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The Influence of Family Cohesion and Relationship Maintenance Strategies on Stress During Students' Adjustment to College

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The Influence of Family Cohesion and Relationship Maintenance Strategies
on Stress During Students' Adjustment to College

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts in Communication

by

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Abstract

This study examined the effects of family cohesion and relationship maintenance behaviors on students' experience of stress during the adjustment to college. One hundred and ninety-eight first-year college students completed measures assessing family cohesion; relationship maintenance behaviors expressed within their family systems; and academic, social, and personal-emotional stress. Results indicated that family cohesion is significantly and negatively related to students' experiences of academic, social, and personal-emotional stress. Further, hierarchical regression and structural equation modeling provided insight to the additive influence of relationship maintenance behaviors on student stress. Analyses provided limited support for a mediation model, however, results demonstrated the importance of both family cohesion and relationship maintenance behaviors on academic, social, and personal-emotional stress during students' transitions to college.

Keywords: family cohesion, relationship maintenance strategies, stress, adjustment to college

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CHAPTER 1

The transition to college is associated with a variety of stressors. Stress is conceptualized as an interactive relationship between the environment's external demands and the individual's internal state (Cohen, Kessler, & Gordon, 1995). When the environment's external demands exceed the individual's internal adaptive capacity, the person experiences a stress response (Selye, 1956). During the adjustment to college, the external environment's heightened demands often exceed students' internal adaptive capacities inciting stress. When adjustment to college is experienced as stressful, students are more likely to engage in problem behaviors (LaBrie, Ehret, Hummer, & Prenovost, 2012), less likely to meet their degree requirements (Mallinckrodt, 1994), and less likely to invest in social relationships (Mounts, Valentiner, Anderson, & Boswell, 2006).

Previous research demonstrated that family cohesion is a resource that positively contributes to individuals' internal adaptive capacities (Holahan & Moos, 1987). Family cohesion refers to the level of felt support and commitment between family members (Moos, 1974). More specifically, when family members express support amidst significant change, such as the transition to college, they promote adaptive outcomes for students (Klink, Byars-Winston, & Bakken, 2008). In addition to the benefits of family support, commitment to established family roles reduces the experience of stress associated with roles beyond the family unit (Graves, Ohlott, & Ruderman, 2007). Family cohesion, demonstrated through support and commitment, acts as a means of bolstering students' internal capacities during the adjustment to college, resulting in an adaptive response to their new environment's increased demands.

Families that reflect strong cohesion as an aspect of family identity are likely to engage in relational maintenance behaviors (Vogl-Bauer, 2003). Relational maintenance behaviors are

patterns of interaction intended to sustain relational definitions (Stafford & Canary, 1991).

Previous research has identified five types of relational behaviors, namely shared tasks, shared networks, positivity, openness, and assurances (Canary & Stafford, 1992). Accordingly, family cohesion, expressed through relationship maintenance behaviors, may aid students' transitions to college by increasing their internal adaptive capacities to withstand their new environment's increased demands.

The goal of the current study is to examine the influence of both family cohesion and relationship maintenance strategies on stress during students' adjustment to college. In the sections that follow, I will first describe the stressors associated with students' adjustment to college. Then, I will examine the influence of family cohesion on the experience of stress. Finally, I will review relational maintenance strategies used to sustain close relationships.

Adjustment to College

According to Baker and Siryk (1984), the adjustment to college presents potential academic, social, and personal-emotional stressors. More specifically, academic stressors describe an increased work load and elevated intensity of academic work. This requires students to reorient their attitudes and goals regarding their academic pursuits, and evaluate the effort required to meet their goals (Baker & Siryk, 1984). Social stressors refer to pressure associated with navigating new relational settings. This may include negotiating involvement in new activities and developing new interpersonal relationships (Baker & Siryk, 1984). Finally, personal-emotional stressors indicate individual psychological and physical challenges. Personal-emotional stressors associated with the adjustment to college may include adapting to new levels of independence and establishing a sense of identity (Baker & Siryk, 1984). Taken together, academic, social, and personal-emotional stressors lead to adverse consequences for students by

increasing environmental demands. When the environment's academic, social, and personal-emotional demands exceed individuals' internal adaptive capacities, stress responses are triggered.

Stress associated with the transition to college can lead to negative psychological, physical, and behavioral outcomes. Students may experience psychological consequences of stress, including loneliness (Mounts et al., 2006), depression (Fisher & Hood, 1987), and anxiety (Andrews & Wilding, 2004). In addition to the psychological outcomes associated with stress, students also experience negative physical ramifications, including decreased immune system functioning (Stephens, 1991), difficulty sleeping or eating, and increased occurrences of headaches and dizziness (Chemers, Hu, & Garcia, 2001). Finally, there is a relationship between student stress during the adjustment to college and risk-taking behaviors (Shulman et al., 2016), such as excessive alcohol consumption (LaBrie et al., 2012).

Beyond the individual consequences of student stress during the adjustment to college, students must also navigate a new relational climate with members of their family systems. The transition to college is often actualized by a distinct change in independence, especially when the student's new residence is geographically distant from the family (Brooks & DuBois, 1995). Accordingly, relationships with parents and siblings evolve due to students' new-found independence. More specifically, family roles must be renegotiated (Berman & Sperling, 1991; Conger & Little, 2010), relational definitions must be changed or maintained (Montgomery, 1993), and individual autonomy must be granted to the student (Bray, Adams, Getz, & McQueen, 2003; Grotevant & Cooper, 1985).

Relational turbulence theory suggests that transitions in relationships can incite stress due to increased levels of uncertainty in relational roles and the renegotiation of interdependence

(Solomon & Knobloch, 2004). Although this theory is traditionally applied to romantic relationships, baseline reactions to significant transitions are also evident in parent-child relationships (Solomon, 2016). In addition, the relational turbulence model may have implications for transitions experienced within the family system as a whole (Knobloch, Knobloch-Fedders, Yorgason, Ebata, & McGlaughlin, 2017). When transitions interfere with routines or call the nature of a relationship into question, they result in turbulence (Solomon, Weber, & Steuber, 2010). Turbulence is defined as heightened cognitive, emotional, and behavioral reactions in response to transitions within a relationship (Solomon et al., 2010). Given the individual and relational transitions associated with emerging adulthood (Tanner, 2006), it is likely that families will experience turbulence during a child's adjustment to college. While sibling relationships are found to increase in warmth, mutuality, and reciprocity as they mature (Whiteman, McHale, & Soli, 2011), the parent-child relationship is more typically characterized by adversity.

During the adjustment to college, parent-child relationships are challenged to adapt to changing roles associated with the child's new environment. If students are residing outside of the parental home, they are less involved in their families' day-to-day lives (Brooks & Dubois, 1995). According to family systems theory, this change results in disequilibrium for the family (Minuchin, 1985). Students' relocation not only disrupts family roles by increasing the geographical space between family members, but students must also establish a level of psychological separation from their parents. This pursuit of personal-emotional autonomy is necessary to successfully establish functional independence (Rice, 1992). When students renegotiate family roles and separate themselves from the care of their parents, the parent-child dyad is likely to experience relational turbulence.

