

THE RELATIONSHIP BETWEEN MINDFULNESS, SURRENDER, AND GOD  
ATTACHMENT AND ITS IMPACT ON DEPRESSION AND ANXIETY

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

School of Behavioral Sciences

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## **ABSTRACT**

The purpose of this study was to explore how God attachment may impact surrender to God and how mindfulness relates to the relationship between surrender and God attachment. Additionally, this study explores how surrender, God attachment and mindfulness might work together to impact symptoms of depression and anxiety. This study comprised 82 participants from a large Christian university that was enrolled in the university's online doctoral counseling program. Using a quantitative survey research design, participants completed the following self-report measures online: Five Facet Mindfulness Questionnaire, Surrender Scale, Attachment to God Inventory, and Depression, Anxiety, and Stress Scale-21. Bivariate and multiple regression analyses were conducted, and the results of the study indicate that mindfulness partially mediates the significant relationship between surrender to God and God attachment.

Furthermore, results suggest that God attachment completely mediates the relationship between surrender to God and depression. Additionally, no mediating or moderating effect between surrender to God, God attachment and anxiety was found. Recommendations for further research include exploring how mindfulness can be used to improve God attachment and surrender, as an avenue to help mitigate symptoms of depression.

*Keywords:* mindfulness, surrender, God attachment, religious coping, depression, anxiety

## **Dedication**

Dedicated to the four greatest blessings God has given me: Joshua, Nathan, Zachary, and Grace. I love you with all my heart.

## **Acknowledgments**

I began this educational journey at the height of a very difficult time in my personal life. To my dear friend, Leah, your prayers and encouragement carried me through and gave me the confidence I needed to keep moving forward. To Stella M. and Carol K., thank you for always believing in me and supporting my dreams. Your faith in my ability gave me the courage to persevere. To Mechele H., Michele F., Elizabeth F., Stephanie R., Nanditha B., and Yvette S., your friendship in this season has been invaluable. To my dissertation committee, Dr. Hinkley and Dr. Knight, thank you for your patience, understanding, encouragement, and feedback. Additionally, special thanks to Dr. Rockinson-Szapkiw, for statistical expertise and assistance. To my everything, Jesus, none of this would have been possible without your strength, grace and love.

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### **List of Abbreviations**

Attachment to God Inventory (AGI)

Beck Anxiety Inventory (BAI)

Beck Depression Inventory (BDI)

Cognitive Behavioral Therapy (CBT)

Depression, Anxiety, and Stress Scale-21 (DASS-21)

Experiences in Close Relationships (ECR)

Five Facet Mindfulness Questionnaire (FFMQ)

Institutional Review Board (IRB)

Richardson-20 (KR-20)

Mindfulness-Based Stress Reduction (MBSR)

Relationship Questionnaire (RQ)

Spiritual Well-Being Scale (SWBS)

Statistical Package for the Social Sciences (SPSS)

Surrender Scale (SS)

## **CHAPTER ONE: INTRODUCTION**

### **Overview**

Emerging trends in counselor education highlight the importance of incorporating aspects of the whole person, including spirituality, in therapeutic intervention modalities (Bohecker, Schellenberg, & Silvey, 2017; Scott, Sheperis, Simmons, Rush-Wilson, & Milo, 2016).

Spirituality is a significant part of the whole person (Myers & Sweeney, 2005) and can be a tremendous resource in times of distress (Cashwell & Young, 2011). Exploring ways of improving spiritual wellbeing has implications for psychological wellbeing, as the mind, body, and spirit all contribute to forming a complete picture towards the overall sense of wellbeing for an individual. This study explores the following key concepts: mindfulness, depression, anxiety, surrender to God, and God attachment, and seeks to investigate whether a correlation exists among these concepts. Understanding if and how these concepts are related can help future researchers and clinicians extend and build upon effective treatment strategies to improve clients' well-being.

