889). The permissive parent consults with the child regarding policy decisions and gives explanations regarding family rules. Few demands are made of the child regarding such things as chores, for example. This type of parenting does not require the parent to act as an active agent responsible for shaping or altering the child’s ongoing future (Baumrind, 1966). The child is allowed to regulate his or her own activities. The parent does not control the child nor encourage the child to obey external standards. Reasoning is used over power to accomplish things. According to this type of parenting, self-regulation means the right of a child to live freely without outside authority. Those supporting this type of parental style (Baumrind, 1968) feel that punishment has inevitable negative side effects and is an ineffective means of controlling behavior. They also feel that close supervision, high demands, and other manifestations of parental authority provoke rebelliousness in children. According to those who espouse this parenting type, firm parental control generates passivity and dependence in the child (Baumrind, 1968). Permissiveness frees the child from the presence and authority of the parent.

The authoritarian parent tries to shape, control, and evaluate the behavior and attitudes of the child in accordance with a set standard of conduct (Baumrind, 1966). Obedience is a virtue and punitive measures are used to curb self-will. When the child expresses actions or beliefs that are different from what the parent wants, these actions or

beliefs go against what the authoritarian parent sees as good conduct. This type of parenting tries to institute respect of authority, respect for work and preservation of order and traditional structure. Verbal give and take is not encouraged and the parent's word should be accepted as right. Maintenance of structure and order are high priorities for these parents.

The authoritative parent tries to direct the child, but in a rational manner (Baumrind, 1966). Such a parent encourages give and take but shares the reasoning behind his or her rules. These parents value both autonomous self-will and disciplined conformity. They exercise firm control with certain points but the child is not tied up with restrictions (Baumrind, 1966). They value the rights of being a parent and an adult but also value the child's individual interests and qualities. Standards for future conduct are set. Reasoning with power is typical and decisions are not based decisions on group consensus or the desires of the child but the parent is also not seen as the final authority. The assumption is that authoritative control can achieve responsible conformity with group standards without loss of individual autonomy or self-assertiveness. "By using reason, the authoritative parent teaches the child to seek the reasons behind directives and eventually to exercise his option either to conform, or to deviate and to cope with the consequences" (Baumrind, 1968, p. 264). Children raised by authoritative parents score higher on measures of competence, achievement, social development, self-perceptions, and mental health than do children reared by the other three parenting types (Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994).

Very early on, research findings clearly indicated the differential effects of parenting styles on child outcomes. For example, research conducted by Pikas (1961), showed that a parenting style of authority that is based on rational concern for the child's welfare is accepted well by the child and authority that is based on the adult's desire to dominate or exploit the child is rejected by the child when they are adolescents. Middleton and Snell (1963) found that when the child regarded the discipline as very strict or very permissive, there was a lack of closeness between parent and child and rebellion.

More recent work on academic achievement and academic self-concept has also shown the strong relationships between parenting style and child outcomes. In a study conducted by Steinberg, Lamborn, Darling, Mounts, and Dornbusch (1994), which followed adolescents over the course of one year, the effects of parenting style on academic competence were analyzed. Academic self-concept became more positive over time in all four groups of parenting styles, but the increase was significantly greater among authoritatively and permissively/indulgently reared children. Using a sample of high school students, Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh (1987) found that authoritarian and permissive parenting styles were negatively associated with grades and authoritative parenting was positively associated with grades.

The linkages between parenting style and child outcome measures are many and clear. The effects of parenting style on potential mediating factors of the child's academic achievement have also been studied. One such mediating factor is the child's

own sense of autonomy with regard to learning. “Autonomy refers to being self-initiating and self-regulating of one’s own actions” (Deci, Vallerand, Pelletier, & Ryan, 1991, p. 326). Autonomy is an essential part of learning. The learner needs to feel a sense of choice and self-determination, rather than control. Learning is most optimal when the learner is intrinsically motivated to engage and assimilate the information (Thomas, as cited in Grolnick & Ryan, 1987). Self-determination theory posits that there are three inherent psychological needs. These needs are the need for competence, the need for relatedness, and the need for autonomy. Intrinsic motivation is an attempt to fulfill these needs. Intrinsically motivated behaviors are those that are engaged in for pleasure or satisfaction (Deci, et al., 1991). Once these needs are fulfilled, optimal well-being and development are attained in the individual (Deci & Vansteenkiste, 2004). In exploring how self-regulation or autonomy relate to achievement, research has shown that one of the most significant affective goals of education is the capacity to be self-regulating or autonomous with respect to the learning process and to one’s own behavior (Deci & Ryan, 1985). Baumrind (as cited in Grolnick & Ryan, 1989) found that children of authoritative parents were more self-reliant and independent and children of authoritarian parents were more withdrawn and discontent. Does parenting style impact on the development of autonomy and does this autonomy lead to higher academic achievement?

Student achievement is the result of learning, instruction, school environment, and family conditions, and the impact of student achievement on society can be staggering when considering the ramifications for the next generation (Brown & Iyengar, 2008). It is important therefore to understand what relationships might exist between and among

these important variables. This study seeks to determine the relationship between the three styles of parenting, learning autonomy, perceived autonomy support, and scholastic achievement in undergraduate college students.

Specifically, this study will examine the following hypotheses:

H1: Parenting style will be a significant predictor of college student learning autonomy. Authoritative parenting styles will predict higher learning autonomy.

H2: Parenting style will be a significant predictor of college student scholastic achievement. Authoritative parenting styles will predict higher scholastic achievement.

H3: Perceived parental autonomy support will be a significant predictor of college student scholastic achievement.

H4: Perceived parental autonomy support will be a significant predictor of college student learning autonomy.

H5: A college student's regulation will be a significant predictor of their own scholastic achievement. Autonomously regulated students will have higher scholastic achievement.

Chapter 2

Review of Literature

Parenting may arguably be the most important factor contributing to a child's development. The importance of parenting choices has been supported throughout the years in the research on the effects of parental influence on the developmental processes of children (Stevenson & Baker, as cited in Glasglow et al., 1997). The foci of these studies have been on topics such as parental attitudes, child-rearing behaviors, and parent-child relationships as they relate to aspects of children's development (Maccoby & Martin, as cited in Grolnick & Ryan, 1989). What follows is a discussion of the various parenting style typologies and the effects that these parenting styles have on the development of children and adolescents. The review of the literature also explores the relationship between parenting styles and the scholastic achievement of their children and adolescents. The chapter ends with a discussion of the relationship between parenting styles, scholastic achievement, and autonomy of children and adolescents with regard to their own learning.

Definitions of Parenting Styles

Parenting style is described as a combination of attitudes toward the child that are communicated to the child and create an emotional climate in which the parents' behaviors are expressed and the child's behavior is influenced (Darling & Steinberg, 1993). This emotional climate is created through parenting practices and more non-direct behaviors such as gestures, tone of voice when addressing the child, and expression of

emotion toward the child (Darling & Steinberg, 1993). Parental influence, as researched by Diana Baumrind (1978), is divided into three main prototypes of parenting styles. The three different prototypes of parenting style researched and described by Baumrind are permissive, authoritarian, and authoritative styles. Maccoby and Martin (as cited in Darling & Sternberg, 1993) further defined these parenting styles using two underlying processes. These processes were the number and types of demands made by the parents and the contingency of parental reinforcement. Each style is characterized by the level of demandingness and responsiveness. “Demandingness refers to the extent to which parents show control, maturity demands, and supervision in their parenting. Responsiveness refers to the extent to which parents show affective warmth, acceptance, and involvement” (Aunola, Stattin, & Nurmi, 2000, p. 206). Grolnick and Ryan (1989) added two more dimensions to the parenting styles as proposed by Baumrind (1967), those of autonomy support and structure. “Autonomy support refers to the degree to which parents value and use techniques which encourage independent problem solving, choice, and participation in decisions versus externally dictating outcomes, and motivating achievement through punitive disciplinary technique, pressure, or controlling rewards” (Grolnick & Ryan, 1989, p. 144). Structure referred to the “extent to which parents provide clear and consistent guidelines, expectations, and rules for child behaviors, with respect to the style in which they are promoted” (Grolnick & Ryan, 1989, p. 144). What follows is a brief review of the three main styles of parenting.

The authoritative parenting style is high in warmth and autonomy-granting with regard to the child (Steinberg et al., 1994). Authoritative parents are both responsive to

the needs of their children but are also demanding in that they set expectations for their children. Authoritative parents set clear standards for their children but also encourage independence and open communication between the children and parents. Authoritative parents recognize both the rights of children and the rights of parents (Baumrind, 1971). Maccoby and Martin asserted that “these parents score high on measures of warmth and responsiveness and high on measures of control and maturity demands” (as cited in Spera, 2005, p. 134). This parenting type is associated with high social and cognitive competence in children and these children are more independent than those of other parenting style counterparts (Baumrind, 1973). “Authoritative parents instill academic and social competence by helping children balance the need for autonomous, active thinking with other-oriented, rule-following tendencies” (Walker, 2010, p. 221).

The authoritarian parenting style is high in control but low in warmth toward the child (Glasgow et al., 1997). This parenting style is characterized by a high level of demandingness and little responsiveness by the parents to the needs of the child. The expectation among these parents is that rules are followed without question. Maccoby and Martin indicated that “this parenting type scores high on measures of maturity demands and control but low on measures of responsiveness, warmth, and bidirectional communication” (as cited in Spera, 2005, p. 134). The environment with regard to this parenting style is extremely structured (Baumrind, 1971). This parenting style is associated with low levels of independence and social responsibility in their children (Baumrind, 1967).