Turbulence may be further explained by the uncertainty felt in parent-child relationships due to relational dialectics. Relational dialectics theory suggests that the process of maintaining relationships through change is a constant escalation/de-escalation between opposite forces (Baxter, 1988). More specifically, individuals experience tension between three dialectics, namely autonomy-connectedness, novelty-predictability, and openness-closedness (Baxter, 1988). Autonomy-connectedness refers to the need to maintain independence, while also sustaining relationships with significant others (Baxter, 1988). While emerging adults are developmentally staged to seek increased autonomy (Arnett, 2000), parents experience an increased desire for connection after sending their children to college (Scabini, 2000). In addition to the autonomy-connectedness dialectic, novelty-predictability refers to the desire for newness in opposition to a desire for expected behavior in the relationship (Baxter, 1988). The novelty of change may be attractive to students during the adjustment to college (Orbe 2008), yet difficult for parents who may prefer the norms associated with established family roles (Vogl-Bauer, 2003). Finally, openness-closedness is the dialectical tension between disclosure and privacy. Young adults tend to disclose more openly to peers than parents during this stage of development (Rapini, Farmer, Clark, Micka, & Barnett, 1990), commonly perceived by parents as communicative avoidance (Baxter & Simon, 1993). During times of transition, these opposing forces exacerbate the uncertainty of roles and interdependence within the parent-child relationship, which may lead to relational turbulence. As a result, students do not perceive support or commitment from their families, decreasing their internal adaptive capacities and inhibiting their ability to respond appropriately to their new environments' external demands.

As discussed previously, stress is experienced when the academic, social, and personal-emotional demands of college exceed students' internal adaptive capacities (Cohen et al., 1995).

Stress during the transition to college is further exacerbated by relational change within the parent-child dyad. As children become less dependent on their family units and establish more personal autonomy, parent-child relationships may experience turbulence. The act of relocating from parents' homes to a college environment may increase the amount of uncertainty and ambiguity felt in parent-child relationships due to changing relational roles. If relationships are not mutually understood as a balance between dialectical tensions, parent-child relationships will likely experience strain due to competing expectations. Contrarily, strong, clearly defined family relationships may enhance individuals' internal adaptive capacities during the adjustment to college. In order to be beneficial, however, parent-child dyads must establish adaptive patterns of communicating family cohesion.

Family Cohesion

Family cohesion is studied in a variety of social scientific disciplines. As such, family cohesion is conceptualized, defined, and operationalized in several different ways. Drawing from a family science perspective, Olson, Sprenkle, and Russell (1979) define family cohesion as "the emotional bonding members have with one another and the degree of individual autonomy a person experiences in the family system" (p. 5). According to this view, family cohesion is a measure of the extant emotional and instrumental dependency between family members. Olson and colleagues (1979) operationalize family cohesion through the Family Adaptability and Cohesion Evaluation Scales. This model proposes an interaction between adaptability and cohesion that maintains a curvilinear relationship to family function, wherein exceedingly high levels of cohesion with low levels of adaptability (i.e., enmeshment) and low levels of cohesion with high levels of adaptability (i.e., disengagement) are seen as equally unfavorable for the

family unit. This model suggests that family cohesion may reflect a level of co-dependency among family members.

Building from Olson and colleagues (1979) original conceptualization of family cohesion, psychologists Tolan, Gorman-Smith, Huesmann, and Zelli (1997) suggest that family cohesion is a conglomerate of traits representing strong relationships sustained through emotional support and warmth. Accordingly, family cohesion reflects emotional intimacy, communication, and support between family members. Measured using the Family Relationship Characteristics Scale, this model rebukes the notion that family cohesion is potentially deleterious and posits instead that family cohesion is a multifaceted expression emotional support (Tolan et al., 1997). In other words, Tolan and colleagues (1997) view cohesion as an adaptive trait reflected through action. This conceptualization frames family cohesion as a contemporaneous behavior, rather than a sustained characteristic of the family unit.

Both Olson et al.'s (1979) and Tolan et al.'s (1997) conceptualizations of family cohesion highlight patterns of interaction that indicate family involvement. Conversely, Moos (1974) describes family cohesion as an aspect of family identity. Through the lens of behavioral science, Moos (1974) defines family cohesion as a stable trait that elicits specific behaviors to maintain family relationships. Using a subscale of the Family Environment Scale, Moos (1974) evaluates family cohesion as a reflection of a sustained relationship definition. Accordingly, family cohesion is defined as the perceived willingness of family members to express help and support for one another based on mutual feelings of commitment.

Family cohesion is associated with a number of positive outcomes for families and individuals within the family system. Cohesive families experience more positive parent-child relationships (Bray & Berger, 1993) and sibling relationships (Richmond & Stocker, 2006), and

greater family functioning (Farrell & Barnes, 1993). In addition to the positive influence of cohesion on the family system, the perception of family cohesion has advantageous outcomes that reduce new students' academic, social, and personal-emotional stress during the adjustment to college. Students who perceive that their families are high in cohesion benefit academically, including increased academic performance and decreased misconduct in school (Farrell & Barnes, 1993). Further, there is an association between felt family cohesion and social adjustment, including higher levels of openness in communication, fewer communication problems (Farrell, & Barnes, 1993), and less social withdrawal (Barber & Buehler, 1996; Lucia & Breslau, 2006). Finally, students from cohesive families experience more adaptive personal-emotional adjustment, including stronger individuation and higher self-esteem (Farrell & Barnes, 1993), as well as reduced depression and anxiety (Barber & Buehler, 1996). These academic, social, and personal-emotional advantages suggest a positive relationship between family cohesion and students' adjustment to college.

In addition to the benefits of strong family cohesion, low levels of perceived family cohesion have negative effects on families and individuals. Families who perceive low levels of cohesion report less parent-child communication (Farrell & Barnes, 1993), higher rates of aggression in sibling relationships (Richmond & Stocker, 2006), and reduced family involvement (Bray & Berger, 1993). In addition to the negative effects of low cohesion on the family unit, a lack of felt cohesion increases students' experience of academic, social, and personal-emotional stress. Students from families low in cohesion struggle to adjust to the academic demands of college due to a lack of focus in school (Lucia & Breslau, 2006). In addition to academic stress, students from families low in cohesion face increased social stress, including social anxiety (Johnson, Lavoie, & Mahoney, 2001) due to lower levels of

interpersonal competence (Barber & Buehler, 1996). Finally, empirical evidence supports a relationship between the perception of family cohesion and personal-emotional stressors, including increased anxiety (Lucia & Breslau, 2006), loneliness (Johnson, Lavoie, & Mahoney, 2001), depression, and suicidal ideation (Freidrich, Reams, & Jacobs, 1982).