### **Background**

Exploring aspects of spirituality and religiosity that impact health and wellbeing is an important step in integrating spirituality in the counseling process (Jones, 2004; Park, 2007; Zullig, Ward, & Horn, 2006). Recent research focusing on specific aspects of religious coping has helped to better understand how spirituality can impact mental health (Weber & Pargament, 2014). In fact, research into the neuroscience of spirituality has shown that spiritual disciplines such as meditation and contemplative prayer, can reduce stress by decreasing neural activity in the amygdala (Newberg & Waldman, 2009). The aforementioned longitudinal study was the first

of its kind to analyze the brain-scans of Christian meditative practices and looked at the brain-scans of nuns that had a daily practice of centering prayer (Newberg & Waldman, 2009). In addition to integrating spirituality into improving psychological wellbeing, researchers have sought to better understand the role of God attachment (Bock, Hall, Wang, & Hall, 2018; Hall, Fujikawa, Halcrow, Hill, & Delaney, 2009; Tung, Ruffing, Paine, Jankowski, & Sandage, 2018). Attachment to God is understood within the larger framework of attachment theory, which posits that humans are biologically predisposed to seek attachment with a caregiver (Bowlby, 1969). Bowlby's research further concluded that an attachment figure is seen as a secure base from which the exploration of the environment and an internal working model of attachment is developed as a result of early attachment experiences (Bowlby, 1979). In addition to a secure base, a secure attachment represents an ability to get comfort when stressed (Ainsworth, Blehar, Waters, & Wall, 1978) and demonstrates positive affect sharing (Waters, Wippman, & Sroufe, 1979).

Exploring God as an attachment figure that is a secure base, and able to meet basic needs, was further established by the research of Kirkpatrick & Shaver (1992). Healthy God attachment is considered a critical element in the psychological well-being of Christians and continues to be an important construct for researchers to explore (Kirkpatrick, 1999; Miner, 2009). Spiritual awareness is one aspect that is related to God attachment. In fact, recent studies have shown that lower levels of spiritual awareness are related to higher levels of avoidant attachment to God (Bock et al., 2018). Mindfulness training is one way that has been explored to increase spiritual awareness. Research connecting religious-accommodated mindfulness as a way to increase treatment compliance further solidified the need for additional research on the role of God

attachment in decreasing symptoms of depression and anxiety through mindfulness intervention techniques (Ford, 2016). A recent study found that even after a brief mindfulness-based intervention workshop aimed at improving God attachment, participants had a decrease in avoidance scores; possibly reflecting an improvement in viewing God as a secure base (Knight, Sibcy, Gantt, Carapezza, & Macon, 2018). Thus, it is postulated that increasing spiritual awareness through mindfulness training may decrease levels of attachment to God related to avoidance, as measured by the Attachment to God Inventory (AGI), which in turn has implications for overall wellbeing. Research exploring God attachment and emotional wellbeing, self-acceptance, and satisfaction with life, found that attachment to God is not only related to emotional wellbeing, but lower levels of an anxious attachment style are associated with greater self-acceptance and also predicted greater life satisfaction (Freeze & DiTommaso, 2015). Thus, finding ways to incorporate mindfulness-based interventions to help lower anxious and avoidant levels of God attachment may help practitioners that seek to incorporate spiritual aspects in the treatment of mental health concerns.

### **Problem Statement**

Recent research has found that enhancing God attachment, by decreasing attachment-related avoidance and anxiety, can increase spiritual well-being, as well as decrease perceived levels of depression and anxiety (Kim, 2017). According to Kim (2017), future research is needed to “investigate the mediating effect of attachment to God in dealing with psychological and emotional distresses which may [sic] ample the understanding of the relationship between God and Christian and its benefits” (p. 106). The problem is the need for additional research on specific aspects of religious coping mechanisms, mental health variables, and how these are

correlated to types of attachment to God. Studies exploring how God attachment and religious coping may help Christians navigate psychological and emotional distress is a necessary endeavor. One aspect of religious coping is surrender to God. How surrender to God may or may not be related to depression and anxiety can yield further information into this aspect of religious coping. Additionally, God attachment and mindfulness are important constructs that will deepen the understanding of the relationship between religious coping and mental health.

