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# ARE PARENTING STYLE AND RELATIONSHIP QUALITY ASSOCIATED WITH ACADEMIC ENGAGEMENT IN EMERGING ADULTHOOD?

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by

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**Abstract**

Although parenting is clearly linked to *adolescents'* academic engagement, less is known about links between parenting and academic engagement during *emerging adulthood*. The current paper uses a diverse sample (*N* = 633, 53.1% female, 45.7% White or European American, 28.3% Asian American/Hawaiian/Pacific Islander, 26.4% Hispanic/Latino American, 21.6% Black/African American, 2.8% Native American/American Indian) to examine the associations of earlier parenting style (authoritative, authoritarian, permissive) and current parent-offspring relationship quality with academic engagement (academic attitudes, behaviors, and performance). Results indicate that parenting style and parent-offspring relationship quality have more associations with academic attitudes (grade importance) than with behaviors (class attendance) or performance (grade point average). Male and female emerging adults with more permissive mothers tended to view grades as less important. Men with more authoritarian mothers and higher quality relationships with their fathers tended to place more importance on grades. Women with more authoritarian mothers tended to have less frequent class attendance and have lower grade point averages. Discussion highlights the use of both mothers' and fathers' parenting in the same model, the utility of Ecological Systems Theory, and areas for future research.

*Keywords*: emerging adulthood, academic engagement, college, parenting style, relationship quality

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# Are parenting style and relationship quality associated with academic engagement in emerging adulthood?

## Introduction

Although parenting is clearly linked to *adolescents'* academic engagement (e. g., Cohen & Rice, 1997; Juang & Silbereisen, 2002; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992) less is known about links between parenting and academic engagement during *emerging adulthood*. There is limited evidence that the effects of parenting may have implications for study skills and grade point average (GPA) well into emerging adulthood (Turner, Chandler, & Heffer 2009; Weiss & Schwarz, 1996). Emerging adulthood is a particularly salient period for studying academic engagement: for two thirds of high school graduates, emerging adulthood is marked by enrollment in a college or university (Bureau of Labor Statistics, 2013), and college performance is one of the best predictors of student retention (Allen, Robbins, Casillas, & Oh, 2008). Additionally, college performance is associated with starting salary for most graduates (Thomas, 2000). Thus, though emerging adults view emerging adulthood and the changes that occur in this period as exciting and positive (Arnett, 2000; Lefkowitz, 2005), it is also a critical period for individuals' academic engagement.

Academic performance, typically measured by retention or GPA, is a commonly used academic outcome (e.g., Abar, Carter, & Winsler, 2009; Weiss & Schwartz, 1996), because of its association with student retention. However, academic performance may be only one dimension of the broader construct of *academic engagement*. For instance, attitudinal measures, such as achievement motivation and academic self-efficacy (Chemers, Hu, & Garcia, 2001; Robbins et al., 2004), and behavioral measures, such as class attendance (Moore, 2003),

are also of interest to researchers and universities. The current research uses an attitudinal construct (grade importance), a behavioral construct (class attendance), and a performance construct (GPA) to capture a broader range of academic engagement. Utilizing a range of academic constructs allows for a more nuanced understanding of the association between parenting and academic engagement, as various aspects of parenting may be differentially linked to academic attitudes, behaviors, and performance (e.g., Gonzalez, Doan Holbein, & Quilter, 2002).

According to Bronfenbrenner's (1986) Ecological Systems Theory, the family, as part of the microsystem, is one of the most proximal influences to the individual. Therefore, parenting is considered to be central to an individual's growth and development. However, as offspring age, physical proximity to parents tends to decrease (Arnett, 2000; Bailey, Haggerty, White, & Catalano, 2011). It is unclear if the parenting that emerging adults experienced earlier in life, or currently, has an enduring effect on academic engagement when physical proximity decreases. Although it may be that earlier parenting has an enduring effect on academic engagement, it may also be that current relationship quality between parents and emerging adults affects their academic engagement. Current parent-offspring relationship quality is distinct from parenting style in that 1) parent-offspring relationship quality refers to the current nature of the relationship, whereas parenting style refers to parenting which occurred when the emerging adult was growing up, and 2) parenting style refers to demandingness and responsiveness in parenting behaviors, whereas parent-offspring relationship quality refers to a sense of commitment and security. This paper aims to examine the associations of parenting style and parent-offspring relationship quality with emerging adults' academic engagement.

**Parenting Style**

Baumrind (1966) identified four parental authority styles, each of which are theorized to differentially influence offspring: authoritative, authoritarian, permissive, and rejecting-neglecting. Maccoby and Martin (1983) conceptualized parenting style on two dimensions: control/demandingness and warmth/responsiveness. In some studies, the warmth/responsiveness dimension is conceptualized as support or acceptance (Gray & Steinberg, 1999; Strage & Brandt, 1999). Authoritarian parents score high on control and low on warmth, permissive parents score high on warmth and low on control, and authoritative parents score high on control and warmth. Because authoritative parents score high on both dimensions (Maccoby & Martin, 1983), many scholars describe authoritative as the preferred parenting type. The current paper does not explore rejecting-neglecting (low control, low warmth) parenting.

Parenting style may be connected to emerging adults' academic engagement. Authoritative parenting is associated with better study skills and higher GPA in emerging adulthood (Abar et al., 2009; Turner et al., 2009). Authoritarian parenting is associated with poorer study skills (Abar et al., 2009), and lower GPA for women (Wintre & Yaffe, 2000). However, authoritarian parenting is also associated with higher GPA for men (Weiss & Schwarz, 1996). Permissive parenting has not been found to be associated with GPA (Turner et al., 2009; Wintre & Yaffe, 2000), and is only marginally associated with better study skills (Abar et al., 2009). In addition, supportive parenting, when conceptualized as part of the warmth dimension of parenting style, is associated with emerging adults' confidence in academics, persistence, teacher rapport, and level of educational attainment (Melby, Conger, Fang, Wickrama, &

Conger, 2008; Strage & Brandt, 1999). Control, the second dimension of parenting style, is associated with higher confidence and teacher rapport, but negatively associated with GPA (Strage & Brandt, 1999). Thus, among emerging adults, there is some evidence that authoritative parenting and high levels of warmth/support are associated with better academic engagement. There are mixed findings for authoritarian parenting and high levels of control, and there is little evidence for links between permissive parenting and academic engagement in emerging adulthood.

More research has examined associations between parenting style and academic engagement in *adolescence,* indicating that authoritative parenting style is positively associated with GPA, whereas authoritarian and permissive parenting styles are negatively associated with GPA (Cohen & Rice, 1997; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Heaven & Ciarrochi, 2008). In addition, authoritative parenting is associated with mastery orientation and more adaptive achievement strategies (Aunola, Stattin, & Nurmi, 2000; Gonzalez et al., 2002). Mastery orientation may be one mechanism involved in the association between authoritative parenting and increased academic engagement, as adolescents with mastery orientation are intrinsically motivated to engage in academics, whereas adolescents with performance orientation tend to engage in academics for a reward (Ames & Archer, 1988). In contrast to authoritative parenting, authoritarian parenting is associated with higher performance orientation, less use of self-enhancing attributions, higher levels of failure expectations, task-irrelevant behavior, and passivity to difficult tasks (Aunola et al., 2000; Gonzalez et al., 2002). Permissive parenting is also associated with more passivity to difficult tasks (Aunola et al., 2000).

In regards to the dimensions of parenting style, evidence suggests that authoritative parenting is preferable for academic competence: academic competence is highest when both control and warmth (as measured by acceptance) are high (Gray & Steinberg, 1999). Similarly, high responsiveness and medium levels of control are both associated with higher GPA (Gray & Steinberg, 1999; Slicker, Patton, & Fuller, 2004). Additionally, in adolescence, authoritative parenting is associated with characteristics that are preferable for academic performance, such as higher conscientiousness (Heaven & Ciarrochi, 2008), whereas authoritarian and permissive parenting are associated with lower conscientiousness (Aunola et al., 2000; Heaven & Ciarrochi, 2008). In sum, among adolescents, research suggests authoritative parenting is preferable for academic engagement.

**Quality of Parent-Offspring Relationship**

Relationship quality is the strength of the interpersonal bond between parent and offspring. In particular, the current paper focuses on relationship quality depth, or emerging adults' feelings of commitment and security in their relationship with their mother and father (Pierce, Sarason, & Sarason, 1991). Theories to explain the link between parent-offspring relationship quality and academic engagement propose that close emotional bonds provide a secure foundation for success in areas outside the family, including academic challenges (Crosnoe & Elder, 2004). Thus, higher quality parent-offspring relationships are considered more beneficial, and are associated with better outcomes in many domains, such as mental health, sexual behavior, and substance use (Aquilino, 2005; Branje, Hale, Frijns, & Meeus, 2010; Deptula, Henry, & Schoeny, 2010; Van Ryzin, Fosco, & Dishion, 2012). Whereas parenting style, in the current research, represents the degree to which parents are responsive and demanding

when the emerging adult was growing up (Baumrind, 1966; Buri, 1991; Maccoby & Martin, 1983), relationship quality represents the bond currently felt by the emerging adult (Pierce et al., 1991).