The permissive parenting style is high in warmth but lacking in control toward the child (Baumrind, 1967). This parenting style is characterized as being more responsive to the needs of the child but less demanding. Permissive parents are extremely lenient and tolerant of the impulses of the child. They rarely demand mature behavior of the child and allow high degrees of self-regulation (Baumrind, 1967, 1971). Maccoby and Martin asserted that “these parents score moderately high on measures of responsiveness and low on measures of maturity demands and control” (as cited in Spera, 2005, p. 135). This parenting style is associated with immaturity in children, lack of impulse control and self-reliance, and a lack of social responsibility and independence. This parenting style is also indicative of low levels of social and cognitive competence (Baumrind, 1973).

Scholastic Achievement

Research has shown that each of the parenting styles described previously is related to differential outcomes for children and adolescents in many areas including academic motivation and academic success (Silva, Dorso, Azhar, & Renk, 2007). Early research in the field demonstrated that family background and social context are the primary influences in determining children’s achievement (Coleman et al, 1966). Recent attention has been given to examining the relationship between a child’s home environment and the child’s school environment (Scaringello, as cited in Spera, 2005). “Within the last decade, researchers in psychology, sociology, and education have shown that parental influence does not decline as children mature into adolescents” (Stevenson & Baker, as cited in Glasgow, Dornbusch, Troyer, Steinberg, & Ritter, 1997, p. 507).

Authoritative parenting. Children of authoritative parents have consistently higher scores on measures of psychosocial competence and school achievement. “Research indicates that nonauthoritative styles of parenting are less effective than authoritative parenting in promoting a sense of instrumental competence among adolescents” (Baumrind, as cited in Glasgow et al., 1997, p. 510). Instrumental competence is the ability for adolescents to balance other-oriented, rule-following tendencies with individualistic, autonomous, active thinking (Darling & Steinberg, as cited in Glasgow et al., 1997). Authoritative parents exude the demandingness and responsiveness characteristics that contribute to the development of instrumental competence in adolescence (Glasgow et al., 1997). One of the first studies to find the positive relationship between authoritative parenting styles and student achievement was conducted by Diana Baumrind in 1967. Baumrind conducted a longitudinal study with a sample of children from preschool through adolescence. She found that preschool children of authoritative parents were more mature, independent, prosocial, active, and achievement-oriented than children of nonauthoritative parents. Preschool children of permissive parents scored low on measures of self-reliance, self-control, and competence. The relationship between parenting styles and academic achievement was again examined with this sample of children when they reached adolescence and Baumrind found outcomes during adolescence consistent with those she found when these children were preschoolers.

Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh (1987) tested Diana Baumrind’s typology of parenting styles in the context of adolescent school performance

and found that high school students tended to get lower grades when their descriptions of family behavior indicated authoritarian and permissive parenting styles. The study sampled 7,386 high school students from a San Francisco Bay area high school. Parenting style indices were developed to conform to Baumrind's parenting styles of authoritative, authoritarian, and permissive. Measures of student performance included self-reported grades and grade-point averages. Demographic variables were also collected on ethnicity, parental education, and family structure. Authoritarian and permissive parenting styles were negatively associated with grades and authoritative parenting was positively associated with grades.

Pratt, Green, MacVicar, and Bountrogianni (as cited in Walker, 2008)) found parents' efforts to support children's understanding of mathematical tasks to be more effective in authoritative than nonauthoritative contexts. Hokodan and Fincham (as cited in Walker, 2008)) found that children whose parents offered encouragement and support and were authoritative during problem-solving activities demonstrated more interest and confidence, persisted longer, and had higher rates of task completion than did children whose parents used a controlling, authoritarian teaching stance. Durkin (1995) cited three reasons explaining why authoritative parenting may be related to positive school outcomes. Authoritative parents provide their children with a high level of emotional security that gives a sense of comfort and independence and helps them to succeed in school. Authoritative parents provide their children with explanations for their actions, which provide children with a sense of awareness and understanding of their parents' values, morals, and goals. The last reason suggested is that authoritative parents engage

in bidirectional communication with their children, which nurtures skills in interpersonal relations and helps children to become well adjusted and more popular and helps children succeed socially and academically.

In 1997, Glasgow et al. examined the relations between parenting styles, adolescents' attributions, and educational outcomes of classroom engagement, homework, academic achievement, and educational expectations. Approximately 11,000 adolescents attending six high schools in California and three high schools in Wisconsin during the 1987-1988 and 1988-1989 school years completed questionnaires asking for their ethnic identification, socioeconomic status, family structure, and age. These questionnaires also consisted of a parenting style index, a dysfunctional attributional style index, and questions regarding the students' classroom engagement, homework, academic achievement, and educational expectations. The parenting items consisted of a three-point Likert format and true-false distinctions. Attributional style items were collected based on reasons for grades received in academic subjects. Students were asked to choose their most important one or two perceived causes from among luck, effort, teacher bias, task difficulty, and ability. Classroom engagement items consisted of students being asked to indicate the frequency with which they pay attention to class work, concentrate, try hard, or let their minds wander, and responses were coded on a 5 point scale ranging from "never" to "always" or "almost every day." Homework was measured by the amount of time spent on homework each week. Academic achievement was measured by asking students to pick one of five statements describing their grades. Educational expectations were measured by asking students to pick from one of six

statements describing the highest level they expect to go in school. It was found that adolescents from nonauthoritative parenting environments were less inclined to view their academic achievements as products of their own capacities and persistence. These students attributed their grades to external causes or low ability.

Permissive and authoritarian parenting. In permissive homes, it has been suggested that under-controlled environments do not foster self-regulation in children and may leave them more impulsive (Barber, as cited in Aunola et al., 2000). This parenting style has been associated with children's and adolescents' underachievement (Onatsu-Arvilommi & Nurmi, as cited in Aunola et al., 2000). Authoritarian parenting practices tend to prevent the development of instrumental competence in adolescence, as the emphasis is more on conforming to rules and standards. Self-regulation, individuality, and autonomous thinking are not valued and therefore not encouraged by parents who practice such a parenting style. The overemphasis on obedience reduces an adolescent's perception of competence, self-reliance, and internal motivation to achieve (Steinberg et al., as cited in Glasgow et al., 1997). Active exploration and problems solving are not encouraged by authoritarian parents and dependence on adult control and guidance is encouraged (Aunola et al., 2000). Aunola and colleagues (2000) examined the extent to which adolescents' achievement strategies are associated with the parenting styles of their families. The study included 354 eighth grade students in central Sweden and 313 parents. The students were asked to complete questionnaires during school hours on their achievement strategies, well-being, and the parenting styles of their families. Achievement strategies were measured using a Strategy and Attribution Questionnaire

and parenting styles were assessed using the Orebro Parenting Style Inventory for Adolescents. The parents were contacted by mail and asked to fill out questionnaires measuring parenting styles and the achievement strategies used by their children. Four types of parenting styles were identified: authoritative, authoritarian, permissive, and neglectful. Results of the study found that adolescents of authoritative families were found to most often apply adaptive, task-oriented strategies. They had low levels of failure expectations, task-irrelevant behavior, and passivity, and more frequently used self-enhancing attributions. Authoritarian parenting was found to be associated with maladaptive strategies, passive behavior, and a lack of use of self-enhancing attributions. This parenting style and particularly excessive control have been associated with children's passivity (Barber, as cited in Aunola et al., 2000) and a lack of interest in school (Pulkkinen, as cited in Aunola et al., 2000)., Adolescents from neglectful families were also found to use maladaptive strategies, high levels of passivity, and task-irrelevant behavior. Adolescents from permissive families differed only in that they reported a higher level of self-enhancing attributions than did those from authoritarian families.

Ginsburg and Bronstein (1993) examined parental surveillance of homework, parental reactions to grades, and family style and their relation to motivation orientation and academic achievement in children. Family, parent, child, and teacher measures were used. Results showed that parental surveillance of homework was negatively related to children's intrinsic motivation and academic achievement, and extrinsic rewards offered for good or bad grades was associated with lower grades and poorer achievement scores.

Based on this review of the literature, it can be seen that parenting styles are related to a number of aspects of academic achievement. Specifically, children of authoritative parents have been found to have higher grades (Dornbusch et al., 1987), higher interest and confidence in academics (Walker, 2008), and showed higher rates of persistence with regard to achievement than did those children of nonauthoritative parents (Glasgow et al., 1997). Authoritative parents are also more successful than nonauthoritative parents in promoting instrumental competence in adolescents (Glasgow et al., 1991), which is the ability to balance the rules, norms, and expectations of society with their own individualistic, autonomous thinking. Children of nonauthoritative parents have been found to be more passive and dependent in the educational environment (Aunola et al., 2000). These children have also been found to utilize more maladaptive achievement strategies.

