

GROWING IN FAVOR WITH GOD AND MAN:
ATTACHMENT TO GOD AND PSYCHOLOGICAL SEPARATION
OF CHRISTIAN, MILLENNIAL COLLEGE STUDENTS

by

David Allen Gregory

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

The purpose of this quantitative, correlational study was to examine whether Christian, Millennial college students' secure attachment to God relationship could contribute to their psychological separation. This question was addressed by examining (a) the correlation between attachment to parents and psychological separation, (b) the correlation between attachment to parents and attachment to God, and (c) the correlation between attachment to God and psychological separation. Bowlby's (1969, 1973, 1982) attachment theory was used as the theoretical foundation to explore both the students' relationships with parents and God. Attachment to parents of Christian, Millennial college students attending a Southern Christian college was measured by the revised Inventory of Parental and Peer Attachment (IPPA-R, Armsden & Greenberg, 1987, 2017); attachment to God by the Attachment to God Inventory (AGI, Beck & McDonald, 2004); and psychological separation by the Psychological Separation Inventory (PSI, Hoffman, 1984). Analysis revealed this sample of Christian, Millennial college students as moderately secure in their attachment to parents but psychologically still dependent and insecure in their attachment to God. Explanations for these contrary results are provided. Christian college leadership is encouraged to continue fostering the development of students' relationship with God to facilitate expected psychosocial benefits of this spiritual relationship.

Keywords: Attachment theory, attachment to parents, attachment to God, college students, Millennials, psychological separation

Dedication

This dissertation is dedicated to my Heavenly Father. When I was an unlovable sinner, You loved me so much and desired a personal relationship with me that You sacrificed Your Son Jesus Christ so that I could be called a son of God when I accepted Your free gift of salvation.

Thank you.

Acknowledgements

The completion of this dissertation has me reflecting on John Donne's "Meditation XVII" which includes the famous phrase "no man is an island." In this case, no dissertation is an island. While I stand alone on an island of full responsibility for the conclusions or errors herein, this work is part of the main of the prevailing literature and the many who have encouraged me in its completion. Thank you.

Specifically, I wish to acknowledge Mr. Bruce Dahms for igniting my interest in learning way back in junior high school. More recently, Dr. Arlin Horton provided just the right amount of motivation to get started back to school in the way that only one's college president can provide. In addition, Dr. Phyllis Rand has always been a keen "iron sharpener" when I would sit in her classes as a student or in her office as an education faculty peer.

Several have directly worked with me to shape this research. Though I do not recall their names (nor should I reveal them if I could), I must acknowledge the contribution of Unknown College Student and Unknown College Student's Mother for generating an interest in helicopter parenting for one of my early doctoral research projects. Thankfully, as I moved into research for my dissertation proposal, Dr. Amanda Rockinson-Szapkiw volunteered as my chair and redirected my research interest to secure attachment to parent relationships and the rich field of attachment to God relationships. Alas, promotion to administrative responsibilities pulled her away as I dragged out my research. Dr. Richard "Justin" Silvey graciously stepped in as my chair mid-stream and guided me to completion with encouragement, for which I am grateful. Dr. Silvey was also instrumental in bringing on board Dr. Johnnie Seago who brought to this dissertation her perspectives as a parent and educator. Dr. Fred Johnson's many years working with young people from elementary through college age added further insights into the lives of

young people. With the untimely passing of Dr. Johnson, I appreciate Dr. Sean Vinaja stepping in to help with the final steps of the dissertation process.

Lastly, I thank my wife, Dr. Cheryl Gregory, for her love, prayers, encouragement, and especially her motivation by hanging her EdD diploma right in front of my desk so I couldn't miss it. Now we have a matching set!

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List of Abbreviations

Attachment to God Inventory (AGI)

Canonical Correlation Analysis (CCA)

Internal Working Model (IWM)

Inventory of Parent and Peer Attachment (IPPA-R)

Psychological Separation Inventory (PSI)

Statistical Package for the Social Sciences (SPSS)

CHAPTER ONE: INTRODUCTION

Overview

The following introduces the salient points of psychological separation, attachment to parents, and attachment to God of Christian, Millennial college students. While secure attachment to parents positively influences psychological separation, does secure attachment to God also contribute to psychological separation? This possibility forms the basis of the three research questions and supporting hypotheses presented below.

Background

Millennial college students remain attached to their parents more than previous generations of college students (Carney-Hall, 2008; Kiyama et al., 2015; Lowe & Dotterer, 2017; Taub, 2008; Wartman & Savage, 2008). College officials who accept traditional college student development theories believe this attachment to parents inhibits the desired outcome of psychological separation, the physical and emotional distancing of college students from parents to become independent adults (Coburn, 2006; Cullaty, 2011; Savage, 2003; Self, 2013; Strange, 2004; Taub, 2008). College is often the first time young people physically move away from parents for an extended time with a need to act and think independently. College officials familiar with undergraduate students developing independence consider the students' continued physical and emotional attachment to parents incompatible with their acting and thinking independently. Research based upon Bowlby's (1969, 1973, 1982) attachment theory, however, finds that secure attachment to parents contributes to psychological separation and supports students' successful exploration of the new college environment (Barrera, Blumer, & Soenksen, 2011; Mattanah, Hancock, & Brand, 2004). In addition, secure attachment to parents contributes positively to a variety of desirable outcomes such as adjustment to college, identity development,

psychological well-being, and educational gains (Mattanah, Lopez, & Govern, 2011; Sax & Wartman, 2010; Sax & Weintraub, 2014). Parents contribute to these developments by serving as Bowlby's (1988) *secure base* from which the college student enter the new experience of college and a *safe haven* to return to in times of difficulty like exams or a relationship break up.

If secure attachment to parents promotes the desired developmental outcome of psychological separation, do Christian, Millennial college students enjoy a developmental advantage if they exhibit a secure attachment relationship with God? Kirkpatrick (1999, 2005; Granqvist & Kirkpatrick, 2008, 2013) posits attachment to God relationships should exhibit psychological outcomes similar to outcomes of attachment to parent relationships. After all, the Judeo-Christian tradition portrays God with both paternal and maternal imagery (Granqvist & Kirkpatrick, 2008, 2013; Kirkpatrick, 1992). For example, the Bible describes God caring for His followers as a parent and child relationship. God Himself stated He would be a "father to Israel" as He comforted His people and cared for their needs (Jeremiah 31:9, King James Version). In the New Testament, Jesus instructed His followers to address God in prayer as "our Father" (Matthew 6:9). Later in Romans 8:14-17, the author also used familial language referring to followers of God as "sons," "children," and "heirs" who cry out to God as "Abba, Father." Recognizing the validity of attachment theory and this parental description of God, Kirkpatrick and Shaver (1990) first proposed that a person's relationship with God exhibited attachment characteristics. As mentioned, Kirkpatrick (1999, 2005; Granqvist & Kirkpatrick, 2008, 2013) proposed secure attachment to God relationships should produce positive psychological outcomes. Research confirms secure attachment to God promotes numerous positive psychological outcomes such as positive body image (Homan, 2012), stress mitigation (Ellison, Bradshaw, Kuyel, & Marcum, 2012), and psychological adjustment (Miner, 2009), but

research has not explored the nexus of attachment to God and psychological separation. Kneipp, Kelly, and Cyphers's (2009) research comes close. In examining religiosity and spirituality's impact on adjustment to college, Kneipp et al. (2009) used instruments containing concepts similar to attachment to God and psychological separation. Their findings revealed spirituality contributed to adjustment to college but no claim should be made that an attachment to God relationship contributes to psychological separation as these were neither isolated nor measured components (Kneipp et al., 2009). With no research available, this study asks if there is a statistically significant relationship among attachment to parents, attachment to God, and psychological separation of Christian, Millennial college students.

Millennial College Students

Born after 1982, Millennial college students first arrived on college campuses at the turn of the 21st century (Howe & Strauss, 2007). By 2010, Millennials represented almost three quarters of the college student population (Snyder & Dillow, 2012). In the opinion of some college officials, Millennial college students exhibit greater and continued attachment to parents compared to prior generations of college students (Carney-Hall, 2008; Kiyama et al., 2015; Lowe & Dotterer, 2017; Self, 2013). These college officials who follow the popular psychosocial development theories of Erikson (1959/1980) and Chickering and Reisser (1993) do not believe continued attachment to parents facilitates psychological separation (Coburn, 2006; Cullaty, 2011; Savage, 2003).

Psychological Separation

Psychological separation, also known as separation-individuation, dominates college student development theory (Evans, Forney, Guido, Patton, & Renn, 2010; Pascarella & Terenzini, 2005; Wartman & Savage, 2008). According to this theory, well-adjusted college

students separate physically and emotionally from home and parents and integrate with collegiate life to become relatively self-sufficient (Barrera et al., 2011; Lapsley, 2010). Well-known psychosocial theorists Erikson (1959/1980) and Chickering and Reisser (1993) incorporate psychological separation as an essential component of the developmental process. Erikson's (1959/1980) fifth life stage (of eight) corresponds with the age of college students marked by identity development independent of parents. Chickering and Reisser (1993) expand Erikson's fifth life stage by focusing on college students and identifying psychological separation as critical to autonomous identity development (Evans et al., 2010; Pascarella & Terenzini, 2005).

These psychosocial theorists adequately describe the Baby Boom generation of college students born between 1943 and 1960 (Howe & Strauss, 2007; Taub, 2008). For example, Chickering's first edition of *Education and Identity*, published in 1969 at the height of the Baby Boomer college experience when they quickly cut ties with parents upon leaving for college, explain separation as a natural step in the developmental process (Strange, 2004; Taub, 2008). This emphasis on independence, self-sufficiency, and separation, however, loses validity with Millennials who retain strong ties to home even as they leave for college. It should be noted that Erikson (1959/1980) and Chickering (1969) articulated their theories before the application of Bowlby's attachment theory to the college environment and the arrival of the Millennial generation (Howe & Strauss, 2007; Strange, 2004). Recognizing the limitations of his theory in light of more-recent research, Chickering joined with Reisser (1993) to revise college student psychosocial development theory. Significant for this examination of Millennials, the original vector *developing autonomy* became *moving through autonomy toward interdependence* to deemphasize independence. Chickering and Reisser (1993) addressed neither Millennials nor

Bowlby's attachment theory, but the revisions appeared to foreshadow the coming generational change in college student behavior.

Attachment to Parents

Bowlby (1969, 1973, 1982) developed attachment theory to explain the behavior observed between an infant and caregiver, especially the infant's behavior when separated from the caregiver. Bowlby (1988) theorized that an infant's caregiver, typically the mother, serves as a secure base from which the infant could explore and a safe haven to return to in times of stress because the caregiver consistently took care of the needs of the infant. While Bowlby focused on the earliest years of child development, researchers such as Kenny (1987) applied attachment theory to the college student-parent relationship. With the stress of leaving home to attend college, secure attachment of college students to parents could serve as this secure base from which students safely explore the new collegiate experience and the safe haven to which they can return during this time of stress (Kenny, 1987). Expressed colloquially, parents merely lengthen the apron strings rather than cut them.

Research supports the assertion that securely attached students psychologically separate from parents (Bowlby, 1988; Leondari & Kiosseoglou, 2000; Mattanah et al., 2004; Mattanah et al., 2011; Schwartz & Buboltz, 2004). Mattanah et al.'s (2011) recent meta-analysis of 156 parental attachment and college student development and adjustment studies from 1987 to 2009 categorized 120 adjustment dimensions into five megadomains of (a) academic motivation and competence, (b) developmental advances, (c) interpersonal competence, (d) self-worth, and (e) stressful affects and high-risk behaviors. Secure attachment to parents contributed to each of the five megadomains with a modest overall effect size of .231 (Mattanah et al., 2011). The stressful effects and high-risk behaviors domain demonstrated a negative effect size of the same

magnitude (-.239) indicating a reduction of the undesirable effects and risks due to secure attachments to parents (Mattanah et al., 2011). Secure attachment to parents increases desirable psychosocial outcomes and reduces undesirable psychosocial outcomes. In analyzing the domain of developmental advances further, Mattanah et al. (2011) found the greatest effect size (.354) of all domains and subdomains examined to be separation-individuation (psychological separation). In short, of the 156 studies that examined attachment to parents and a variety of outcomes, the outcome of psychological separation exhibited the greatest measured effect indicating that secure attachment to parents supports college student psychological separation (Mattanah et al., 2011).

Attachment to God

Student development studies frequently examine the correlation between attachment to parents and psychological separation, but research has yet to examine the correlation between attachment to God and psychological separation. Kirkpatrick and Shaver (1990) first proposed that that an individual's relationship with God exhibited attachment characteristics, and that the relationship can correspond to secure or compensate for insecure attachment to parent relationships. Empirical support exists for both the correspondence model (Beck & McDonald, 2004; Birgegard & Granqvist, 2004; Limke & Mayfield, 2011; McDonald, Beck, Allison, & Norsworthy, 2005; Sandage, Jankowski, Crabtree, & Schweer, 2015; Shin, 2009) and compensation model (Granqvist & Hagekull, 1999; Granqvist & Kirkpatrick, 2004; Granqvist, Mikulincer, & Shaver, 2010; Kirkpatrick & Shaver, 1990). Important for this study, Kirkpatrick (1999, 2005; Granqvist & Kirkpatrick, 2008, 2013) also suggests that a secure attachment to God should produce positive psychological outcomes similar to the positive psychological outcomes produced by secure attachment to parents. Supporting Kirkpatrick's (1999, 2005; Granqvist &

Kirkpatrick, 2008, 2013) assertion, positive attachment to God psychological outcomes include contentment and strength to cope with life's difficulties (Cooper, Bruce, Harman, & Boccaccini, 2009), decreased perception of stress (Ellison et al., 2012; Rabbani, Kasmaienezhadfar, & Pourrajab, 2014; Reiner, Anderson, Hall, & Hall, 2010), reduction of eating disorder risk factors (Homan & Boyatzis, 2010), a more positive body image (Homan & Cavanaugh, 2013), greater religious well-being (Limke & Mayfield, 2011), increased life satisfaction (Wei et al., 2012), and a more optimistic view of life (Sim & Loh, 2003). In addition, several studies measure attachment to God separate from attachment to parents (Miner, 2009; Reiner et al., 2010; Sim & Loh, 2003) demonstrating a measurable additive effect of one's attachment to God. Despite these encouraging findings, no study has examined if secure attachment to God contributes to college student psychological separation.

Problem Statement

College students are at a critical stage of development, a stage of life where they formulate an answer to the question "Who am I?" (Chickering & Reisser, 1993; Erikson, 1959/1980). Part of the expected answer is psychological separation from one's parents (Chickering & Reisser, 1993). Though superficially paradoxical, secure attachment to parents facilitates this separation process (Mattanah et al., 2011). If a secure attachment relationship with parents facilitates this process, can another secure attachment relationship with the ideal attachment figure God also support this process (Granqvist & Kirkpatrick, 2008, 2013)? In other words, do Christian college students enjoy a psychological separation advantage due to a secure attachment relationship with God? No research, however, correlates attachment to God and psychological separation (Miner, 2009; Miner & Dowson, 2009; Reinert, Edwards, & Hendrix, 2009). Extremely limited research correlating spirituality, religiosity, and adjustment to college

comes close; however, this tangential research does not theoretically nor statistically isolate attachment to God and psychological separation (Kneipp et al., 2009). The literature demonstrates that secure attachment to God produces positive psychological outcomes, but the problem is the literature has not examined the outcome of psychological separation. This lack of examination of the nexus of attachment to God and college student psychological separation is a gap in the literature this study seeks to fill.

Purpose Statement

The purpose of this quantitative, correlational study was to examine whether secure attachment to God contributes to the psychological separation of Christian, Millennial college students. The population examined was Millennial college students at a Christian college in the Southern United States.

Significance of the Study

This study adds to the rich literature of attachment to parents, attachment to God, and psychological separation by addressing whether secure attachment to God contributes to the psychological separation of Christian, Millennial college students. Entering college has always been developmentally critical as students move away from parents for an extended period of time and establish an independent identity (Chickering & Reisser, 1993; Erikson, 1959/1980). Secure attachment to parents has been identified as the most important contributing factor in developing college student psychological separation (Mattanah et al., 2011), but secure attachment to God has not been examined as a contributing factor. If secure attachment to God contributes positively to college student psychological separation, Millennial college students with a secure relationship with God may enjoy a developmental advantage over their peers with an insecure or nonexistent relationship with God. This potential advantage may widen as Millennial college

students, even those attending religious institutions, increasingly self-identify as less spiritual and more religiously unaffiliated than past students. The Cooperative Institutional Research Program's (CIRP) Freshman Survey administered to 153,015 first-time, full-time college students in the fall of 2014, revealed an 8.3% decrease in spirituality from 1996 when Generation X college students (born between 1961 and 1981) first self-rated their perceived level of spirituality (Eagan et al., 2014). The survey also found a 2.9% year-to-year increase to 27.5% of students selecting *none* as their religious preference, a 12% increase since 1971 when religious preference was first asked of Baby Boomer college students (born between 1943 and 1960; Eagan et al., 2014). Pew Research Center (2015) recently reported even more (36%) young Millennials (age 18-24) are religiously unaffiliated than compared to 23% of Generation Xers or 17% of Baby Boomers. If a statistically significant, positive correlation exists between a student's attachment to God and psychological separation, religious institutions that encourage a maturing relationship with God among its college students could also facilitate the desired developmental outcome of psychological separation. Even secular institutions of higher education could benefit as they promote spiritual development as part of a true, liberal arts education (Appleton et al., 2011).

Research Questions

RQ1: Is there a statistically significant correlation between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students?

RQ2: Is there a statistically significant correlation between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer

Attachment (IPPA-R) and the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) of Christian, Millennial college students?

RQ3: Is there a statistically significant correlation between the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students?

Null Hypotheses

This study examines 26 hypotheses. The 12 null hypotheses for research question one, which examines the relationships between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students, are as follows:

H₀₁: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀₂: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀₃: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀₄: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

H₀₅: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀₆: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀₇: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀₈: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

H₀₉: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀₁₀: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀11: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀12: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

The six null hypotheses for research question two, which examines the relationships between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) of Christian, Millennial college students, are as follows:

H₀13: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.

H₀14: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.

H₀15: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.

H₀16: There is no statistically significant correlation between the I revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.

H₀17: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.

H₀18: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.

The eight null hypotheses for research question three, which examines the relationships between the anxiety or avoidance measures of attachment to God as measured by the revised Attachment to God Inventory (AGI) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students, are as follows:

H₀19: There is no statistically significant correlation between the revised Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀20: There is no statistically significant correlation between the revised Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀21: There is no statistically significant correlation between the revised Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀22: There is no statistically significant correlation between the revised Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

H₀23: There is no statistically significant correlation between the revised Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀24: There is no statistically significant correlation between the revised Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀25: There is no statistically significant correlation between the revised Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀26: There is no statistically significant correlation between the revised Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

Definitions

1. *Millennials* - The Millennial generation is generally defined as those students born after 1982 and entering college in 2000 (Howe & Strauss, 2007). Early-wave Millennial college students are children of the post-World War II Baby Boom generation (who have birth years 1943-1960) while later-wave Millennials are children of Generation X parents (who have birth years 1961-1981; Howe & Strauss, 2007). As of 2017, Millennial college students are almost exclusively children of Generation X parents (Howe & Strauss, 2007).