There is little research on the associations between parent-offspring relationship quality and academic engagement during emerging adulthood. However, some research has used constructs similar to relationship quality. For example, relatedness to parents, or sense of belonging with parents, is associated with academic motivation (Guay, Marsh, Senécal, & Dowson, 2008). Reciprocity, discussion with parents about university life, and security in the parent-offspring relationship are associated with general adjustment to university, but not to academic adjustment (Soucy & Larose, 2000; Wintre & Yaffe, 2000). Attachment to parents, or propensity to seek a parent in times of discomfort, is associated with both academic performance and academic adjustment (Mattanah, Lopez, & Govern, 2011).

There is evidence, however, that parent-offspring relationship quality in emerging adulthood is associated with better general well-being and social integration, whereas disengaged parent-offspring relationships are associated with more stress and depression among emerging adults (Aquilino, 2005; Fosco, Caruthers, & Dishion, 2012; Hair, Moore, Garrett, Ling, & Cleveland, 2008). General well-being and social integration may be pertinent to emerging adults' academic engagement, as better well-being, lower levels of stress, and social integration are important factors in college students' academic performance (DeRoma, Leach, & Leverett, 2009; Gerdes & Mallinckrodt, 1994; Hysenbegasi, Hass, & Rowland, 2005; Pritchard & Wilson, 2003; Wintre & Yaffee, 2000). Thus, although there is little research on links between

relationship quality and academic engagement in particular, research on similar topics provides some evidence that relationship quality may be associated with academic engagement.

In the adolescent literature, there is evidence that supportive, high quality relationships with parents are associated with higher academic performance (Amato & Fowler, 2002; Crosnoe & Elder, 2004; Demo & Acock, 1996). Parent-adolescent conflict, on the other hand, predicts declines in academic performance in adolescence (Demo & Acock, 1996; Dotterer, Hoffman, Crouter, & McHale, 2008).

**Gender of Emerging Adults and Parents**

Past work indicates that both mothers' and fathers' parenting style may influence emerging adults and adolescents (Clausen, 1996; Simons & Conger, 2007), but that differences may exist between parents in this influence. Some studies focusing on academic engagement in emerging adulthood have used a parenting measure which combines mothers' and fathers' parenting (e. g., Strage & Brandt, 1999), and others have used a measure of just one parent (e.g., Abar et al., 2009; Turner et al., 2009). Very few studies have included both mothers' *and* fathers' parenting and their association with academic engagement in emerging adulthood (for exception, see Wintre & Yaffe, 2000). Inclusion of both mothers' and fathers' measures is necessary to fully examine parenting style and parent-offspring relationship quality in emerging adulthood, including the examination of relative associations. In other areas salient to emerging adults, there are indeed differences in the association of mothers' and fathers' parenting style and relationship quality with emerging adult behavior. For example, mothers', but not fathers', knowledge of their emerging adults' behaviors is associated with less drinking (Padilla-Walker, Nelson, Madsen, & Barry, 2008), and better relationship quality with father, but not mother, is

associated with less drug use (Schwartz et al., 2009). In light of differences in associations of mothers' and fathers' parenting style and relationship quality with emerging adults' behaviors, the current paper considers both mothers' and fathers' measures.

According to Ecological Systems Theory, individual characteristics interact with the microsystem, resulting in differential outcomes (Bronfenbrenner, 1986). Gender is one individual characteristic that may interact with the microsystem, including parents. Thus, the associations between mothers' and fathers' parenting style and parent-offspring relationship quality with academic engagement may also differ according to offspring's gender. For example, mutual reciprocity with parents is a contributor to men's adaptation to college, whereas discussion with parents is a contributor to women's adaptation to college (Wintre & Yaffe, 2000). Additionally, the association between authoritarian parenting and GPA is negative for women, but positive for men (Weiss & Schwarz, 1996; Wintre & Yaffe, 2000). In other areas salient to emerging adults, there is additional evidence that the association between mothers' and fathers' parenting style and emerging adults' behavior may differ by gender. For instance, *mothers'* permissiveness is associated with impulsiveness and indirectly associated with alcohol use and abuse for women, whereas *fathers'* permissiveness is associated with impulsiveness and indirectly associated with alcohol use and abuse for men (Patock-Peckham & Morgan-Lopez, 2006).

**The Current Paper**

Given the importance of academic engagement during college, as well as Ecological Theory's proposition that the family is influential (Bronfenbrenner, 1986), the current research examines whether parenting style and parent-offspring relationship quality are associated with

academic engagement. In addition, given that offspring's gender may influence the association between parenting and academic engagement, the current paper considers emerging adults' gender as a moderator.

In summary, the aims of the current paper are to: (1) examine the associations of parenting style and parent-offspring relationship quality with academic engagement (attitudes, behaviors, and performance), and (2) determine whether there are differential associations of mothers' versus fathers' parenting style and parent-offspring relationship quality with academic engagement, and if associations with parenting style and parent-offspring relationship quality differ by emerging adults' gender.

## Method

### Participants

Participants were part of the University Life Study (ULS), a longitudinal study of undergraduate students at a large, Northeastern university. The ULS used a longitudinal burst design, with participants responding to a web-based survey and 14 consecutive daily surveys for 7 consecutive semesters. Eligibility requirements to consent for the study included being a first-year, full-time student under the age of 21, being a U.S. citizen or permanent resident, and residing within 25 miles of campus. A total of 744 students provided consent and completed the Semester 1 (S1) baseline survey, a response rate of 65.6%. The current paper used data from Semesters 4 (S4) and 5 (S5). The retention rate (i.e., percentage that completed the S1 survey and are present in the current analyses) was 85.1% ($N$ = 633).

Students were selected via stratified sampling was used to recruit a diverse sample of participants with respect to gender and race/ethnicity. The final analytic sample ($N$ = 633) was

53.1% female, aged 19-22 at S5 with a mean age of 20.5 years (*SD* = 0.5). Participants could identify as more than one race or ethnicity; thus, the sample was 45.7% White or European American, 28.3% Asian American/Hawaiian/Pacific Islander, 26.4% Hispanic/Latino American, 21.6% Black/African American, and 2.8% Native American/American Indian.

We used 5 *t*-tests and 7 chi-squares to determine whether participants in the analytic sample were different from S1 participants not in the analytic sample on S1 variables. Participants in the analytic sample were more likely to be female ($\chi^2 = 8.8$, $p < .01$), to have married parents in S1 ($\chi^2 = 3.3$, $p < .05$), to identify as Hispanic/Latino American ($\chi^2 = 3.5$, $p < .05$); were less likely to identify as Asian American, Hawaiian, or Pacific Islander ($\chi^2 = 4.2$, $p < .05$); and viewed grades as more important in S1 ($t = 2.4$, $p < .001$), than S1 participants not in the analytic sample. Groups did not differ on age, parents' education, White/ European American race, Black/African American race, Native American/American Indian race, S1 class attendance, or high school grades. Parenting style and relationship quality were only measured in later semesters, and therefore could not be compared.

**Procedures**

Recruitment letters were sent to selected students, along with a $5 pre-incentive and a pen, in the fall of their first year at the university. At S4 and S5, participants earned $30-$40 for completing the larger survey, $3 per day for completing each daily survey, and a $13-$18 bonus for completing all 14 daily surveys. The study was approved by the university's institutional review board and participant confidentiality was protected by a federal Certificate of Confidentiality.

## Measures

**Perceived parenting style.** The Parental Authority Questionnaire (Buri, 1991) was used to measure three parenting styles: authoritative parenting (e.g., "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"), permissive parenting (e.g., "As I was growing up, my father seldom gave me expectations and guidelines for my behavior"), and authoritarian parenting (e.g., "Whenever my mother told me to do something as I was growing up, she expected me to do it immediately without asking any questions"). Participants rated their agreement with 10 statements for each subscale on a 5-point Likert scale ranging from *strongly disagree* to *strongly agree*. Participants completed scales separately for their biological or adoptive mother and biological or adoptive father. Because of the length of the questionnaire, half of the questions (5) were administered at S5, and were used for analyses. Reliability coefficients for the 10-item scale in original research with college students was .82 for mothers' and .85 for fathers' authoritativeness, .85/.87 for authoritarianism, and .75/.74 for permissiveness (Buri, 1991). In the current sample, reliability of the 5-item scale was satisfactory: $\alpha$ = .68 for mothers' and $\alpha$ = .76 for fathers' authoritativeness, $\alpha$ = .78/.82 for authoritarianism, and $\alpha$ = .64/.69 for permissiveness.