The first hypothesis reflects the expected relationship between students' adjustment to college and perceived family cohesion. As previously discussed, stress is experienced when environments' external demands exceed individuals' internal adaptive capacities. During the transition and adjustment to college, students rely on stable family relationships as a means of bolstering their internal adaptive capacities to combat the academic, social, and personal-emotional stressors present in their new environments. However, if students' families are not perceived as willing to provide the necessary help and support, the demands of students' new environments are expected to be experienced as stressful. Subsequently, the individual may experience less successful adjustment. Consistent with previous research, I anticipate that perceptions of family cohesion will correspond with adaptive adjustment to college reflected in lower levels of stress. Accordingly, I advance the following hypothesis:

H1: Family cohesion is negatively associated with students' (a) academic stress, (b) social stress, and (c) personal-emotional stress during the adjustment to college.

Relationship Maintenance

Families engage in strategic behaviors to maintain the cohesive nature of relationships during periods of transition. Relational maintenance strategies are behavioral patterns that communicate sustained relationship definitions (Canary & Dainton, 2003; Stafford & Canary, 1991). More specifically, relational maintenance strategies act as a means of promoting stability within relationships that may otherwise experience turbulence (Canary & Stafford, 1994;

Montgomery, 1993). Stafford and Canary (1991) identified five types of relational maintenance behaviors, specifically shared tasks, shared networks, positivity, openness, and assurances.

Shared tasks and shared networks create associations within relationships through referential interactions that promote interdependence. Positivity, openness, and assurances are demonstrated through routine verbal interactions that decrease uncertainty and ambiguity in interpersonal relationships.

Referential interactions are maintenance behaviors that sustain relationship definitions through associative practices. Though these two relational maintenance behaviors do not involve explicitly communicating about the relationship, shared tasks and shared networks derive meaning from interdependent action. Relational maintenance through shared tasks is represented by a willingness to uphold obligations to achieve mutual goals (Canary & Stafford, 1992). In addition to the relational representation demonstrated through shared tasks, shared networks act as a referential maintenance strategy by indicating a common commitment to friendships or kinship networks (Canary & Stafford, 1992). Previous research was unclear regarding the impact of shared tasks and shared networks in family relationships. Some scholars diminished the importance of shared tasks and networks, and suggested that family relationships maintain a more consistent level of emotional intensity than friendships (Roberts & Dunbar, 2011). Other studies stressed the importance of face-to-face interaction associated with physical presence (Dainton & Aylor, 2002) and interdependence associated with adopting a relational partner's social network (Canary & Stafford, 1992). Further, the need for interdependence in promoting relational stability suggests that shared tasks and shared networks are likely to contribute to positive outcomes in family relationships (Stafford & Canary, 1991).

While referential maintenance strategies promote interdependence through associative practices, routine verbal interactions reflect maintenance strategies that provide relational affirmation and promote stability by reducing uncertainty. Previous research demonstrated that positivity, openness, and assurances are verbal communication practices that directly influence the level of emotional closeness felt in a relationship (Canary & Stafford, 1992). More specifically, positivity refers to behaviors that are supportive and generally enjoyable (Canary & Stafford, 1992). In addition to positivity, openness is a relationship maintenance strategy practiced through self-disclosure and active discussion about the relationship between relational partners (Canary & Stafford, 1992). Finally, assurances are statements or ideologies that imply a lasting and meaningful relationship (Canary & Stafford, 1992). Previous research demonstrated the benefits of positivity, openness, and assurances, including decreased relationship uncertainty (Ficara & Mongeau, 2000), reduced dialectical tensions (Baxter & Dindia, 1990), and increased relational satisfaction (Dainton, 2000; Flora & Segrin, 1998; Oswald & Clark, 2003).

The enactment of relationship maintenance strategies may influence relational outcomes. Insufficient attempts to maintain close relationships are associated with negative outcomes for the relationship. Further, discrepancies between expected relational maintenance behaviors and enacted relational maintenance behaviors result in decreased relationship satisfaction (Dainton, 2000). This relationship is even stronger when an attachment figure (i.e., parent) violates the expectation for interaction (Levitt, 1991). Accordingly, the second hypothesis suggests a relationship between relational maintenance strategies enacted by family members and students' academic, social, and personal-emotional stress during the adjustment to college. It is expected that relational maintenance behaviors enacted by family members are likely to ease the student's transition college. Conversely, when individuals' internal adaptive capacities are not actively

bolstered through relational maintenance strategies, the ambiguity and uncertainty felt in relational roles is expected to lead to adverse consequences for the student. Accordingly, I pose the second hypothesis:

H2: Relational maintenance strategies within family associations are positively associated with students' (a) academic, (b) social, and (c) personal-emotional stress during the adjustment to college.

The third hypothesis reflects the expectation that the relationship between family cohesion and students' experiences of stress during the adjustment to college is mediated by relational maintenance behaviors. The transition to college ignites change that may cause a disruption in typical family patterns of support and commitment. Because family cohesion reflects the willingness of families to support and care for one another, families that identify strongly as a cohesive unit may use relational maintenance strategies as a means of communicating sustained cohesion across change. This communication is expected to bolster students' internal adaptive capacities to meet the demands of their new college environments. Thus, the relationship between family cohesion and stress during the adjustment to college may be explained by the enactment of relationship maintenance behaviors. Accordingly, I derive my final hypothesis:

H3: Relationship maintenance strategies mediate the association between family cohesion and stress during the adjustment to college.

CHAPTER 2

I tested my hypotheses using self-report data collected from college students after receiving approval from the Institutional Review Board (See Appendix A). Participants were emailed a URL that directed them to an online survey hosted by Qualtrics. To track participation, all participants received a code number. All data provided by the participants was attributed to the code number to ensure the confidential nature of the research. The survey collected demographic information and items to capture variables of interest (see Appendix B). The survey was available to participants for a four-week period.

Participants

One hundred and ninety-eight first-year students were recruited from entry level communication courses to participate in the study as a part of a class assignment (see Appendix C). Entry level communication courses were selected because students enrolled in these classes primarily identified as freshmen. Subsequent analyses included students who stated that they were in their first year of college ($N = 198$). The sample consisted of 130 women and 68 men. Ages ranged from 18 to 22 ($M = 18.42$, $SD = 0.59$). The majority of the sample identified as White (87.87%), but individuals also identified as Latinx (8.08%), African American (4.04%), and Asian/Pacific Islander (1.52%).

Measures

Family Cohesion. Moos and Moos' (1986) cohesion subscale from the Family Environment Scale assessed the degree of perceived commitment and support from family members. Participants responded to 6 items using a true/false dichotomy (0 = *False*, 1 = *True*) where a true selection indicated more family cohesion. Items such as, "There is plenty of time

and attention for everyone in our family” and “Family members really back each other up” were included ($M = 1.12$, $SD = 0.23$, $\alpha = .80$).