2. *Psychological Separation* - Psychological separation, also known as separation-individuation (Hoffman, 1984), is generally defined as “a developmental process that begins with separation from parents, peers, and other significant persons, but that extends to individuation and the development of a coherent, autonomous self” (Mattanah et al., 2004, p. 213). In brief, college students become independent of parents. Psychological separation is the leading college student development theory (Evans et al., 2010; Pascarella & Terenzini, 2005; Wartman & Savage, 2008).

3. *Attachment to Parents* - An extension of Bowlby’s (1969, 1973, 1982) attachment theory, college student attachment to parents is a later expression of the internal working model formed by the interaction of infant and caregiver. In the college context, it is a student’s continued attachment relationship with parents while attending college. Some college professionals consider this enduring student-parent relationship antithetical to psychological separation (Coburn, 2006; Cullaty, 2011; Savage, 2003; Strange, 2004; Taub, 2008), while others view the relationship as a secure base and safe haven for students to handle the new, stressful experiences of college (Wartman & Savage, 2008). As an example of the later, Sorokou and Weissbrod (2005) positively describe this continued attachment relationship as exhibiting both “support-seeking behaviors at times of need” and “behaviors for the purpose of touching base and maintaining contact” (p. 226).

It should be noted that *parent* can apply broadly. While both attachment founders Bowlby (1988) and Ainsworth (1985) examined biological mothers as the traditional, primary caregiver, they acknowledged a similar attachment bond can form with the biological father or a parent surrogate when fulfilling a caregiver role. To support this family structure difference, two of the three instruments that include parental relationships (IPPA-R, PSI) used in the present

study allow responses to father- and mother-focused questions from the basis of a biological parent, step-parent, or non-parent figure who the respondent considers a parent figure (see the IPPA wording in Appendix A and the PSI wording in Appendix C). Demonstrating the validity of Ainsworth (1985) and Bowlby's (1988) assertion that attachment bonds can form with a variety of parent-figures, Mattanah et al.'s (2011) meta-analysis found little effect size difference in adjustment to college between students with a two-biological parent family and those reporting a non-traditional family structure. The present study uses *parents* while recognizing family structure differences, consistent with recommended research directions (Sax & Weintraub, 2014).

4. *Attachment to God* - Also based upon Bowlby's (1969, 1973, 1982) attachment theory, attachment to God perceives God as the "perfect attachment figure" (Kaufman, 1981, p. 70) with Whom a believer can have a personal relationship. That personal relationship between God and a believer is often described in the Bible with parental terminology and behaviors (Jeremiah 31:9; Matthew 6:9; Romans 8:15-17). Kirkpatrick (2005) established that a college student's relationship with God functions similar to their relationship with parents using attachment pioneer Ainsworth's (1985) criteria for an attachment relationship: "a desire to maintain closeness to the partner[, ...] a need to keep proximity to him[, and a need] to find comfort and security in the other" (p. 800). Kirkpatrick (2005) also theorized that attachment to God relationships can produce psychological outcomes similar to those produced by other attachment relationships.

5. *God* - College student attachment to God relationships were examined from the Judeo-Christian tradition where God is believed to be Creator (Genesis 1:1), Father within the Trinity of Father, Son (Jesus Christ), and Holy Spirit (I John 5:7), and the One with Whom Christians

can have an affectional relationship (Beck & McDonald, 2004). Attachment to God researchers acknowledge other conceptions of a supernatural power fulfilling an attachment relationship, though most attachment to God research has been conducted within Judeo-Christian traditions (Granqvist & Kirkpatrick, 2008, 2013; Hall & Fujikawa, 2013; Hill & Edwards, 2013; Hill & Pargament, 2017).

CHAPTER TWO: REVIEW OF THE LITERATURE

Overview

Beginning in 2000, college professionals encountered a new generation of college students, Millennials, born after 1982 (Howe & Strauss, 2007). Along with suitcases and personal electronics, Millennials brought to college their continued attachment to parents. Certainly, past college students and parents maintained their relationship as students entered college, but “since the late 1990’s, colleges and universities have noted a cultural shift in the relationship between most parents and their traditional-age college students” (Wartman & Savage, 2008, p. 1). That cultural shift is a sustained psychological relationship between college students and their parents (Self, 2013). Many college professionals viewed this shift as detrimental to the psychological separation process long considered part of a college student’s desired psychosocial development (Cullaty, 2011; Savage, 2003; Self, 2013; Taub, 2008; Wartman & Savage, 2008). Extreme cases of this sustained college student-parent relationship contributed to the pejorative nickname “helicopter parents” for those parents who could not stop hovering over their college age children (Kennedy, 2009; Self, 2013; Shoup, Gonyea, & Kuh, 2009; Somers & Settle, 2010a, 2010b).

Despite college professionals’ concern with Millennials’ continued relationship with their parents, the relationship appeared beneficial (Kiyama et al., 2015; Lowe & Dotterer, 2017). For example, Millennials report the relationship favorably (Cullaty, 2011; Pryor, Hurtado, Sharkness, & Korn, 2008; Hofer, 2008; Roarty, 2007; Wolf, Sax, & Harper, 2009). Millennials’ personal affirmation aside, Wintre and Yaffe (2000) confirmed that the continued student-parent relationship contributed to the student’s adjustment to college. Samuolis, Layburn, and Schiaffino (2001) also found identity development supported by the continued relationship.

Schwartz and Buboltz (2004) concurred, although they found an element of parent-student conflict as part of the psychological separation process. One of the earliest studies of student-parent attachment, even before Millennials' arrival at college, Kenny and Rice (1995) argued:

The availability of parental support may thus be important for the late adolescent by fostering the personal and interpersonal risk-taking needed to develop new relationships, to attempt challenging coursework, and to explore self and identity in the context of a changing social and academic environment. (p. 436)

Despite college professionals' concern, the sustained college student-parent relationship supports college students' successful transition to college. In light of this, researchers began to examine the continued student-parent relationship with Bowlby's (1969, 1973, 1982) attachment theory which views a secure attachment relationship as supportive not restrictive. This blend of psychosocial development and attachment theories addressed the apparent conflict between the concerns of college professionals and the student-parent dyad (Sax & Wartman, 2010; Wartman & Savage, 2008).

Bowlby's (1969, 1973, 1982) attachment theory has also been applied to the relationship between God and His followers. Kirkpatrick and Shaver (1990) suggested this God-follower relationship either corresponded with good or compensated for poor parental relationships. Later, Kirkpatrick (2005) argued that secure attachment to God should produce positive psychological outcomes similar to the outcomes produced by secure attachment to parents. Following Kirkpatrick (2005), could a college student's secure attachment to God relationship also contribute to the desired outcome of college student psychological separation? To address this intriguing question, the following literature review begins with popular developmental theorists Erikson (1959/1980) and Chickering and Reisser (1993) who present psychological

separation as an integral part of the developmental process. Following this examination of psychological separation is a discussion of Bowlby's (1969, 1973, 1982) attachment theory and the theory applied to college student-parent relationships and college student-God relationships. The review of the literature concludes with an exploration of the numerous cultural influences on Millennial college students, their parents, and the strong relationship between them.

Theoretical Framework

Psychological Separation

Psychological separation, also known as separation-individuation, is a core component of college student development theories, the explanations of the college student maturation process. Literature on college student development theories can be grouped into four categories: (a) cognitive, (b) person-environment integration, (c) psychosocial, and (d) typology theories (Chickering & Reisser, 1993; Evans et al., 2010; Pascarella & Terenzini, 1991, 2005). This study focuses on psychosocial theories which "view development as a series of developmental tasks or stages, including qualitative changes in thinking, feeling, behaving, valuing, and relating to others and to oneself" (Chickering & Reisser, 1993, p. 2). Erikson (1959/1980) and Chickering and Reisser (1993) emphasized psychological separation as necessary to healthy psychosocial development and remain the leading psychosocial developmental theorists (Taub, 2008).

Erikson, called the "progenitor of psychosocial models" (Chickering & Reisser, 1993, p. 21), and still one of the leading identity development theorists (Koepke & Denissen, 2012), believed individuals face developmental challenges or crises at different stages of life (Chickering & Reisser, 1993; Erikson, 1959/1980). Erikson (1959/1980) presented eight life stages: (a) basic trust versus mistrust, (b) autonomy versus shame and doubt, (c) initiative versus

guilt, (d) industry versus inferiority, (e) identity versus identity diffusion, (f) intimacy versus isolation, (g) generativity versus stagnation, and (h) integrity versus despair. At each of these eight stages of psychosocial development, external demands challenge one's physical and mental maturation. Each challenge requires resolution, though that resolution could include regression, stagnation, or progression in development. Successful progression through each stage, however, produces new habits, skills, or beliefs which assists with progression through future developmental stages.

College students generally find themselves within Erikson's (1959/1980) fifth stage of *identity versus identity diffusion*, the "transition between childhood and adulthood that signals a call to define oneself" (Evans et al., 2010, p. 50). During this stage, college students establish an independent identity by developing "their core sense of self, values, beliefs, and goals. They [are] becom[ing] more independent" (Evans et al., 2010, p. 50). The inability to define self or to lack purpose (i.e. unsuccessful progression through this life stage) Erikson (1959/1980) called *identity diffusion*. While Erikson considered identity development a life-long process, he viewed the successful progression through the fifth stage a culmination of the previous four stages and the identity pattern followed in future stages (Evans et al., 2010). In other words, developing one's identity, including separating psychologically from parents during the college years, sets the stage of how one handles future life stages.

In 1969, Chickering published *Identity and Crisis* building upon Erikson's (1959/1980) identity development theory with a focus on college students. Since 1969, Chickering has been the leading college student development theorist (Evans et al., 2010; Pascarella & Terenzini, 1991, 2005). Chickering (1969) proposed seven *vectors* of identity development: (a) developing competence, (b) managing emotions, (c) developing autonomy, (d) establishing identity, (e)

freeing interpersonal relationships, (f) developing purpose, and (g) developing integrity.

Chickering (1969) chose *vectors* to free development descriptions from age-specific stages and rigid, sequential progression which he felt was an error in other psychosocial theories. Even so, Chickering (1969) presented a progressive, lower- to higher-order development in the vectors while allowing for overlapping and varying speeds of development through them. In 1993, Chickering joined with Reisser to revise the seven vectors to reflect developmental research since 1969, which included a better understanding of psychological separation. Chickering and Reisser (1993) reworked each vector in some way, but the most significant changes included renaming the fifth vector *freeing interpersonal relationships* as *developing mature interpersonal relationships*, transposing it in the order with *establishing identity*, and renaming the third vector *developing autonomy* as *moving through autonomy toward interdependence* (Chickering & Reisser, 1993).

Chickering and Reisser (1993) and Erikson (1959/1980, 1968) emphasized psychological separation in their discussions of identity development. Psychological separation, also known as separation-individuation, expects college students to psychologically, emotionally, and physically distance themselves from parents while developing self-sufficiency (Mattanah et al., 2004; Rice, 1992). Chickering and Reisser (1993) described the process this way: “While separation involves a physical distancing, individuation means becoming one’s own person and taking increased responsibility for self-support” (p. 115). Colleges students demonstrate increased responsibility through activities such as developing a class schedule without parental assistance or self-regulating behavior to complete assignments before recreation (Mattanah et al., 2004). Psychological separation forms the basis of Erikson’s (1959/1980, 1968) fifth life stage

identity versus identity diffusion and Chickering and Reisser's (1993) third developmental vector *moving through autonomy toward interdependence*.

Chickering and Reisser's (1993) third vector *moving through autonomy toward interdependence* which emphasizes psychological separation is the focus of discussion with continued student-parent relationships (Taub, 2008). In this vector, college students should transition from parental dependence to autonomy, from defining themselves in relationship to family to defining themselves independently and in relationship to not only family but also peers, faculty, and community (interdependence). The vector includes subthemes of *emotional independence*, *instrumental independence*, and *interdependence* (Chickering & Reisser, 1993) which form the basis of the Psychological Separation Index (PSI, Hoffman, 1984) used in this study. Emotional independence is described as "freedom from continual and pressing needs for reassurance, affection, or approval from others" (Chickering & Reisser, 1993, p. 117). Instrumental independence is "the ability to carry on activities and solve problems in a self-directed manner" (Chickering & Reisser, 1993, 117) or functional self-sufficiency, the ability to take care of one's own needs and to act alone. Interdependence is the realization that while one is not dependent on others for emotional or functional support, one is part of a larger community; one's freedom or autonomy is "bound by rules and responsibilities . . . reciprocity, compromise, sacrifice, consensus, and commitment to the welfare of the larger community" (Chickering & Reisser, 1993, p. 140).

College professionals who observe many Millennial college student maintaining a strong attachment relationship with parents focus on this third vector of *moving through autonomy toward interdependence*, precisely because Chickering and Reisser (1993) repeatedly emphasized separation from parents as instrumental to psychosocial development: "The first step

toward emotional independence involves some level of separation from parents” (Chickering & Reisser, 1993, p. 117). “The road to emotional independence begins with disengagement from parents” (Chickering & Reisser, 1993, p. 122). Of two major components of instrumental independence discussed by Chickering and Reisser (1993), one is “the ability to carry out activities on one’s own and to be self-sufficient” (p. 132). The culmination of the vector is interdependence, but “it cannot be experienced until a measure of independence has been achieved” (Chickering & Reisser, 1993, p. 140).

College professionals also find psychological separation the best predictor of college student academic success and emotional wellbeing (Mattanah et al., 2004; Taub, 2008). Among early psychological separation research, Sullivan and Sullivan (1980) found residential college men exhibited greater psychological separation from parents than nonresidential students. This would align with Chickering and Reisser (1993) since residential students have physically moved away from parents to live independently at college while nonresidential students continued to live with their parents. Yet that separation did not produce alienation; the residential students also reported better communication, greater affection, and overall more satisfaction with their relationship with parents (Sullivan & Sullivan, 1980). Additional research through the 1980s revealed that students reporting more psychological separation from parents exhibited better academics, fewer psychological problems, and generally reported a better college experience (Dashef, 1984; Hoffman & Weiss, 1987; Moore, 1987; Lapsley, Rice, & Shadid, 1989; Levine, Green, & Millon 1986). By the late 1980s, however, researchers observed a change in college students; psychological separation alone could not explain research findings indicating a continued relationship with parents benefited the college student. For example, Ryan and Lynch (1989) reported that college students who exhibited very high levels of psychological separation

had negative views of themselves which the researchers described as “lower perceived loveworthiness” (p. 354). If psychological separation was the ideal college student developmental goal as Chickering and Reisser (1993) theorized, negative outcomes should not exist. Similarly, Rice, Cole, and Lapsley (1990) found independence from parents not as strongly correlated to college adjustment as previous research: “The individuation process may simultaneously entail some separation as well as some continued support from family members” (p. 201). The same year, Kenny (1990) suggested reconsideration of the prevalent psychological separation view espoused by Chickering and Reisser (1993) when college seniors described their relationships with parents very favorably and looked to parents for support during the trials of college. The dichotomous results of high levels of separation and descriptions of high quality student-parent relationships suggested that factors other than psychological separation were at play. In fact, it was Kenny (1987) who first applied Bowlby’s (1969, 1973, 1982) attachment theory to the college student-parent relationship as an alternate or additive explanation to Chickering and Reisser’s (1993) psychological separation, thus opening a profitable new direction for college student research (Mattanah et al., 2011).

Attachment Theory

Bowlby (1969, 1973, 1982) developed attachment theory in response to the observation of children’s behavior when separated from their parents and the lack of explanation of the separation behavior provided by prevailing psychoanalytic theories of Freud or Klein. Both Freud and Klein focused on conflicting, unconscious drives to explain an infant’s and child’s behavior. As a child psychiatrist, Bowlby was thoroughly trained in Freudian psychoanalysis but unsatisfied with the Freudian, frustrated-sex drive explanation for an infant’s or child’s behavior (Ainsworth & Bowlby, 1991). Working under Klein at the British Psychoanalytic Institute,

Bowlby also became dissatisfied with the Kleinian explanation for children's emotional difficulties (Ainsworth & Bowlby, 1991). Klein too rejected Freud's sexual basis for behavior but still believed like Freud that a child's emotional difficulties were the result of conflicting, unconscious and *a priori* drives (Ainsworth & Bowlby, 1991). Frustrating for Bowlby, Klein believed a mother's interaction with a child was irrelevant to explain the child's behavior, or as Ainsworth and Bowlby (1991) put it, the Kleinian-trained "...analysts, in their preoccupation with a child's fantasy life, were paying too little attention to the actual events in the child's real life" (p. 333).

Based on Bowlby's earlier experiences at the London Child Guidance Clinic working with youth with behavioral and psychological difficulties linked to their infant- and child-parent relationship, he formulated a theory rooted in the infant-caregiver relationship rather than an infant's conflicting, unconscious drives (Ainsworth & Bowlby, 1991). Bowlby drew from diverse sources including cybernetics, developmental psychology, ethology, and biology to explain the attachment relationship (Ainsworth & Bowlby, 1991; Bowlby, 1988). Particularly influential was Lorenz's (1935) ethological observation of young birds *imprinting* on their mother; Bowlby too was interested in a relational bond established in infancy (Ainsworth & Bowlby, 1991).

Despite rejecting both Freud's and Klein's explanations for childhood behavior, Bowlby's attachment explanation owes a debt to and shares similarities with these psychoanalytic theories. Of primary importance—and first established by Freud—is the developmental nature of behavior whereby current (especially abnormal) behavior could be understood by examining behavior, emotions, and relationships of childhood (Fonagy, 2010). In this vein, Bowlby focused on infant-caregiver relationships as a basis of future relationship

development. Bowlby's emphasis on relationships is a debt attachment theory owes to object relations theory, a movement of which Klein was a part (Bretherton, 1992; Mills, 2010). Object relations theory shares its roots with Freud but replaces libido gratification with relationship development as the primary drive of personality formation (Wolitzky, 2010). Bowlby also appreciated Klein's emphasis on observing children, a novel approach in early psychoanalysis; but as previously stated, Klein was not as focused on infant- and child-caregiver relationships as Bowlby wanted leading to Bowlby's development of attachment theory (Ainsworth & Bowlby, 1991; Bretherton, 1992). Bowlby's attachment theory has also been compared to Jung's earlier discussion of the attachment and separation of child and mother (Stevens, 1994/2001) and mental representations shaped by experience (Knox, 1999), but this retrospective comparison by later researchers lacks support from any known claim of Jung's influence made by attachment founders Bowlby or Ainsworth.

Central to attachment theory is the relationship established between an infant and caregiver (Bowlby, 1969, 1973, 1982, 1988). As part of a biological instinct to survive, an infant seeks comfort, protection, and safety from the caregiver. When an infant displays security- or attachment-seeking behavior (i.e., crying) the infant's caregiver (typically the mother) satisfies the infant's needs through cuddling, feeding, or other caretaking action. This consistency of attachment-seeking followed by caregiving between infant and caregiver in the first year formed a pattern for future relationship development with that caregiver and with others, a pattern Bowlby (1969) called an *internal working model* (IWM). An infant's IWM is an expectation that future interactions with the caregiver would be consistent with past interactions.