**Recent quality of parental relationship.** In S4, participants rated the quality of their relationship with their biological or adoptive mother and the quality of their relationship with their biological or adoptive father using the *Depth* subscale from the Quality of Relationships Index (6 items; Pierce et al., 1991). Participants answered questions such as, "How significant is this relationship in your life?" on a 4-point Likert scale from *not at all* to *a lot*. Reliability in

original research with college students was .83 for quality of relationship with mother and .86 for quality of relationship with father (Pierce et al., 1991; Pierce, 1994). In the current sample, reliability was satisfactory: $\alpha = .91$ for the quality of relationship with mother and $\alpha = .94$ for the quality of relationship with father.

**Importance of grades.** To assess importance of academics, participants responded to the prompt, "Getting good grades is important to you," in S5 on a 5-point scale from *not at all* to *very important* (Rhodes & Maggs, 2006).

**Recent GPA.** Past research has shown that self-reported academic performance is a valid measure of academic performance (Cole & Gonyea, 2010). In S5, participants reported their most recent semester GPA on an 11-point scale from *less than .99* to *4.0*, which were recoded so that the GPA scale went from *0* to *4.0*.

**Recent class attendance.** For up to 14 days in S5, participants responded to daily surveys that included the question, "Did you attend all your classes?" *no*, *yes*, or *N/A*. The ratio of days on which participants attended all their classes to their total number of days with classes represents participants' scores on this item. All participants who responded on at least 1 day were included.

**Covariates.** Because research has demonstrated that gender, parents' education, parental marital status, and race/ethnicity may be associated with parenting style or moderate the association between parenting and offspring's outcomes (Cox, 2006; Dornbusch et al., 1987; Gasper, Stolberg, Macie, & Williams, 2008; Kapungu, Holmbeck, & Paikoff, 2006), we include gender, parents' education, parental marital status, and race/ethnicity as covariates in all analyses.

***Gender.*** Participants were asked in S1, "What is your gender?" coded as *male* (1) or *female* (0).

***Mothers' and fathers' education.*** Participants were asked in S1, separately for their mother and father, "What is the highest level of education your mother/father (or female/male guardian) completed?" Response choices ranged from *completed grade school or less* to *graduate or professional school after college*. In cases where only one parent's education was reported, that score was used in analysis. In cases where both parents' education was reported, the mean across parents was used. Participants who responded *don't know* or *does not apply* for both parents were excluded ($N$ = 10).

***Parental marital status.*** If participants reported that their biological or adoptive parents were married to each other in S1, and did not report a marital status change by S5, they were coded as *parents married* (1). All other non-missing responses participants were coded as *parents not married* (0), indicating that their biological or adoptive parents were not married to each other.

***Race/ethnicity.*** Participants reported whether they identified with 5 racial/ethnic categories: White/European American, Asian American/ Hawaiian/Pacific Islander, Hispanic/Latino American, Black/African American, Native American/American Indian. Dichotomous variables represent whether participants identified as a particular race/ethnicity (1) or not (0). Thus, in analyses, there were 5 total race/ethnicity variables; White/European American was not included, and hence, is the reference group.

Missing data for scales were handled as follows: participants had to have completed at least half a scale (over 50%) to be included. For example, if a scale had 5 questions, the participant needed to have completed at least 3 questions.

## Results

Means and standard deviations for non-dichotomous variables are presented Table 1. As gender was a moderator of interest (aim 2), and is known to relate to parenting style, parent-offspring relationship quality, and academic engagement, correlations between variables, separately by gender, are presented Table 2. To address both aims 1 and 2, we performed 12 regressions. Parenting variables, gender, and covariates were centered. For each construct of interest (authoritative, authoritarian, permissive, relationship quality), three regression models – to address academic attitudes, behaviors, and performance – were performed. Each model included covariates in step 1. In step 2, we added both mothers' and fathers' parenting style or relationship quality variables (aim 1). In step 3, we added the interactions of parenting style and relationship quality variables with gender (aim 2).

**Authoritative parenting**. Neither step 2 (aim 1) nor step 3 (aim 2) in the models with authoritative parenting were significant, indicating that mothers' and fathers' authoritative parenting were not associated with academic attitudes, behaviors, or performance (see Table 3).

**Authoritarian parenting.** For grade importance, the change in $R^2$ for step 2 was significant (see Table 4). Mothers' authoritarian parenting was significant, indicating that emerging adults with more authoritarian mothers tended to view grades as more important than emerging adults with less authoritarian mothers (aim 1). In step 3, the change in $R^2$ was

also significant. Specifically, the interaction between gender and mothers' authoritarian parenting was significant, indicating that male emerging adults with more authoritarian tended to view grades as more important, whereas this association was not present for female emerging adults (aim 2; see Figure 1).

For class attendance and GPA, the changes in $R^2$ for step 2 were not significant (see Table 4). Nor were the changes in $R^2$ for step 3 significant. However, there were significant interactions between gender and mothers' authoritarian parenting for class attendance and GPA. Although the change in $R^2$ was not significant, previous literature cites the ability to find significant change in explained variance as a common problem in hierarchical models attributable to the low residual variance found in interaction terms (McClelland & Judd, 1993). Thus, we do interpret the significant interactions; female emerging adults tended to have less frequent class attendance (see Figure 2) and lower GPA (see Figure 3), whereas this association was not present for male emerging adults (aim 2).

**Permissive parenting.** For grade importance, the change in $R^2$ for step 2 was significant (see Table 5). Mothers' permissive parenting was significant, indicating that emerging adults with more permissive mothers tended to view grades as less important (aim 1). The change in $R^2$ for step 3 was not significant, indicating that the results did not differ by gender (aim 2).

**Relationship quality.** The change in $R^2$ for step 2 was not significant (see Table 6), indicating that parent-offspring relationship quality was not associated with academic attitudes, behaviors, or performance (aim 1). These regression results were in contrast with the bivariate correlations, which show that relationship quality with mother was positively associated with grade importance, class attendance, and GPA for women, and that relationship quality with

father was positively associated with GPA for women and with grade importance and GPA for men (see Table 2). For grade importance, the change in $R^2$ for step 3 was significant. Specifically, the interaction between gender and relationship quality with father was significant, indicating that male emerging adults with higher relationship quality with father tended to view grades as more important, whereas this association was weaker for female emerging adults (aim 2; see Figure 4).

Additionally, it is notable that across regression analyses, men tended to view grades as less important and had lower GPAs than women. Also, emerging adults with less educated or unmarried parents, and emerging adults who identified as Black/African American, tended to have lower GPAs than others (see Tables 3-6).

## Discussion

Authoritative parenting was not associated with grade importance, class attendance, or GPA. The finding for grade importance was unexpected, given that authoritative parenting has been found to be associated with other academic attitudes in emerging adults, such as academic self-efficacy (Turner et al., 2009). This discrepancy may be due to sample differences. The current sample was racially and ethnically diverse; it is possible that previous research using primarily White/European American samples present findings that are specific to that population. In regards to academic behaviors, the current research was consistent with previous research which has failed to show associations between authoritative parenting and *emerging adults'* academic behaviors (Strage & Brandt, 1999; Turner et al., 2009). However, authoritative parenting *is* associated with *adolescents'* academic behaviors, such as lower task-irrelevant behavior and higher classroom engagement (Aunola et al., 2000; Steinberg et al.,

1992), suggesting that the associations between authoritative parenting and academic behaviors do not extend into emerging adulthood. We speculate that, for emerging adults living on a university campus, there are many factors that influence academic behaviors (e.g., social engagements or other classwork), which are stronger than the influence of early parenting style. Adolescents' time is far more structured than emerging adults' time, making these factors more salient for emerging adults, who make their own time-use decisions. In regards to academic performance, the lack of finding for association between authoritative parenting and academic performance is in direct contrast with several other studies which show authoritative parenting to be associated with GPA in emerging adulthood (Abar et al., 2009; Turner et al., 2009). However, not all past research has found such an association (Wintre & Yaffe, 2000).

Emerging adults with more authoritarian mothers tended to view grades as more important. Among adolescents, authoritarian parenting is associated with performance orientation (orientation toward getting high grades), instead of mastery orientation (orientation toward understanding concepts; Gonzalez et al., 2002). It may be that emerging adults with authoritarian mothers are oriented toward getting a high GPA, thus reflected in grade importance. In this case, the construct of grade importance may reflect a continuation of performance orientation from adolescence. Individuals with performance orientation engage in academics for a reward, whereas individuals with mastery orientation are intrinsically motivated to engage in academics. Emerging adults with mastery orientation tend to be more persistent and engage in challenging work (Gonzalez et al., 2002), and thus, some scholars argue that mastery is the preferred orientation. Hence, although we conceptualized grade importance as a positive trait given associations of GPA with college retention and starting

salary (Allen et al., 2008; Thomas, 2000), grade importance may also reflect a less successful academic attitude, performance orientation.

Male emerging adults whose mothers were more authoritarian, and who had a better relationship quality with father, viewed grades as more important, whereas these associations did not exist for women. Additionally, overall, men viewed grades as less important than women did. Theory about parenting style posits that parenting style affects offspring's characteristics (Baumrind, 1966), and thus, it may be that men's attitudes are affected by the high demandingness of authoritarian parents and high parent-offspring relationship quality. Whereas women may have relatively strong emphasis on grades regardless of parenting style and relationship quality, men's grade importance may increase as a result of authoritarian parenting and high relationship quality with father.