Students’ Adjustment to College. Baker and Siryk’s (1984) Student Adjustment to College Questionnaire assessed academic, social, and personal-emotional stressors experienced during students’ adjustment to college. Participants responded to 52 items using a 9-point scale (1 = *Doesn’t apply to me at all*, 9 = *Applies very closely to me*) where higher numbers indicated more stress. The academic adjustment subscale included items such as, “I am finding academic work at college difficult” and “I really haven’t been having much motivation for studying lately” ($M = 3.67$, $SD = 0.61$, $\alpha = .90$). The social adjustment subscale included items such as, “Lonesomeness for home is a source of difficulty for me now” and “I’m having difficulty feeling at ease with other people at college” ($M = 3.73$, $SD = 0.76$, $\alpha = .91$). Finally, the personal-emotional adjustment subscale included items such as, “Lately, I have been feeling blue and moody a lot” and “I have been feeling tense or nervous lately” ($M = 3.61$, $SD = 0.79$, $\alpha = .88$).

Relational Maintenance. Stafford and Canary’s (1991) Relational Maintenance Strategy Measure assessed the frequency of use and receipt of relational maintenance behaviors, including shared tasks, shared networks, positivity, and openness. In order to adapt the Relational Maintenance Strategy Measure for use within family systems, the assurances subscale was omitted because it is less relevant in non-voluntary family relationships (Morr-Serewicz, Dickson, Morrison, & Poole, 2007; Myers, 2001). Participants responded to 23 items using a 7-point scale (1 = *Behavior not at all present in relationship*, 7 = *Behavior very present in relationship*) where higher numbers indicated more frequent use of relational maintenance strategies. The shared tasks subscale included items such as, “I help equally with tasks that need to be done” and “I share in the joint responsibilities that face us” ($M = 3.90$, $SD = 0.81$, $\alpha = .89$).

The shared networks subscale included items such as, “I focus on common friends and affiliations” and “I like to spend time with our shared network (mutual/family friends, extended family members)” ($M = 3.69$, $SD = 0.93$, $\alpha = .85$). The positivity subscale included items such as, “I attempt to make our interactions very enjoyable” and “I am cooperative in the ways I handle disagreements between us” ($M = 3.94$, $SD = 0.71$, $\alpha = .89$). Finally, the openness subscale included items such as, “I disclose what I need or want from our relationship” and “I like to have periodic talks about our relationship” ($M = 0.93$, $SD = 1.24$, $\alpha = .93$).

Data Analysis

As a preliminary analysis, I evaluated the correlations among all of the measures in the proposed hypotheses. To test the posited associations between family cohesion and students’ academic, social, and personal-emotional stress during the adjustment to college (H1), I conducted three hierarchical multiple regression analyses. In addition, these analyses examined the relationships between relational maintenance strategies and students’ academic, social, and personal-emotional stress (H2) after accounting for the shared variance of family cohesion. The hierarchical multiple regression analyses also provided into the mediational model posited in H3. To directly test the predicted mediating effect of relational maintenance strategies on the association between family cohesion and students’ stress (H3), I utilized structural equation modeling (SEM) procedures (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). SEM procedures allowed for control over overestimation biases and accounted for error in the measures (Baron & Kenny, 1986).

CHAPTER 3

Table 1 reports the correlations among all of the measures in my hypotheses. Consistent with H1, family cohesion was significantly and negatively associated with academic, social, and personal-emotional stress. Relevant to H2, academic stress was significantly and negatively associated with shared tasks, shared networks, and positivity; social stress was significantly and negatively associated with shared tasks, shared networks, and positivity; and personal-emotional stress was significantly and negatively associated with positivity.

To test H1 and H2, I conducted three hierarchical regression analyses. In the first analysis (see Table 2), I entered family cohesion as an independent variable on the first step of the regression model with academic stress as the dependent variable. Consistent with H1, I observed a significant negative coefficient for family cohesion. The second step evaluated the additional influence of relational maintenance behaviors as independent variables. Results revealed a significant negative coefficient for shared tasks and a significant positive coefficient for openness (H2). The negative coefficient for family cohesion remained significant on the second step of the analysis.

In the second analysis (see Table 3), I entered family cohesion as an independent variable in the first step of the regression model with social stress as the dependent variable. Consistent with H1, I observed a significant negative coefficient for family cohesion. The second step evaluated the additional influence of relational maintenance behaviors as independent variables. Results revealed a significant negative coefficient for positivity (H2). The negative coefficient for family cohesion was not significant on the second step of the analysis.

In the third analysis (see Table 4), I entered family cohesion as an independent variable on the first step of the regression model with personal-emotional stress as the dependent variable.

Consistent with H1, I observed a significant negative coefficient for family cohesion. The second step evaluated the additional influence of relational maintenance behaviors as independent variables. Results revealed a significant positive coefficient for openness (H2). The negative coefficient for family cohesion remained significant on the second step of the analysis.

I tested the predicted patterns of mediation (H3) using SEM procedures (MacKinnon et al., 2002). I created three structural models with one dependent variable due to high correlations between academic, social, and personal-emotional stressors. To create the structural models, I specified paths from family cohesion to shared tasks, shared networks, positivity, and openness, and from shared tasks, shared networks, positivity, and openness to a specified stressor. These paths represent the extent to which relational maintenance strategies mediate the association between family cohesion and stress during the adjustment to college.

I used the following criteria to evaluate model fit: χ^2/df test < 3, CFI > .85, and RMSEA < .10 (Browne & Cudeck, 1993; Kline, 1998). Results indicated that our original structural models fit the data adequately, *academic stress*: $\chi^2/df = 1.97$, CFI = .90, RMSEA = .04; *social stress*: $\chi^2/df = 1.82$, CFI = .87, RMSEA = .06; *personal-emotional stress*: $\chi^2/df = 1.53$, CFI = .89, RMSEA = .08. The structural model with academic stress as the dependent variable (Figure 1) showed a significant and positive relationship between family cohesion and positivity. In addition, results revealed a significant and negative relationship between shared tasks and academic stress, and a significant and positive relationship between openness and academic stress. The structural model with social stress as the dependent variable (Figure 2) demonstrated a significant and positive relationship between family cohesion and positivity. In addition, results suggested a significant and negative relationship between shared networks and social stress, and a significant and negative relationship between positivity and social stress. Finally, the structural

model with personal-emotional stress as the dependent variable (Figure 3) demonstrated a significant and positive relationship between family cohesion and positivity. In addition, results revealed a significant and positive relationship between openness and personal-emotional stress.

CHAPTER 4

The goal of the current study was to examine the influence of family cohesion and relationship maintenance strategies on stress during students' adjustment to college. The results of this study demonstrated a significant negative relationship between family cohesion and students' academic, social, and personal-emotional stress. Further, family members' use of relationship maintenance behaviors influenced students' experiences of stress during adjustment. In some instances, relationship maintenance behaviors partially mediated the association between perceived family cohesion and students' felt stress. These findings suggest that the perceived support and commitment of family members, alongside contemporaneous referential and verbal maintenance interactions have a unique impact on students' internal adaptive capacities. As a result, students' perceptions of new environments' demands are influenced during the transition to college.