Learning Autonomy

In Self-Determination Theory, the satisfaction of innate, psychological needs is necessary for ongoing psychological growth, integrity, and well-being (Deci & Ryan, 2000). Self-Determination Theory proposes that people have three needs, namely the need for competence, the need for relatedness, and the need for autonomy, or self-determination. The need for competence refers to a sense of efficacy in dealing with one's environment. The need for relatedness is the need to interact with, be connected to, and care for other people and be loved and cared for. The need for autonomy is the need for people to have a choice when acting and to be self-initiating and self-regulating of

one's own actions. It concerns the experience of integration and freedom (Deci & Ryan, 2000). According to Self-Determination Theory, satisfaction of basic psychological needs constitutes the central psychological process through which intrinsic motivation, the integrative tendency, and intrinsic goal pursuits are facilitated, resulting in well-being and optimal development. When these needs are frustrated, alienation, extrinsic goal striving, and ill-being result (Deci & Vansteenkiste, 2004).

In the classroom, these needs take on certain forms. The need for competence might be translated as the need for a student to understand their schoolwork. The need for relatedness might be translated into the need for a student to belong, have personal support, and security in their school relationships. The need for autonomy might translate into the need for decision-making capacities in school in terms of initiation, inhibition, maintenance, and redirection of activities (Connell, as cited in Stefanou, Perencevich, DiCintio, & Turner, 2004). If students perceive classroom tasks and events as facilitative of these needs, engagement in learning is more attainable (Stefanou et al., 2004).

Self-Determination Theory proposes that the three psychological needs are considered essential for understanding the content and process of goal pursuits because people will tend to pursue goals, domains, and relationships that allow or support their need satisfaction (Deci & Ryan, 2000). People engage in growth-oriented activity and are naturally inclined to act on their inner and outer environments, engage activities that

interest them, and move toward personal and interpersonal unity when they are in a context that allows needs satisfaction (Deci & Ryan, 2000).

Intrinsic motivation is considered by self-determination theorists to be a basic, lifelong psychological growth function. “Intrinsically motivated behaviors are those that are freely engaged out of interest without the necessity of separable consequences, and, to be maintained, they require satisfaction of the needs for autonomy and competence” (Deci & Ryan, 2000, p. 233). Experiences of competence and autonomy are essential for intrinsic motivation and interest. Behavior is autonomous or self-determined when an individual perceives the locus of causality to be internal to his or herself. When a behavior is controlled, the perceived locus of control is external to the individual (Deci, Vallerand, Pelletier, & Ryan, 1991). “Opportunities to satisfy the need for autonomy are necessary for people to be self-determined rather than controlled” (Deci et al., 1991, p. 328). Intrinsically motivated behaviors are the most autonomous, and self-determined behaviors are the most volitional and emanate from a person’s sense of self (Deci & Ryan, as cited in Stefanou et. al., 2004). Studies have shown that events such as threats, surveillance, evaluation, deadlines, and extrinsic rewards undermine autonomy and decrease intrinsic motivation because they prompt the perceived locus of causality to be seen as external (Amabile, DeJong, & Lepper, as cited in Deci & Ryan, 2000). Deci, Koestner, and Ryan (as cited in Deci & Ryan, 2000) found that when extrinsic rewards are introduced for doing an intrinsically interesting activity, the locus of causality shifts from internal to external. A meta-analysis including 128 studies spanning three decades found that monetary and contingent tangible rewards undermined intrinsic motivation.

Studies have also shown that the provision of autonomy support, as opposed to exercising control, is associated with more positive outcomes, such as greater intrinsic motivation, increased satisfaction, and enhanced well-being (Deci & Ryan, 2000). Reeve and Deci (as cited in Deci & Ryan, 2000) examined the effects of competition on intrinsic motivation for puzzle solving in a controlling and non-controlling setting. Less intrinsic motivation was found when people were pressured to win in a controlled context. The participants' perceived autonomy was also tied to less intrinsic motivation when in a controlled context.

Teaching Styles

Much of the current research on autonomy support has been conducted on teaching practices. Patrick, Turner, Meyer, and Midgely (2003) observed sixth grade classrooms during the first days of school and identified three types of classroom environments. These types were supportive, non-supportive, and ambiguous. The supportive classroom involved high expectations for student learning, teacher humor, and respect. The non-supportive classroom emphasized extrinsic reasons for learning, used authoritarian control, and expressed expectations that the students would cheat or misbehave. The ambiguous type offered inconsistent attention to students' personal and academic needs, such as expressing a desire for student learning but having low expectations, and used contradictory forms of management. These classroom environments were reflective of authoritative and non-authoritative parenting styles and it was found that the supportive classroom fostered a less defensive learning orientation

than did the non-supportive and ambiguous contexts. Walker (2008) used the parenting style framework to explain the influence of teacher practices on student outcomes. The participants were three fifth grade math teachers and 45 of their students. Teacher practices, student engagement, self-efficacy, and standardized achievement test scores were studied. Teaching styles were separated into authoritative, authoritarian, and permissive by their degree of responsiveness and demandingness in the classroom. The authoritative teaching style encompassed consistent classroom management, support of student autonomy, and personal interest in students. The authoritarian teaching style encompassed consistent classroom management but limited autonomy support and limited personal interest in students. The permissive teaching style encompassed inconsistent management, autonomy support, and interest in students. Results found the authoritative teaching style to result in the most academically and socially competent students. Students that experienced the authoritarian teaching style were disengaged and had limited ability beliefs. Students that experienced the permissive teaching style experienced smaller academic gains.

Self-Determination theory (Ryan & Deci, 2000) proposes that a teacher's instructional style can be conceptualized along a continuum that ranges from highly controlling to highly autonomy supportive (Deci, Schwartz, Sheinman, & Ryan, as cited in Jang, Reeve, & Deci, 2010). Teacher behaviors have been found to increase learning autonomy in students. Autonomy support implies facilitating and encouraging students to pursue their personal goals and supporting students' endorsement of classroom behaviors (Sierens, Vansteenkiste, Goosens, Soenens, & Dochy, 2009). Teachers who

support student autonomy provide students with choice, give reasons when choice is not given by empathizing with the learner's perspective, and avoid using controlling language. "Autonomy-supportive teachers facilitate students' personal autonomy by taking the students' perspective; identifying and nurturing the students' needs, interests, and preferences; providing optimal challenges; highlighting meaningful learning goals; and presenting interesting, relevant, and enriched activities" (Jang et al., 2010, p. 589). Research shows that students with autonomy-supportive teachers compared with students of controlling teachers displayed more positive educational outcomes, such as enhanced classroom engagement, conceptual understanding, better grades, and enhanced psychological well-being (Reeve, Deci, & Ryan, as cited in Jang et al., 2010). Other positive outcomes include intrinsic motivation (Zuckerman, Porac, Lathin, Smith, & Deci, 1978), preference for optimally difficult work (Harter, 1978), striving for conceptual understanding (Grolnick & Ryan, 1989), a sense of enjoyment and vitality (Ryan & Deci, 2000), and perceived competence (Cordova & Lepper, as cited in Stefanou et al., 2004).

The use of structure in a classroom has also been found to contribute to the learning process. "Structure involves the communication of clear expectations with respect to student behaviour" (Sierens et al., 2009, p. 59). It also refers to the amount and clarity of information that teachers provide to students about expectations and ways of effectively achieving desired educational outcomes (Skinner & Belmont, as cited in Sierens et al., 2009). Teachers who use structure set limits and continually follow through. The use of structure also involves providing learners with assistance for

engaging in a task. Teachers providing structure also give competence-relevant feedback and express confidence in students' abilities to achieve required outcomes (Sierens et. al., 2009). Teacher-provided structure helps students to develop a sense of perceived control over school outcomes. It helps students to develop perceived competence and an internal locus of control (Jang et al., 2010).

Self-Determination Theory also suggests that the way in which structure is delivered in the classroom has an effect of the type of learning outcome that is achieved and student autonomy. When teachers communicate structure in the classroom as respect for the learners' perspective, when they rely on non-controlling language to communicate expectations, and they give meaningful explanations for limits, students experience a greater sense of freedom when following this structure. When structure is delivered by teachers in a controlling way, such as punishing for not meeting standards, when they use controlling language when communicating expectations, and when they challenge resistance, the educational benefits are less likely to be accomplished and students feel pressured. Burgess, Enzle, and Schmaltz (as cited in Sierens et al., 2009) found that setting deadlines in an autonomy-supportive fashion resulted in higher intrinsic motivation and free-choice persistence compared to externally imposed deadlines among university students.

Recent examinations of teacher influence on student outcomes affirm the importance of firm control, autonomy support, and responsiveness in establishing effective learning environments, which is consistent with the authoritative parenting style

(Walker, 2008). According to Self Determination Theory, the need for competence, the need for relatedness, and the need for autonomy all need to be satisfied for psychological well-being. In examining the various parenting styles, it can be concluded that the authoritative parenting style would be most facilitative of these needs. Authoritative parents are high in warmth towards their children, which would satisfy the need to be connected to and be loved and cared for by others. This parenting style is autonomy supportive of their children, which would satisfy the need to have choices when acting. These parents are also more effective in promoting instrumental competence in their children, which would satisfy the need to feel that they are able to deal with their environment.

Parental influences and certain parenting styles have been linked to autonomy development in children. As previously stated authoritative parents are high in supporting autonomy of their children. Parents influence the self-regulatory and self-evaluative capacities of their children by encouraging independent problem solving, choice, and participation in decisions (Grolnick & Ryan, 1989). “Appropriate autonomy support (i.e., maturity demands) offers children opportunities for independent practice with concepts and procedures” (Grolnick et al., as cited in Walker, 2008, p. 221).