Consistent with past research (Wintre & Yaffe, 2000), women with authoritarian mothers had less frequent class attendance and GPA, and this association did not exist for men. Authoritarian parenting has been conceptualized as low in warmth (Baumrind, 1966). Thus, it may be that women's academic engagement suffers without parental warmth. However, one would then expect the academic engagement of women to suffer without high relationship quality, which we did not find in the current research. Alternatively, it may be that women are more sensitive than men to the high demandingness of authoritarian parenting, thus reflected in less frequent class attendance and lower GPA. In fact, previous research finds that women perform more poorly than men under pressure (Shurchkov, 2012).

Both women and men with more permissive mothers viewed grades as less important. This finding is consistent with previous research that shows that emerging adults with more

permissive parents tend to have less preferable academic attitudes, such as low academic self-efficacy (Turner et al., 2009). In regards to academic performance, findings for academic GPA were consistent with previous research on *emerging adults*, in that there were no associations between permissive parenting and GPA (Abar et al., 2009; Turner et al., 2009; Wintre & Yaffe, 2000). However, past research indicates that *adolescents* with more permissive parents tend to have lower GPAs (Cohen & Rice, 1997; Dornbusch et al., 1987; Heaven & Ciarrochi, 2008), suggesting that the association between permissive parenting and academic performance does not extend into emerging adulthood. It is possible that in adolescence, permissive parenting may lead to lower GPA though mechanisms such as lower conscientiousness and more passive behavior (Aunola et al., 2000; Heaven & Ciarrochi, 2008). Assuming it takes a certain degree of conscientiousness and active behavior to become a college student, these mechanisms may not exist in our sample of emerging adults because they are already relatively high in conscientiousness and low in passive behavior.

Overall, our findings provide some support for Bronfenbrenner's (1986) Ecological Systems Theory, in that mothers' parenting style and fathers' relationship quality were associated with academic engagement in emerging adulthood. Thus, parents, as part of the microsystem, may have influenced the individual. Additionally, we found support for an interaction of individuals' characteristics (gender) with parenting style and relationship quality, further providing support that individuals' characteristics may interact with the microsystem (Bronfenbrenner, 1986). Thus, although we cannot determine causality, there is theoretical support for the enduring association of parenting style and the current association of

relationship quality with emerging adults' academic engagement, despite decreased proximity to parents, as conceptualized by Bronfenbrenner's Ecological Systems Theory (1986).

**Strengths, Weakness, and Future Research**

We expand on previous research by including the parenting style and relationship quality of both mothers and fathers. Historically, research has lacked data on both parents; however, recent research has begun to address this concern in areas outside of academic engagement (Padilla-Walker et al., 2008). By including both parents, we could examine how mothers' and fathers' parenting style and relationship quality distinctly related to male and female emerging adults' academic engagement. Thus, the inclusion of both parents fills a key gap in previous research.

In addition to the inclusion of both mother and fathers, strengths of the current paper include a racially/ethnically diverse sample, which has been called for in previous research (Padilla-Walker et al., 2008). Furthermore, we include parents' education, parents' marital status, and race/ethnicity as covariates, whereas studies on parenting and emerging adults do not typically include all of these covariates (Abar et al., 2009; Guay et al., 2008; Melby et al., 2008; Turner et al., 2009, Weiss & Schwarz, 1996). The inclusion of covariates is important for two reasons: first, although there were bivariate associations between relationship quality with parents and grade importance, class attendance and GPA, there were fewer associations in the full model, in the context of the covariates. This pattern suggests that these covariates are important to the association between relationship quality and academic engagement. Second, some covariates were associated with academic engagement. Men, compared to women, consistently viewed grades as less important and had lower GPAs. Emerging adults who were

Black/African-American, or had less educated or unmarried parents, had lower GPAs than others did. Hence, gender, parents' education and marital status, and race should be considered in future research on parenting and academic engagement. Additionally, educators may want to take note of these potential demographic markers when identifying vulnerable students.

The current paper has some limitations. The analyses were not longitudinal, and the measure of parenting style was retrospective. Thus, we could not determine whether *current* parenting style, as opposed to our measure of *earlier* parenting style, matters in emerging adulthood. Future research should use a longitudinal design in which parenting style and relationship quality are measured at multiple assessments across adolescence and emerging adulthood, to determine if associations of parenting style and relationship quality with academic engagement endure from adolescence to emerging adulthood.

The associations of parenting style and relationship quality with academic engagement were small, suggesting that, although parenting style and relationship quality are associated with emerging adults' academic engagement, there are clearly other unmeasured factors that explain some of the variation in academic engagement. According to Ecological Systems Theory (Bronfenbrenner, 1986), emerging adults' microsystems may also include their friends, roommates, and instructors; future research should address the relative importance of various groups in the microsystem for emerging adults' academic engagement.

Ecological Systems Theory posits that characteristics of the individual may interact with the microsystem; however, the only individual characteristic that was examined in the current paper was gender. Additional individual characteristics that may moderate the association of

parenting style and relationship quality with academic engagement include conscientiousness, IQ, and academic self-efficacy. Future research should use these moderators to further examine the circumstances under which parenting style and relationship quality are more or less strongly associated with academic attitudes, behaviors, and performance. For example, it may be that parenting style is particularly important for at-risk students (Ong, Phinney, & Dennis, 2006), or that relationship quality with parents is particularly important for students residing away from home (Mattanah et al., 2011). Other factors that may affect the association of parenting style and relationship quality with academic engagement in emerging adulthood include resident status (living at home versus living away), difficulty of major, and communication with parents.

Finally, future research should examine mechanisms involved in the association of parenting style and relationship quality with academic engagement. Possible mechanisms include achievement orientation toward mastery versus performance, failure- or success-oriented attitudes, academic self-regulation, emotional support, sense of well-being, and social integration.

There are several opportunities for future research to improve measurement in the area of parenting style and academic engagement. The current research used the Buri (1991) measure of parenting style, which is a 10-item scale. However, due to the length of the survey, only half of the measure was utilized, yielding a 5-item scale with lower reliability than others have reported with the full scale (Buri, 1991). Future research should use the full scale to improve reliability and thus increase power to find associations. Also, the Buri (1991) scale measured the degree to which parents' style was authoritative, authoritarian, and permissive.

Future research should consider *categorizing parents* into authoritative, authoritarian, and permissive, based on Baumrind's (1966) original conceptualization, to compare offspring of parents with different styles on academic engagement. Furthermore, future research could include the rejecting/neglecting parenting style. Additionally, the current paper used self-reported GPA. Although there is evidence that self-reported academic performance is valid (Cole & Gonyea, 2010), other research questions the validity of self-reports of academic performance (Kuncel, Credé, & Thomas, 2005). Future research should address this potential validity concern by using an objective measure of academic performance such as registrar records. Future research should also address domains of academic engagement that were not included in the current paper; academic engagement can also be measured with constructs such as interactions with instructors, scholarly interactions with classmates and peers, time spent studying or otherwise engaging in class material, and engaging in internships or research projects (as seen in the National Survey of Student Engagement; Kuh, 2001). These measures capture additional information about academic engagement that is not captured in grade importance, class attendance, and GPA, such as the social aspects of learning and engagement outside the classroom.

In conclusion, findings provide support for the importance of Ecological Systems Theory (Bronfenbrenner, 1986) – and in particular, parents as part of the microsystem – in explaining emerging adults' academic engagement. Results were not uniform; parenting style and parent-offspring relationship quality had more associations with academic attitudes than behaviors or performance. Most notably, mothers' authoritarian parenting and fathers' relationship quality were more highly associated with men's academic attitudes than with women's academic

attitudes, whereas mothers' authoritarian parenting was associated with less frequent class attendance for women but not for men. Findings from this research have implications for university administration. If universities encourage high quality relationships with parents and view parents as partners in the effort to bolster students' academic success, they may see improvements in academic engagement.

## References

Abar, B., Carter, K. L., & Winsler, A. (2009). The effects of maternal parenting style and religious commitment on self-regulation, academic achievement, and risk behavior among African-American parochial college students. *Journal of Adolescence*, *32*, 259–273.

Allen, J., Robbins, S. B., Casillas, A., & Oh, I.-S. (2008). Third-year college retention and transfer: Effects of academic performance, motivation, and social connectedness. *Research in Higher Education*, *49*, 647–664.

Amato, P. R., & Fowler, F. (2014). Parenting practices, child adjustment, and family diversity. *Journal of Marriage and Family, 64*, 703–716.

Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Student's learning strategies and motivation processes. *Educational Psychology, 80*, 260-267.