The correlational, hierarchical regression, and SEM analyses all demonstrated a significant and negative association between family cohesion and academic, social, and personal-emotional stress. Consistent with previous research these findings suggest that the perceived availability of family support is related to individuals' abilities to manage academic challenges in productive and healthy ways (Rayle & Chung, 2007). In addition, cohesive family relationships are associated with reduced social stress (Leadbeater, Blatt, & Quinn, 1995). Earlier research suggested that the perceived availability of support from one's family may affirm secure attachment relationships, such that individuals feel free to experiment with and explore new relationships (Sarason, Pierce, & Sarason, 1990). Furthermore, the strength of the relationship between family cohesion and academic stress, and family cohesion and social stress is analogous. In other words, the support felt through committed family relationships is similarly

influential in both academic success and adaptive social engagement. As suggested by Leafgran (1989), there may be an important relationship between social stress and academic stress, such that students who engage in healthy social interactions benefit academically.

While family cohesion is comparably related to both academic stress and social stress, the relationship between family cohesion and personal-emotional stress is demonstrably stronger. In line with previous results, this finding emphasizes the connection between perceived family support and commitment, and emotional well-being (Morelli, Lee, Arnn, & Zaki, 2015). Previous research demonstrated the associations between family cohesion and psychological fitness, including diminished depressive symptoms and reduced anxiety (Moreira & Telzer, 2015). Further, family cohesion is positively related to active emotional coping during stressful events (Kliewer & Lewis, 1995). Taken together with the current findings, family cohesion may be most important to students' personal-emotional health compared to their academic success and social development during their adjustment to the demands of a new college environment.

In addition to the relationships between family cohesion and stress, I examined the association between relationship maintenance behaviors and academic, social, and personal-emotional stress during students' adjustment to college. The correlational results demonstrated a significant and negative relationship between academic stress and shared tasks, shared networks, and positivity. The results of the hierarchical regression and SEM analyses, however, showed a significant and negative relationship between shared tasks and academic stress, and a significant and positive relationship between openness and academic stress. The negative association between shared tasks and academic stress may reflect family members' willingness to assist students with their academic pursuits by explaining challenging course material, editing written assignments, or helping prepare for an exam. This assistance from family members reduces the

demands of students' responsibility and may enable the achievement of students' goals. Unexpectedly, the results demonstrated a positive association between openness and academic stress. Perhaps family members who engage in high levels of self-disclosure and active discussion, including conversation regarding academic achievement, feel pressure to perform well academically. The pressure to disclose about academic success may increase the external environment's demands, leaving students unequipped to face academic stressors.

Similar to the associations between academic stress and relationship maintenance behaviors, the correlational results demonstrated a significant and negative relationship between social stress and shared tasks, shared networks, and positivity. In addition, the results of the hierarchical regression analysis showed a significant negative relationship between positivity and social stress. Finally, the SEM analysis showed significant negative relationships between both shared networks and positivity, and social stress. The negative relationship between shared networks and social stress suggests that commitment between family members to kinship ties or friendships may act as a form of social support by creating a general sense of belonging. Subsequently, this belonging may contribute to students' internal adaptive capacities and reduce social pressures. In addition to the negative relationship between shared networks and social stress, positivity was significantly and negatively associated with social stress in the SEM analysis. Drawing from attachment research (Bowlby, 1958), positive relationships with family members characterized by supportive and enjoyable interactions seemingly promote adaptive schema for other social associations (Isley, O'Neil, Clatfelter, & Parke, 1999).

Finally, correlational results demonstrated a significant and negative relationship between positivity and personal-emotional stress. The results of the hierarchical regression and SEM analyses, however, revealed a significant and positive relationship between openness and

personal-emotional stress. Because openness requires vulnerability with family members and a willingness to self-disclose even unfavorable information, openness may induce emotional distress. Furthermore, the consistent communication necessitated by open relationship maintenance may restrict students' growing independence.

The final hypothesis posited that relationship maintenance behaviors mediate the relationship between family cohesion and academic, social, and personal-emotional stress. In all three SEM analyses, family cohesion was only significantly and positively associated with positivity. These findings suggest that family cohesion is most strongly reflected in relationship maintenance behaviors characterized by emotionally supportive and affirming messages. Positivity, however, was only significantly and negatively associated with social stress. Building from social learning theory (Bandura, 1977), this finding suggests that the perception of adaptive family relationships that express contemporaneous encouragement and affirmation may mitigate the stress associated with the development of new interpersonal relationships during students' adjustment to college.

Family cohesion remained a significant predictor of academic, social, and personal-emotional stress in all three SEM analyses when relationship maintenance behaviors were included in the models. Though positivity partially mediated the relationship between family cohesion and social stress, mediation was not supported in any other tested relationship. While family cohesion influenced academic, social, and personal-emotional stress, family cohesion was not communicated through shared tasks, shared networks, positivity, and openness. Furthermore, relationship maintenance behaviors were unique variables influencing student stress during the transition to college. Taken together, these findings suggest that student adjustment to college is

independently influenced by the perception of closeness and availability of family support, and the communicative behaviors extended to maintain relationships.

In addition to the posited relationships, results demonstrated significant and positive associations between academic, social, and personal-emotional stress. This is consistent with previous research examining stress-spillover. More specifically, stress-spillover describes how the experience of stress in one domain increases the likelihood of stress in another area (e.g., Flook & Fuligni, 2008; Franche et al., 2006; Lehman & Repetti, 2007; Wentzel, Barry, & Caldwell, 2004). With this in mind, it is likely that students experiencing one form of stress during the adjustment to college experience increased sensitivity to stress in additional domains. For that reason, I saw utility in separating the three stressors into separate mediation models to examine the effects of relationship maintenance behaviors on each stressor independently.

The results of this study are not without limitations. I relied on self-report measures of academic, social, and personal-emotional stress, family cohesion, and relationship maintenance behaviors during the adjustment to college. Self-reports are limited to the extent that participants accurately report about their personal experiences. To address this limitation, I relied on established, reliable, and valid measures. In addition, the participant sample consisted of students who identified as primarily female and White. The results are constrained by the demographics which restrict the generalizability of my findings. The data were also collected at one time-point. As such, I am unable to make claims of causality using cross-sectional data. Future research that incorporates observational methods from a diverse population of college students at multiple time-points is certain to provide a more thorough understanding of the factors contributing to students' experiences of stress during the adjustment to college.

This study examined the effects of family cohesion and relationship maintenance behaviors on students' experiences of stress during the adjustment to college. Results indicated that family cohesion is significantly and negatively related to students' experiences of academic, social, and personal-emotional stress. Referential maintenance behaviors, including shared tasks and shared networks, as well as verbal maintenance behaviors, such as positivity and openness, also influence students' stress during the transition to a demanding college environment. In addition, results demonstrated that particular relational maintenance behaviors partially mediate the relationship between family cohesion and students' experiences of stress.