Grolnick and Ryan (1989) proposed that parental autonomy support lays the groundwork for self-regulation and the independence necessary for school success and is predictive of self-regulation and achievement outcomes. Their study measured parent style, autonomy support, involvement, and provision of structure. The sample, which

included 114 parents, 64 mothers and 50 fathers, and 36 male children and 30 female children, was randomly selected from an elementary school that was one hour north of a middle-sized northeastern city. Each parent was questioned about how they motivated their children, how they responded to their child behavior, the amount of time per week they spent with the child and their educational and occupational aspirations for their child were. Parents were also asked to describe typical conflicts that occurred with their child and how they were resolved. Based on their responses to the interview, the parents were rated on 5-point scale associated with autonomy support, involvement, and structure by the interviewer and an observer. Children were asked to complete the Academic Self-Regulation Questionnaire, which assessed children's styles of regulating their behavior in the academic domain on a continuum from external control to autonomous self-regulation, the Multidimensional Measure of Children's Perceptions of Control, which evaluated children's understanding of who or what controls success and failure outcomes in their everyday lives, and the Perceived Competence Scale, which assessed children's perceptions of their academic competence. Teachers were asked to complete the Teacher-Classroom Adjustment Rating Scale, which assessed children's school difficulties, and the Teacher Rating Scale, which measured teacher's perceptions of children's academic competence. Academic achievement was measured by the mean of the year's math and reading Metropolitan Achievement Test and Pupil Educational Progress test scores, as well as classroom grades. Results found that autonomy support was consistently related to children's self-regulation, competence, and adjustment.

Combined autonomy support from the mother and the father, positively predicted children's self-regulation and was inversely related to acting out and learning problems.

There is a substantial research base that supports the positive relationship between authoritative parenting styles and academic achievement (Steinberg et al., 1994; Glasgow et al., 1997; Dornbusch et al., 1987). Nonauthoritative parenting styles have been found to negatively impact academic achievement (Dornbusch et al., 1987), as well as other psychological aspects of development (Steinberg et al., 1994). The authoritative parenting style is also much more facilitative of autonomy support with regard to child rearing practices (Glasgow et al., 1997). Research supports the idea that a child's perceived sense of autonomy has a positive relationship with his or her academic achievement. Students with autonomy supportive teachers attained better grades and preferred more difficult work. Further, teaching styles have been researched, and it has been found that teaching styles mirroring that of an authoritative parenting style (i.e. consistent classroom management, support of student autonomy, personal interest in students, and setting reasonable limits and expectations) produced the most academically and socially competent students. The effect of parenting styles on the academic outcomes of college students, however, is still unclear (Joshi, Ferris, Otto, & Regan, as cited in Silva, Dorso, Azhar, & Renk, 2007). As such, the purpose of the present study is to investigate the relationship between parenting styles and their effect on college student learning autonomy and academic achievement.

Chapter 3

Method

This study focused on the relationship among the three types of parental authority (permissive, authoritarian, and authoritative), perceived parental autonomy support, student's learning autonomy, and scholastic achievement in undergraduate college students.

Participants

This sample of convenience had 61 undergraduate college students attending a liberal arts university in the northeast. The participants ranged in age from 18 – 23 years old. The final sample included 11 men and 50 women. Of those participants, 22 were freshman, 7 were sophomores, 8 were juniors, and 24 were seniors.

Procedure

The researcher recruited participation through the university's message center. A recruitment message was sent out weekly, between October 25, 2010 and February 11, 2011, briefly describing the purpose of the study, the projected time commitment, and potential benefits. All participants were 18 years of age or older. Questionnaires and scales were posted on the university's websurveyor system. Completion of the questionnaires and demographics questions took approximately 20-25 minutes.

Instruments

Self-report questionnaires.

Parental Authority Questionnaire. *The Parental Authority Questionnaire* (PAQ) (Buri, 1991) is a questionnaire devised by John Buri designed to measure the style of parenting employed by fathers and mothers. Permission to use the Parental Authority Questionnaire was obtained by Buri prior to utilizing it in this study. The questionnaire contains 30 items developed to measure the permissive, authoritarian, and authoritative parenting types established by Baumrind (1971). The questionnaire contains 10 authoritarian, 10 permissive, and 10 authoritative items, and yields parental authority scores for each style based on the phenomenological appraisal by the respondent. The PAQ has two forms, one pertaining to mothers' parental authority, and the other to fathers' parental authority. Each form consists of thirty items. Responses to each of these items are made on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The PAQ yields six separate scores for each participant; mother's permissiveness, mother's authoritarianism, mother's authoritative, father's permissiveness, father's authoritarianism, and father's authoritative. The scores can range from 10-50, with higher scores indicating that the parent is perceived as sharing more characteristics of the particular parenting style.

Buri (1991) established test-retest reliability over a two week period with reliabilities of .81 for mother's permissiveness, .86 for mother's authoritarianism, .78 for mother's authoritative, .77 for father's permissiveness, .85 for father's

authoritarianism, and .92 for father's authoritativeness. Chronbach's alphas suggest high levels of internal consistency ranging from .75 to .87 for each of the six scales for student samples (Buri, 1991). Overall, reliability was found to be high for the instrument.

Discriminant-related validity was established through divergence in PAQ scores with intercorrelational data expressing inverse relationships of hypothesized divergence in PAQ scores, indicating that those parenting styles thought to have a negative relationship with each other, did. Mother's authoritarianism was inversely related to mother's permissiveness ($r = -.38; p < .0005$) and to mother's authoritativeness ($r = -.48; p < .0005$). Father's authoritarianism was inversely related to father's permissiveness ($r = -.50; p < .0005$) and to father's authoritativeness ($r = -.52; p < .0005$). Mother's permissiveness was not significantly related to mother's authoritativeness ($r = .07; p > .10$) and father's permissiveness was not significantly correlated to father's authoritativeness ($r = .12; p > .10$) (Buri, 1991). Correlational data also provided support that the PAQ is not vulnerable to social desirability response biases with no statistically significant values found with a measure of social desirability .01 to .23 (Buri, 1991).

Perceptions of Parents Scales: The College-Student Scale. The *Perceptions of Parents Scales: The College-Student Scale* (Robbins, 1994) assesses children's perceptions of their parents' autonomy support, involvement, and warmth. It is a 42-item inventory, 21 for mothers and 21 for fathers, developed for late adolescents and older individuals. From the scale, six subscale scores are calculated: Mother Autonomy Support, Mother Involvement, Mother Warmth, Father Autonomy Support, Father Involvement, and Father Warmth. Responses to each of these items are made on a 7-

point Likert scale ranging from not at all true (1) to very true (7). Subscale scores are calculated by averaging the scores of the items on that subscale, with higher scores indicating that the parent is perceived as possessing more of those characteristics.

Learning Self-Regulation Questionnaire. The *Learning Self-Regulation Questionnaire* (SRQ-L) (Black & Deci, 2000; Williams & Deci, 1996) is a questionnaire that measures the reasons why people learn in particular settings, such as college. The questionnaire consists of two subscales: Controlled Regulation and Autonomous Regulation and the responses provided are either controlled (external regulation) or autonomous (intrinsic motivation). “The Learning Self-Regulation Questionnaire (LSRQ) was adapted from the original SRQ designed for elementary students (Ryan & Connell, 1989) and the subsequent version adapted for medical students” (Williams & Deci, as cited in Black & Deci, 2000, p. 745). The questionnaire was further adapted by Black & Deci (2000) for organic chemistry students. It can be adapted as needed to refer to the particular course or program being studied and was further adapted for the purposes of this study, to apply to the participant’s overall college education. Participants are asked to rate how true each of the 14 reasons are for participating in their college courses. Responses to each of these items are made on a 7-point Likert scale ranging from not at all true (1) to very true (7). Four of these reasons were intrinsic or identified and eight were external or introjected. Subscale scores are the average of the items on each subscale, with higher scores indicating that the participant exhibits that type of regulation. Alpha reliabilities for the two subscales were .75 for controlled regulation and .80 for autonomous regulation. A Relative Autonomy Index can be

calculated by subtracting the controlled subscale score from the autonomous subscale score.

Scholastic Achievement. Data on scholastic achievement was collected via the demographics questionnaire. Participants were asked to provide their current overall college grade point average. College grade point average reported by participants ranged from .00 to 4.0, with 4.0 being the highest possible grade point average.

Analysis

Independent variables of the study were authoritative parenting style, perceived parental autonomy support, and learning autonomy. Dependent variables of the study were learning autonomy and scholastic achievement. Learning autonomy was used as both an independent and dependent variable to determine its relationship between other variables. It was a dependent variable when being predicted from parenting style and perceived parental autonomy support; and as an independent variable when predicting scholastic achievement. Four simple linear regression analyses were conducted to predict relationships between authoritative parenting styles and learning autonomy; authoritative parenting styles and scholastic achievement; perceived parental autonomy support and learning autonomy; and learning autonomy and scholastic achievement. Pearson Product Moment Correlation coefficients were also conducted to examine the bivariate relationships between these variables.

The hypotheses were as follows:

H1: Parenting style will be a significant predictor of college student learning autonomy. Authoritative parenting styles will predict higher learning autonomy.