Aquilino, W. S. (2005). Family relationships and support systems in emerging adulthood. In J. J. Arnett & J. L. Tanner (Eds.), *Coming of age in the twenty-first century: The lives and contexts of emerging adults* (pp. 235-255). Washington, DC: American Psychological Association.

Aunola, K., Stattin, H., & Nurmi, J. (2000). Parenting styles and adolescents' achievement strategies. *Journal of Adolescence, 23*, 205-222.

Arnett, J. J. (2000). A theory of development from late teens through the twenties. *American Psychologist, 55*, 469-480.

Bailey, J. A., Haggerty, K. P., White, H. R., & Catalano, R. F. (2011). Associations between changing developmental contexts and risky sexual behavior in the two years following high school. *Archives of Sexual Behavior*, *40*, 951–960.

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development, 37*, 887-907.

Branje, S. J. T., Hale, W. W., Frijns, T., & Meeus, W. H. J. (2010). Longitudinal associations between perceived parent-child relationship quality and depressive symptoms in adolescence. *Journal of Abnormal Child Psychology*, *38*, 751–763.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*, 723-742.

Bureau of Labor Statistics. (2013).College enrollment and work activity of 2012 high school graduates. Report from the U.S. Department of Labor. Retrieved November 12, 2013, from http://www.bls.gov/news.release/pdf/hsgec.pdf.

Buri, J. R. (1991). Parental authority questionnaire. *Journal of Personality Assessment*, *57*, 110–119.

Chemers, M. M., Hu, L., & Garcia, B. F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology, 93*, 55-64.

Chao, R. K. (2001). Extending research on the consequences of parenting style for Chinese Americans and European Americans. *Child Development, 71*, 1832- 1843.

Clausen, S.E. (1996). Parenting styles and adolescent drug use behaviors. *Childhood, 3*, 403–414.

Cohen, D. A., & Rice, J. (1997). Parenting styles, adolescent substance use, and academic achievement. *Journal of Drug Education, 27*, 199-211.

Cole, J. S., & Gonyea, R. M. (2010). Accuracy of self-reported SAT and ACT test scores: Implications for research. *Research in Higher Education, 51*, 305-319.

Cox, M. F. (2006). Racial differences in parenting dimensions and adolescent condom use at sexual debut. *Public Health Nursing, 23*, 2-10.

Crosnoe, R., & Elder, G. H. (2004). Family dynamics, supportive relationships, and educational resilience during adolescence. *Journal of Family Issues*, *25*, 571–602.

Deptula, D. P., Henry, D. B., & Schoeny, M. E. (2010). How can parents make a difference?: Longitudinal associations with adolescent sexual behavior. *Journal of Family Psychology*, *24*, 731–739.

Demo, D. H., & Acock, A. C. (1996). Family structure, family process, and adolescent well-being. *Journal of Research on Adolescence 6*, 457-488.

DeRoma, V. M., Leach, J., Leverett, J. P. (2009). The relationship between depression and college academic performance. *College Student Journal, 43*, 325-334.

Dornbusch, S. M., Ritter, P. L., Leiderman, H., Roberts, D. F., & Fraleigh, M. J. (1987). The relation of parenting style to adolescent school performance. *Child Development, 58*, 1244-1257.

Dotterer, A. M., Hoffman, L., Crouter, a. C., & McHale, S. M. (2007). A longitudinal examination of the bidirectional links between academic achievement and parent-adolescent conflict. *Journal of Family Issues*, *29*, 762–779.

Fosco, G. M., Caruthers, A. S., & Dishion, T. J. (2012). A six-year predictive test of adolescent family relationship quality and effortful control pathways to emerging adult social and emotional health. *Journal of Family Psychology, 26*, 565–575.

Gasper, J. A., Stolberg, A. L., Macie, K. M., & Williams, L. J. (2008). Coparenting in intact and divorced families: Its impact on young adult adjustment. *Journal of Divorce & Remarriage, 49*, 272-290.

Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling and Development, 72*, 281-288.

Gonzalez, A. R., Doan Holbein, M. F., & Quilter, S. (2002). High school students' goal orientations and their relationship to perceived parenting styles. *Contemporary Educational Psychology*, *27*, 450–470.

Guay, F., Marsh, H. W., Senécal, C., & Dowson, M. (2008). Representations of relatedness with parents and friends and autonomous academic motivation during the late adolescence-early adulthood period: Reciprocal or unidirectional effects? *British Journal of Educational Psychology, 78,* 621-637.

Gray, M. R. & Steinberg, L. (1999). Unpacking authoritative parenting: Reassessing a multidimensional construct. *Journal of Marriage and Family, 61*, 574-587.

Hair, E. C., Moore, K. A., Garrett, S. B., Ling, T., & Cleveland, K. (2008). The continued importance of quality parent–adolescent relationships during late adolescence. *Journal of Research on Adolescence*, *18*, 187–200.

Heaven, P. C. L., & Ciarrochi, J. (2008). Parental styles, conscientiousness, and academic performance in high school: A three-wave longitudinal study. *Personality and Social Psychology Bulletin, 34*, 451-461.

Hysenbegasi, A., Hass, S. L., & Rowland, C. R. (2005). The impact of depression on the academic productivity of university students. *The Journal of Mental Health Policy and Economics*, *8*, 145–151.

Juang, L. P., & Silbereisen, R. K. (2002). The relationship between adolescent academic capability beliefs, parenting and school grades. *Journal of Adolescence*, *25*, 3–18.

Kapungu, C. T., Holmbeck, G. N., & Paikoff, R. L. (2006). Longitudinal association between parenting practices and early sexual risk behaviors among urban African American adolescents: The moderating role of gender. *Journal of Youth and Adolescence*, *35*, 783–794.

Kuh, G. D. (2001). The National Survey of Student Engagement: Conceptual framework and overview of psychometric properties. *Bloomington, IN: Indiana University Center for Postsecondary Research*, 1-26.

Kuncel, N. R., Credé, M., & Thomas, L. L. (2005). The validity of self-reported grade point averages, class ranks, and test scores: A meta-analysis and review of the literature. *Review of Educational Research, 75*, 63-82.

Lefkowitz, E. S. (2005). "Things have gotten better": Developmental changes among emerging adults after the transition to university. *Journal of Adolescent Research*, *20*, 40–63.

Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P.H. Mussen (Series Ed.) & E. M. Hetherington (Vol. Ed.), *Handbook of Child Psychology: Vol. 4. Socialization, Personality, and Social Development* (4th ed., pp. 1-101). New York: Wiley.

Mattanah, J. F., Lopez, F. G., & Govern, J. M. (2011). The contributions of parental attachment bonds to college student development and adjustment: A meta-analytic review. *Journal of Counseling Psychology, 58*, 565-596.

McClelland, G. H., & Judd, C. M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin, 144*, 376-390.

Melby, J. N., Conger, R. D., Fang, S.-A., Wickrama, K. A. S., & Conger, K. J. (2008). Adolescent family experiences and educational attainment during early adulthood. *Developmental Psychology*, *44*, 1519–1536.

Moore, R. (2003). Attendance and performance: How important is it for students to attend class? *Journal of College Science and Teaching, 32*, 367-371.

Ong, A. D., Phinney, J. S., & Dennis, J. (2006). Competence under challenge: Exploring the protective influence of parental support and ethnic identify in Latino college students. *Journal of Adolescence, 29,* 961-979.

Padilla-Walker, L. M., Nelson, L. J., Madsen, S. D., & Barry, C. M. (2008). The role of perceived parental knowledge on emerging adults' risk behaviors. *Journal of Youth and Adolescence*, *37*, 847–859.

Patock-Peckham, J. A., & Morgan-Lopez, A. A. (2006). College drinking behaviors: Mediational links between parenting styles, impulse control, and alcohol-related outcomes. *Psychology of Addictive Behaviors*, *20*, 117–125.

Pierce, G. R. (1994). The Quality of Relationship Inventory: Assessing the interpersonal context of social support. In B. R. Burleson, T. L. Albrecht, & I. G. Sarason (Eds.), *Communication*

*of Social Support: Messages, Interactions, Relationships, and Community* (pp.247-264). Thousand Oaks, CA: Sage.

Pierce, G. R., Sarason, I. G., & Sarason, B. R. (1991). General and relationship-based perceptions of social support: Are two constructs better than one? *Journal of Personality and Social Psychology, 61*, 1028-1039.

Pritchard, M. E., Wilson, G. S. (2003). Using emotional and social factors to predict student success. *Journal of College Student Development, 44*, 18–28.

Rhodes, B. L., & Maggs, J. L. (2006). Do academic and social goals predict planned alcohol use among college-bound high school graduates? *Journal of Youth and Adolescence, 35*, 913-923.

Robbins, S. B., Lauver, K., Le, H., Davis, D., Langley, R., & Carlstrom, A. (2004). Do psychosocial and study skill factors predict college outcomes?: A meta-analysis. *Psychological Bulletin, 130*, 261-288.