The level of the infant's felt-security (and therefore IWM) depends on the quality and consistency of safety, protection, and comfort provided by the caregiver or attachment figure.

The variations in attachment bonds is referred to as *attachment styles* (Ainsworth, 1985). If the infant experiences a consistent pattern of availability and warm responses from the caregiver, a *secure* attachment bond forms. With a secure bond formed, the attachment figure becomes a *safe haven* the infant can turn to in future times of need or anxiety. Paradoxically, the safe haven also serves as a *secure base* from which the infant begins to explore its surroundings away from the caregiver (Bowlby, 1988). The quality of security and caregiving, however, could be inconsistently good or consistently poor. These suboptimal relational bonds are *insecure* attachment bonds (Ainsworth, 1985). Due to the insecure attachment bond, an infant's IWM does not perceive the caregiver as either a safe haven or secure base thereby preventing the infant from maturing optimally (Bowlby, 1988). Insecure attachment bonds can be further divided into *insecure-avoidant* and *insecure-ambivalent* (Ainsworth, 1985). An insecure-avoidant bond could develop from the caregiver consistently rejecting an infant's attachment behavior while an insecure-ambivalent bond could develop from inconsistent caregiver responses (Ainsworth, 1985).

Attachment to Parents

Bowlby (1969, 1973, 1982, 1988) focused on infant-caregiver relationships but believed that attachment behavior continued throughout the lifespan based on the IWM established in infancy. The attachment behavior exhibited might differ for adolescents or adults versus infants, but the IWM established in infancy still formed the basis for later relationships. Even in explaining the secure base concept, Bowlby (1988) used adolescence to illustrate the point: "As he grows into adolescence, his excursions [away from his caregiver] are extended to weeks or months, but a secure home base remains indispensable nonetheless for optimal functioning and mental health" (p. 163). Despite theorizing IWM behavior in life-long relationship development,

Bowlby never empirically analyzed attachment behavior beyond childhood (Ainsworth, 1989; Ainsworth & Bowlby, 1991). Attachment research remained focused on childhood relationships until Hazan and Shaver's (1987) seminal adult attachment research found similarities between the infant-caregiver relationship and adult romantic relationships. Hazan and Shaver (1987) explained that adult romantic partners find security and comfort when together, anxiety when apart, and strength from the relationship to face life's difficulties similar to the attachment relationship behavior between an infant and caregiver.

The same year Hazen and Shaver (1987) applied attachment explanations to adult romantic relationships, Kenny (1987) applied attachment theory to the college student-parent relationship to explain the stress of students leaving for college as similar to the stress of separation experienced by an infant when the caregiver leaves the room. However, rather than the physical clinging of an infant to a parent as an expression of attachment behavior, college student attachment behavior might take the form of phone calls or letters to parents (e-mails or text messages with later technology). But like an infant secure in the knowledge that the caregiver takes care of the infant's needs and supports exploration, Kenny (1987) found that male residential students with secure attachment to parents transitioned to and explored the new, stressful college experience with more confidence than those students with insecure attachment to parents. This echoes Bowlby's (1988) secure base and safe haven concepts and suggests that secure attachment to parents supports rather than contradicts Chickering and Reisser's (1993) psychological separation (Kenny, 1987; Kenny & Donaldson, 1991).

Kenny's (1987) pioneering application of attachment theory to college students specifically emphasized the physical separation of leaving home to attend college as the stressful event which triggered attachment behavior toward their parents. Unfortunately, Kenny (1987)

did not examine differences in residential status. As stated earlier, Sullivan and Sullivan (1980) examined effects of residential status on college student-parent relationships and concluded that differences in residential status effected the student-parent attachment relationship synonymous with Chickering and Reisser's (1993) separation and independence emphasis. Compared to nonresidential students, those who left home for college (residential students) reported an increase in affection toward and from their parents and better overall communication between them and their parents (Sullivan & Sullivan, 1980). Paradoxically, even as their parental relationship strengthened, residential students reported greater perceived independence from their parents than nonresidential students. Consistent with attachment theory, Sullivan and Sullivan (1980) found college student independence facilitated by a student-parent relationship that exhibited both security and safety. The research of Sullivan and Sullivan (1980) and Kenny (1987) focused on the physical separation of college students and parents as stressful and the trigger of attachment behavior, but Berman and Sperling (1991) found beginning college can be stressful for both residential and nonresidential students. Both residential and nonresidential college students exhibited preoccupied (cognitive) and concerned (emotional) attachment behavior toward their parents despite differences in residential status. Contrary to their expectations, however, Berman and Sperling (1991) saw the preoccupied attachment behavior decrease for residential students only. The researchers speculated that constant physical proximity of parents and nonresidential students soured their relationship while residential students established alternate, stress-supporting relationships (Berman & Sperling, 1991). These alternate relationships college students developed are congruent with Chickering and Reisser's (1992) third and fourth vectors of *moving through autonomy toward interdependence* and *developing mature interpersonal relationships*. Larose and Boivin (1998) also found the

transition to college a stressful event especially for residential students. These residential students reported more loneliness and social anxiety than nonresidential students, yet they also reported greater communication with their parents. Only the residential students reported an improved relationship with their parents which the researchers explained as evidence of the activation of residential students' attachment system due to the stressful transition to college (Larose & Boivin, 1998). Not all residential students handle the stressful transition to college well or experience the same positive parental relationship developments away from home. Examining Millennial college students, Bernier, Larose, and Whipple (2005) found positive relationship and independence development for residential students with secure parental attachment relationships but not for those residential students with preoccupied attachment relationships. These preoccupied students described their student-parent relationship negatively prior to leaving for college and reported that the relationship did not improve while attending college, even with greater parental contact than reported by the secure residential students (Bernier et al., 2005). Even when nonresidential students report secure parental relationships and experience positive outcomes, their positive outcomes are less than residential students with secure parental relationships. Beyers and Goossens (2008) found positive identity exploration greater among all students examined who reported secure attachment relationships with parents, but nonresidential students with secure parental relationships still displayed lower levels of identity exploration than residential students. Secure attachment to parents coupled with physical distance supported identity development better than secure attachment to parents alone. Similarly, Hiester, Nordstrom, and Swenson (2009) found all college students who reported secure relationships with their parents enjoyed better adjustment to college and less psychological distress in the transition. Nonresidential male students, however, experienced a

deterioration of the relationship with parents over the time of the study and a corresponding increase in psychological distress and decrease in college adjustment (Hiester et al., 2009). In summary, beginning college is a stressful event that can trigger attachment behavior as Kenny (1987) first articulated, but residential students with secure attachment to parents are more likely to experience improved student-parent relationships and greater functional and psychological independence from parents than nonresidential students (Mattanah et al., 2011). In fact, Mattanah et al. (2011) found in their meta-analytic review of research that differences in residential status more statistically significant to the attachment relationship and college adjustment than gender of student, gender of parent, year in college, ethnicity, or nationality. Because differences in residential status affect the college student-parent relationship, the student's attachment behavior, and the quality of the student's psychological separation, residential status will be asked of participants.

Since Kenny's (1987) application of attachment theory to explain college student behavior and the facilitation of psychological separation, secure attachment behavior has been closely examined and found to support numerous college student psychological and psychosocial outcomes as revealed by four recent reviews of research. Sax and Wartman (2010), in their review of parental involvement and college student development literature, identified five categories of student outcomes: (a) adjustment to college, (b) educational outcomes, (c) identity development, (d) psychological well-being, and (e) other behaviors. Secure attachment to parent relationships consistently facilitated the development of desirable outcomes (adjustment to college, academic success, identity development, etc.) and mitigated undesirable outcomes (anxiety, binge drinking, drug use; Sax & Wartman, 2010). Mattanah et al.'s (2011) recent meta-analysis of 156 parental attachment and college student development and adjustment studies

from 1987 to 2009 categorized 120 adjustment dimensions into five megadomains of (a) academic motivation and competence, (b) developmental advances, (c) interpersonal competence, (d) self-worth, and (e) stressful effects and high-risk behaviors. Secure attachment to parents contributed to each of the megadomains with a modest overall effect size of .231 (Mattanah et al., 2011). The stressful effects and high-risk behaviors domain demonstrated a negative effect size of similar magnitude (-.239) indicating a reduction of the undesirable effects and risks due to secure attachments to parents (Mattanah et al., 2011). The megadomain of developmental advances combined several popular psychosocial developmental goals found in college student studies: (a) career exploration, (b) ego identity, (c) gender identity, and (d) separation-individuation (psychological separation; Mattanah et al., 2011). In analyzing the subdomains of developmental advances further, Mattanah et al. (2011) found each subdomain outcome facilitated by secure attachment to parents, but the greatest effect size (.354) of all domains and subdomains examined was separation-individuation (psychological separation). In short, across 156 studies that examined attachment to parents and a wide variety of outcomes, a secure attachment to parents relationship consistently increased desirable psychological and psychosocial outcomes and reduced undesirable outcomes (Mattanah et al., 2011). Credé & Niehorster's (2012) meta-analytic review of 237 studies using the Student Adaptation to College Questionnaire examined adjustment to college and also found that students' secure attachment to parent relationships facilitated adjustment to college. The secure attachment relationship link to adjustment to college is important as adjustment to college was also linked to the desirable outcomes of college retention and grades (Credé & Niehorster, 2012). Rabbani et al., (2014) focused their literature review on college student attachment to parents and stress and concluded: "Secured attachment students perceive less stress, they have fewer problems and lower levels of

depression and anxiety. Most of them do not have antisocial activities. They cope the changing to high school more successfully and encounter with less problems in school environment” (p. 47).

Recent studies not included in the preceding reviews corroborate the conclusions. Similar to Credé and Niehorster’s (2012) conclusions, Yazedjian, Toews, and Navarro (2009) found students with secure attachment to parents also reported better adjustment to college and a higher college GPA (see also Yuan, Weiser, & Fischer, 2016). Ross and Fuertes (2010) reported college students who indicated secure attachment relationships with parents experienced better emotional adjustment including greater self-esteem (see also Vahedi & Yari-Sis, 2016), better social skills, and less frequent depressive moods. Similar reports of higher self-esteem were reported among Latino and Latina college students securely attached to their parents (Garriott et al., 2010). Kurland and Siegel (2013) also revealed lower levels of depression and stress among securely attached college students. Sax and Weintraub (2014) examined communication of first-year students with their parents. While their study lacked measurement of the attachment relationship or psychological separation, the researches acknowledged that quality college student-parent communication is often a factor in both constructs (Sax & Weintraub, 2014). In fact, as attachment theory would suggest, quality and frequency of conversations with parents contributed to the students’ emotional well-being during the first year of college (Sax & Weintraub, 2014). More recently, Agarwal and Poojitha (2017) found secure attachment to parents positively correlated with assertiveness of Indian college students. Interesting for the focus of this study, the researchers describe assertiveness in similar terms to psychological separation and Chickering and Reisser’s (1993) third vector: “The ability to express one’s own thoughts, feelings, and believe in an explicit and appropriate manner, and to show respect for

other's rights while projecting one's own" (Agarwal & Poojitha, 2017, p. 140). Secure attachment to parent relationships also contribute to greater life satisfaction and stress reduction (Kumar & Mattanah, 2016) and successful emotion regulation (Gong & Paulson, 2017).

While secure attachment to parents contributes to positive psychosocial outcomes as articulated above, insecure attachment relationships with parents contributes to undesirable psychosocial outcomes. Han and Pistole (2014) revealed a higher likelihood of binge eating and poor emotional regulation among students with an insecure attachment to parents relationship. Increased risk of internet addiction (for entertainment, eroticism, and escape) also correlated positively with insecure parental attachment relationships among college students (Soh, Charlton, & Chew, 2014). Yang, Zhu, Chen, Song, and Wang (2016) found comparable correlations between parental relationship insecurity and internet addiction, yet also found interparental conflict contributed negatively to the student-parent relationship and internet addiction. Similarly, problematic Facebook use (i.e. addiction) increased among college students with insecure attachment to parent relationships (Chabrol, Laconi, Delfour, & Moreau, 2017). Students escaped to Facebook to avoid undesirable family environments (Chabrol et al., 2017). Problematic cell phone use also correlated with college students' insecure attachment to parent relationships (Lepp, Li, & Barkley, 2016). In light of the technological interconnectedness of Millennial college students discussed below, this problematic cell phone usage often displaced activities that facilitated relationship building and maintenance (Lepp et al., 2016). In other words, problematic cell phone use might worsen the insecure parental relationship. Considering these finding, it should not be a surprise that college students with insecure parental relationships also experience greater interparental conflict and less emotion regulation (Gong & Paulson, 2017). In short, across several hundred studies examining attachment to parents and a variety of

outcomes, a secure attachment to parents relationship consistently increased desirable psychological and psychosocial outcomes and reduced undesirable outcomes.

The quality of a college student's attachment to parents relationship can contribute to numerous desirable and undesirable psychosocial outcomes as outlined above. It is intriguing that in the meta-analysis by Mattanah et al. (2011) of 156 parental attachment and college student outcome studies conducted between 1987 and 2009, only one included a measurement of college students' attachment to God. McDonald et al. (2005) examined the similarities between college students' attachment to parents and attachment to God, a common examination of similarities since first posited by Kirkpatrick and Shaver (1990). This study by McDonald et al. (2005), addressed the important theory of attachment to God discussed below, however did not examine a possible relationship between attachment to God and psychological separation as this proposed study sought to examine.

Attachment to God

As mentioned above in the discussion of attachment theory, Bowlby (1969, 1973, 1982) focused on infant-caregiver relationships but believed early attachment bonds created a pattern of thinking and behavior or IWM in the infant that shapes relationship development throughout the lifespan. As researchers applied attachment theory to relationships beyond infancy following Bowlby's (1969, 1973, 1982) IWM concept, Kirkpatrick and Shaver (1990) first integrated attachment theory and the psychology of religion (Granqvist & Kirkpatrick, 2008, 2013; Hall & Fujikawa, 2013). Easing the integration of the two theories is the Judeo-Christian conception of God as a parental figure (Beck & Haugen, 2013; Granqvist & Kirkpatrick, 2008, 2013). The Judeo-Christian tradition frequently portrays God with both paternal and maternal imagery. Maternal imagery for God in the Bible is less common than paternal imagery, but Isaiah 66:3

portrays God comforting His followers like a mother comforting her children. More commonly paternal imagery is used such as in Jeremiah 31:19 when God stated He would be a “father to Israel” as He comforted His people and cared for their needs. Later, when Jesus Christ’s disciples asked Him to teach them how to pray—to speak with God—Jesus instructed them to address God as “our Father” (Matthew 6:9). In Romans 8:14-17, God’s followers are referred to as “sons,” “children,” and “heirs” who cry out to God as “Abba, Father.” Parental God imagery alone does not mean compatibility with attachment theory, yet the parental imagery of God presented in the Bible is relational, personal, and intimate (Beck & Haugen, 2013). The integration of attachment theory and the psychology of religion is, therefore, predicated on the reality that a believer can have a personal relationship with God and the relationship can exhibit attachment behavior (Beck & Haugen, 2013; Granqvist & Kirkpatrick, 2008, 2013; Proctor, Miner, McLean, Devenish, & Bonab, 2009).

It is reasonable to ask how a personal attachment relationship can form between a human being and a spiritual being since John 4:24 identifies God as a Spirit, “and they that worship him must worship him in spirit and in truth.” Granqvist and Kirkpatrick (2013) argue that believers are capable of an attachment relationship with the spiritual God by perceiving Him as a *symbolic attachment figure* Who does not have to be physically present to form and maintain the attachment relationship. Furthermore, the believer-God relationship exhibits the attachment relationship criteria set forth by attachment pioneer Ainsworth (1985; Granqvist & Kirkpatrick, 2008, 2013). In articulating attachment relationships and behavior, Ainsworth (1985) summarized three essential attachment criteria as (a) “...an affectual bond...” (p. 799), (b) “...a desire to maintain closeness to the partner as well as a need to keep proximity to him...” (p. 800), and (c) “...the experience of comfort and security in relationship to the other and yet the

ability to move off from this secure base with confidence to engage in other activities” (p. 800). As these form the cornerstone of attachment behavior, they deserve further elaboration.

The first attachment criteria of an affectual bond Ainsworth (1985) defined as “a relatively long-lived tie in which the partner is important as a unique individual, interchangeable with none other, from whom inexplicable, involuntary separation would cause distress, and whose loss would cause grief” (p. 799). The biblical description of the relationship between a believer and God is replete with affectual descriptions epitomized by John 3:16: “For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life.” This expression of love by God towards all people generates a believer’s love toward God: “We love him [God], because he first loved us” (I John 4:19). The affectual bond is reciprocal. Granqvist and Kirkpatrick (2013) also argue God as a symbolic attachment figure is not interchangeable; God Himself permits “no other gods before me” (Exodus 20:3). In addition, the reality of hell is separation from God (Granqvist & Kirkpatrick, 2013; though the doctrine of eternal security of the believer negates this separation possibility).

Ainsworth’s (1985) second criteria of an attachment relationship, that of a desire to maintain proximity or closeness with the attachment figure, strikes at the heart of the spiritual nature of the relationship between a believer and God. In a human to human relationship proximity and closeness is physical presence and time spent with the individual. In the spiritual relationship with God, He is omnipresent or present everywhere. In Jeremiah 23:23-24 God asks “Am I a God at hand, saith the LORD, and not a God afar off? Can any hide himself in secret places that I shall not see him? saith the LORD. Do not I fill heaven and earth? saith the LORD.” In the New Testament, Matthew 18:20 records Jesus stating “For where two or three are gathered together in my name, there I am in the midst of them.” Yet God is not only

omnipresent in space but also time as indicated by Jesus Christ in Revelation 1:8 “I am Alpha and Omega, the beginning and the ending, saith the Lord, which is, and which was, and which is to come, the Almighty.” The believer’s expression of proximity seeking is evident in numerous behaviors including private and corporate worship, prayer, Bible reading, and other religious activities (Beck & Haugen, 2013; Granqvist & Kirkpatrick, 2008; Idler, 2013). In the Judeo-Christian tradition, the Bible is God speaking to mankind while prayer is speaking to God (Beck & Haugen, 2013; Granqvist & Kirkpatrick, 2013; Idler, 2013; Ladd & Spilka, 2013).

Ainsworth’s (1985) third criteria of an attachment relationship conceptualizes God as a safe haven and secure base. God perceived as secure and safe is frequently referenced in the Bible such as Psalm 61:3, “For thou [God] hast been a shelter for me, and a strong tower from the enemy.” Granqvist and Kirkpatrick (2008; 2013) reference Psalm 23 as a prime example of God as a secure base: “Yea, though I walk through the valley of the shadow of death, I will fear no evil: for thou [God] art with me [safety]; thy rod and thy staff [security] they comfort me” (vs. 4). In analyzing these three attachment relationship criteria, it is believed that a person can have a personal relationship with God and the relationship can exhibit attachment behavior (Beck & Haugen, 2013; Granqvist & Kirkpatrick, 2008, 2013; Proctor et al., 2009).