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Table 1

Zero-Order Correlations Among Variables of Interest

Measure	1	2	3	4	5	6	7	8
1. Family Cohesion	—							
2. Academic Stress	-.24**	—						
3. Social Stress	-.25**	.51***	—					
4. Emotional Stress	-.38***	.69***	.51***	—				
5. Shared Tasks	.10	-.32***	-.20**	-.14	—			
6. Shared Networks	.17*	-.25**	-.31***	-.12	.62***	—		
7. Positivity	.27***	-.32***	-.37***	-.23**	.66***	.63***	—	
8. Openness	.12**	.04	-.12	.07	.41***	.58***	.44***	—

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 2

The Regression of Academic Stress onto Family Cohesion and Relational Maintenance Behaviors

	β	R^2	R^2 Change	F Change
Step 1				
Family Cohesion	-.21**	.05	—	8.13**
Step 2				
Family Cohesion	-.17*	.17	.13	6.50***
Shared Tasks	-.23*			
Shared Networks	-.12			
Positivity	-.13			
Openness	.21*			

F (5,168) = 7.04, $p < .001$

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 3

The Regression of Social Stress onto Family Cohesion and Relational Maintenance Behaviors

	β	R^2	R^2 Change	F Change
Step 1				
Family Cohesion	-.20**	.04	—	7.48**
Step 2				
Family Cohesion	-.12	.17	.13	6.46***
Shared Tasks	.09			
Shared Networks	-.18			
Positivity	-.33**			
Openness	.13			

$F(5,173) = 6.85, p < .001$

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

The Regression of Personal-Emotional Stress onto Family Cohesion and Relational Maintenance Behaviors

	β	R^2	R^2 Change	F Change
Step 1				
Family Cohesion	-.35***	.12	—	24.71***
Step 2				
Family Cohesion	-.32***	.18	.06	3.48**
Shared Tasks	-.06			
Shared Networks	-.04			
Positivity	-.19			
Openness	.25**			

$F(5,177) = 8.00, p < .001$

* $p < .05$, ** $p < .01$, *** $p < .001$

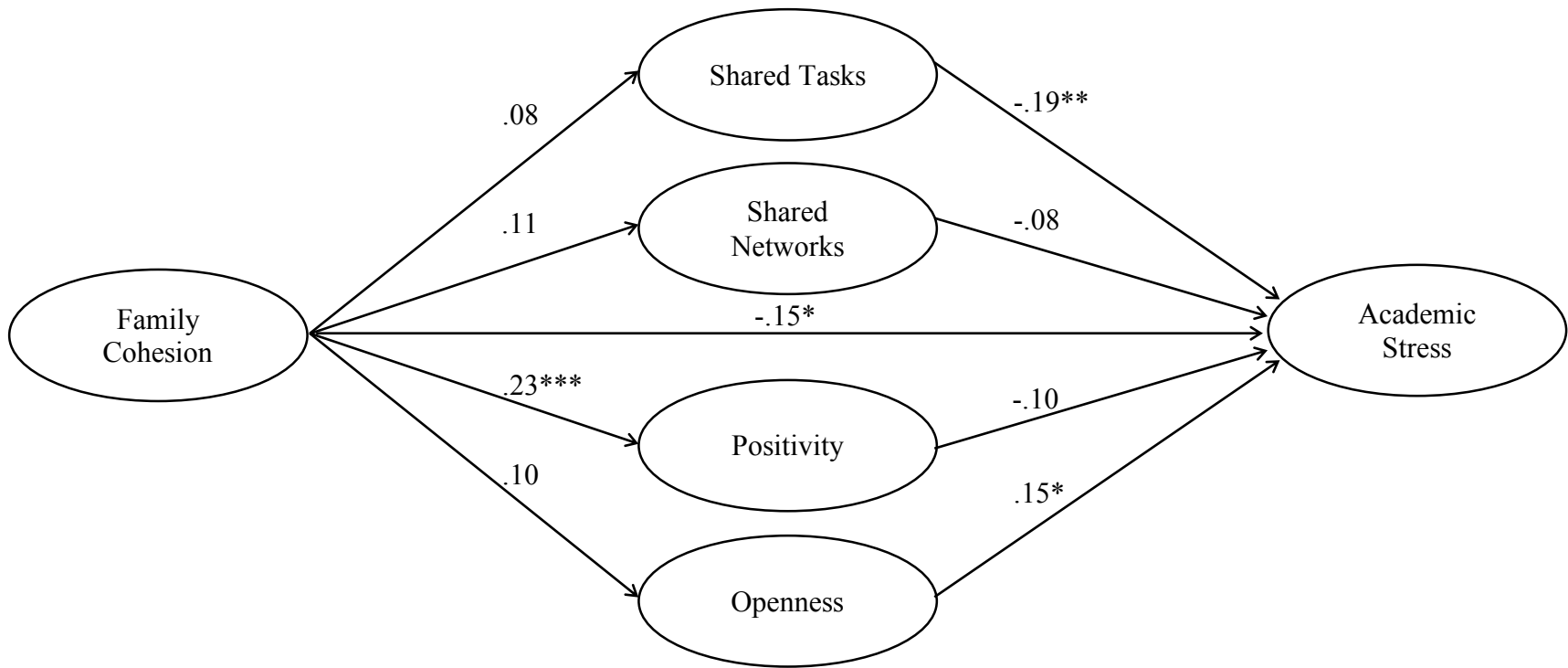


Figure 1. A model linking family cohesion, shared tasks, shared networks, positivity, openness, and academic stress.
 * $p < .05$ ** $p < .01$ *** $p < .001$