Schwartz, S. J., Zamboanga, B. L., Ravert, R. D., Kim, S. Y., Williams, M. K., Bersamin, M., & Finlet, G. E. (2009). Perceived parental relationships and health-risk behaviors in college-attending emerging adults. *Journal of Marriage and Family, 71*, 727-740.

Shurchkov, O. (2012). Under pressure: Gender differences in output quality and quantity under competition and time constraints. *Journal of the European Economic Association, 10*, 1189-1213.

Simons, L. G., & Conger, R. D. (2007). Linking mother-father differences in parenting to a typology of family parenting styles and adolescent outcomes. *Journal of Family Issues*, *28*, 212–241.

Slicker, E. K., Patton, M., & Fuller, D. K. (2004). Parenting dimensions and adolescent sexual initiation: Using self-esteem, academic aspiration, and substance use as mediators. *Journal of Youth Studies, 7*, 295-314.

Soucy, N., & Larose, S. (2000). Attachment and control in family and mentoring contexts as determinants of adolescent adjustment at college. *Journal of Family Psychology*, *14,* 125–143.

Spera, C. (2005). A review of the relationship among parenting practices, parenting styles, and adolescent school achievement. *Educational Psychology Review*, *17*, 125-146.

Steinberg, L., Lamborn, S. D., Dornbusch, S. M., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement, and encouragement to succeed. *Child Development*, *63*, 1266-1281.

Strage, A., & Brandt, T. S. (1999). Authoritative parenting and college students' academic adjustment and success. *Journal of Educational Psychology*, *91*, 146–156.

Thomas, S. L. (2000). Deferred costs and economic returns to college major, quality, and performance. *Research in Higher Education, 41*, 281-313.

Turner, E. A., Chandler, M., & Heffer, R. W. (2009). The influence of parenting styles, achievement motivation, and self-efficacy on academic performance in college students. *Journal of College Student Development*, *50*, 337–346.

Van Ryzin, M. J., Fosco, G. M., & Dishion, T. J. (2012). Family and peer predictors of substance use form early adolescence to early adulthood: An 11-year prospective analysis. *Addictive Behaviors, 37*, 1314-1324.

Weiss, L. H., & Schwarz, J. C. (1996). The relationship between parenting types and older adolescents' personality, academic achievement, adjustment, and substance use. *Child Development*, *67*, 2101–2114.

Wintre, M. G., & Yaffe, M. (2000). First-year students' adjustment to university life as a function of relationships with parents. *Journal of Adolescent Research, 15*, 9–37.

**Appendix**

**Table 1**

*Descriptive Statistics*

| Variable | Mean | SD | Min | Max | *N* |
|---|---|---|---|---|---|
| Parents' education | 3.50 | 1.21 | .00 | 5.00 | 734 |
| Mothers' authoritative parenting | 3.49 | .64 | 1.00 | 5.00 | 638 |
| Fathers' authoritative parenting | 3.34 | .70 | 1.00 | 5.00 | 615 |
| Mothers' authoritarian parenting | 3.22 | .77 | 1.00 | 5.00 | 638 |
| Fathers' authoritarian parenting | 3.41 | .80 | 1.00 | 5.00 | 616 |
| Mothers' permissive parenting | 2.51 | .66 | 1.00 | 4.80 | 638 |
| Fathers' permissive parenting | 2.63 | .69 | 1.00 | 5.00 | 614 |
| Relationship quality with mother | 2.45 | .65 | .00 | 3.00 | 644 |
| Relationship quality with father | 2.17 | .87 | .00 | 3.00 | 623 |
| Grade importance | 3.73 | .60 | .00 | 4.00 | 633 |
| Class attendance | .77 | .26 | .00 | 1.00 | 599 |
| GPA | 3.14 | .60 | .00 | 4.00 | 625 |

***Note.*** Parents' education ranged from 0 = *completed grade school* to 5 = *graduate or professional school after college*. Parenting style ranged from 1 = *strongly disagree* to 5 = *strongly agree*. Relationship quality ranged from 0 = *not at all* to 3 = *a lot*. Grade importance ranged from 0 = not at all to 4 = very important. Class attendance is coded as the percentage of days in which participants attended class, out of the total number of days with classes.

**Table 2**

*Correlations by Gender*

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Mother ATT | -- | .36** | -.23** | -.09 | .21** | .07 | .43** | .19** | .08 | .09 | .06 |
| 2. Father ATT | .51** | -- | -.07 | -.29** | .07 | .27** | .08 | .48** | .11 | .06 | .05 |
| 3. Mother ARN | .06 | .11 | -- | .40** | -.48** | -.10 | -.20** | -.14* | .05 | -.16** | -.21** |
| 4. Father ARN | .19** | .10 | .51** | -- | -.11* | -.50** | -.04 | -.14* | -.01 | -.03 | -.09 |
| 5. Mother PER | .19** | .06 | -.21* | -.14* | -- | .44** | .09 | .02 | -.06 | .12* | .02 |
| 6. Father PER | .01 | .24* | .01 | -.31** | .49** | -- | -.05 | .09 | .01 | .06 | .00 |
| 7. RQ with mother | .34** | .26** | .05 | .05 | .15* | .05 | -- | .20** | .11* | .14* | .16** |
| 8. RQ with father | .20** | .43** | -.01 | .00 | .05 | .12* | .57** | -- | .01 | .04 | .12* |
| 9. Grade importance | .03 | .06 | .21** | .10 | -.17** | -.07 | .05 | .14* | -- | .05 | .09 |
| 10. Class attendance | -.02 | .07 | .00 | -.07 | .07 | .06 | .03 | .10 | .15* | -- | .31** |
| 11. GPA | -.02 | .02 | -.01 | -.04 | -.06 | -.06 | .02 | .14* | .21** | .17** | -- |

***Note***. Correlations above the diagonal represent the correlations for woman; correlations below the diagonal represent the correlations for men. ATT = Authoritative parenting. ARN = Authoritarian parenting. PER = Permissive parenting. RQ = Relationship quality. * $p < .05$. ** $p < .01$. Female emerging adults ($N$ = 296-338). Male emerging adults ($N$ = 252-300).

**Table 3**

*Standardized Coefficients in Linear Regressions for Authoritative Parenting*

| | Grade Importance (*N* = 597) | | | Class Attendance (*N* = 565) | | | GPA (*N* = 590) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Step 1 | Step 2 | Step 3 | Step 1 | Step 2 | Step 3 | Step 1 | Step 2 | Step 3 |
| | β | β | β | β | β | β | β | β | β |
| Gender | -.16*** | -.16*** | -.16*** | -.04 | -.16 | -.16 | -.13** | -.13** | -.13** |
| Parents' education | .05 | .03 | .03 | .01 | .03 | .03 | .12** | .12** | .12** |
| Parents' marital status | -.02 | -.01 | -.01 | -.04 | -.01 | -.01 | -.08* | -.08* | -.08* |
| AA/H/PI | .07 | .08 | .08 | .00 | .08 | .08 | .06 | .06 | .06 |
| H/L | .08 | .08 | .08 | -.05 | .08 | .08 | -.05 | -.05 | -.05 |
| B/AA | .03 | .03 | .03 | -.03 | .03 | .03 | -.26*** | -.26*** | -.25*** |
| NA/AI | -.06 | -.06 | -.06 | .05 | -.06 | -.06 | .05 | .05 | .05 |
| Mother ATT | | .03 | .03 | | .03 | .03 | | .00 | -.01 |
| Father ATT | | .07 | .07 | | .07 | .07 | | .01 | .02 |
| Gender*Mother ATT | | | -.02 | | | -.02 | | | -.05 |
| Gender*Father ATT | | | .00 | | | .00 | | | .02 |
| $R^2$ | .04*** | .03*** | .05** | .01 | .01 | .02 | .13*** | .13*** | .13*** |
| $\Delta R^2$ | -- | .01 | .00 | -- | .01 | .00 | -- | .00 | .00 |

***Note***. AA/H/PI = Asian American/ Hawaiian/Pacific Islander. H/L = Hispanic/Latino American. B/AA=Black/African American. NA/AI=Native American/American Indian. ATT = Authoritative parenting. * $p < .05$. ** $p < .01$. *** $p < .001$.