A significant distinction between attachment relationships with fellow human beings such as between college students and parents and an attachment relationship with God is the Judeo-Christian belief that God is omnipresent, omniscient (all-knowing), and omnipotent (all-powerful; Granqvist & Kirkpatrick, 2008, 2013). Parents as human beings falter; God as divine does not. Thus, as the theologian Kaufman (1981) suggested, God is not just another attachment figure but the ideal attachment figure:

God is creator, lord, father, one characterized by absolute and eternal power and also absolute justice and mercy. God is thus one who can be depended upon absolutely, in every contingency and crisis as well as in the day-to-day routines of ordinary life. God is the perfect attachment-figure to whom one's absolute loyalty and devotion can and should be given. (p. 70)

As stated above, Kirkpatrick and Shaver (1990) were among the first to propose an integration of attachment theory and the psychology of religion. They also postulated one's relationship with God followed either the existing pattern of the infant-caregiver attachment relationship or as a substitute for a poor attachment relationship (Kirkpatrick & Shaver, 1990). The former Kirkpatrick and Shaver (1990) labeled the *mental model* hypothesis and directly applied Bowlby's (1969) IWM to the relationship between a believer and God. Kirkpatrick (1998) renamed the mental model to *correspondence* since the attachment relationship with God corresponded to one's existing attachment relationship with parents. The latter as proposed by Kirkpatrick and Shaver (1990) also reflects Bowlby (1969) who theorized that if a poor or insecure infant-caregiver relationship existed, the infant's attachment behavior would initiate a search for an alternate, substitute, or surrogate attachment figure who might better meet the infant's attachment needs. This spiritual search for a more-ideal attachment figure in God Kirkpatrick and Shaver (1990) called the *compensation* hypothesis, where one's God attachment compensated for poor parental attachment. Though Kirkpatrick and Shaver's (1990) early research supported only the compensation hypothesis, later Kirkpatrick and Shaver (1992) and Kirkpatrick (1998) also supported the correspondence hypothesis. Continued research supports both the correspondence (Beck & McDonald, 2004; Birgegard & Granqvist, 2004; Limke & Mayfield, 2011; McDonald et al., 2005; Sandage et al., 2015; Shin, 2009) and compensation

(Granqvist & Hagekull, 1999; Granqvist & Kirkpatrick, 2004, 2013; Granqvist et al., 2010; Kimball, Boyatzis, Cook, Leonard, & Flanagan, 2013) models of attachment to God.

Further integrating attachment theory and the psychology of religion, Kirkpatrick (1999, 2005; Granqvist & Kirkpatrick, 2008, 2013) speculated that if God served as an ideal attachment figure, whether by correspondence or compensation, a secure attachment to God relationship should produce psychological benefits or outcomes characteristic of secure human attachment relationships. Research supports this hypothesis (Granqvist, 2014; Homan, 2014). In one of the first analyses of attachment to God and psychological outcomes, Kirkpatrick and Shaver (1992) found secure attachment to God was the only measure of numerous religious measures they examined that resulted in psychological outcomes of less anxiety, less depression, and less physical illness. Miner, Dowson, and Malone (2014) found the outcome of psychological well-being independently facilitated by both secure adult attachment and secure attachment to God. Freeze and DiTommaso (2014) discovered similar results: Individuals with greater religious spirituality, which included secure attachment to God, experienced less emotional distress. In addition, college women with a secure attachment to God experienced lower risk for eating disorders (Homan & Boyatzis, 2010) and greater perceived body image (Homan & Cavanaugh, 2013). Testing Bowlby's (1988) secure base, Beck (2006) found those with secure attachment to God more comfortable examining other faiths even with no intention of changing religions. These secure, exploring Christians also experienced more peace and less distress in the exploration than those who did not enjoy a secure attachment to God (Beck, 2006). Recently, Massengale et al. (2017) found college students who had experienced great tangible loss due to Hurricane Katrina but also exhibited attachment to God security, were able to face the psychological stress of recovery more effectively than those without a secure attachment to God.

As might be logically expected, if a secure attachment to God produces positive psychological outcomes as delineated above, an insecure attachment to God should also produce (or not mitigate) negative psychological outcomes. This is true among human insecure attachment relationships (Homan, 2014), and it has been found to be true for believers with an insecure attachment to God (Granqvist, 2014). For example, those who reported insecure attachment relationships with God reported higher levels of anxiety or stress (Bradshaw, Ellison, & Marcum, 2010; Ellison, Bradshaw, Flannelly, & Galek, 2014; Miner, 2009; Reiner et al., 2010; Rowatt & Kirkpatrick, 2002). In fact, a higher level of anxiety is commonly found among those with insecure attachment to God relationships (Homan, 2014). Not only did Homan (2014) find higher anxiety, but also higher levels of depression and lower levels of life satisfaction. In addition, Knabb & Pelletier (2013) discovered insecurely attached individuals more likely to engage in “problematic Internet use” (p. 243) and demonstrate greater emotional distress. Buser and Gibson (2016) observed higher symptoms of bulimia in female college students who indicated avoidant and anxious (insecure) attachment to God relationships. As Kirkpatrick (1999, 2005; Granqvist & Kirkpatrick, 2008, 2013) suggested, individuals experience both positive and negative psychological outcomes in relation to the quality of their attachment to God relationship.

Psychological separation was previously identified as a desired outcome of a young person’s psychosocial development (Chickering & Reisser, 1992). In addition, psychological separation was previously identified as facilitated by a secure attachment relationship between college students and parents (Mattanah et al., 2011). While the parental attachment relationship has been studied extensively for its support of psychological separation, attachment to God has not been examined for its possible support. Without existing empirical research, it is speculated

that secure attachment to God could contribute to college student psychological separation. To explore such a possibility Sim and Loh (2003) successfully developed and validated an attachment to God measurement that empirically distinguished among attachment to mother, father, and God. While attachment to mother and attachment to father revealed an expected “substantial correlation of .48” (Sim & Loh, 2003, p. 383), attachment to God only correlated .19 with attachment to mother and .12 with attachment to father indicating a distinct attachment to God behavior independent of the attachment to parents relationship. Based on Sim and Loh’s (2003) findings, Reiner et al., (2010) specifically sought if attachment to God was a “unique construct, instead of a reflection of one’s overall attachment style” (p. 176). The researchers measured a 5.2% increase of attachment to God over attachment to parents, a “significant incremental validity” (Reiner et al., 2010, p. 183). Similarly, in examining psychological adjustment, Miner (2009) measured “...a small but significant additive effect...” (p. 119) of attachment to God over attachment to parents, meaning that the measured psychological benefits of increased well-being and less anxiety found were not entirely due to the secure parental attachment relationship but could be attributed (partly) to the college students’ secure attachment to God. These findings demonstrate the ability to isolate attachment to God as an independent, contributing factor to some psychological outcomes, therefore attachment to God could be measured independently from attachment to parents in college student psychological separation research.

In addition to the empirical ability to measure attachment to God’s additive effect, tangential research though limited shows promise for the correlation of attachment to God and psychological separation. Kneipp et al. (2009) examined religiosity and spiritual well-being’s impact on college adjustment. Kneipp et al. (2009) did not examine the present study’s concepts

of attachment to parents, attachment to God, or psychological separation; but two instruments they used contained similar concepts. The Spiritual Well Being Scale (SWB, Paloutzian & Ellison, 1982) contains two dimensions to measure overall spiritual well-being, though the SWB is unrelated to any specific religion or faith tradition. The existential well-being dimension measures a person's relationship with God including statements like "I believe that God loves me and cares about me"—a statement echoing Kilpatrick and Shaver's (1990) conception of God as an attachment figure Who fulfills Ainsworth's (1985) attachment criteria of an affectual bond. The item "I feel most fulfilled when I am in close communion with God" parallels the proximity-seeking nature of the attachment relationship. Another instrument used by Kneipp et al. (2009), the Student Adaptation to College Questionnaire (SACQ, Baker & Siryk, 1986), is comprised of four adjustment subscales. Two subscales (social, personal-emotional) include statements suggesting psychological separation themes. For example, "Being on my own, taking responsibility for myself, has not been easy" from the personal-emotional adjustment subscale answered in the affirmative might indicate a student struggling with psychological separation. On the other hand, the statement "I enjoy living in a college dormitory" might indicate a student successfully progressing along Chickering and Reisser's (1992) third developmental vector *moving through autonomy toward interdependence*. SACQ statements suggesting attachment to parent concepts are even less clear, but several regarding homesickness (i.e. "Lonesomeness for home is a source of difficulty for me now") imply activation of attachment-seeking behavior. However, each of these parallels is merely conjecture for instruments not designed to measure attachment relationships. Despite the differences to the concepts examined in the present study, however, the results of Kneipp et al. (2009) reveal the value of isolating attachment to God and psychological separation with the instruments of the present study. Kneipp et al. (2009) found

college students' spiritual well-being (which included the attachment to God-like statements) “significantly correlated” (p. 193) with college adjustment (which included psychological separation-like statements). While results of Kneipp et al. (2009) may hint that attachment to God contributes to psychological separation, no claim is appropriate from instruments not validated for these constructs.

The Millennial Generation

The subjects of this study, Millennials—defined as those born since 1982, entering college starting in 2000, and characterized by the core traits of *special, sheltered, confident, team-oriented, conventional, pressured, and achieving* (Howe & Strauss, 2007)—comprise a majority of students on college campuses (Snyder & Dillow, 2012). Two of the defining Millennial traits, special and sheltered, contribute to the understanding of the continued student-parent attachment relationship (DeBard, 2004; Howe & Strauss, 2007). “Hands off” parenting of the 1960s became the “Baby on Board” parenting of the 1980s with a new generation of child-centered parenting books (Howe & Strauss, 2007). In addition, Millennials grew up in a sheltered world; from the 1982 Tylenol scare to mandatory bicycling helmet laws, from changing movie norms to reactions to high profile school shootings, parents have sought to shelter their special children (DeBard, 2004; Howe & Strauss, 2007). Being special and sheltered, Millennials developed a closer relationship with their parents than previous generations of college students (Coburn, 2006; Howe & Strauss, 2007; Taub, 2008). As these Millennials entered college, researchers further identified cultural trends that contributed to the continued attachment between Millennial college students and their parents (Carney-Hall, 2008; Merriman, 2007; Wartman & Savage, 2008). These trends include changes in parenting, a consumer mentality, safety concerns, and technological interconnectedness. Changes in parenting of

Millennials developed long before Millennials entered college in 2000. Parents of Millennials did not suddenly become highly involved in their student's life after high school graduation, typical parents of Millennial college students had always been highly involved in their children's lives. Howe and Strauss (2000) described Millennials growing up in homes that revolved around them. Baby Boomers who had put off family life began to embrace parenthood and affixed "Baby on Board" signs to their vehicles. As Dr. William Sears popularized "attachment parenting," parents began to adjust their personal and increasingly their professional lives around the lives of their children (Howe & Strauss, 2000). Educational leaders even encouraged a close child-parent relationship on the K-12 level; one goal of the federal No Child Left Behind Act (No Child Left Behind (NCLB), 2002) was increased parental involvement in their child's education (Kiyama et al., 2015; Lowe & Dotterer, 2017). It is no surprise that parents continued this involved and attached style of parenting as their student enrolled in college (Carney-Hall, 2008; Lowe & Dotterer, 2017).

Not only did parents of Millennials invest significant time and effort rearing their children, they invested tremendous amounts of money in higher education as their children enrolled in college. This confluence of investing time and money gave rise to a consumer mentality, especially as educational costs outpaced inflation (College Board, 2012). For the 2010-2011 school year, the average total cost (tuition, room, board, fees, books, etc.) of living on campus and attending college ranged from \$20,100 at a public institution to \$39,800 at a private, non-profit institution (Aud et al., 2012). The net price paid by students and parents (the total cost minus aid that does not need to be repaid like grants and scholarships) varied by income level and ranged from \$7,900 at public institutions to \$33,200 at private, non-profit institutions (Aud et al., 2012). Students and parents increasingly bore this expense as state and federal

governments reduced direct and indirect aid to higher education (Johnstone, 2005; Zusman, 2005). Students rarely paid for these costs by themselves; of those Millennials attending college and not employed, 77% received financial support (academic and personal) from their parents (Taylor & Keeter, 2010). With tens of thousands of dollars spent, parents and students expected more out of their expensive educational investment than just a degree. They expected high quality academics and amenities and complained to top administration when not received, just like dissatisfied retail customers (Kennedy, 2009; Merriman, 2007). Somers and Settle (2010a, 2010b) in their typology of helicopter parents named this financially concerned group *consumer advocates* who “view college not as an educational journey but as a consumer transaction” (2010a, p. 24). College is simply another commodity.

Another cultural trend that contributed to the sustained student-parent relationship—and another of Somers and Settle’s (2010a, 2010b) helicopter parenting types—is the *safety patrol parent*. Safety patrol parents fit well in Howe and Strauss’s (2007) description of Millennials being reared special and sheltered. Parents of Millennials sent their sons and daughters off to college in the midst of high profile tragic events such as the Columbine High School shooting of 1999, the September 11, 2001 terrorist attacks on the United States, and college shootings such as the Virginia Tech shootings of 2007 or the 2015 shootings at Umpqua Community College in Roseburg, Oregon. Terror management theory suggests that as someone faces issues of mortality, such as parents contemplating these horrific events at their student’s campus, the natural response is to become more insular and protective (Greenberg et al., 1990; Pyszczynski, Solomon, & Greenberg, 2003). Concerned with sending their students to a college often far from home, parents bombarded colleges and universities with questions about police response times, emergency procedures, and residence hall safety (Somers & Settle, 2010b). These safety

concerns are in addition to the traditional parental concerns of college students experimenting with alcohol, drugs, or sex (Daniel, Evans, & Scott, 2001). These events and student experiences triggered the natural, protective response of parents as their students attend college.

Above all, technological interconnectedness bound Millennial students to their parents and facilitated the cultural trends mentioned above. The ubiquitous use of technology maintained the close relationship between parents and students even if hundreds or thousands of miles separated them (Kennedy, Smith, Wells, & Wellman, 2008; Lee, Meszaros, & Colvin, 2009; Ramsey, Gentzler, Morey, Oberhauser, & Westerman, 2013; Sax & Weintraub, 2014; Smith, Nguyen, Lai, Leshed, & Baumer, 2012). Pew Research Center (2017) reports that 100% of those age 18-29 own a cell phone. Technology is intertwined with the Millennial generation; Millennials even see their use of technology as a distinct characteristic of their generation compared to other generations (Taylor & Keeter, 2010). Millennials grew up with and actively use technology such as the Internet, e-mail, cellular phones, instant messaging, text messaging, blogs, and social media (Coomes, 2004; Jones & Madden, 2002; Junco & Mastrodicasa, 2007). The National Survey of Student Engagement (2007) reported that seven out of ten college students communicated *often* or *very often* with one or both of their parents. Sax and Weintraub (2014) found 28% of female respondents spoke with their mothers on the phone daily. Similarly, the Net Generation Survey revealed that Millennial college students spoke with their parents more than 1.5 times per day on average, with the student initiating the call 57.6% of the time (Junco & Mastrodicasa, 2007). Kenyon and Koerner (2009) and Pizzolato and Hicklen (2011) also found that students initiate the contact a majority of the time. While college students used a wide variety of technology and social media to keep in touch with their peers, cellular phones, for voice or text conversation, and e-mail were the most common means of student-parent

communication (Chen & Katz, 2009, College Parents of America, 2007; Hofer, 2008; Ramsey et al, 2013; Sax & Weintraub, 2014; Smith et al., 2012; Wolf et al., 2009). This technology contributed to the sustained student-parent relationship by allowing inexpensive, instant, and constant contact (Kennedy et al, 2008; Lee et al., 2009; Ramsey et al, 2013; Smith et al, 2012). What was the frequency and nature of this student-parent communication? In reviewing previous research, Trice (2002) found that student-parent contact studies before the widespread use of e-mail contained a median number of two contacts per week. Trice's (2002) study saw a median of 6.03 contacts per week through the medium of e-mail alone. More recently, when factoring in all means of contact (e-mail, cell phones, Skype, etc.), Hofer (2008) found an average of 13 contacts per week during the first semester of college. Interestingly, the topic of these student-parent conversations and e-mails was not always about the major issues of life or college as one might expect. Junco and Mastrodicasa's (2007) Net Generation Survey revealed that 82.9% of the time the reason for students contacting parents was simply "checking in." Over half (53.5%) of the students Kenyon and Koerner (2009) examined would call their parents just to hear their parents' voice. In examining the content of student e-mails to parents, Trice (2002) found a similar pattern: While some e-mails contained statements about academic, financial, or social issues and/or requests for assistance in these areas, 78% of the student-to-parent e-mails did not contain these statements or requests. It should be noted, that Trice's (2002) e-mail analysis also revealed a contact pattern that echoes Bowlby's (1988) secure base of returning to parents for advice and support in times of need; frequency of student e-mail contact to parents increased during times of stress. Sorokou and Weissbrod (2005) also examined student-parent contact patterns and revealed not only non-need based regular contact, but also an increase in student-parent contact patterns during times of stress at college. In short, technology

contributes to the continued attachment relationship between college students and parents and provides evidence of attachment behavior during times of stress.

Summary

Communication technologies contribute to the sustained relationship between Millennial college students and their parents while apart, yet many college professionals view this sustained relationship as detrimental to psychological separation development (Cullaty, 2011; Savage, 2003; Taub, 2008; Wartman & Savage, 2008). As noted, leading developmental theorists Erikson (1959/1980) and Chickering and Reisser (1993) position psychological separation as one of the most important psychosocial developments of college-age young people. Contrary to the concern of these college professionals, however, secure attachment to parents supports college student psychological separation (Mattanah et al., 2011). With secure attachment to parents supporting desirable psychological separation, would an additional secure attachment relationship with God—the ideal attachment figure—also contribute to psychological separation? Attachment to God research appears to support this possibility: Higher spiritual well-being (Miner et al., 2014), less emotional distress (Freeze & DiTommaso, 2014), and lower risk for eating disorders (Homan & Cavanaugh, 2013) are a few of the psychological and psychosocial outcomes facilitated by secure attachment to God. In addition, Kneipp et al. (2009) found spirituality and religiousness contributed to adjustment to college using instruments containing concepts similar to attachment to God and psychological separation. This study seeks to isolate these constructs and examine whether secure attachment to God facilitates psychological separation in Christian, Millennial college students.

CHAPTER THREE: METHODS

Overview

Examination of attachment to parents, attachment to God, and psychological separation used a correlational design detailed below. This is followed by a restatement of the three research questions and 26 hypotheses. A description of the population and subjects of this study and the instruments used to assess the constructs of attachment to parents, attachment to God, and psychological separation are also given. The chapter concludes with an explanation of the study procedures and data analysis.