H2: Parenting style will be a significant predictor of college student scholastic achievement. Authoritative parenting styles will predict higher scholastic achievement.

H3: Perceived parental autonomy support will be a significant predictor of college student scholastic achievement.

H4: Perceived parental autonomy support will be a significant predictor of college student learning autonomy.

H5: A college student's regulation will be a significant predictor of their own scholastic achievement. Autonomously regulated students will have higher scholastic achievement.

Chapter 4

Results

Dependent variables were learning autonomy and scholastic achievement and independent variables were mother permissiveness, mother authoritarianism, mother authoritativeness, father permissiveness, father authoritarianism, father authoritativeness, perceived parental autonomy support, and learning autonomy. The specific hypotheses examining these variables are:

H1: Parenting style will be a significant predictor of college student learning autonomy. Authoritative parenting styles will predict higher learning autonomy.

H2: Parenting style will be a significant predictor of college student scholastic achievement. Authoritative parenting styles will predict higher scholastic achievement.

H3: Perceived parental autonomy support will be a significant predictor of college student scholastic achievement.

H4: Perceived parental autonomy support will be a significant predictor of college student learning autonomy.

H5: A college student's regulation will be a significant predictor of their own scholastic achievement. Autonomously regulated students will have higher scholastic achievement.

Descriptive Statistics

Data were collected on each variable from 61 participants and utilized in this analysis (see Table 1).

Table 1
Individual Characteristics as Frequencies and Percentage of the Sample

Characteristic	Frequency	Percentage
Gender		
Male	11	16.7
Female	50	75.8
Age		
18	18	27.3
19	11	16.7
20	8	12.1
21	19	28.8
22	5	7.6
Year in School		
Freshman	22	33.3
Sophomore	7	10.6
Junior	8	12.1
Senior	24	36.4
GPA		
4.0 - 3.1	51	83.5
3.0 - 2.1	7	12.0
2.0 - 1.1	1	1.5
1.0 - 0.0	2	3.0
Mother Parenting Style		
Permissive	4	6.1
Authoritarian	14	21.2
Authoritative	43	65.2
Father Parenting Style		
Permissive	1	1.5
Authoritarian	27	40.9
Authoritative	28	42.4

Pearson Product Moment Correlation Coefficients

Pearson product moment correlation results showed significant positive and negative intercorrelations between several of the variables.

Mother Permissiveness. Positive correlations were found between mother permissiveness and mother authoritativeness ($r = .400; p. < .01$); father permissiveness ($r = .258; p. < .05$); perceived mother autonomy support ($r = .494; p. < .01$); and perceived mother warmth ($r = .253; p. < .05$). Mother permissiveness was negatively correlated with mother authoritarianism ($r = -.740; p. < .01$).

Mother Authoritarianism. A positive correlation was reported between mother authoritarianism and controlled learning regulation ($r = .221; p. < .05$). Mother authoritarianism was negatively correlated with mother permissiveness ($r = -.740; p. < .01$) and mother authoritativeness ($r = -.453; p. < .01$) and father permissiveness ($r = -.259; p. < .05$) and perceived mother autonomy support ($r = -.524; p. < .01$) and perceived mother warmth ($r = -.262; p. < .05$).

Mother Authoritativeness. A positive correlation was reported between mother authoritativeness and mother permissiveness ($r = .400; p. < .01$) and father authoritativeness ($r = .303; p. < .01$) and perceived mother involvement ($r = .334; p. < .01$) and perceived mother autonomy support ($r = .524; p. < .01$) and perceived mother warmth ($r = .628; p. < .01$) and perceived father autonomy support ($r = .213; p. < .05$) and perceived father warmth ($r = .270; p. < .05$). Mother authoritativeness was

negatively correlated with mother authoritarianism ($r = -.453$; $p. < .01$) and controlled learning regulation ($r = -.251$; $p. < .05$).

Father Permissiveness. A positive correlation was reported between father permissiveness and mother permissiveness ($r = .258$; $p. < .05$) and perceived mother autonomy support ($r = .236$; $p. < .05$). Father permissiveness was negatively correlated with mother authoritarianism ($r = -.259$; $p. < .05$) and father authoritarianism ($r = -.504$; $p. < .01$).

Father Authoritarianism. A negative correlation was reported between father authoritarianism and father permissiveness ($r = -.504$; $p. < .01$) and father authoritativeness ($r = -.628$; $p. < .01$) and perceived father autonomy support ($r = -.370$; $p. < .01$) and perceived father warmth ($r = -.277$; $p. < .05$).

Father Authoritativeness. A positive correlation was reported between father authoritativeness and mother authoritativeness ($r = .303$; $p. < .01$) perceived mother warmth ($r = .228$; $p. < .05$) and perceived father involvement ($r = .397$; $p. < .01$) and perceived father autonomy support ($r = .647$; $p. < .01$) and perceived father warmth ($r = .532$; $p. < .01$).

Perceived Mother Involvement. A positive correlation was reported between perceived mother involvement and mother authoritativeness ($r = .334$; $p. < .01$) and perceived mother autonomy support ($r = .340$; $p. < .01$) and perceived mother warmth ($r = .674$; $p. < .01$) and perceived father involvement ($r = .260$; $p. < .05$) and perceived father autonomy support ($r = .412$; $p. < .01$) and perceived father warmth ($r = .260$; $p. < .05$) and autonomous learning regulation ($r = .258$; $p. < .05$).

Perceived Mother Autonomy Support. A positive correlation was reported between perceived mother autonomy support and mother permissiveness ($r = .494$; $p < .01$) and mother authoritativeness ($r = .524$; $p < .01$) and father permissiveness ($r = .236$; $p < .05$) and perceived mother involvement ($r = .340$; $p < .01$) and perceived mother warmth ($r = .695$; $p < .01$). A negative correlation was reported between perceived mother autonomy support and mother authoritarianism ($r = -.524$; $p < .01$).

Perceived Mother Warmth. A positive correlation was reported between perceived mother warmth and mother permissiveness ($r = .253$; $p < .05$) and mother authoritativeness ($r = .628$; $p < .01$) and father authoritativeness ($r = .228$; $p < .05$) and perceived mother involvement ($r = .674$; $p < .01$) and perceived mother autonomy support ($r = .695$; $p < .01$) and perceived father autonomy support ($r = .352$; $p < .01$) and perceived father warmth ($r = .315$; $p < .01$) and autonomous learning regulation ($r = .339$; $p < .01$). A negative correlation was reported between perceived mother warmth and mother authoritarianism ($r = -.262$; $p < .05$).

Perceived Father Involvement. A positive correlation was reported between perceived father involvement and father authoritativeness ($r = .397$; $p < .01$) and perceived mother involvement ($r = .260$; $p < .05$) and and perceived father autonomy support ($r = .741$; $p < .01$) and perceived father warmth ($r = .818$; $p < .01$).

Perceived Father Autonomy Support. A positive correlation was reported between perceived father autonomy support and mother authoritativeness ($r = .213$; $p < .05$) and father authoritativeness ($r = .647$; $p < .01$) and perceived mother involvement ($r = .340$; $p < .01$).

= .412; $p < .01$) and perceived mother warmth ($r = .352$; $p < .01$) and perceived father involvement ($r = .741$; $p < .01$) and perceived father warmth ($r = .766$; $p < .01$). A negative correlation was reported between perceived father autonomy support and father authoritarianism ($r = -.370$; $p < .01$).

Perceived Father Warmth. A positive correlation was reported between perceived father warmth and mother authoritativeness ($r = .270$; $p < .05$) and father authoritativeness ($r = .532$; $p < .01$) and perceived mother involvement ($r = .260$; $p < .05$) and perceived mother warmth ($r = .315$; $p < .01$) and perceived father involvement ($r = .818$; $p < .01$) and perceived father autonomy support ($r = .766$; $p < .01$). A negative correlation was reported between perceived father warmth and father authoritarianism ($r = -.277$; $p < .05$).

Autonomous Learning Regulation. A positive correlation was reported between autonomous learning regulation perceived mother involvement ($r = .258$; $p < .05$) and perceived mother warmth ($r = .339$; $p < .01$) and controlled learning regulation ($r = .304$; $p < .01$).

Controlled Learning Regulation. A positive correlation was reported between controlled learning regulation and mother authoritarianism ($r = .221$; $p < .05$) and autonomous learning regulation ($r = .304$; $p < .01$). A negative correlation was reported between controlled learning regulation and mother authoritativeness ($r = -.251$; $p < .05$).

Gender. A positive correlation was reported between female autonomous learning regulation and female controlled learning regulation ($r = .399$; $p < .01$).

Regression Analyses

Simple linear regression analyses were conducted to predict relationships between authoritative parenting styles and learning autonomy, authoritative parenting styles and scholastic achievement, perceived parental autonomy support and learning autonomy, and learning autonomy and scholastic achievement. For the purposes of this study, permissive and authoritarian parenting styles were collapsed into one style, that being not authoritative. Due to the small amount of permissive and authoritarian parenting styles found in this study, it was determined that collapsing these parenting styles would provide more accurate and reliable results. It was determined by the researcher that the authoritative parenting style was the parenting style to predict better outcomes, as stated in the hypotheses, which further justifies collapsing the permissive and authoritarian styles into one overall variable.