**Table 4**

*Standardized Coefficients in Linear Regressions for Authoritarian Parenting*

| | Grade Importance (*N* = 598) | | | Class Attendance (*N* = 566) | | | GPA (*N* = 591) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Step 1 | Step 2 | Step 3 | Step 1 | Step 2 | Step 3 | Step 1 | Step 2 | Step 3 |
| | β | β | β | β | β | β | β | β | β |
| Gender | -.16*** | -.17*** | -.17*** | -.04 | -.04 | -.03 | -.14** | -.13** | -.13** |
| Parents' education | .05 | .05 | .06 | .01 | .00 | .00 | .12** | .12** | .12** |
| Parents' marital status | -.02 | -.02 | -.01 | -.04 | -.05 | -.05 | -.08* | -.09* | -.08* |
| AA/H/PI | .07 | .04 | .05 | .01 | .02 | .02 | .06 | .07 | .07 |
| H/L | .08 | .07 | .07 | -.05 | -.04 | -.04 | -.05 | -.04 | -.04 |
| B/AA | .03 | -.01 | .00 | -.03 | .00 | .00 | -.26*** | -.24*** | -.24*** |
| NA/AI | -.06 | -.06 | -.06 | .05 | .04 | .05 | .05 | .04 | .04 |
| Mother ARN | | .14** | .16** | | -.06 | -.04 | | -.05 | -.03 |
| Father ARN | | -.03 | -.04 | | -.05 | -.07 | | -.03 | -.04 |
| Gender*Mother ARN | | | .10* | | | .10* | | | .09* |
| Gender*Father ARN | | | .00 | | | -.09 | | | -.01 |
| $R^2$ | .04*** | .06*** | .07*** | .01 | .02 | .01 | .13*** | .13*** | .14*** |
| $\Delta R^2$ | | .02** | .01* | | .01 | .01 | | .01 | .01 |

***Note***. AA/H/PI = Asian American/ Hawaiian/Pacific Islander. H/L = Hispanic/Latino American. B/AA=Black/African American. NA/AI=Native American/American Indian. ARN = Authoritarian parenting. * $p < .05$. ** $p < .01$. *** $p < .001$.

**Table 5**

*Standardized Coefficients in Linear Regressions for Permissive Parenting*

| | Grade Importance (*N* = 596) | | | Class Attendance (*N* = 564) | | | GPA (*N* = 589) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Step 1 | Step 2 | Step 3 | Step 1 | Step 2 | Step 3 | Step 1 | Step 2 | Step 3 |
| | β | β | β | β | β | β | β | β | β |
| Gender | -.16*** | -.15*** | -.15*** | -.05 | -.06 | -.06 | -.13** | -.13** | -.13** |
| Parents' education | .04 | .04 | .04 | .01 | .01 | .01 | .12** | .12** | .13** |
| Parents' marital status | -.02 | -.02 | -.01 | -.03 | -.04 | -.04 | -.09* | -.08* | -.08* |
| AA/H/PI | .07 | .06 | .07 | .01 | .01 | .01 | .06 | .06 | .06 |
| H/L | .08 | .08 | .08 | -.05 | -.05 | -.05 | -.05 | -.05 | -.05 |
| B/AA | .04 | .02 | .03 | -.03 | -.03 | -.03 | -.25*** | -.26*** | -.25*** |
| NA/AI | -.06 | -.07 | -.07 | .05 | .05 | .05 | .05 | .05 | .04 |
| Mother PER | | -.14** | -.15** | | .08 | .07 | | -.03 | -.04 |
| Father PER | | .04 | .05 | | .03 | .03 | | .00 | .00 |
| Gender*Mother PER | | | -.09 | | | -.02 | | | -.03 |
| Gender*Father PER | | | .01 | | | .03 | | | -.02 |
| $R^2$ | .04*** | .05*** | .06*** | .01 | .02 | .02 | .12*** | .13*** | .13*** |
| $\Delta R^2$ | | .01* | .01 | | .01 | .00 | | .00 | .00 |

***Note***. AA/H/PI = Asian American/ Hawaiian/Pacific Islander. H/L = Hispanic/Latino American. B/AA=Black/African American. NA/AI=Native American/American Indian. PER = Permissive parenting. * $p < .05$. ** $p < .01$. *** $p < .001$.

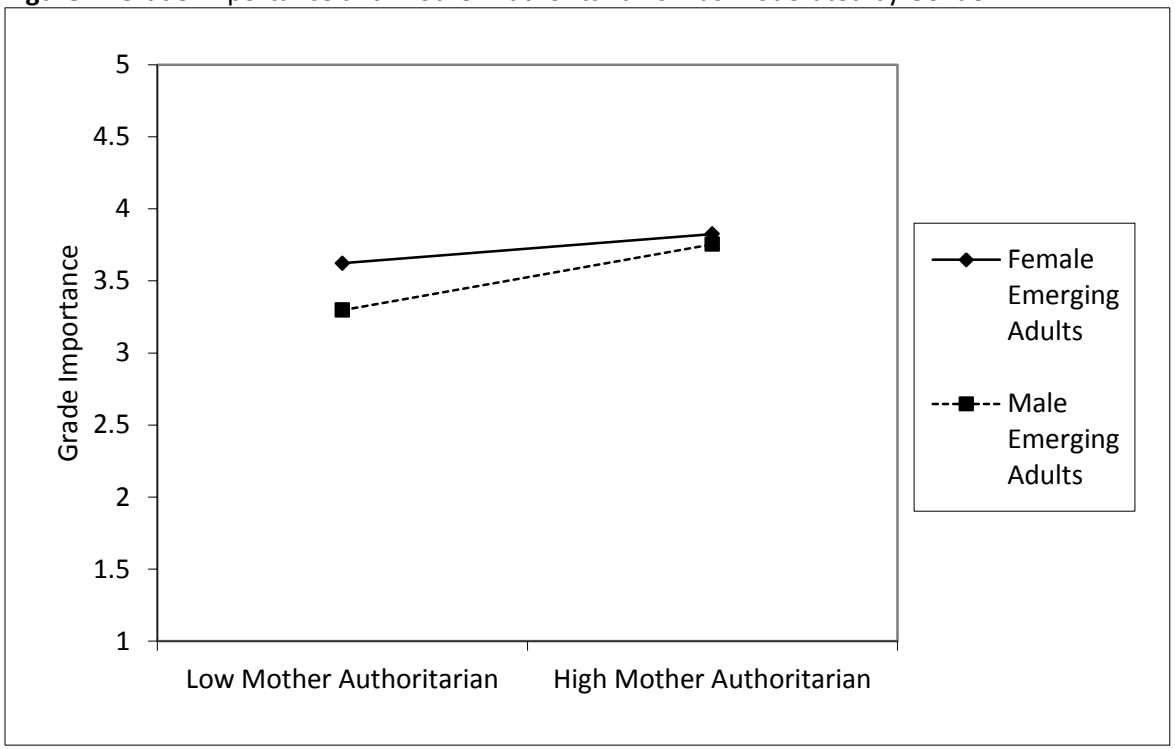
**Table 6**

*Standardized Coefficients in Linear Regressions for Relationship Quality*

| | Grade Importance (*N* = 560) | | | Class Attendance (*N* = 533) | | | GPA (*N* = 552) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Step 1 | Step 2 | Step 3 | Step 1 | Step 2 | Step 3 | Step 1 | Step 2 | Step 3 |
| | β | β | β | β | β | β | β | β | β |
| Gender | -.18*** | -.17*** | -.18*** | -.07 | -.06 | -.06 | -.15*** | -.13** | -.13** |
| Parents' education | .05 | .03 | .03 | -.01 | -.02 | -.03 | .14*** | .14** | .13** |
| Parents' marital status | -.02 | .00 | -.01 | -.03 | -.01 | -.02 | -.04 | -.04 | -.04 |
| AA/H/PI | .07 | .08 | .08 | .01 | .02 | .02 | .04 | .05 | .05 |
| H/L | .07 | .07 | .08 | -.02 | -.02 | -.02 | -.06 | -.07 | -.07 |
| B/AA | .01 | .02 | .03 | -.05 | -.04 | -.04 | -.30*** | -.30*** | -.30*** |
| NA/AI | -.07 | -.06 | -.06 | .03 | .04 | .04 | .05 | .06 | .06 |
| RQ with mother | | .05 | .02 | | .05 | .03 | | .08 | .06 |
| RQ with father | | .06 | .10 | | .04 | .07 | | -.01 | .02 |
| Gender* RQ with mother | | | -.08 | | | -.06 | | | -.07 |
| Gender* RQ with father | | | .12* | | | .07 | | | .06 |
| $R^2$ | .05*** | .05*** | .07*** | .01 | .02 | .02 | .14*** | .15*** | .15*** |
| $\Delta R^2$ | | .01 | .01* | | .01 | .01 | | .01 | .01 |