Design

Using a correlational research design and canonical correlation analysis (CCA) as the primary data analysis method, this nonexperimental study examined the relationships among attachment to parents, attachment to God, and psychological separation of Christian, Millennial college students at a Christian liberal arts college in the Southern United States. Undergraduate students at the Christian college were administered the revised Inventory of Parent and Peer Attachment (IPPA-R, Armsden & Greenberg, 1987, 2017), the Attachment to God Inventory (AGI, Beck & McDonald, 2004), and the Psychological Separation Inventory (PSI, Hoffman, 1984) via Survey Monkey. As this study explored the relationships among the variables of attachment to parents, attachment to God, and psychological separation of Christian, Millennial college students, this study followed a correlational research design. A principle advantage of correlational design is its ability to explore relationships among a large number of variables (Gall, Gall, & Borg, 2007). Additionally, correlation allows individual, pairings, or combinations of variables to be examined for their influence on the outcome (Gall et al., 2007).

This correlational design allows the exploration of relationships among and between the nine total scales of the IPPA-R, AGI, and PSI.

Research Questions

RQ1: Is there a statistically significant correlation between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students?

RQ2: Is there a statistically significant correlation between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) of Christian, Millennial college students?

RQ3: Is there a statistically significant correlation between the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students?

Null Hypotheses

This study examined 26 hypotheses. The 12 null hypotheses for research question one, which examines the relationships between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students, are as follows:

H₀1: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀2: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀3: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀4: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

H₀5: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀6: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀7: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀8: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

H₀9: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀10: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀11: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀12: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

The six null hypotheses for research question two, which examines the relationships between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) of Christian, Millennial college students, are as follows:

H₀13: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.

H₀14: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.

H₀15: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.

H₀16: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.

H₀17: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.

H₀18: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.

The eight null hypotheses for research question three, which examines the relationships between the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students, are as follows:

H₀19: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀20: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀21: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀22: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

H₀23: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀24: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀25: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀26: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

Participants and Setting

Participants for this study were drawn from a voluntary sample of undergraduate students enrolled during the fall 2017 semester at a private, liberal arts Christian college in the Southern United States. On September 25, 2017, the college sent an invitation e-mail (see Appendix J) on the researcher's behalf to the undergraduate population requesting their participation in an online survey. Students volunteering to participate followed a link to the online survey. Additional details regarding the survey procedure are provided below. According to data provided by the college (M. Smith, personal communication, September 12, 2017), the college selected is an unaffiliated, independent Baptist liberal arts college with a fall 2017 enrollment of 4,427 undergraduate students. Although the college offers several master's and doctoral programs, the college is primarily a baccalaureate institution. A significant majority (98.7%) of the undergraduate population are full-time students, 55.3% are female, and 76.2% claim out-of-state residency (89.3% when including international students). Most undergraduate students are under the age of 25 (95.7%) and live on campus in the residence halls (95.3%). The high percentages of full-time academic load, out-of-state residency, and on-campus residential status were ideal for the this study which examined attachment behavior and psychological separation of residential students.

The September 25, 2017, e-mail was sent to 4,410 undergraduates (the discrepancy from the official 4,427 fall enrollment might be explained by student withdrawals between the semester enrollment tallying date of September 5 and the e-mail date of September 25). The

number of undergraduates sampled in this study was 300 (6.8% of college population), which exceeded the required minimum sample size of 90 to conduct a canonical correlation analysis (Hair et al., 2009; Tabachnick & Fidell, 2013). The unscreened sample included 165 male (57.9%) and 120 female (42.1%) undergraduates; 15 participants (5.0%) did not respond to this item. The sample ranged in age from 18 to 25 years, with 91.6% of the sample within in the traditional college ages of 18 to 22 years (students younger than 18 or older than 25 were not permitted to participate due to legal and developmental constraints, respectively). Within the sample of undergraduates, 54 (18.9%) were classified as freshman, 85 (29.7%) sophomores, 69 (24.1%) juniors, and 78 (27.3%) seniors, with 14 (4.7%) not responding. Important for this study, 271 (94.8%) were residential students living away from home while attending the college. Demographics for the screened sample are reported in Chapter 4.

Instrumentation

The attachment to parents variable of interest was measured by the revised Inventory of Parent and Peer Attachment (IPPA-R; Armsden & Greenberg, 1987; 2017; see Appendix B for permission to use the IPPA-R), one of the most widely used measurements of attachment behavior of young people (Mattanah et al., 2011; Sax & Wartman, 2010, Wilson & Wilkinson, 2012). Armsden and Greenberg (1987) developed the original, 53-item IPPA self-report questionnaire to assess Bowlby's (1969, 1973, 1988) attachment relationships between adolescents and parents (28 items) and adolescents and peers (25 items). Responses use a 5-point Likert scale ranging from 1 (*almost never or never true*) to 5 (*almost always or always true*). The instrument contains subscales measuring attachment constructs of mutual trust (e.g. "My parents help me to understand myself better), quality of communication (e.g. "When we discuss things, my parents consider my point of view"), and feelings of anger and alienation (e.g.

“I feel angry with my parents”). Subscale scores are calculated by reverse-scoring items identified by Armsden and Greenberg (1987) and summing items identified as alienation, communication, or trust. These subscales display strong internal consistency with Cronbach’s alpha coefficients of .91 (trust), .91 (communication), and .86 (alienation) for the parent scale, and .87, .91, and .72 for the respective peer subscales (Armsden & Greenberg, 1987). In addition to the subscale scores, overall attachment security scores for parents and peers can be calculated by summing the trust and communication subscale scores and subtracting the alienation subscale score. Overall parent attachment security scores can range from 28 to 140 and peer scores from 25 to 125. Higher scores indicate greater overall attachment security.

Armsden and Greenberg (2017) revised the IPPA to separately measure attachment with mother and father. The revised, 75-question self-report IPPA-R questionnaire consists of 25 items each related to attachment to mother, father, and peers, worded identically except for the identifier *father*, *mother*, or *friends*. Peer attachment was not included nor addressed in this study of parental attachment. Excluding the peer scale is consistent with studies using the original or revised IPPA to examine only parental attachment (Brown et al., 2013; Cummings-Robeau, Lopez, & Rice, 2009; Duchesne & Larose, 2007; Gong & Paulson, 2017; Hiester et al., 2009; Kumar & Mattanah, 2016; Vahedi & Yari-Sis, 2016). More importantly, absence of the peer scale does not greatly affect the parental scales; the peer and parental scales are only .30 correlated, indicating that the attachment relationship between students and peers and students and parents is substantially different (Armsden & Greenberg, 1987, 2017; Crowell, Fraley, & Shaver, 2008).

Armsden and Greenberg (2017) report internal reliabilities (Cronbach’s alpha) for mother attachment to be .87 and .89 for father. Cronbach’s alpha coefficients for this study are reported

in Chapter 4. While the IPPA-R is worded for mother and father, the instrument permits variety in family structure. Subjects may respond to statements about the woman or man who most influenced them if they cannot respond based upon a biological or even step-mother or father (see Appendix A for exact wording). In this study, an accompanying demographic questionnaire requested the student's family structure (see Appendix G).

In revising the IPPA, Armsden and Greenberg (2017) cautioned the use of the trust, communication, and alienation subscales due to strong interrelationships. This interrelation was known since the initial development of the IPPA, but accepted due to the multidimensional nature of attachment (Armsden & Greenberg, 1987, 2017). At the request of researchers, Armsden and Greenberg (2017) provide information to calculate the subscales of the revised IPPA. Taking Armsden and Greenberg's (2017) caution into consideration, this study used the subscales, as do a number of attachment research studies using the revised IPPA (Mattanah et al., 2004; Schwartz & Buboltz, 2004; Shin, 2009; Vahedi & Yari-Sis, 2016).

Scoring the IPPA-R can produce subscale scores for alienation, communication, and trust, plus overall attachment scores for both mother and father. Subscale scores are calculated by reverse-scoring negatively worded items and summing the responses in each subscale. Armsden and Greenberg (2017) identify the reverse-scored items. The alienation subscale score can range from 6 to 30, the communication subscale from 9 to 45, and the trust subscale from 10 to 50. Higher scores indicate greater alienation, communication, or trust within the subject. An overall attachment security score can be determined by summing the communication and trust scores and subtracting the alienation score. Overall attachment security scores can range from 13 to 65 with higher scores indicating greater attachment security.

The attachment to God variable of interest was measured by the Attachment to God Inventory (AGI; Beck & McDonald, 2004; see Appendix F for permission to use the AGI). Modeled after the Experiences in Close Relationships scale, the AGI is a 26-item instrument containing two subscales (14 anxiety items and 12 avoidance items). Beck and McDonald (2004) originally selected 14 items each for the subscales, but they recommend excluding two avoidance items due to their strong intercorrelations with anxiety. The present study included these two items in the survey for consistent numbering, but excluded them in the analysis. Items are rated using a 7-point Likert scale with 1 = *disagree strongly*, 4 = *neutral/mixed*, and 7 = *agree strongly*. Anxiety items include “I just don’t feel a deep need to be close to God” and “I crave reassurance from God that God loves me.” Avoidance items include “Daily I discuss all of my problems and concerns with God” and “I am totally dependent upon God for everything in my life.” The AGI is scored by reverse-scoring 7 items identified by Beck & McDonald (2004), then summing even numbered items for the avoidance subscale and summing odd numbered items for the anxiety subscale. The avoidance subscale scores could range from 12 to 84, with higher scores indicating greater avoidance of or unwillingness to have a close relationship with God. The anxiety subscale could range from 14 to 98, with higher scores indicating an insecure relationship with God. In the development of the AGI, Beck and McDonald (2004) conducted three studies and reported good internal consistency coefficients (Cronbach’s alpha) with ranges of .84 to .86 for the avoidance subscale and .80 to .87 for anxiety. Cronbach’s alpha levels for this study are reported in Chapter 4.

The psychological separation variable of interest was measured by the Psychological Separation Inventory (PSI) developed by Hoffman (1984; see Appendix D for permission to use the PSI). The PSI’s 138-items are rated on a Likert scale from 1 representing “not at all true of

me” to 5 representing “very true of me.” The PSI contains mother and father separation scales of 69 questions each; the statements are identical except for gender-specific terminology. Four subscales are represented in the PSI and reflect concepts developed by Chickering and Reisser (1993): Functional Independence (13 items, 13-65 score range), Emotional Independence (17 items, 17-85 score range), Conflictual Independence (25 items, 25-125 score range), and Attitudinal Independence (14 items, 14-70 score range). Scores for these subscales are obtained by adding the responses for each item then subtracting the resulting total from the total possible score for that subscale; a higher score indicates greater psychological separation. Internal consistency is between .84 and .92 using Cronbach’s alpha. Test-retest reliability over a two to three-week period range from .49 to .94 for males (.83 median) and .70 to .96 for females (.83 median; Hoffman, 1984). Cronbach’s alpha levels for this study are reported in Chapter 4

In addition to the IPPA-R, AGI, and PSI, a demographic questionnaire was also administered (see Appendix G) to better understand the college student sample.

Procedures

After receiving Institutional Review Board (IRB) approval from Liberty University (see Appendix H) and permission to conduct the research from the Southern Christian college (see Appendix I), the researcher requested the college e-mail undergraduate students an invitation to participate in the study. This initial recruitment e-mail (see Appendix J) sent September 25, 2017, included a brief description of the study and a link to the survey hosted on Survey Monkey’s website. The Survey Monkey data collector was set to automatically close upon receiving 300 participants. Since the desired 300 surveys were submitted within one day, a follow-up e-mail planned for October 2, was cancelled. Upon linking to the web-based survey, the student provided informed consent (see Appendix K) before proceeding to the demographic

questionnaire (Appendix G) and survey instruments (Appendices A, C, and E). The first page of the online survey was the informed consent page. Selecting “I consent to participate” and linking through to the survey was considered informed consent by the participant.

The web-based survey and data collection was conducted through the online survey website Survey Monkey (surveymonkey.com). Survey Monkey’s Anonymous Responses feature was activated to prevent the collection of e-mail addresses, IP addresses, or other personally identifiable information. Data from the survey was collected by Survey Monkey then downloaded into SPSS for analysis.

Upon submission of the web-based survey, the participant was redirected to an independent Survey Monkey data collection page where they had the optional opportunity to receive compensation for their participation by entering their name and college e-mail address. Every fifth completed submission of personal contact information received a \$4.00 Amazon gift card within one week as reimbursement for their time completing the survey. Participants were informed that the personal information submitted for potential compensation could not be connected to their survey responses.

Data Analysis

Canonical correlation analysis (CCA) was the primary method of data analysis to examine the relationships among attachment to parents, attachment to God, and psychological separation of Christian, Millennial college students. CCA was used because of its ability to examine two or more sets of variables (Dillon & Goldstein, 1984, Tabachnick & Fidell, 2013). While labeling sets of variables *dependent* or *independent* is not important for canonical analysis, conceptually it is helpful to identify them (Hair, Black, Babin, & Anderson, 2009). In this study *attachment to parents* and *attachment to God* were the independent variables, and *psychological*

separation was the dependent variable. The college student attachment to parents variable measured by the IPPA-R contains the three subscales of trust, communication, and alienation (Armsden & Greenberg, 1987, 2017). The attachment to God variable measured by the AGI contains two subscales of avoidance and anxiety (Beck & McDonald, 2004). The variable psychological separation as measured by the PSI contains the four subscales of functional independence, emotional independence, conflictual independence, and attitudinal independence (Hoffmann, 1984). With instrument subscales, there were nine total variables examined in this study.

Several statistical assumptions are necessary for CCA to be effective; Tabachnick and Fidell (2013) identify three. First is multivariate normality, that is “the assumption that each variable and all linear combinations of the variables are normally distributed” (Tabachnick & Fidell, 2013, p. 78). Strictly speaking, CCA can accommodate non-normally distributed variables, but normality is needed to test the significance of canonical functions (Hair et al., 2009). Because multivariate normality tests are strict and impractical, individual variables can be tested for normality, and multivariate normality is more likely achieved (though not guaranteed) when each variable is normally distributed (Tabachnick & Fidell, 2013). Normality can be tested graphically (histogram, probability plots) or statistically (skewness, kurtosis; Hair et al., 2009; Tabachnick & Fidell, 2013). The second statistical assumption of CCA identified by Tabachnick and Fidell (2013) is linearity, “that there is a straight-line relationship between two variables” (p. 83). The strength of the CCA is dependent on linearity in two ways: First, by its mathematical nature, CCA can only measure linear relationships. Second, CCA maximizes linear relationships between variables (Tabachnick & Fidell, 2013). Linearity is identified through examination of scatterplots (Hair et al., 2009). Tabachnick & Fidell’s (2013) third

assumption for CCA is homoscedasticity, or “that variability in scores for one continuous variable is roughly the same at all values of another continuous variable” (p. 85). Since homoscedasticity is met if the data is normally distributed, the graphical and statistical measures of normality identify homoscedasticity or heteroscedasticity, its opposite.

Type II errors are reduced by collecting a sufficient sample size. A too-small sample may not reveal existing meaningful correlations while samples that are too large can produce non-existent correlations (Hair et al., 2009). Both Hair et al. (2009) and Tabachnick and Fidell (2013) recommend 10 cases per variable to conduct a CCA. With a total of nine variables in this study, a sample size of at least 90 was collected.

The likelihood of Type I errors is reduced through the nature of the CCA. CCA's, like other multivariate analyses, minimize Type I errors “because they allow for simultaneous comparisons among the variables rather than requiring many statistical tests to be conducted” (Sherry & Henson, 2005, p. 38). Conducting individual statistical tests such as multiple regression analysis on each set of variables increases the likelihood of Type I errors (Thompson, 2000). Statistical significance of the canonical correlations was measured by Wilks's λ , the most common test of significance in canonical correlation (Sherry & Henson, 2005).

CHAPTER FOUR: FINDINGS

Overview

To explore the relationships among attachment to parents, attachment to God, and psychological separation of Christian, Millennial college students, canonical correlation analyses were performed. The variables of interest were the results of the revised version of the Inventory of Parent and Peer Attachment (IPPA-R), Attachment to God Inventory (AGI), and the Psychological Separation Inventory (PSI). This chapter presents the data analyses conducted on collected survey data. Following a restatement of the research questions and null hypotheses are the initial procedures used for screening the database. The fourth part contains the description of the collected (and screened) sample in terms of demographic variables and the relation of this sample to the population of college students from which the sample was drawn. The fifth and sixth parts of the chapter include, respectively, further preparation of the administered scales for analysis and the scales' psychometric properties, examining Cronbach's alpha measure (Cronbach, 1951), Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1974), and average inter-item correlation as an indicator of homogeneity. The final three portions of the chapter report the three canonical correlation analyses that correspond with the three research questions.

Research Questions

RQ1: Is there a statistically significant correlation between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students?

RQ2: Is there a statistically significant correlation between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) of Christian, Millennial college students?

RQ3: Is there a statistically significant correlation between the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students?

Null Hypotheses

This study examined 26 hypotheses. The 12 null hypotheses for research question one, which examines the relationships between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students, are as follows:

H₀₁: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀₂: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀₃: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀₄: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

H₀₅: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀₆: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀₇: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀₈: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

H₀₉: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀10: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀11: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀12: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

The six null hypotheses for research question two, which examines the relationships between the alienation, communication, or trust measures of attachment to parents as measured by the revised Inventory of Parent and Peer Attachment (IPPA-R) and the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) of Christian, Millennial college students, are as follows:

H₀13: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.

H₀14: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.

H₀15: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.

H₀16: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.

H₀17: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.

H₀18: There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.

The eight null hypotheses for research question three, which examines the relationships between the anxiety or avoidance measures of attachment to God as measured by the Attachment to God Inventory (AGI) and the attitudinal independence, conflictual independence, emotional independence, or functional independence measures of psychological separation as measured by the Psychological Separation Inventory (PSI) of Christian, Millennial college students, are as follows:

H₀19: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀20: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀21: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀22: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

H₀23: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.

H₀24: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.

H₀25: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.

H₀26: There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.

Descriptive Statistics

Data Preparation

On September 25, 2017, the Southern Christian college on the behalf of the researcher, e-mailed the undergraduate enrollment of 4,410 an invitation to participate in the research study. During the data collection phase, a total of 300 participants (6.8% of population) enrolled in the

study. Two types of missing data were observed in this sample: (a) data missing due to participants withdrawing from study and (b) data missing due to participants not responding on a single item. In case some responses were missing because certain subjects stopped responding to questions at some point during survey administration, all data from the subject were excluded from further analyses. This deletion of unfinished surveys prevents possible skew of the data produced by considerable discrepancy in the number of responses available for scales presented at the beginning of survey compared to those presented near the end. Another reason for this decision is to avoid uncontrollable bias that may arise due to non-random abandonment of participants: It is possible that all participants who decided to abandon the survey share a common though unknown trait. This would lead to systematic bias in the data as a certain subpopulation would be overrepresented in the first part of the survey, but underrepresented in the second leaving an untraceable bias in the results. Even if participants withdrew due to random factors, these random or non-random factors are indeterminable. Whether the survey was fully completed was assessed through examination of a participant's response to the last question and subsequent exclusion of those participants who did not respond to it. This yielded a total of 207 valid responses (69% of the initial sample), eliminating 93 participants who did not reach end of the survey.