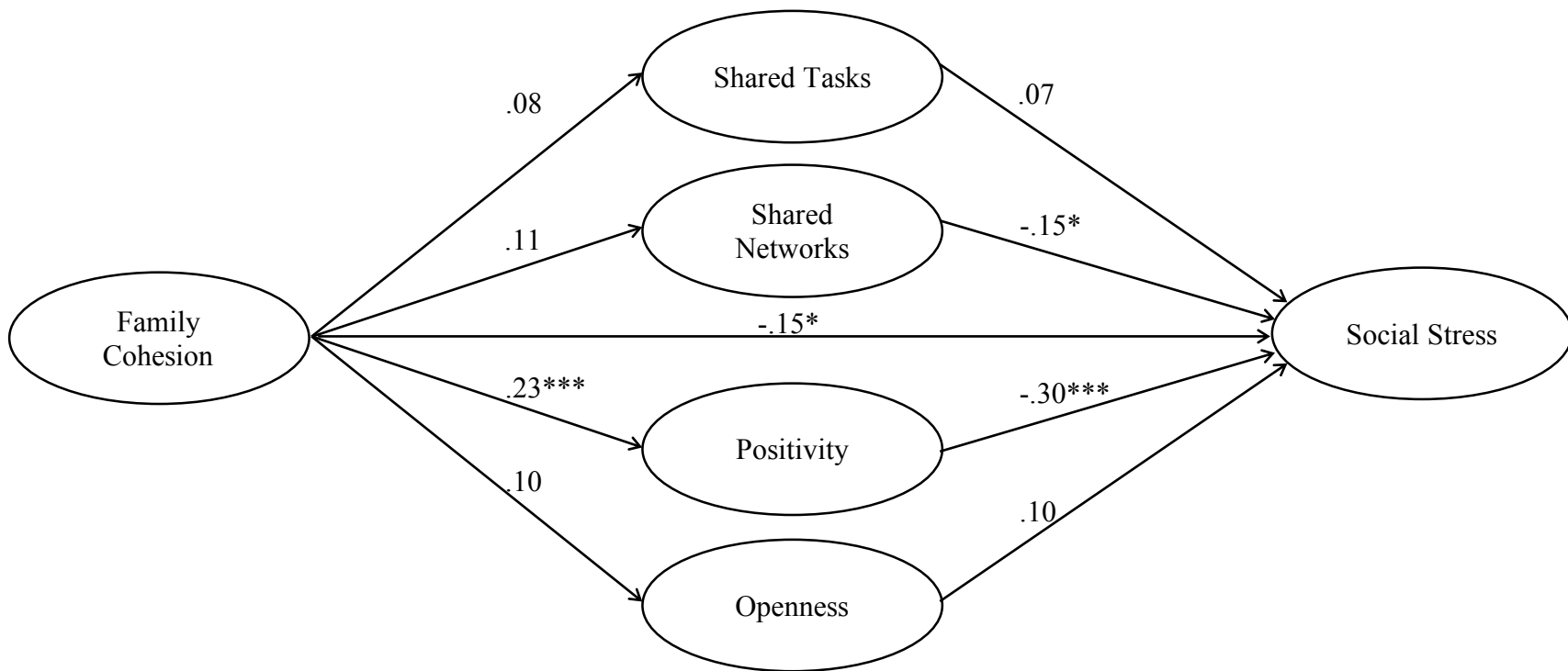


Figure 2. A model linking family cohesion, shared tasks, shared networks, positivity, openness, and social stress.
 * $p < .05$ ** $p < .01$ *** $p < .001$

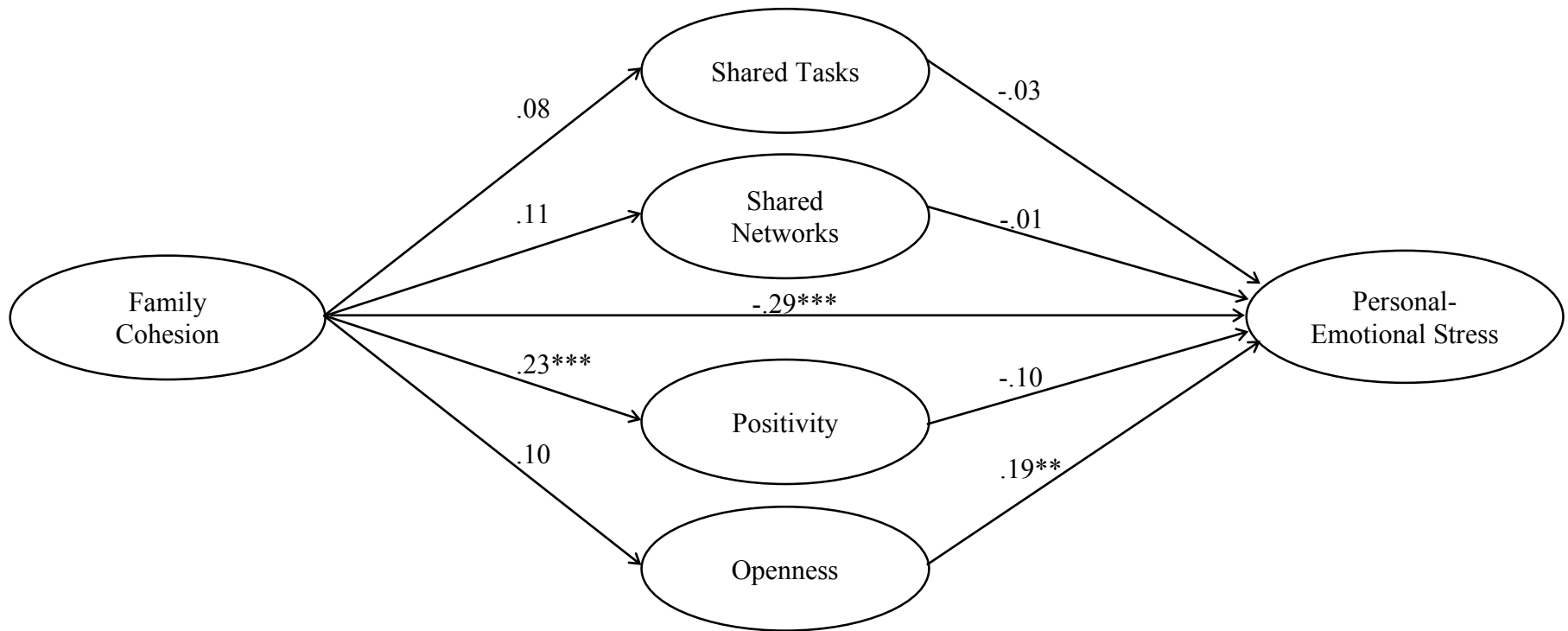


Figure 3. A model linking family cohesion, shared tasks, shared networks, positivity, openness, and personal-emotional stress.
 * $p < .05$ ** $p < .01$ *** $p < .001$

Appendix A



To: Lindsey Susan Aloia
BELL 4188

From: Douglas James Adams, Chair
IRB Committee

Date: 11/03/2017

Action: **Exemption Granted**

Action Date: 11/03/2017

Protocol #: 1710074869

Study Title: Family Relationships in Young Adulthood

The above-referenced protocol has been determined to be exempt after review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval or exemption from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

Adverse Events: Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

Amendments: Any changes to the protocol that impact human subjects, including changes in experimental design, equipment, personnel or funding, must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: Claire Catherine Strutzenberg, Investigator

Appendix B
Data Collection Instrument

Demographics

1. What is your assigned code number?

2. What is your sex?

Male	Female
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3. What is your age?

4. What year are you in college?

Freshman	Sophomore	Junior	Senior	Super-Senior	Non-Traditional Student
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5. Are you currently living independently in a dorm, apartment, house, or housing unit apart from your primary caregivers? (Parents/grandparents/guardians)

Yes	No
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6. What is your race? Check all that apply

American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or other Pacific Islander	Hispanic or Latino	White or Caucasian	Other
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Family Environment Scale - Cohesion Subscale

Please read the following statements and decide whether the statement is either true or false for your family. If the statement is *mostly* true, please respond by indicating “true.” Likewise, if the statement is *mostly* false, please respond by indicating “false.”

True	False
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7. Family members really help and support one another.