Maternal Parenting Style and Scholastic Achievement. A simple linear regression predicting scholastic achievement from maternal parenting style (authoritative or not authoritative) was conducted. The regression equation was not significant ($F_{1, 59} = 3.444$; $p = .068$, $R^2 - Adjusted = .039$).

Maternal Parenting Style and Learning Autonomy. A simple linear regression predicting learning autonomy from maternal parenting style (authoritative or not authoritative) was conducted. The regression equation was not significant ($F_{1, 59} = 3.768$; $p = .057$, $R^2 - Adjusted = .044$).

Paternal Parenting Style and Scholastic Achievement. A simple linear regression predicting scholastic achievement from paternal parenting style (authoritative or not authoritative) was conducted. The regression equation was not significant ($F_{1,59} = .292$; $p. = .591$, $R^2 - Adjusted = -.013$).

Paternal Parenting Style and Learning Autonomy. A simple linear regression predicting learning autonomy from paternal parenting style (authoritative or not authoritative) was conducted. The regression equation was not significant ($F_{1,59} = .693$; $p. = .409$, $R^2 - Adjusted = -.006$).

Maternal Autonomy Support and Scholastic Achievement. A simple linear regression predicting scholastic achievement from mother autonomy support was conducted. The regression equation was not significant ($F_{1,59} = .004$; $p. = .953$, $R^2 - Adjusted = -.017$).

Maternal Autonomy Support and Learning Autonomy. A simple linear regression predicting learning autonomy from mother autonomy support was conducted. The regression equation was not significant ($F_{1,59} = .645$; $p. = .425$, $R^2 - Adjusted = -.006$).

Paternal Autonomy Support and Scholastic Achievement. A simple linear regression predicting scholastic achievement from father autonomy support was conducted. The regression equation was not significant ($F_{1,59} = .509$; $p. = .479$, $R^2 - Adjusted = -.008$).

Paternal Autonomy Support and Learning Autonomy. A simple linear regression predicting learning autonomy from father autonomy support was conducted. The regression equation was not significant ($F_{1, 59} = .603$; $p. = .441$, $R^2 - Adjusted = -.007$).

Child's Learning Autonomy and Scholastic Achievement. A simple linear regression predicting scholastic achievement from learning autonomy was conducted. The regression equation was not significant ($F_{1, 59} = .188$; $p. = .667$, $R^2 - Adjusted = -.014$).

Chapter 5

Discussion

The purpose of this study was to examine the relationship among the three types of parental authority (permissive, authoritarian, and authoritative), perceived parental autonomy support, student's learning autonomy, and scholastic achievement in undergraduate college students. Each hypothesis was tested using simple regression analyses.

Hypothesis 1

The results demonstrated that parenting style was not a significant predictor of a student's learning autonomy. Authoritative parenting styles did not predict higher learning autonomy. Although no previous empirical research directly testing this hypothesis was found, present findings are in direct contrast to related research (Darling & Steinberg, as cited in Glasgow et al., 1997; Ginsburg & Bronstein, 1993). These studies indicated that children of authoritative parenting styles demonstrated higher levels of intrinsic motivation, self-regulation, and individualistic, autonomous thinking.

Hypothesis 2

The results demonstrated that parenting style was not a significant predictor of a child's scholastic achievement. Authoritative parenting styles did not predict higher scholastic achievement. These results are in direct contrast with previous research (e.g., Baumrind, 1967; Dornbusch et al., 1987). The results of these studies purported that

authoritative parenting styles were positively related to academic achievement, and permissive and authoritarian parenting styles were negatively related to academic achievement. It could be assumed that the reason for this is that authoritative parenting styles encourage personal growth and the development of instrumental competence, autonomy support, and independence, whereas authoritarian and permissive parenting styles do not. These qualities are necessary for higher levels of academic achievement, as individuals cannot be dependent on others for their own accomplishments and achievement.

Hypothesis 3

The results demonstrated that perceived parental autonomy support was not a significant predictor of a child's scholastic achievement. Although no empirical research has been found to have tested this specific hypothesis, the current findings are in direct contrast to related research indicating that autonomy supportive teaching styles resulted in more positive educational outcomes, more academically and socially competent students, better grades, and higher conceptual understanding (Walker, 2008; Jang, 2008; Reeve et al., 2004; Reeve, 2009, Reeve, Deci, & Ryan, as cited in Jang et al., 2010).

Hypothesis 4

The results demonstrated that perceived parental autonomy support was not a significant predictor of a child's learning autonomy. Although there no empirical research was found to have previously tested this hypothesis, these findings are in contrast to previous research related to this particular hypothesis (Zuckerman et al., 1978;

Grolnick & Ryan, 1989; Cordova & Lepper, as cited in Stefanou et al., 2004). Previous research indicated that teacher autonomy support resulted in intrinsic motivation, self-regulation, striving for conceptual understanding, a preference for optimally difficult work, and a perceived sense of competence.

Hypothesis 5

The results demonstrated that a child's regulation was not a significant predictor of their own scholastic achievement. Autonomously regulated students did not have higher scholastic achievement. Although there is no empirical research that was found to have previously tested this hypothesis, the existing related research is in direct contrast to this finding. Research has found that intrinsically motivated behaviors require satisfaction of autonomy and competence (Deci & Ryan, 2000). It has been found that when students perceive a sense of autonomy support and sense of competence, greater academic achievement is the result (Zuckerman et al., 1978; Grolnick & Ryan, 1989; Cordova & Lepper, as cited in Stefanou et al., 2004). Consequently, it could be assumed that when a student is intrinsically motivated and therefore autonomously regulated, academic achievement will be greater.

Results did, however, find several interesting bivariate correlations. Autonomous learning regulation was positively correlated with controlled learning regulation, indicating that regulation is not always all internal or all external. These findings are consistent with previous research by Deci and Ryan (2000) in self-determination theory. The basic framework of self-determination theory rests on the continuum of a state of

amotivation through extrinsic motivation to intrinsic motivation and integration.

Behaviors and values become integrated and internalized over time. Internalization is the “taking in” of a value or regulation. Integration refers to the further transformation of that regulation into an individual’s own so that the individual can experience a sense of self.

Internalization and integration are relevant for the regulation of behavior across the life span as many behaviors begin as extrinsically motivated (Deci & Ryan, 2000). Over time and through internalization and integration, nonintrinsically motivated behaviors can become intrinsically motivated and self-determined. The more internally valued and regulated a behavior is, the more the individual experiences it as being autonomous (Deci & Ryan, 1985; Ryan & Deci, as cited in Stefanou et al., 2004). This suggests that in our process of becoming self-determined we are not always either completely extrinsically regulated nor intrinsically. It is not as if a conversion happens and one switch is turned off and another turned on. Perhaps it is more akin to turning down the volume of one and turning up the volume of the other until some optimal level is reached at which point the one fades completely out of the picture. This might explain the significant positive correlation between autonomous and controlled regulation. Perhaps with this sample, both are taking place at the same time. With regard to autonomous and controlled regulation, college students may in fact experience both because of the fading of the constraints of external regulation through parental expectations and values and the heightening of their own sense of autonomy as decision-makers in their own right. College students could be seen as caught in this in-between state.

Another finding that is of interest was that there were more significant correlations between mothers' styles and support with their child's outcomes than with the fathers' styles and support, suggesting that fathers may not factor as heavily in the students' lives as mothers. These findings are consistent with previous research exploring the effects of parent gender on involvement in children's lives (Hawkins, Amato, & King, 2006; Finley, Mira, & Schwartz, 2008). These studies found that mothers tended to be more involved than fathers. These studies built on previous research by Parsons and Bales (1955), who found that fathers play instrumental roles, such as providing income and disciplining children, and mothers play expressive roles, such as caregiving and companionship.

As indicated by Buri's PAQ, mother's authoritarianism was inversely related to mother's permissiveness and authoritativeness. Father's authoritarianism was also found to be inversely related to father's permissiveness and authoritativeness. The present study resulted in similar findings of the three parental authority scales being negatively correlated which conforms with the theoretical relationships among each parental authority type.

One possible explanation for the lack of significant findings in this study could be that parental influence may wane over time. As a result of this, it could be assumed that the strong associations seen with regard to parental influence and younger children (Baumrind, 1967) may not be seen in college students. The participants in this study were all undergraduate college students living away from home. As such, these

participants are no longer under the direct influence of their parents. Further, it could be assumed that the longer these participants are away from their parents, the further they move away from being influenced by their parents. For the purposes of this study, it could be hypothesized that freshmen and sophomores would experience more parental influence and therefore display higher levels of learning autonomy and scholastic achievement. It could also be hypothesized that juniors and seniors would be experience less parental influence as a result of being away from home longer and therefore display lower levels of learning autonomy and scholastic achievement. Thus, an exploratory simple regression analysis was conducted where freshmen and sophomores were grouped into one group and juniors and seniors into another group. Results of these analyses found that only learning autonomy for juniors and seniors could be predicted from authoritative maternal parenting style ($F_{1,59} = 4.432$; $p = .044$, $R^2 - Adjusted = .100$).

Limitations

One potential limitation was the size of the sample. Research participants were recruited for nearly three months; however, the final sample size was relatively small. This small size may be responsible for failure to produce any findings of significance. In addition, the sample consisted of participants attending a highly selective, private, and expensive liberal arts university. As such, because the sample lacked heterogeneity itself, there was unlikely enough variance to allow for predictive power.