Some items, even after excluding incomplete surveys, still had missing values perhaps the result of accidentally skipping an item, lower attention levels, or another source of random error data. As the missing values accounted for at most 1.4% (3 out of 207) of responses on an item, missing data points were substituted with the corresponding item's mean, following the advice of Roth (1994) on replacing missing values with mean when there is less than 10% of

values missing. Data substitution procedure was only applied to survey data, not the demographic variables to gain as factual as possible insight into sample structure.

Screened Sample

The number of undergraduates sampled in this study was 300. Screening the sample as described above yielded 207 valid responses, which exceeded the required minimum sample size of 90 to conduct a canonical correlation analysis (Hair et al., 2009; Tabachnick & Fidell, 2013). The screened sample included 84 male (40.6%) and 122 female (58.9%) undergraduates, with 1 (0.5%) non-response. The screened sample ranged in age from 18 to 24 years, with 94.8% of the sample within in the traditional college ages of 18 to 22 years. Within the sample of undergraduates, 40 (19.3%) were classified as freshman, 61 (29.5%) sophomores, 48 (23.2%) juniors, and 58 (28.0%) seniors. Important for this study, 200 (96.6%) were residential students living away from home while attending the college.

Further examining the eight-item demographic questions, comparisons can be made of the screened sample with the college population from which the sample was drawn. Participants in this study had a mean age of 19.99 years with only 2.42% reporting they were 24 years old or older, which is consistent with the known fact that 95.7% of college's student body is younger than 25 years. While the college population consists of 55.3% female students, the sample participants were 58.9% female. A binomial test assessed whether this increase is statistically significant. The test revealed with $p = .022$ that the sample cannot be considered representative of the college population in terms of gender; however, it should be noted that this difference is rather small and should not leave strong influence on analyses outcomes. Another demographic question regarded participant's current educational classification offering answers *freshman*, *sophomore*, *junior*, or *senior*. Although the size of each group varied from 19.3% for freshmen

to 29.5% for sophomore, a chi-square test showed that there are no significant differences between groups ($\chi^2(3) = 5.348, p = .148$), thus implying that results can be equally generalized to students of every educational status. To better understand the participant's family relationships, a question requested they identify their parents' current relationship status. A great majority of participants (84.5%) reported that their parents are married, that they have never been divorced, separated, or the like. This finding enforces a limit on generalizability, as most of the participants come from the same type of family, and it is possible that any conclusion reached here may not hold true for subjects with different family structures. Nevertheless, this study can be useful as a majority of the general population still marries (79.7%); and with an average marriage duration of more than 26 years (Schoen, 2016), it is clear that a great number of college students fall into this category for which findings of this study can generalize. Almost all participants (96.6%) reported they had never been married, which was expected considering other demographic information. In addition, more than 96% of students in this sample reported they were residential students (living away from home while they attend college), which was especially useful for this research as it focused on measures of psychological separation that are easiest to observe when students live on their own. Although a binomial test showed that the proportion of residential students in this sample was slightly greater than that reported for the college's population (96.6% in the sample compared to 95.3% in the population; $p < .001$), that presents no problem and can be, in fact, considered beneficial. Participant's ethnicity was also recorded. Most participants self-identified as White or Caucasian (75.8%), while other ethnic groups were represented with a small number of subjects: 8.2% of the sample identified as Asian or Pacific Islander, 5.8% as of Hispanic ethnicity, 1% identified as Black or African American, while .5% of subjects reported to identify as American Indian or Alaskan Native. Apart from

this, it should be noted that 8.7% of participants did not find any of the offered categories suitable. Since the Southern Christian college did not provide ethnic composition of the student body, it cannot be determined if the sample is ethnically representative of the college population.

As determined from the examination of the demographic information, the sample was adequate to investigate relationships among the variables of attachment to parents, attachment to God, and psychological separation as the sample corresponds to the college's student body population regarding most of the variables. For those cases where this sample was not representative of student population, it was shown that it can either have little to no effect on the study's results, or that that kind of deviation from representativeness was beneficial for the aim of this study.

Results

Scale Preparation

With a screened database, previously identified survey items were reverse coded and subscale scores were calculated. A participant's overall parent attachment score and psychological separation score was calculated from the mother and father portions of the IPPA-R and PSI respectively, as it was shown that differences between effect sizes for various family configurations are small (Agarwal & Poojitha, 2017; Mattanah et al., 2011). When averaging these items, some showed non-integer values due to different responses for mother and father. To combat this difficulty, cut-off points were established resulting in all values below 1.4 being treated as 1, all values between 1.5 and 2.4 being treated as 2, and so on.

IPPA-R descriptive results were as follows: Parent overall attachment scores ranged from 8 to 73 ($M = 48.1$, $SD = 13.7$). Alienation scale scores ranged from 6 to 27 ($M = 13.5$, $SD = 4.2$). Communication scores ranged from 11.5 to 30 ($M = 21.1$, $SD = 4.1$). Trust ranged from 18 to 50

($M = 40.5$, $SD = 6.6$). Following IPPA-R creators Armsden & Greenberg's (1987) recommendations, mean results were rated *low*, *medium*, or *high* by dividing the scales into thirds. In doing so, this sample rated medium on alienation, low on communication, and high on trust. This combination labels them *high security* according to Armsden and Greenberg (1987).

Descriptive results for the AGI were as follows: The anxiety scores ranged 22 to 95 ($M = 55.8$, $SD = 15.3$). Avoidance ranged from 17 to 84 ($M = 62.1$, $SD = 14.3$). The sample's overall attachment to God score ranged from 70 to 173 ($M = 118.0$, $SD = 22.6$). While lower scores across the AGI scales indicate greater security in one's attachment to God relationship, Dumont, Jenkins, Hinson, and Sibcy (2012) categorized results by applying midpoint cutoffs (anxiety = 56, avoidance = 48). Either score equal to or greater than the cutoff would label the group *insecure*. Only when both scores were equal to or less than the cutoff would the group results be labeled *secure* in attachment. As this sample was mixed with insecure-leaning anxiety and secure-leaning avoidance mean scores; the sample was labeled as having insecure attachment to God relationships.

PSI descriptive results were as follows: The attitudinal independence scale scores ranged from 0 to 53.5 ($M = 14.8$, $SD = 11.1$). Conflictual scores ranged from 25.9 to 99 ($M = 80.0$, $SD = 12.8$). Emotional independence scores ranged from 0 to 66 ($M = 36.7$, $SD = 14.5$). Functional independence scale scores ranged from 1.5 to 51 ($M = 27.1$, $SD = 11.3$). If dichotomizing the mean scores into *independent* and *dependent* using midpoint cutoff scores as did Dumont et al. (2012) for the AGI, results revealed conflictual dependence and attitudinal, emotional, and functional independence within this sample of Christian, Millennial college students.

Canonical correlation analysis (CCA) was used to analyze the data. Several statistical assumptions are necessary for CCA's effectiveness. Tabachnick and Fidell (2013) identify (a)

multivariate normality, (b) linearity, and (c) homoscedasticity. Multivariate normality implies normally distributed variables and all linear combinations of variables. To test the distribution of each variable, a statistical criterion was used relying on measures of standardized skewness and kurtosis. When using standardized measures of skewness and kurtosis as an indicator of distribution in a sample of about 200 cases, a cut-off point of ± 2.58 is advised (Ghasemi & Zahediasl, 2012). If both values for skewness and kurtosis fall in that range, data can be considered normally distributed. Table 1 presents values for unstandardized and standardized measures of distribution shapes along with corresponding standard errors. As seen in Table 1, most of the scores were normally distributed which is a necessary condition of multivariate normality. Even violating this assumption with some of the variables, CCA can still be applied considering its robustness (McLaughlin & Otto, 1981).

As CCA maximizes linear relationships between variables (Tabachnick & Fidell, 2013), and per Hair et al. (2009), assumption of linearity was assessed through examination of scatterplots of scores from different facets. Three facets of the IPPA-R, four facets of the PSI, and two facets of the AGI yielded a total of 38 scatterplots examined. This examination concluded that relationships between variables of interest were linear by nature, and that it was therefore justified to use CCA as an analysis technique.

The third assumption, stating “that variability in scores for one continuous variable is roughly the same at all valuate of another variable” (Tabachnick & Fidell, 2013, p. 85) was assessed through examination of measures of shape of distribution for each variable, as measures of normality identify homoscedasticity or heteroscedasticity, its opposite. Another method, considered a rule of thumb, is that the ratio of variance in variable from largest to lowest should not exceed 1.5. Both of these measures indicated heavily heteroscedastic data. As inputting

heteroscedastic values into CCA can have negative effects on its statistical power (Nimon, 2012), all facet scores were standardized to reduce the possible negative impact, in this way artificially leading to the value of above mentioned ration of variances equaling to zero.

Table 1

Distribution Shape Metrics

Subscale score distribution		Skewness			Kurtosis		
		Statistic	S.E.	Standardized	Statistic	S.E.	Standardized
	Trust	-.749	.169	-4.433 ⁺	.281	.337	.835
IPPA	Communication	.044	.169	0.259	-.846	.337	-2.515
	Alienation	.426	.169	2.52	-.224	.337	-.665
PSI	Emotional	-.198	.169	-1.17	-.432	.337	-1.284
	Conflictual	-1.148	.169	-6.793 ⁺	1.497	.337	4.448 ⁺
	Attitudinal	.710	.169	4.200 ⁺	.066	.337	.197
	Functional	-.147	.169	-.868	-.661	.337	-1.964
AGI	Anxiety	.240	.169	1.419	-.196	.337	-.582
	Avoidance	-.839	.169	-4.961 ⁺	.430	.337	1.278

Note. ⁺ denotes values that significantly deviate from normality.

Scale Psychometric Properties

As the main focus of this study was the examination of relationships among latent constructs estimated by use of three psychological scales, their psychometrical soundness must be assessed. First, the IPPA-R is a 25-item questionnaire (Armsden & Greenberg, 1987; 2017) with two forms that differ only in wording: one emphasizing a subject's relationship with mother and the other the relationship with father. A third form of this questionnaire, focusing on a subject's relationship with peers, was not included in this research. This exclusion is supported both by conceptual differences between attachment to parents and peers and statistical evidence: there is little correlation between peer and parent forms (Crowell et al., 2008). To assess reliability of both forms of this questionnaire, Cronbach's alpha was calculated showing .961 value for mother form and .957 value for father form. This was somewhat larger than values reported by Armsden and Greenberg (2017) of .87 for mother and .89 for father in their validation of the revised IPPA. Although higher reliability is often considered desirable, it should be noted that values this high can be problematic and may indicate existence of redundancy among scale's items (Tavakol & Dennick, 2011). As was noted in Chapter 3's instrumentation section, high interrelationships among the subscales is known (Armsden & Greenberg, 1987; 2017). Sampling adequacy (KMO) was also calculated as it can provide a simple overview of a scale's adequacy for factor analysis. Although not a direct measure of construct validity, it is useful when the main focus of the study is not validation but application of certain scales and demonstrating instrument's limited dimensionality can prove valuable. Tested forms showed excellent sampling adequacy according to widely used criteria (Kaiser & Rice, 1974) with .954 for mother form and .943 for father form. Homogeneity of these two forms was assessed through examination of average inter-item correlation which was calculated

to be .5 and .476 for mother and father forms, respectively. This result indicated that items of the scales were not too heterogeneous which would necessarily lead to low correlations nor too redundant which would inflate them. The IPPA-R consists of three subscales which explore subject's feeling of trust of, their communication with, and degree of alienation from relevant parent. As the main objective of the study was to understand the relationships between different aspects of measured constructs, psychometrical properties of each subscale were investigated as well. For these analyses, average value from both forms was used for every item. Psychometric indicators for subscales can be found in Table 2. This examination showed that the alienation subscale demonstrates Cronbach's alpha that was slightly lower than .86 from the original IPPA, but the opposite trend with the other two facets: The original IPPA reliability values were .91 for both while current calculation established somewhat higher values (Armsden & Greenberg, 1987).

Table 2

Psychometric Indicators for Averaged IPPA-R Subscales

Subscale	Cronbach's alpha	KMO	Average correlation
Trust	.931	.926	.575
Communication	.925	.930	.580
Alienation	.831	.818	.458

In addition to the IPPA-R, both forms of the PSI scale were assessed. Hoffman's (1984) PSI consists of four distinct facets designed to encompass aspects of person's psychological separation namely, emotional, conflictual, attitudinal, and functional independence as originally

articulated by Chickering and Reisser (1993). Statistical examinations of overall scale performance showed that the mother form of the PSI questionnaire had fairly good psychometric characteristics with reliability of .918 and sampling adequacy of .909. However, the scale's homogeneity was rather low with average correlation between items of .124 which can be understood as a consequence of the multidimensionality of the PSI scale. Father form of the PSI questionnaire had similar results with alpha reliability of .932 and KMO of .921 accompanied with low inter-item correlation of .141. Psychometric measures for each facet calculated from averaged item scores from mother and father forms of the questionnaire are presented in Table 3. Either considered as overall scores or independently for each facet, the PSI exhibited excellent metrical characteristics even demonstrating a slight increase compared to those obtained in original validation study where highest reported alpha was .92 (Hoffman, 1984).

Table 3

Psychometric Indicators for Averaged PSI Subscales

Subscale	Cronbach's alpha	KMO	Average correlation
Emotional	.934	.935	.453
Conflictual	.908	.914	.323
Attitudinal	.937	.920	.520
Functional	.926	.926	.494

Lastly, the AGI was examined for its psychometric soundness. This scale, in its updated version consists of 36 items nested on two facets of different sizes. Anxiety, the larger subscale (14 items) of this inventory originally demonstrated alpha reliability ranging from .84 to .86,

while avoidance had reliability measures from .80 to .87 (Beck & McDonald, 2004). In the current study, anxiety showed reliability measure of .852 which is in line with expectations. Its homogeneity was calculated to .292 and KMO value was .844. Avoidance performed similarly with reliability of .890, average inter-item correlation of .415, and sampling adequacy measure of .905.

As reported, each of the administered scales exhibited satisfactory psychometrical measures which supports their use as indicators of latent constructs whose relationship this study sought to explore. Having in mind subscale reliability, which was above .8 in every case, it is safe to assume that participants' responses reflected their underlying traits rather than measuring error. Thus, inferential process from statistical relationships between test scores to psychological findings about relationships between traits and processes is justified.

Research Question One

The first research question sought to explore whether some statistically significant correlations exist between constructs of alienation, communication, and trust as measured by the IPPA-R and attitudinal, conflictual, emotional, and functional independence conceptualized as aspects of psychological separation measured by the PSI. This relationship was explored in a population of Christian, Millennial college students. To understand this relationship, CCA was performed with facets of the IPPA-R in one set and subscales of the PSI in the other. Although CCA makes no difference between sets in terms of cascade of their influence and use of *dependent* and *independent* variables is strictly a reflection of theoretical framework or as a helpful concept for making the distinction (Hair et al., 2009), this research used attachment to parents and attachment to God as independent variables, while psychological separation was considered a dependent variable. To assess the first research question, CCA was run with

standardized facet scores of the IPPA-R in one set and standardized scores of facets from the PSI in the other set. Argumentation for standardization of scores and investigation of research's data fulfillment of assumptions for employing CCA was discussed in the *scale preparation* section.

The first CCA explored the relationship between three scores from the IPPA-R and four scores of the PSI, and it yielded significant results with Wilks's λ of .148 and corresponding test of $F(12,529.44) = 46.641, p < .001$. This result implies that the whole model with a number of canonical correlations equal to the number of variables in the smaller set (in this case, the predictor set which has three variables) is significant at .001 level. As Wilks's λ is a measure of unexplained variance by the proposed model, a simple deduction of its value from 1 can give an effect estimate analogous to R^2 for multiple regression (Sherry & Henson, 2005). Following this approach, it can be concluded that the proposed model with three canonical functions explained 85.2% of variance shared between these two sets of variables. Although large overall proportion of variance explained can be indicative of strong relationships expressed in each canonical function, it is not necessarily true, and therefore every function needs to be examined separately. In Table 4 are presented eigenvalues (canonical roots) for each canonical function, percentage of variance a canonical component explains, canonical correlation between two components, and percentage of shared variance (R^2). It should be noted, however, that due to mathematical procedures CCA relies on, R^2 measure presented for each function is not percentage of total variance explained, but rather a percentage of explained variance that was left unexplained by higher-order functions. Therefore, these percentages are nonadditive as they are not referring to the same variance (Fan, 1997).

Table 4

Detailed Measures for Each Canonical Function (RQ1)

Function number	Eigenvalue	%	Canonical correlation	R ² (%)
1	3.584	88.959	.884	78.2
2	.375	9.305	.522	27.3
3	.070	1.737	.256	6.5

To test significance of canonical correlations, CCA employs an approach based on testing hierarchical configurations, as testing for individual functions is mathematically impossible in CCA (Fan, 1997). Dimension reduction analysis is designed to realize this task through successive testing starting with a test for all three functions, followed by a test for significance of second and third function taken together and finishing with testing only the third function for significance. This is an example of a more general approach that is used for testing significance of functions, regardless of number of canonical components extracted that can be summed up as a process that advances from testing the whole model in first step to testing a single function in the last via excluding highest-order function in each successive step. Due to this restriction on testing individual functions, greater caution is advised during interpretation phase with special emphasis placed on retaining or discarding functions based on their contribution in explaining variance (R^2) rather than their statistical significance (Sherry & Henson, 2005). In this study, all three tests for significance showed $p\text{-value} \leq .001$, but with large differences in proportions of variance that was explained. The third component, with fairly low explanative power was discarded from further considerations and interpretation since it was able to explain less than 10% of variance that had not already been explained, which is evidently a poor performance.

To interpret paths through which these two sets of variables are related, outputs regarding structure and function coefficients were examined. Since this CCA was performed with standardized data, there is no difference between standardized and unstandardized function coefficients. The function coefficients in CCA are analogous to weights in multiple regression or other GLM techniques, and they are weights through which a canonical component was formed. Structure coefficients, on the other hand, are bivariate correlations between certain variable and given canonical component. Both measures are useful and informative during interpretation as they aid researcher's understanding of what variables form which component (Sherry & Henson, 2005). In Table 5 is presented an overview of canonical function and structure coefficients that are used for interpretation of the results.

Looking at function coefficients for the first canonical function, it is evident that it was dominated by positive influence from trust and negative influence from alienation with negligible contribution of communication. However, high structure coefficients (correlations) and low or medium function coefficients are indicative of high inter-correlations among IPPA facets, which was cautioned by Armsden and Greenberg (1987, 2017) and that is especially evident for the communication subscale. On the dependent side, it can be seen that positive influence of conflictual independence was most important in defining canonical component with low negative influences from facets of emotional, attitudinal, and functional independence. In the PSI set, inter-correlation among variables was substantial, but not as high as in the predictor set.