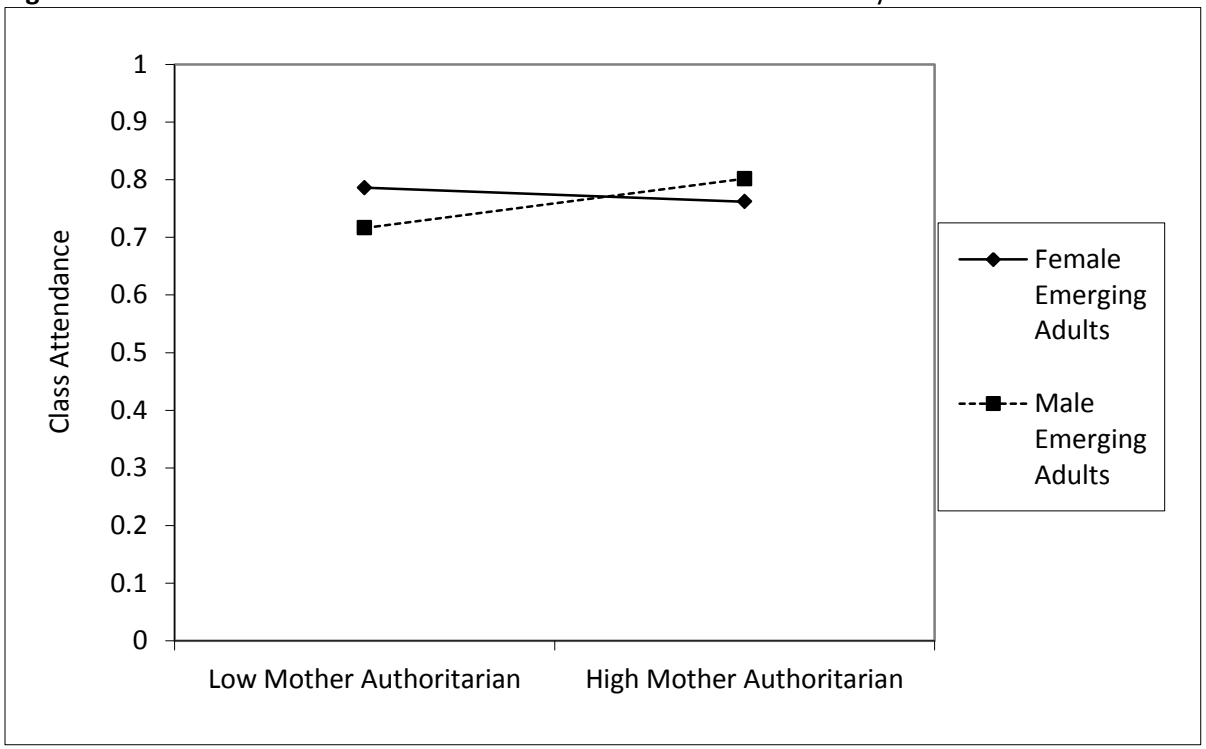
***Note***. AA/H/PI = Asian American/ Hawaiian/Pacific Islander. H/L = Hispanic/Latino American. B/AA=Black/African American. NA/AI=Native American/American Indian. RQ = Relationship quality. * $p < .05$. ** $p < .01$. *** $p < .001$.

**Figure 1.** Grade Importance and Mother Authoritarianism as Moderated by Gender



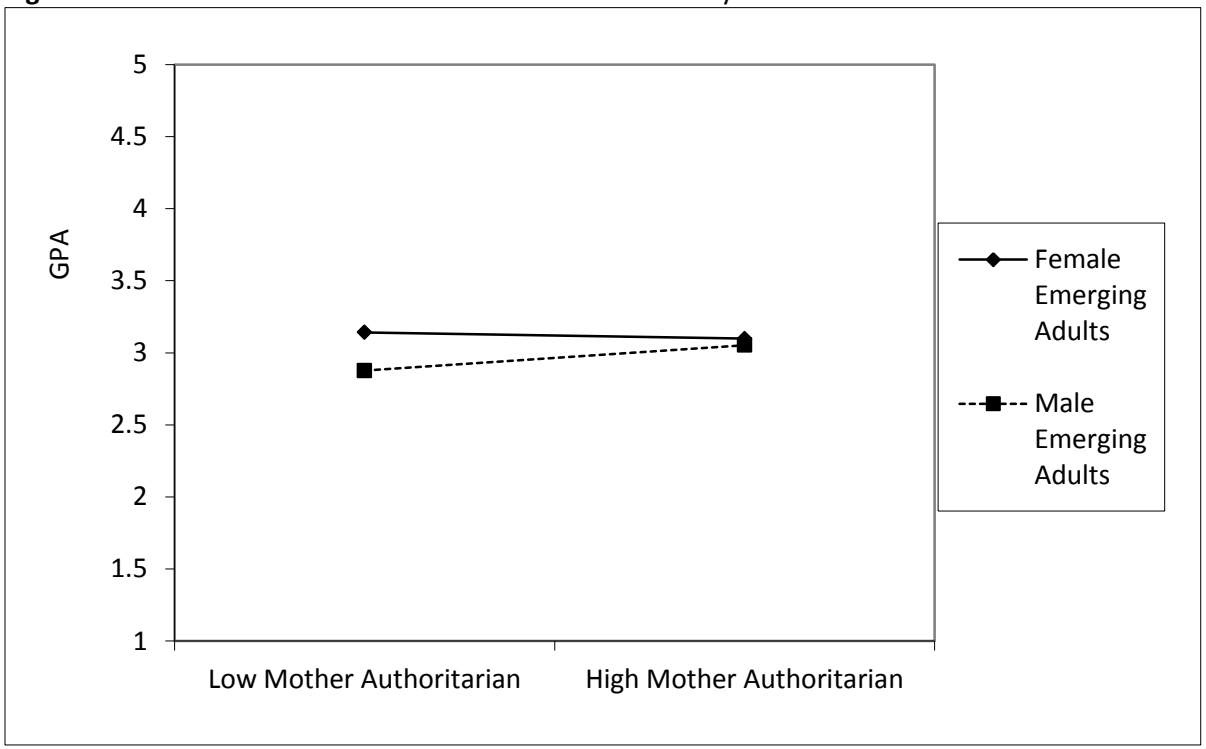

***Note.*** *Low mother authoritarianism* = 1 standard deviation below the mean.
*High mother authoritarianism* = 1 standard deviation above the mean.

**Figure 2.** Class Attendance and Mother Authoritarianism as Moderated by Gender



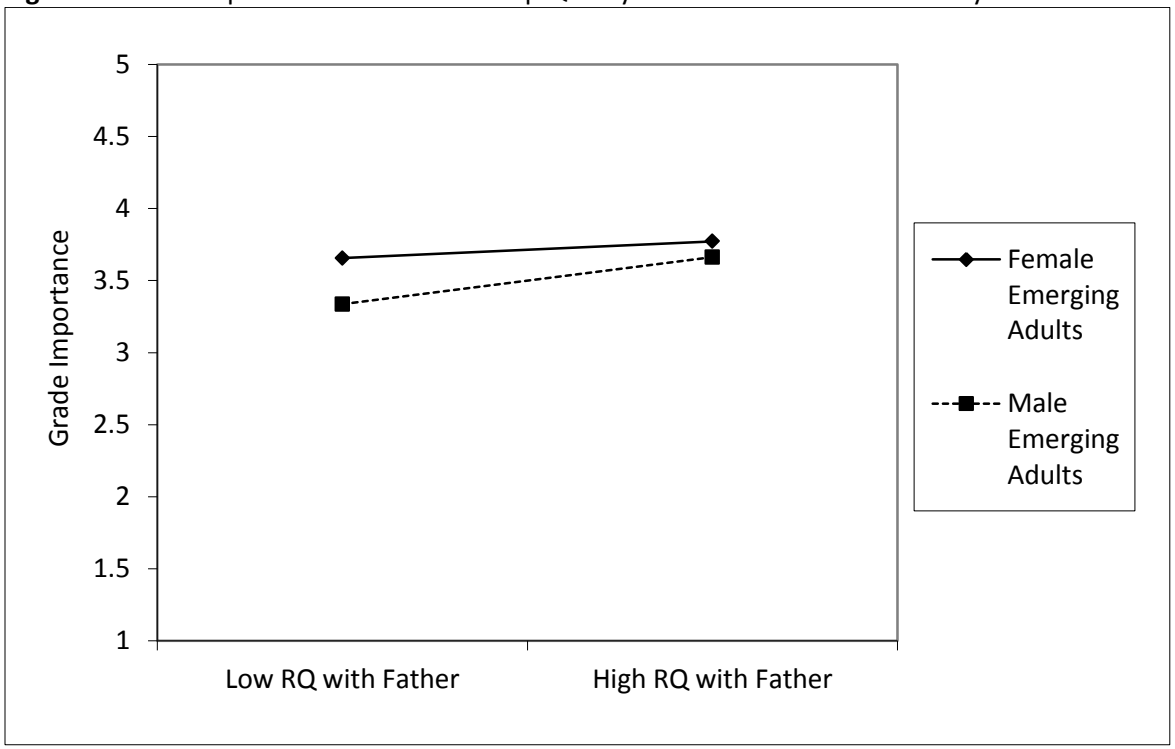

***Note.*** *Low mother authoritarianism* = 1 standard deviation below the mean.
*High mother authoritarianism* = 1 standard deviation above the mean.

**Figure 3.** GPA and Mother Authoritarianism as Moderated by Gender




***Note.*** *Low mother authoritarianism* = 1 standard deviation below the mean.
*High mother authoritarianism* = 1 standard deviation above the mean.

**Figure 4.** Grade Importance and Relationship Quality with Father as Moderated by Gender




***Note.*** *RQ* = Relationship quality.
*Low RQ with father* = 1 standard deviation below the mean.
*High RQ with father* = 1 standard deviation above the mean.