Recommendations

It is recommended that more studies be conducted to further examine the relationship between parenting style, learning autonomy, perceived autonomy support, and scholastic achievement. The non-significant results for all hypotheses should not suggest that there is not a relationship existing between parenting style, learning autonomy, perceived autonomy support, and scholastic achievement. A less selective and larger sample size may convey different relationships. The sample should also be more representative of both genders, as in the present study, the sample consisted mostly of females.

It is also recommended that future studies focus on other variables that were not the focus of this study, such as gender, perceived parental involvement, and perceived parental warmth, as results reported positive correlations with these variables.

References

- Aunola, K., Stattin, H., & Nurmi, J. E. (2000). Parenting styles and adolescents' achievement strategies. *Journal of Adolescence, 23*, 205-222.
- 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. (1968). Authoritarian vs. authoritative parental control. *Adolescence, 3*, 255-272.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs, 75*, 43-88.
- Baumrind, D. (1973). The development of instrumental competence through socialization. In A. D. Pick (Ed.), *Minnesota symposium on child psychology* (Vol. 7, pp. 3-46). Minneapolis: University of Minnesota Press.
- Baumrind, D. (1978). Parental disciplinary patterns and social competence in children. *Youth and Society, 9*, 239-276.
- Black, A. E. & Deci, E. L. (2000). The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory perspective. *Science Education, 84*, 740-756.
- Brown, L & Iyengar, S. (2008). Parenting styles: The impact on student achievement. *Marriage & Family Review, 43*(1), 14-38.

- Buri, J. (1991). Parental authority questionnaire. *Journal of Personality Assessment*, 57(1), 110-119.
- Coleman, J., Campbell, E., Hobson, C., McPartland, J., Mood, A., Weinfeld, F., & York, R. (1966). *Equality of Educational Opportunity* (Washington, D.C.: U.S. Government Printing Office, pp. 1-32.
- Darling, N. & Steinberg, L. (1993). Parenting style as context: An integrative model. *Child Development*, 113, 487-496.
- Deci, E. L. & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L. & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
- Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and education: The self-determination perspective. *Educational Psychologist*, 26(3 & 4), 325-346.
- Deci, E. L. & Vansteenkiste, M. (2004). Self-determination theory and basic need satisfaction: Understanding human development in positive psychology. *Ricerche di Psicologia*, 27(1), 23-40.
- Dornbusch, S. M., Ritter, P. L., Leiderman, P. H., Roberts, D. F., & Fraleigh, M. J. (1987). The relation of parenting style to adolescent school performance. *Child Development*, 58(5), 1244-1257.

- Dornbusch, S. M., Ritter, P., Leiderman, P., Mont-Reynaud, R., & Chen, Z. (1991). Family decision making and academic performance in a diverse high school population. *Journal of Adolescent Research, 5*, 143-160.
- Durkin, K. (1995). *Developmental Social Psychology: From Infancy to Old Age*, Blackwell, Malden, MA.
- Finley, G. E., Mira, S. D., & Schwartz, S. J. (2008). Perceived paternal and maternal involvement: Factor structures, mean differences, and parental roles. *Fathering, 6*(1), 62-82.
- Ginsberg, G. S. & Bronstein, P. (1993). Family factors related to children's intrinsic/extrinsic motivational orientation and academic performance. *Child Development, 64*, 1461-1474.
- Glasgow, K. L., Dornbusch, S. M., Troyer, L., Steinberg, L., & Ritter, P. L. (1997). Parenting styles, adolescents' attributions, and educational outcomes in nine heterogeneous high schools. *Child Development, 68*(3), 507-529.
- Grolnick, W. S. & Ryan, R. M. (1987) Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and Social Psychology, 52*(5), 890-898.
- Grolnick, W. S. & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology, 81*(2), 143-154.
- Harter, S. (1978). Pleasure derived from optimal challenge and the effects of extrinsic rewards on children's difficulty level choices. *Child Development, 49*, 788-799.

- Hawkins, D. N., Amato, P. R., & King, V. (2006). Parent-adolescent involvement: The relative influence of parent gender and residence. *Journal of Marriage and Family, 68*(1), 125-136.
- Jang, H., Reeve, J. & Deci, E. L. (2010). Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational Psychology, 102*(3), 588-600.
- Middleton, R. & Snell, P. (1963). Political expression of adolescent rebellion. *American Journal of Sociology, 68*, 527-535.
- Parsons, T. & Bales, R. F. (1955). *Family, socialization, and interaction process*. Glencoe, IL: Free Press.
- Patrick, H., Turner, J.C., Meyer, D.K., & Midgely, C. (2003). How teachers establish psychological environments during the first days of school: associations with avoidance in mathematics. *Teachers College Record, 105*(8), 1521-1558.
- Pikas, A. (1961). Children's attitudes toward rational versus inhibiting parental authority. *Abnormal Social Psychology, 62*, 315-321.
- Robbins, R. J. (1994). *An assessment of perceptions of parental autonomy support and control: Child and parent correlates*. Unpublished Doctoral Dissertation, Department of Psychology, University of Rochester, 1994.

- Sierens, E., Vansteenkiste, M., Goosens, L., Soenens, B., & Dochy, F. (2009). The synergistic relationship of perceived autonomy support and structure in the prediction of self-regulated learning. *British Journal of Educational Psychology*, 79, 57-68.
- Silva, M., Dorso, E., Azhar, A., & Renk, K. (2007). The relationship among parenting styles experienced during childhood, anxiety, motivation, and academic success in college students. *J. College Student Retention*, 9(2), 149-167.
- Spera, C. (2005). A review of the relationship among parenting practices, parenting styles, and adolescent achievement. *Educational Psychology Review*, 17(2), 125-146.
- Stefanou, C. R., Perencevich, K. C., DiCintio, M., & Turner, J. C. (2004). Supporting autonomy in the classroom: Ways teachers encourage student decision making and ownership. *Educational Psychologist*, 39(2), 97-110.
- Steinberg, L., Lamborn, S. D., Darling, N., Mounts, N. S., & Dornbusch, S. M. (1994). Over-time changes in the adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development*, 65, 754-770.
- Walker, J. M. T. (2008). Looking at teacher practices through the lens of parenting style. *Journal of Experimental Education*, 76(2), 218-240.
- Williams, G. C. & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: A test of self-determination theory. *Journal of Personality and Social Psychology*, 70, 767-779.

Zuckerman, M., Porac, J., Lathin, D., Smith, R., & Deci, E. L. (1978). On the importance of self-determination for intrinsically motivated behavior. *Personality and Social Psychology Bulletin*, 4, 443-446.

Appendix A

Demographic Questionnaire for Participants

Please answer the following questions:

1. What is your age?
2. What is your gender?
3. What is your class year?
4. What is your current GPA? Please enter the GPA to the hundredths place, without rounding up. Report the GPA as it would appear on your Bucknell transcript as of the 2010 fall semester.

Appendix B

Parental Authority Questionnaire for Mothers

Instructions: For each of the following statements, please circle the number of the 5-point scale that best describes how that statement applies to you and your mother. Try to read and think about each statement as it applies to you and your mother during your years of growing up at home. There are no right or wrong answers, so do not spend a lot of time on any one item. We are looking for your overall impressions regarding each statement. Be sure not to omit any items.

1 = Strongly Disagree

2 = Disagree

3 = Neither agree nor disagree

4 = Agree

5 = Strongly Agree

1	While I was growing up my mother felt that in a well-run home the children should have their way in the family as often as the parents do.	1 2 3 4 5
2	Even if her children didn't agree with her, my mother felt that it was for our own good if we were forced to conform to what she thought was right.	1 2 3 4 5
3	Whenever my mother told me to do something as I was growing up, she expected me to do it immediately without asking questions.	1 2 3 4 5
4	As I was growing up, once family policy had been established, my mother discussed the reasoning behind the policy with the children in the family.	1 2 3 4 5

5	My mother has always encouraged verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable.	1 2 3 4 5
6	My mother has always felt that what children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want.	1 2 3 4 5
7	As I was growing up my mother did not allow me to question any decision she had made.	1 2 3 4 5
8	As I was growing up my mother directed the activities and decisions of the children in the family through reasoning and discipline.	1 2 3 4 5
9	My mother has always felt that more force should be used by parents in order to get their children to behave the way they are supposed to.	1 2 3 4 5
10	As I was growing up my mother did not feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them.	1 2 3 4 5
11	As I was growing up I knew what my mother expected of me in the family, but I also felt free to discuss those expectations with my mother when I felt that they were unreasonable.	1 2 3 4 5
12	My mother felt that wise parents should teach their children early just who is boss in the family.	1 2 3 4 5
13	As I was growing up, my mother seldom gave me expectations and guidelines for my behavior.	1 2 3 4 5
14	Most of the time as I was growing up my mother did what the children in the family wanted when making family decisions.	1 2 3 4 5
15	As the children in my family were growing up, my mother consistently gave us direction and guidance in rational and objective ways.	1 2 3 4 5
16	As I was growing up my mother would get very upset if I tried to disagree with her.	1 2 3 4 5