Table 5

Canonical Solution for First Two Functions Connecting the IPPA-R and PSI Scales

Scale	Facet	Function 1			Function 2		
		Coef.	r	r ² (%)	Coef.	r	r ² (%)
IPPA-R	Trust	.601	.966	93.3	.024	-.118	1.4
	Communication	.024	.795	63.2	-1.405	-.550	30.3
	Alienation	-.430	-.931	86.7	-1.176	-.196	3.8
PSI	Emotional	-.271	-.609	37.1	.783	.749	56.1
	Conflictual	.683	.830	68.9	.719	.540	29.2
	Attitudinal	-.209	-.746	55.7	.263	.338	11.4
	Functional	-.174	-.645	41.6	-.118	.545	29.7

Notes. Coef.=standardized function coefficient, r=structure coefficient (correlation), r²=squared structure coefficient (shared variance)

The second canonical function can be described as dominated by strong negative influence of both communication and alienation with marginal contribution of trust on the predictor side. The criterion side can be mostly described in terms of positive conflictual and emotional independence with marginal influence from functional and attitudinal independence. This configuration emphasizes that the relationship between constructs of psychological separation and attachment to parents can be viewed as a relationship largely influenced by conjunction of poor communication with parents and feelings of closeness that leads to better emotional and conflictual independence. In this manner, it is reasonable to assume that a subject

who simultaneously feels close to parents and cannot establish a quality way of communicating can grow into more emotionally independent person with higher sensitivity for conflicts. The significant two canonical functions for relation between measures of psychological separation and attachment to parents gave somewhat unexpected results that differ from previous research on similar topics. In the following part, the hypotheses associated with first research question are examined individually.

H₀₁. Null hypothesis one was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of .551 ($p < .001$) between the two.

H₀₂. Null hypothesis two was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of -.734 ($p < .001$) between the two.

H₀₃. Null hypothesis three was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of .436 ($p < .001$) between the two.

H₀₄. Null hypothesis four was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of .510 ($p < .001$) between the two.

H₀₅. Null hypothesis five was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of $-.598$ ($p < .001$) between the two.

H₀₆. Null hypothesis six was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of $.425$ ($p < .001$) between the two.

H₀₇. Null hypothesis seven was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of $-.652$ ($p < .001$) between the two.

H₀₈. Null hypothesis eight was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of $-.638$ ($p < .001$) between the two.

H₀₉. Null hypothesis nine was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of $-.679$ ($p < .001$) between the two.

H₀₁₀. Null hypothesis ten was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the

Psychological Separation Inventory (PSI) *conflictual independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of .679 ($p < .001$) between the two.

H₀11. Null hypothesis eleven was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of -.558 ($p < .001$) between the two.

H₀12. Null hypothesis twelve was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.” This hypothesis was rejected with a significant Pearson correlation of -.559 ($p < .001$) between the two.

Research Question Two

To assess whether there existed a statistically significant relationship between scales of the IPPA-R and scales of the AGI, which was the crux of the second research question, another canonical correlation analysis was used. Mathematically speaking, CCA does not differ between two sets of variables and it is not important what set will be considered a predictor set or a criterion set (Sherry & Henson, 2005). Furthermore, the sets can be considered conceptually equal as will be the case during the course of investigating the results of this research question.

Overall canonical model reached significance with Wilk’s λ of .766 and corresponding statistical test of $F(6,404) = 9.585, p < .001$. Following the rationale detailed in the previous section concerning the first research question, the proportion of explained variance (R^2) for the whole model was calculated to 23.4%. This was a considerably smaller model fitness than that of the model encompassing scores for psychological separation and attachment to parents, but it was a result in line with previous research. Namely, Miner (2009), Sim and Loh (2003), and

Reiner et al. (2010) concluded that attachment to God is a distinct construct that demonstrates only low to moderate connection with attachment to parents. Details of the calculated canonical model are provided in Table 6.

Table 6

Detailed Measures for Each Canonical Function (RQ2)

Function number	Eigenvalue	%	Canonical correlation	R ² (%)
1	.254	86.232	.450	20.3
2	.041	13.768	.197	3.9

Tests of significance for different hierarchical levels were performed within dimension reduction analysis and yielded significant results for both the individually tested second canonical function ($F(2,203) = 4.118, p = .018$) and first and second function taken together ($F(6,404) = 9.585, p < .001$). Although both functions reached statistical significance, only the first was be retained considering exceptionally low R² of the second canonical function. Therefore, it was concluded that there existed one path of mutual influence between measures of attachment to parents and to God. In Table 7 can be viewed canonical function and structure coefficients used for determining sources of this influence.

Table 7

Canonical Solution for First Function Connecting the IPPA-R and AGI Scales

Scale	Facet	Coef.	r	r ² (%)
IPPA-R	Trust	.337	.776	60.2
	Communication	-.520	.485	23.5
	Alienation	-1.046	-.947	89.7
AGI	Anxiety	.886	.941	88.5
	Avoidance	.344	.484	23.4

Notes. Coef.=standardized function coefficient, r=structure coefficient (correlation), r²=squared structure coefficient (shared variance)

The connection between attachment to God and attachment to parents was mostly fostered by lack of feeling of alienation paired with lack of quality communication, with secondary influence from trust in the one canonical component and high positive influence of anxiety followed by moderate, also positive influence from avoidance in the other. This finding in a population of Millennial college students sheds light on the complexity of relationships young adults have with God and relative independence of those relationships with their parents. Below are examined hypotheses associated with this research question.

H₀13. Null hypothesis thirteen was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $-.380$ ($p < .001$) was established.

H₀14. Null hypothesis fourteen was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *alienation* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $-.259$ ($p < .001$) was established.

H₀15. Null hypothesis fifteen was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $.147$ ($p = .034$) was established.

H₀16. Null hypothesis sixteen was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *communication* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $.255$ ($p < .001$) was established.

H₀17. Null hypothesis seventeen was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Attachment to God Inventory (AGI) *anxiety* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $.303$ ($p < .001$) was established.

H₀18. Null hypothesis eighteen was, “There is no statistically significant correlation between the revised Inventory of Parent and Peer Attachment (IPPA-R) *trust* subscale and the Attachment to God Inventory (AGI) *avoidance* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $.236$ ($p < .001$) was established.

Research Question Three

The third research question sought to explore and understand the connection between facets of the AGI and aspects of psychological separation as operationalized by the PSI.

Findings of the CCA performed to assess this question was juxtaposed with findings from the CCA run investigating the link between psychological separation and attachment to parents (research question one). Comparing patterns obtained from analyses concerning research question number one and this research question provided valuable insight into similarities and differences between attachment to God and to parents seen through the prism of college students' detachment from their primary family.

Overall model's significance was estimated using Wilk's λ which was calculated to .766 with accompanying test F-test with $F(8,402) = 7.136, p < .001$. Two canonical functions were extracted which corresponds to the number of variables in the smaller set (in this case, the predictor set). Details for two functions can be found in Table 8. The complete model managed to account for 23.4% of total variance which was not near to the 85.2% a model with psychological attachment to parents, rather than to God explains.

Table 8

Detailed Measures for Each Canonical Function (RQ3)

Function number	Eigenvalue	%	Canonical correlation	R ² (%)
1	.199	69.346	.407	16.6
2	.088	30.654	.284	8.1

Only a moderate canonical correlation was established between the two examined sets while R² remained small for both functions. Dimension reduction analysis demonstrated that the first and second function, taken together, were significant at .001 or less level with $F(8,402) = 7.136, p < .001$. The second function when individually considered also reached significance

with $F(3,202) = 5.918, p < .001$. In further analyses and interpretations, only the first function was examined as the second encompassed a meager proportion of variance and could be easily considered a statistical artifact whose significance was a consequence of computational procedures (Sherry & Henson, 2005). After establishing that there existed a non-zero shared variance between two sets, function and structure coefficients were investigated to understand paths through which this link was created. Structure, function, and squared structure coefficients can be found in Table 9.

Table 9

Canonical Solution for First Function Connecting the AGI and PSI Scales

Scale	Facet	Coef.	r	r ² (%)
AGI	Anxiety	.787	.867	75.2
	Avoidance	.505	.63	39.7
PSI	Emotional	.291	-.209	4.4
	Conflictual	.767	.924	85.4
	Attitudinal	-.373	-.677	45.8
	Functional	-.249	-.397	15.8

Notes. Coef.=standardized function coefficient, r=structure coefficient (correlation), r²=squared structure coefficient (shared variance)

The link between attachment to God and psychological separation was mediated mostly by facets of anxiety in one's relationship with God and conflictual independence. The predictor

part of canonical function was in large part defined by higher levels of anxiety and avoidance, while criterion part was formed mostly under influence of conflictual path of separation with secondary contributions of other facets. Below are examined hypotheses associated with this research question.

H₀19. Null hypothesis nineteen was, “There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *attitudinal independence* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $-.156$ ($p = .025$) was established.

H₀20. Null hypothesis twenty was, “There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $.354$ ($p < .001$) was established.

H₀21. Null hypothesis twenty-one was, “There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.” This hypothesis failed to be rejected as the corresponding Pearson’s correlation was $.057$ with $p = .417$.

H₀22. Null hypothesis twenty-two was, “There is no statistically significant correlation between the Attachment to God Inventory (AGI) *anxiety* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.” This hypothesis failed to be rejected as the corresponding Pearson’s correlation was $-.027$ with $p = .699$.

H₀23. Null hypothesis twenty-three was, “There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological

Separation Inventory (PSI) *attitudinal independence* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $-.303$ ($p < .001$) was established.

H₀24. Null hypothesis twenty-four was, “There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *conflictual independence* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $.194$ ($p = .005$) was established.

H₀25. Null hypothesis twenty-five was, “There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *emotional independence* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $-.256$ ($p < .001$) was established.

H₀26. Null hypothesis twenty-six was, “There is no statistically significant correlation between the Attachment to God Inventory (AGI) *avoidance* subscale and the Psychological Separation Inventory (PSI) *functional independence* subscale.” This hypothesis was rejected as a significant Pearson’s correlation of $-.278$ ($p < .001$) was established.

CHAPTER FIVE: CONCLUSIONS

Overview

The following chapter present a discussion of the three research questions for this study of Christian, Millennial college students followed by implications of the research. Limitations of the study and suggestions for future research conclude the chapter.

Discussion

The purpose of this quantitative, correlational study was to examine whether secure attachment to God contributed to the psychological separation of Christian, Millennial college students at a Christian liberal arts college in the Southern United States. Three research questions explored these relationships by examining the results of the revised Inventory of Parent and Peer Attachment (IPPA-R), the Attachment to God Inventory (AGI), and the Psychological Separation Inventory (PSI).

Research Question One

The first research question sought to explore whether some statistically significant correlations existed between constructs of alienation, communication, and trust as measured by the IPPA-R and attitudinal, conflictual, emotional, and functional independence conceptualized as aspects of psychological separation measured by the PSI. The general psychological constructs within research question one are well established in the literature. Mattanah et al.'s (2011) meta-analysis of 156 studies from 1987 to 2009 examined several popular psychosocial developmental outcomes and found the greatest effect size to be separation-individuation (psychological separation). Similarly, Credé & Niehorster's (2012) meta-analytic review of 237 studies using the Student Adaptation to College Questionnaire examined adjustment to college and found that students' secure attachment to parent relationships facilitated adjustment to

college which includes a level of psychological separation. According to the literature, then, one would expect a student's psychological separation fostered by a secure relationship with parents. The present research, however, does not fully align with this expectation. On the one hand, an inverse relationship was revealed when higher reported scores on experiences of trust and closeness between student and parents were related to somewhat lower attitudinal, emotional, and functional independence. Attachment security did not contribute to psychological separation. On the other hand, the higher overall attachment security a participant demonstrated the higher was his conflictual independence. So, while students did not express the ability to manage their affairs without parental assistance (functional independence), nor define their beliefs differently (attitudinal independence), nor seek emotional support outside of family (emotional independence), they indicated their relationship was relatively free from strife (conflictual independence).

Taken as a whole, one might conclude that these findings reveal only a weak, positive link between attachment security and psychological separation when compared to past research (Bowlby, 1988; Leondari & Kiosseoglou, 2000; Mattanah et al., 2004; Mattanah et al., 2011; Schwartz & Buboltz, 2004). Yet these findings are not without precedent in research using Hoffman's (1984) PSI. In creating the PSI, Hoffman (1984) found little correlation between the conflictual independence scale and the attitudinal, emotional, or functional independence scales. This has borne out in further research: Blustein, Walbridge, Friedlander, and Palladino (1991) and Rice, FitzGerald, Whaley, and Gibbs (1995) found college students experiencing greater dependence on parents while simultaneously experiencing little anxiety or conflict with their parents. Further, O'Brien, Friedman, Tipton, and Linn (2000) discuss the fact that it was common for them to find the PSI conflictual independence scale to show no or an inverse

relationship with the attitudinal, emotional, and functional independence scales. This continues in research such as Credé and Niehorster's (2012) when only conflictual independence correlated positively with adjustment to college in securely attached college students rather than in conjunction with the expected attitudinal, emotional, and functional independence. Due to this common, inverse relationship within the PSI, some researchers even choose to exclude the conflictual independence scale in their research using the PSI (Downing & Nauta, 2010).

Beyers and Goossens (2003) recognized this contradiction within the PSI and offered an alternate explanation based on Rice et al.'s (1990) examination of measures of separation-individuation including the PSI. Rather than the entire PSI (all four scales) measuring independence from parents as generally understood, Beyers and Goossens (2003) suggest that only the scales of attitudinal, emotional, and functional independence accurately assess independence from parents, while conflictual independence measures positive separation feelings regardless of actual independence measured by the other scales. So, while a student may feel good about the separation process of heading off to college and experience little anxiety or parental conflict (higher conflictual independence scores), they may not demonstrate real independence (lower attitudinal, emotional, or functional independence scores). Using the PSI in this way prevents interpreting results as a possible contradiction within the scales, and instead understands the results as revealing two, distinct aspects of separation that are not statistically correlated in the same direction.

In light of Beyers and Goossens's (2003) suggestion, the results of research question one should be interpreted as contradicting the prevailing attachment to parents and psychological separation literature for this sample of Christian, Millennial college students, as the sample indicated lower alienation, negligible communication, and higher trust (a moderately secure

attachment to parents relationship) while also indicating low attitudinal, emotional, and functional independence (psychologically still retaining a level of dependence on parents). Their positive feelings about the separation (high conflictual independence), therefore, does not indicate psychological separation, rather it more accurately corresponds to the secure attachment to their parents as already revealed by their IPPA-R responses. In short, the participants overall have relatively secure relationships with their parents free from conflict.

As a one-time, cross-sectional study, these results unfortunately do not explain when or if this group of Christian, Millennial college students will exhibit the desired and expected outcome of greater psychological separation due to their relatively secure attachment to parent relationship. Arnett's (2000) theory of emerging adulthood may explain this lack of psychological separation development. Since emerging adulthood (18-25 years of age) is distinct from adolescence and young adulthood, it exhibits neither the dependence of adolescence nor the psychological separation of adulthood (Arnett, 2000). Attainment of adulthood is still described as thinking and acting independently, but emerging adults feel this is reached in their later 20s or upon parenthood (Arnett, 2000). Therefore, Erikson's (1959/1980) identity formation and Chickering and Reisser's (1993) vectors of development are not negated, just postponed.

Research Question Two

The second research question asked if there was a statistically significant correlation between the IPPA-R constructs of alienation, communication, or trust and the constructs of anxiety or avoidance of the AGI among Christian, Millennial college students. Results from the current sample of Christian, Millennial college students were again mixed compared to attachment to God literature. As with Miner (2009), Sim and Loh (2003), and Reiner et al.'s

(2010) research, the sample's attachment relationship with God was distinct from their attachment to parent relationship. Yet results suggested that the closer a subject felt to parents (parent security), the more detached the subject felt from God with higher likelihood of expressing anxiety and avoidant behavior (God insecurity). This inverse relationship fits neither the correspondence nor compensation models put forth by Kirkpatrick and Shaver (1990). Rather, the link this study found is an unusual combination of them, with student-parent closeness leading to higher anxiety and avoidance in their relationship with God on the one hand (a reverse form of compensation), but good communication in that student-parent attachment relationship leading to lower levels of anxiety and avoidance in one's relationship with God (the correspondence model). Neither of these correspond with prevailing attachment to God literature. Secure attachment to God should either correspond with existing secure attachment to parents or compensate for insecure attachment to parents. Similar to the delayed psychological separation and emerging adulthood (Arnett, 2000) discussion regarding research question one, it may be that this group of Christian, Millennial college students still function within a commonly observed period of religious instability during late adolescence that tends to solidify in early adulthood as they internalize their belief system (Granqvist, 2002; Granqvist & Hagekull, 1999; Granqvist & Kirkpatrick, 2008; Kirkpatrick, 1998, 1999, 2005; Wilt, Hall, Pargament, & Exline, 2017).

Research Question Three

Research question three explored the relationship between a subject's attachment to God relationship and their psychological separation from parents. More specifically, did a secure attachment to God relationship contribute to psychological separation from parents as could secure attachment to parent relationships? While positive psychological outcomes of one's

relationship with God are well established in attachment to God literature (Cooper et al., 2009; Ellison et al., 2012; Homan & Cavanaugh, 2013), the potential for increased psychological separation is a novel direction supported only by extending the theory of psychological benefits due to secure attachment to God relationships (Kirkpatrick, 1999, 2005; Granqvist & Kirkpatrick, 2008, 2013). Kneipp et al.'s (2009) research suggests that it can with results of higher college adjustment (which included psychological separation-like statements) correlated with higher levels of spiritual well-being (with attachment to God-like statements).

The current research established only a moderate canonical correlation between attachment to God and psychological separation in this sample of Christian, Millennial college students; but findings of low effect were not unexpected as previous studies have also reached low but significant effects when examining attachment to God (Miner, 2009; Sim & Low, 2003; Reiner et al., 2010). What was unexpected was the reverse way research question three appears to be supported. First, the high PSI conflictual independence scores reported must be excluded from consideration as a measure of psychological separation (see research question two discussion above). If conflictual independence were included as a measure of psychological separation, it would appear that the results of research question three revealed an insecure attachment to God relationship facilitated psychological separation, at least modestly. In attachment to God literature, insecure relationships with God correlate with undesirable outcomes not the reverse. For example, higher levels of anxiety and depression and lower levels of life satisfaction are reported among those with insecure attachment to God relationships (Homan, 2014). Knabb & Pelletier (2013) reported greater likelihood to engage in "problematic Internet use" (p. 243) and demonstration of emotional distress. Buser and Gibson (2016) observed higher symptoms of bulimia in female college students who indicated avoidant and

anxious (insecure) attachment to God relationships. Higher levels of anxiety or stress are commonly found with insecure attachment to God relationships (Bradshaw, et al., 2010; Ellison et al., 2014; Homan, 2014; Miner, 2009; Reiner et al., 2010; Rowatt & Kirkpatrick, 2002). A secure relationship with God should not produce poor psychological outcomes per attachment to God theory and research. When removing the PSI's conflictual independence scale from consideration as evidence of psychological separation as discussed under research question one, a different picture emerges of this sample of Christian, Millennial college students. Viewing conflictual independence as positive separation feelings rather than actual separation per Beyers and Goossens (2003), it may be more accurately stated that higher levels of anxiety and avoidance in one's relationship with God did not facilitate the development of psychological separation, which aligns with prevailing attachment to God literature.