8. We often seem to be killing time at home.

9. We put a lot of energy into what we do at home.

10. There is a feeling of togetherness in our family.
11. We rarely volunteer when something has to be done at home.
12. Family members really back each other up.
13. There is very little group spirit in our family.
14. We really get along well with each other.
15. There is plenty of time and attention for everyone in our family.

Student Adjustment to College Questionnaire

For each of the following items, select the degree to which you feel the statement applies to you.

Doesn't apply to me at all ←-----					-----→ Applies very closely to me			
1	2	3	4	5	6	7	8	9

16. I feel that I fit in well as part of the college environment
17. I have been feeling tense or nervous lately
18. I have been keeping up to date with my academic work
19. I am meeting as many people, and making as many friends as I would like at college
20. I know why I'm in college and what I want out of it
21. I am finding academic work at college difficult
22. Lately, I have been feeling blue and moody a lot
23. I am very involved with social activities in college
24. I am adjusting well to college
25. I have not been functioning well during examinations
26. I have felt tired much of the time lately
27. Being on my own, taking responsibility for myself, has not been easy
28. I am satisfied with the level at which I am performing academically
29. I have had informal, personal contacts with college professors

30. I am pleased now about my decision to go to college
31. I am pleased now about my decision to attend this college in particular
32. I'm not working as hard as I should at my college courses
33. I have several close social ties at college
34. My academic goals and purposes are well defined
35. I haven't been able to control my emotions very well lately
36. I'm not really smart enough for the academic work I am expected to be doing now
37. Lonesomeness for home is a source of difficulty for me now
38. Getting a college degree is very important to me
39. My appetite has been good lately
40. I haven't been very efficient in the use of study time lately
41. I enjoy living in a college dormitory (Please omit if you're not living in any university housing)
42. I enjoy writing papers for courses
43. I have been having a lot of headaches lately
44. I really haven't been having much motivation for studying lately
45. I am satisfied with the extracurricular activities available at college
46. I've given a lot of thought lately to whether I should ask for help from Counseling and Psychological Services or from a psychotherapist outside of college
47. Lately, I have been having doubts regarding the value of a college education
48. I am getting along very well with my roommate(s) in college (Please omit if you don't have a roommate)
49. I wish I were at another college or university

50. I've put on or lost too much weight lately
51. I am satisfied with the number and variety of courses available at college
52. I feel that I have enough social skills to get along well in the college setting
53. I have been getting angry too easily lately
54. Recently, I have been having trouble concentrating when I try to study
55. I haven't been sleeping very well
56. I'm not doing well enough academically for the amount of work I put in
57. I'm having difficulty feeling at ease with other people at college
58. I am satisfied with the quality or the caliber of courses available at college
59. I am attending classes regularly
60. Sometimes, my thinking gets muddled up too easily
61. I am satisfied with the extent to which I am participating in social activities at college
62. I expect to stay at this college for a bachelor's degree
63. I haven't been mixing too well with the opposite sex lately
64. I worry a lot about my college expenses
65. I am enjoying my academic work at college
66. I have been feeling lonely a lot at college lately
67. I am having a lot of trouble getting started on homework assignments
68. I feel I have good control over my life situation at college
69. I am satisfied with my program of courses this semester
70. I have been feeling in good health lately
71. I feel I am very different from other students at college in ways that I don't like
72. On balance, I would rather be home than here

73. Most of the things I am interested in are not related to any of my course work at college
74. Lately, I have been giving a lot of thought to transferring to another college
75. Lately, I have been giving a lot of thought to dropping out of college altogether and for good
76. I find myself giving considerable thought to taking time off from college and finishing later
77. I am very satisfied with the professors I have now in my courses
78. I have some good friends or acquaintances at college with whom I can talk about any problems I may have
79. I am experiencing a lot of difficulty coping with stresses imposed on me in college
80. I am quite satisfied with my social life at college
81. I'm quite satisfied with my academic situation at college
82. I feel that I will be able to deal in a satisfactory manner with future challenges here at college

Maintenance Strategies Scale

Indicate the extent to which each of the following statements accurately reflects the way that you maintain your relationship with your parents. Do not indicate agreement with things that you think you should do, or with things you did at one time but no longer do. That is, think about the everyday things you actually do in your relationship right now. Remember that much of what you do to maintain your relationship can involve mundane or routine aspects of day-to-day life.

Behavior not at all present in relationship ←---				-----→	Behavior very present in relationship		
1	2	3	4	5	6	7	

83. I attempt to make our interactions very enjoyable
84. I am cooperative in the ways I handle disagreements between us
85. I try to build up his/her self-esteem, including giving him/her compliments

86. I ask how his/her day has gone
87. I am very nice, courteous, and polite when we talk
88. I act cheerful and positive when with him/her
89. I do not criticize him/her
90. I am patient and forgiving of him/her
91. I present myself as cheerful and optimistic
92. I encourage him/her to disclose thoughts and feelings to me
93. I simply tell him/her how I feel about our relationship
94. I seek to discuss the quality of our relationship
95. I disclose what I need or want from our relationship
96. I remind him/her about relationship decisions we made in the past (For, example, to maintain the same level of intimacy)
97. I like to have periodic talks about our relationship
98. I like to spend time with our shared network (mutual/family friends, extended family members)
99. I focus on common friends and affiliations
100. I show that I am willing to do things with his/her friends
101. I include our friends or family in our activities
102. I help equally with tasks that need to be done
103. I share in the join responsibilities that face us
104. I do my fair share of the work we have to do
105. I do not shirk my responsibilities
106. I preform my household responsibilities

Appendix C

Recruitment Email

Subject: Research Participation

Hello,

You have been afforded the opportunity by your instructor to participate in a study designed to better understand family relationships. The study is intended for those individuals who are currently 18 years of age or older. If you are not 18 years of age or you do not wish to take part in the research study, please contact Dr. Lindsey S. Aloia at aloia@uark.edu for an alternative assignment. If you are currently 18 years of age or older and wish to participate in the research project, please continue reading the following information.

Researchers at the University of Arkansas, one of the leading research universities in the field of communication, need volunteers who are willing to participate in survey research. Your participation in this project is voluntary and you can withdraw from participation at any time.

If you choose to participate, you will complete a variety of measures indexing communication behaviors. Your participation in this survey will take approximately 1 hour to complete.

You will receive 1% extra credit toward your final grade for your participation in this research project. You might also learn more about yourself and your family relationships by participating in this study. In addition, this research will expand the communication discipline's understanding of this important relationship. Ultimately, the findings from this study will be used to benefit researchers and laypeople alike.

If you would like to participate in this study, you can access the survey at the following link: http://uark.qualtrics.com/jfe/form/SV_1Ogfg54VUINTEMd.

Thank you for considering participating in this study. Your input will certainly strengthen our understanding of family relationships.

Dr. Lindsey S. Aloia

Assistant Professor

Department of Communication

434 Kimpel Hall

aloia@uark.edu

(479) 575-5954