17	My mother feels that most problems in society would be solved if parents would not restrict their children's activities, decisions, and desires as they are growing up.	1 2 3 4 5
18	As I was growing up my mother let me know what behavior she expected of me, and if I didn't meet those expectations, she punished me.	1 2 3 4 5
19	As I was growing up my mother allowed me to decide most things for myself without a lot of direction from her.	1 2 3 4 5
20	As I was growing up my mother took the children's opinions into consideration when making family decisions, but she would not decide for something simply because the children wanted it.	1 2 3 4 5
21	My mother did not view herself as responsible for directing and guiding my behavior as I was growing up.	1 2 3 4 5
22	My mother had clear standards of behavior for the children in our home as I was growing up, but she was willing to adjust those standards to the needs of each of the individual child in the family.	1 2 3 4 5
23	My mother gave me direction for my behavior and activities as I was growing up and she expected me to follow her direction, but she was always willing to listen to my concerns and to discuss that direction with me.	1 2 3 4 5
24	As I was growing up my mother allowed me to form my own point of view on family matters and she generally allowed me to decide for what I was going to do.	1 2 3 4 5
25	My mother has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do what they are supposed to as they are growing up.	1 2 3 4 5
26	As I was growing up, my mother often told me exactly what she wanted me to do and how she expected me to do it.	1 2 3 4 5
27	As I was growing up my mother gave me clear direction for my behaviors and activities, but she was also understanding when I	1 2 3 4 5

	disagreed with her.	
28	As I was growing up my mother did not direct the behavior, activities, and desires of the children in the family.	1 2 3 4 5
29	As I was growing up I knew what my mother expected of me in the family and she insisted that I conform to those expectations simply out of respect for her authority.	1 2 3 4 5
30	As I was growing up, if my mother made a decision in the family that hurt me, she was willing to discuss that decision with me and to admit it if she had made a mistake.	1 2 3 4 5

Appendix C

Parental Authority Questionnaire for Fathers

Instructions: For each of the following statements, please circle the number of the 5-point scale that best describes how that statement applies to you and your father. Try to read and think about each statement as it applies to you and your father during your years of growing up at home. There are no right or wrong answers, so do not spend a lot of time on any one item. We are looking for your overall impressions regarding each statement. Be sure not to omit any items.

1 = Strongly Disagree

2 = Disagree

3 = Neither agree nor disagree

4 = Agree

5 = Strongly Agree

1	While I was growing up my father felt that in a well-run home the children should have their way in the family as often as the parents do.	1 2 3 4 5
2	Even if his children didn't agree with him, my father felt that it was for our own good if we were forced to conform to what he thought was right.	1 2 3 4 5
3	Whenever my father told me to do something as I was growing up, he expected me to do it immediately without asking questions.	1 2 3 4 5
4	As I was growing up, once family policy had been established, my father discussed the reasoning behind the policy with the children in the family.	1 2 3 4 5

5	My father has always encouraged verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable.	1 2 3 4 5
6	My father has always felt that what children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want.	1 2 3 4 5
7	As I was growing up my father did not allow me to question any decision he had made.	1 2 3 4 5
8	As I was growing up my father directed the activities and decisions of the children in the family through reasoning and discipline.	1 2 3 4 5
9	My father has always felt that more force should be used by parents in order to get their children to behave the way they are supposed to.	1 2 3 4 5
10	As I was growing up my father did not feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them.	1 2 3 4 5
11	As I was growing up I knew what my father expected of me in the family, but I also felt free to discuss those expectations with my father when I felt that they were unreasonable.	1 2 3 4 5
12	My father felt that wise parents should teach their children early just who is boss in the family.	1 2 3 4 5
13	As I was growing up, my father seldom gave me expectations and guidelines for my behavior.	1 2 3 4 5
14	Most of the time as I was growing up my father did what the children in the family wanted when making family decisions.	1 2 3 4 5
15	As the children in my family were growing up, my father consistently gave us direction and guidance in rational and objective ways.	1 2 3 4 5
16	As I was growing up my father would get very upset if I tried to disagree with him.	1 2 3 4 5

17	My father feels that most problems in society would be solved if parents would not restrict their children's activities, decisions, and desires as they are growing up.	1 2 3 4 5
18	As I was growing up my father let me know what behavior he expected of me, and if I didn't meet those expectations, he punished me.	1 2 3 4 5
19	As I was growing up my father allowed me to decide most things for myself without a lot of direction from him.	1 2 3 4 5
20	As I was growing up my father took the children's opinions into consideration when making family decisions, but he would not decide for something simply because the children wanted it.	1 2 3 4 5
21	My father did not view himself as responsible for directing and guiding my behavior as I was growing up.	1 2 3 4 5
22	My father had clear standards of behavior for the children in our home as I was growing up, but he was willing to adjust those standards to the needs of each of the individual child in the family.	1 2 3 4 5
23	My father gave me direction for my behavior and activities as I was growing up and he expected me to follow his direction, but he was always willing to listen to my concerns and to discuss that direction with me.	1 2 3 4 5
24	As I was growing up my father allowed me to form my own point of view on family matters and he generally allowed me to decide for what I was going to do.	1 2 3 4 5
25	My father has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do what they are supposed to as they are growing up.	1 2 3 4 5
26	As I was growing up, my father often told me exactly what he wanted me to do and how he expected me to do it.	1 2 3 4 5
27	As I was growing up my father gave me clear direction for my behaviors and activities, but he was also understanding when I	1 2 3 4 5

	disagreed with him.	
28	As I was growing up my father did not direct the behavior, activities, and desires of the children in the family.	1 2 3 4 5
29	As I was growing up I knew what my father expected of me in the family and he insisted that I conform to those expectations simply out of respect for his authority.	1 2 3 4 5
30	As I was growing up, if my father made a decision in the family that hurt me, he was willing to discuss that decision with me and to admit it if he had made a mistake.	1 2 3 4 5

Appendix D

Perceptions of Parents Scales (POPS) – The Student College Scale

Directions: Please answer the following questions about your mother and your father. If you do not have any contact with one of your parents (for example, your father), but there is another adult of the same gender living with your house (for example, a stepfather) then please answer the questions about that other adult.

If you have no contact with one of your parents, and there is not another adult of that same gender with whom you live, then leave the questions about that parent blank.

Please use the following scale:

1	2	3	4	5	6	7
not at all			somewhat			very
true			true			true

First, questions about your mother.

1. My mother seems to know how I feel about things.
2. My mother tries to tell me how to run my life.
3. My mother finds time to talk with me.
4. My mother accepts me and likes me as I am.

5. My mother, whenever possible, allows me to choose what to do.
6. My mother doesn't seem to think of me often.
7. My mother clearly conveys her love for me.
8. My mother listens to my opinion or perspective when I've got a problem.
9. My mother spends a lot of time with me.
10. My mother makes me feel very special.
11. My mother allows me to decide things for myself.
12. My mother often seems too busy to attend to me.
13. My mother is often disapproving and unaccepting of me.
14. My mother insists upon my doing things her way.
15. My mother is not very involved with my concerns.
16. My mother is typically happy to see me.

17. My mother is usually willing to consider things from my point of view.
18. My mother puts time and energy into helping me.
19. My mother helps me to choose my own direction.
20. My mother seems to be disappointed in me a lot.
21. My mother isn't very sensitive to many of my needs.

Now questions about your father.

22. My father seems to know how I feel about things.
23. My father tries to tell me how to run my life.
24. My father finds time to talk with me.
25. My father accepts me and likes me as I am.
26. My father, whenever possible, allows me to choose what to do.
27. My father doesn't seem to think of me often.

28. My father clearly conveys his love for me.
29. My father listens to my opinion or perspective when I've got a problem.
30. My father spends a lot of time with me.
31. My father makes me feel very special.
32. My father allows me to decide things for myself.
33. My father often seems too busy to attend to me.
34. My father is often disapproving and unaccepting of me.
35. My father insists upon my doing things his way.
36. My father is not very involved with my concerns.
37. My father is typically happy to see me.
38. My father is usually willing to consider things from my point of view.
39. My father puts time and energy into helping me.
40. My father helps me to choose my own direction.

41. My father seems to be disappointed in me a lot.

42. My father isn't very sensitive to many of my needs.

Appendix E

*Learning Self-Regulation Questionnaire***Reasons for Learning Questionnaire**

The following questions relate to your reasons for participating actively in your college courses. Different people have different reasons for their participation in their college courses, and we want to know *how true* each of the reasons is for you. Please use the following scale to indicate how true each reason is for you:

1	2	3	4	5	6	7
not at all			somewhat			very
true			true			true

A. I will participate actively in my college courses:

1. Because I feel like it's a good way to improve my understanding of the material.
2. Because others might think badly of me if I didn't.
3. Because I would feel proud of myself if I did well in the course.

4. Because a solid understanding of my college courses is important to my intellectual growth.

B. I am likely to follow my instructor's suggestions for studying my courses:

5. Because I would get bad grades if I didn't do what he/she suggests.
6. Because I am worried that I am not going to perform well in my courses.
7. Because it's easier to follow his/her suggestions than come up with my own study strategies.
8. Because he/she seems to have insight about how best to learn the material for the courses.

C. The reason that I will work to expand my knowledge in my college courses is:

9. Because it's interesting to learn more about the nature of my classes.
10. Because it's a challenge to really understand the content in some of my classes.
11. Because good grades in my classes will look positive on my record.
12. Because I want others to see that I am intelligent.