Implications

The results of research question one revealed an inverse relationship between attachment to parents as measured by the IPPA-R and psychological separation as measured by the PSI (at least the attitudinal, emotional, and functional scales). While this contradicts prevailing attachment and separation research, it supports the need to reexamine the meaning of independence for college student development studies. Even Chickering and Reisser (1993) refocused Chickering's (1969) original attention on independence to interdependence when reconsidering the vectors of college student development. Problematic for recent studies examining a more dependence-oriented generation of college students, Hoffman (1984) based the PSI on Chickering's (1969) independence-oriented vectors and sought to explain high levels of independence observed among colleges students prior to the arrival of Millennials.

Beyers and Goossens (2003) illustrate the difficulty using the PSI by examining the attitudinal independence scale. Hoffman (1984) defined attitudinal independence as “the image of oneself as being unique from one’s mother and father, having one’s own set of beliefs, values, and attitudes” (p. 171). To measure this construct, the PSI has subjects respond with Likert levels of agreement to questions such as “My attitudes regarding national defense are similar to my mother’s [or father’s]” and “My attitudes regarding mentally ill people are similar to my father’s [or mother’s].” Beyers and Goossens (2003) point out that to score higher on this attitudinal scale (exhibit the desired, greater psychological separation), one must hold attitudes, beliefs, and views at odds with one’s parents’ attitudes. The PSI attitudinal independence scale, however, cannot account for the subject holding personal beliefs similar to their parents. This presents a challenge for measuring psychological separation among evangelical Christian college students such as those examined in this study. Of the 14 items measuring attitudinal independence, three relate directly to core religious doctrine (“religious beliefs,” “how the world began,” “what happens to people when they die”), seven relate to behavior standards addressed in the Bible (i.e. honesty, obscenity, racial equality), and the remaining four might relate to a more-generalized application of religious principles (i.e. national defense, treatment of the mentally ill). If Christian parents adhere to biblically-derived positions of doctrine and practice, including the mandate (Deuteronomy 6:6-9) to instill these biblically-derived attitudes, beliefs, and views in their children, one should expect to see these attitudes, beliefs, and views reflected in their children, as has been demonstrated (Leonard, Cook, Boyatzis, Kimball, & Flanagan, 2012). In the context of psychological separation, the challenge then becomes determining if the similarity in attitudes is conflict avoidance (undesirable) or personally adopted attitudes (desirable). The PSI cannot determine this.

Results from research questions two and three may appear disappointing with higher parent attachment corresponding with lower God attachment and very modest psychological separation, but the one-time, cross-sectional nature of the study simply indicates the sample's current relational and psychological condition without revealing future developmental directions in their parental or God attachment relationships. As mentioned previously, Arnett (2000), in articulating the theory of emerging adulthood, describes a life stage in continuous development transcending college years. In addition, psychology of religion researchers describe adolescence and early adulthood as an unsettled period for religious development (Granqvist, 2002; Granqvist & Hagekull, 1999; Granqvist & Kirkpatrick, 2008; Kirkpatrick, 1998, 1999, 2005; Wilt et al., 2017). This should encourage college leadership to continue fostering college students' development of their personal relationship with God. During these developmental periods students need opportunities to "taste and see that the LORD is good [because] blessed is the man that trusteth in him" (Psalm 34:8). As students do so, realizing a life-long process of spiritual development (Philippians 1:6), they will reap both spiritual and psychological benefits.

Limitations

There are several limitations within this study that must be addressed. By conducting the research in a college setting, the results may not represent all young adults transitioning to adulthood. The way college students experience the transition to adulthood may be different from non-college attenders (Levitt, Silver, & Santos, 2007). But it should be noted that very little research has been conducted among young people not attending college due to the challenge of reaching such a disseminated population (Mattanah et al., 2011).

Another limitation is the self-report nature of the AGI, IPPA-R, and PSI. Self-report measures are frequently used in research due to their ease of administration, but may be subject

to socially acceptable responses. It should be noted, however, that anonymity and security procedures within Survey Monkey's data collection were explained in the informed consent (see Appendix K). One observation builds confidence in the reported results: Social desirability might be present if the AGI scores reported secure attachment relationships with God among these Christian, Millennial college students, yet results indicated insecure attachment to God relationships.

The one-time, cross-sectional nature of this research also limits full understanding of inherently developmental psychosocial outcomes. Chickering and Reisser (1993) specifically chose *vector* to accurately reflect the observed reality of differing developmental rates. Longitudinal studies, though more challenging to conduct, better reveal development of these psychosocial outcomes (Aslan & Gelbal, 2016; Levitt et al., 2007; Lowe & Dotterer, 2017; Mortimer, 2012; Swartz, Kim, Uno, Mortimer, & O'Brien, 2011). As discussed previously, this one-time, cross-sectional study only reported moderately secure parental attachment, insecure God attachment, and psychologically dependency, not when or if participants would develop the desired psychosocial outcomes.

This research was conducted among a student body population of about 4,500 students at an independent Baptist, liberal arts college. These results may not generalize to college or university settings with a large, diverse population. The evangelical nature of the Southern Christian college also limits generalizing results to institutions of other religious backgrounds or secular institutions.

Finally, as was stated previously, since the Southern Christian college did not provide an ethnic breakdown of the college population, no representation can be made of the sample in comparison to the population, nor the results generalized to any particular ethnic group.

However, it should be noted that Mattanah et al.'s (2011) meta-analysis found no statistically significant effect size difference between Caucasian and non-Caucasian students across numerous college adjustment outcomes including psychological separation.

Recommendations for Future Research

As stated above, self-report measures of psychological constructs are common but may introduce bias in the results. It is recommended that additional research examining the relationship between attachment to parents, attachment to God, and psychological separation use a variety of research methods and instruments. Qualitative, phenomenological methods produce informational depth that self-reports cannot (Kimball et al., 2013). Interviews combined with self-report measures could provide additional depth and breadth to the literature (Kimball et al., 2013; Mattanah et al., 2011). As noted in the limitations, longitudinal studies would be valuable as they reveal psychosocial development (or lack thereof) over time (Aslan & Gelbal, 2016; Levitt et al., 2007; Lowe & Dotterer, 2017; Mortimer, 2012; Swartz et al., 2011). Also, research using other measures of psychological separation besides or in addition to the PSI are necessary to more accurately tap the important outcome of separation-individuation, especially in light of attachment to God relationships. Results from a variety of psychological separation instruments would determine if this research avenue is worth continuing.

Examining these attachment and separation relationships within a variety of demographic subgroups would also be of value to the literature, even though Mattanah et al. (2011) found only residential status to have a statistically significant effect on the adjustment to college outcomes examined in their meta-analysis. This study requested participant gender, parental relationship status, academic classification, and ethnicity but did not analyze the results in light of these variables based on Mattanah et al.'s (2011) findings. Future research including and analyzing

the relationships within these subgroups could still be of value for comparative, historical, and theoretical purposes. For example, Mattanah and colleagues (2011) were unable to examine effect size differences for family structure (i.e. single-parent, blended, adoptive) and could only dichotomize ethnicity as Caucasian and non-Caucasian due to lack of data provided by the included studies. Since residency demonstrates statistically significant effects on psychosocial outcomes, examining non-residential and online students would also be of value. As noted in the Chapter 2 review of literature, non-residential students often reported deteriorating attachment to parent relationships and hindered psychosocial outcomes (Beyers & Goossens, 2008; Hiester et al., 2009; Mattanah et al., 2011). Students attending college online may exhibit similar limitations as they are, by definition, non-residential students.

It is also recommended that future research focus on those with a secure attachment to God as the primary independent variable from which to examine psychological separation. Literature suggests that secure attachment to God should lead to desirable psychological outcomes (Kirkpatrick, 1999, 2005; Granqvist & Kirkpatrick, 2008, 2013), but the current sample's overall insecure attachment to God relationship prevented a clear examination of whether secure attachment to God contributes positively to psychological separation. In the same vein, carefully examining individual differences in attachment to God would be helpful. This study used the dichotomous insecure and secure categorizations of attachment to God suggested by Dumont et al. (2012). Beck and McDonald (2004) and Beck (2006) offer categorization of individual differences of God attachment similar to the common parent attachment categories of secure, preoccupied, dismissing, and fearful. This category refinement of individual differences could draw out statistically finer correlations not possible with the simpler secure or insecure labels.

Finally, most attachment to God research has been conducted within Judeo-Christian religious tradition while acknowledging other concepts of a supernatural power fulfilling an attachment relationship (Granqvist & Kirkpatrick, 2008, 2013; Hall & Fujikawa, 2013; Hill & Edwards, 2013). Additional attachment to God (or higher power) research is needed within these diverse religious traditions, such as recently conducted within the Islamic tradition (Miner, Ghobary, Dowson, & Proctor, 2014).

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APPENDICES

APPENDIX A

Inventory of Parent and Peer Attachment (IPPA-R)

The *IPPA Manual* (2017), which includes text of the revised IPPA and scoring procedures, is available from <http://prevention.psu.edu/uploads/files/IPPA-Manual-May-2017.docx>

APPENDIX B

Permission to Use the IPPA

From: MARK T GREENBERG
 Sent: Tuesday, November 8, 2016 11:03 AM
 To: Gregory, David Allen
 Subject: Re: Request to use the IPPA

Dear David

Thanks for your email. This reply gives you official permission to use the IPPA in your research.

best
 Mark

Mark T. Greenberg Ph.D.
 Bennett Chair of Prevention Research
 Biobehavioral Health Bldg Room 306
 Edna Bennett Pierce Prevention Research Center
 Penn State University
 University Park, PA 16802
 PHE 814.863.0112
 FAX 814.865.2530

Visit our website: <http://www.prevention.psu.edu>

From: "Gregory, David Allen" <dgregory@liberty.edu>
 To: "MARK T GREENBERG" <mxg47@psu.edu>
 Sent: Tuesday, November 8, 2016 8:41:36 AM
 Subject: Request to use the IPPA

Dr. Greenberg,

May I receive permission to use the Inventory of Parent and Peer Attachment in my dissertation research examining attachment to parents, attachment to God, and psychological separation? I am a doctoral student in Liberty University's EdD in Teaching and Learning program under the supervision of Dr. Richard Justin Silvey.

My research will examine if attachment to God (AGI, Beck & McDonald, 2004) can contribute to psychological separation (PSI, Hoffman, 1984) of college students in a similar manner that attachment to parents has contributed to psychological separation.

When my research is finished I will be glad to share a copy with you.

Thank you,

APPENDIX C**Psychological Separation Inventory (PSI)**

The text of the PSI is available in several dissertations including Ghasemi (2016).

APPENDIX D

Permission to Use the PSI

Hoffman is no longer in the academic community and the private sector contact found was an indirect, website contact. A request for permission to use the PSI was e-mailed November 8, 2016, but no reply has been received.

APPENDIX E**Attachment to God Inventory (AGI)**

The text of the AGI is available in Beck & McDonald's (2004) *Journal of Psychology & Religion* article available from <http://journals.biola.edu/jpt/volumes/32/issues/2/articles/92>

APPENDIX F

Permission to Use the AGI

From: Richard Beck Jr.
Sent: Tuesday, November 8, 2016 11:45 AM
To: Gregory, David Allen
Subject: Re: Request to use the AGI

Hi David,
Yes, please feel free to use the AGI for any and all of your research purposes, both now and in the future.

Grace and peace,
Richard

On Tue, Nov 8, 2016 at 10:43 AM, Gregory, David Allen <dgregory@liberty.edu> wrote:
Dr. Beck,

May I receive permission to use the Attachment to God Inventory in my dissertation research examining attachment to parents, attachment to God, and psychological separation? I am a doctoral student in Liberty University's EdD in Teaching and Learning program under the supervision of Dr. Richard Justin Silvey.

My research will examine if attachment to God can contribute to psychological separation (PSI, Hoffman, 1984) of college students in a similar manner that attachment to parents (IPPA, Armsden & Greenberg, 1987) has contributed to psychological separation.

When my research is finished I will be glad to share a copy with you.

Thank you,
David Gregory
Pensacola, Florida

Richard Beck, PhD
Chair, Department of Psychology
Abilene Christian University
ACU Box 28011 Abilene, TX 79699
beckr@acu.edu

APPENDIX G**Demographic Questionnaire**

What is your age?

- 17 or younger
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26 or older

What is your gender?

- Male
- Female

What is your current educational classification?

- Freshman
- Sophomore
- Junior
- Senior

What is your current residential status?

- Residential student (I live away from my parents while I attend college)
- Nonresidential student (I live with my parents while I attend college, i.e. a town student)

What is your current marital status?

- Single / Never married
- Married
- Separated
- Divorced
- Widowed

Which of the following best describes your parent's current relationship status

- Married (first marriage, never divorced, separated, etc.)
- Married, but separated
- Single Father, never married
- Single Mother, never married
- Mother deceased, Father remarried
- Mother deceased, Father not remarried
- Father deceased, Mother remarried
- Father deceased, Mother not remarried

Divorced, both are remarried
Divorced, neither are remarried
Divorced, Mother is remarried, Father is not remarried
Divorced, Father is remarried, Mother is not remarried

Which race/ethnicity best describes you?

American Indian or Alaskan Native
Asian / Pacific Islander
Black or African American
Hispanic or Latino
White / Caucasian
Multiple ethnicity / Other (please specify)

APPENDIX H

Liberty University IRB Approval

LIBERTY UNIVERSITY.

INSTITUTIONAL REVIEW BOARD

August 31, 2017

David Gregory

IRB Exemption 2840.083117: Growing in Favor with God and Man: Attachment to God and Psychological Separation of Christian, Millennial College Students

Dear David Gregory,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

signature redacted

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
The Graduate School

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Liberty University | Training Champions for Christ since 1971

APPENDIX I

Southern Christian College Approval



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CHRISTIAN
COLLEGE®**

P.O. BOX 18000 • PENSACOLA, FL 32523-9160 • U.S.A.
(850) 478-8496 • PCCInfo.com

August 22, 2017

Mr. David Gregory

address redacted

Dear Mr. Gregory:

You may conduct your dissertation research using PCC students as long as you are able to wait until the last week of September or first week of October to conduct your surveys. Please coordinate with my office assistant to have your invitation and follow up emails sent.

Sincerely,

signature redacted

Raylene D. Cochran, Ph.D.
Academic Vice President

RDC:glb

APPENDIX J

Invitation E-mail

David Gregory

From: dagregory@liberty.edu
Sent: Monday, September 25, 2017 3:46 PM
To: David Gregory
Subject: Invitation to Participate in Research Study

Dear PCC Undergraduate:

Greetings! I trust your college semester is off to a great start! Before your course assignments pile up, would you be willing to participate in an anonymous survey?

This survey is part of a research study I am completing as part of the requirements for a Doctorate in Education from the Liberty University School of Education. I am interested in your relationships with your mother, father, and God and how those relationships contribute to your independence of thought and action.

If you are between the ages of 18 and 25 years and are willing to participate, you will provide brief demographic information, then respond to a number of questions about your relationships with your mother, father, and God. The survey should take approximately thirty minutes of your time. Your participation will be completely anonymous, and no personal, identifying information will be required to complete the survey.

To participate, follow the link, read the consent information, and agree to participate.

<https://www.surveymonkey.com/r/HZTQTB>

As my "thank you" for your valuable time, you may have the opportunity to receive compensation after submitting the completed survey.

Sincerely,

David Gregory
Doctoral Student
Liberty University

APPENDIX K

Informed Consent Form

The Liberty University Institutional
Review Board has approved
this document for use from
8/31/2017 to --
Protocol # 2840.083117

CONSENT INFORMATION

Growing in Favor with God and Man:
Attachment to God and Psychological Separation
of Christian, Millennial College Students
David Gregory
Liberty University
School of Education

You are invited to be in a research study exploring Christian college students' relationships with their mother, father, and God, and the possible contribution of these relationships to students' independence of thought and action. You were selected as a possible participant because you are an undergraduate student at Christian college. Please read this form and ask any questions you may have before agreeing to be in the study. David Gregory, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to examine whether Christian college students' relationships with their mother, father, and God contribute to students' development of independence of thought and action. Research has demonstrated that a healthy relationship with one's mother and father can contribute to college students' independence of thought and action. Research has also demonstrated that a healthy relationship with God has many benefits, but it is not known if a healthy relationship with God can also contribute to college students' development of independence of thought and action.

Procedures: If you agree to be in this study, I would ask you to do the following things: You will complete a short series of demographic questions and a longer series of questions that include the mother and father portions of the Inventory of Parent and Peer Attachment (IPPA), Attachment to God Inventory (AGI), and Psychological Separation Inventory (PSI). Completion of these items should take no more than thirty minutes.

Risks and Benefits of Participation: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life. Participants should not expect to receive a direct benefit from taking part in this study.

Compensation: Participants have the possibility to be compensated for participating in this study. Upon submission of a completed survey, participants will be redirected to a new webpage to voluntarily enter their contact information. Every fifth entry submitted will receive a \$4.00 Amazon gift card until either 300 completed surveys are submitted or the two-week open period of the survey ends (two weeks from the invitation to participate). Receivers of these gift cards will be emailed the Amazon gift card code within two weeks of the survey conclusion.

Confidentiality: SurveyMonkey will be used to conduct this research study. As you respond to the survey, communication between your computer and SurveyMonkey servers will be encrypted using SSL encryption, and IP address tracking will be disabled. Survey data will be stored in a password-protected electronic format only accessible by the researcher. You may also wish to review SurveyMonkey's privacy policy (<https://www.surveymonkey.com/mp/policy/privacy-policy/>) and security statement (<https://www.surveymonkey.com/mp/policy/security/>).

The Liberty University Institutional
Review Board has approved
this document for use from
8/31/2017 to --
Protocol # 2840.083117

Despite these safeguards, please understand Internet communications are insecure and there is a limit to the confidentiality that can be guaranteed due to the technology itself. However once the materials are received by the researcher, standard confidentiality procedures will be employed.

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a participant. Research records will be stored securely on a password-protected computer for three years as required by federal law, after which the records will be destroyed. Only the researcher will have access to the records during this time.

Upon submission of the completed survey, you will be redirected to a new webpage where you have the voluntary option to enter your contact information for possible compensation for participating in the survey as noted above. For this possible compensation you will be required to provide personal information such as your full name, college email address, and phone number. Collection of this personally identifiable information is independent of your anonymous survey responses. This means the researcher may know you participated in the survey but will be unable to connect your contact information with your survey responses. This compensation information will also be stored in a password protected electronic format only accessible by the researcher.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the researcher, Liberty University, or Pensacola Christian College. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

Contacts and Questions: The researcher conducting this study is David Gregory. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at dagregory@liberty.edu or (850) 292-2988. You may also contact the researcher's faculty advisor, Dr. Justin Silvey, at jsilvey@liberty.edu or (434) 592-5056.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Liberty University Institutional Review Board, 1971 University Blvd., Green Hall Ste. 1887, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Yes, I consent to participate.

No, I do not consent to participate.