### **Purpose Statement**

The purpose of this study is to add to existing research on mindfulness and religious coping and to explore whether mindfulness techniques can be used to decrease anxious and avoidant God attachment levels, and increase levels of surrender to God, thereby testing whether religious coping mechanisms can decrease levels of depression and anxiety in an adult Christian sample at a large Christian university. As this is a correlational study, the relationships that may or may not exist between these constructs will be explored through mediation analysis. The independent variables are attachment to God, surrender to God, and mindfulness. Attachment to God will generally be defined along with the parameters of avoidance of intimacy or anxiety about abandonment (Beck & McDonald, 2004). Surrender to God will generally be defined as choosing to place control with God (Wong-McDonald & Gorsuch, 2000). Mindfulness will generally be defined as a non-judgmental state of awareness of the present moment (Nhat Hanh, 1992). The dependent variables are depression and anxiety. Depression will generally be defined as a persistent feeling of sadness and a DASS-21 score of moderate to severe (Antony et al., 1998, pp. 7-14). Anxiety will generally be defined as excessive worry and apprehension and a DASS-21 score of moderate to severe (Antony et al., 1998, pp. 6-10).

## **Significance of the Study**

This study explored the relationship between mindfulness, God attachment, surrender to God and psychological stress, as manifested in depression and anxiety. Mindfulness training has been shown to decrease symptoms of depression and anxiety (Blanck et al., 2018). Previous research has identified the role that mindfulness has in God attachment (Bradshaw & Kent, 2018; Ford, 2016; Knight et al., 2018; Monroe & Jankowski, 2016). A study at a large Christian university found that a Christian-adapted model of mindfulness increased levels of secure God attachment (Ford, 2016). Additionally, experiencing surrender, through centered prayer, has been linked to a decrease in anxiety and an increase in mindfulness (Fox, Gutierrez, Haas, & Durnford, 2016). A previous study found that mindfulness mediated the relationship between religious coping and emotional regulation (Myers, 2014). However, a recent study in Israel brings into question whether religion, mindfulness, and attachment are significantly related (Cobb, 2017). Thus, further investigation of possible correlations between mindfulness, religious coping, and attachment is needed. Exploring the role that the religious coping mechanism of surrender has on secure God attachment will provide additional depth to the current body of knowledge on increasing secure God attachment, increasing mindfulness and improving psychological wellbeing. Implications for positive religious coping include reduced participation in self-destructive behaviors such as substance abuse, eating disorders, and hypersexuality (Buser & Bernard, 2013; Giordano & Cecil, 2014; Giordano et al., 2015). Thus, this study is important not only in Christian populations, but also in effectively counseling diverse populations by incorporating religious and spiritual components in therapy and helping in a variety of mental health concerns.



## Research Questions

**RQ1a.** Is secure God attachment, as measured by the Attachment to God Inventory (AGI; Beck & MacDonald, 2004), a mediating variable between surrender to God, as measured by the Surrender Scale (SS; Reinert, 1997) and depression, as measured by the Depression, Anxiety, and Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995)?

**RQ1b.** Is secure God attachment, as measured by the AGI, a mediating variable between surrender to God, as measured by the SS and anxiety, as measured by the DASS-21?

**RQ2.** Is mindfulness, as measured by the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006), a mediating variable between surrender to God, as measured by SS, and God attachment, as measured by AGI?

**RQ3.** Do increased levels of mindfulness, as measured by FFMQ, correlate to increased levels of surrender to God, as measured by SS?

## Definitions

**Anxiety.** A state of apprehension and sustained fear (Davis, Walker, Miles, & Grillon, 2009).

**Attachment to God.** Perception of a relationship with God that is described through attachment relationships (Granqvist & Kirkpatrick, 2013). There can be an insecure and secure attachment to God. Avoidance of intimacy or anxiety about abandonment is described as an insecure attachment (Beck & McDonald, 2004).

**Depression.** A persistent negative affect such as sadness or loneliness and a negative self-concept (Beck & Alford, 2014).

**Mindfulness.** A non-judgmental state of awareness of the present moment (Nhat Hanh, 1992).

**Religious coping.** There are both positive and negative aspects of religious coping (Pargament et al., 1990). Positive religious coping seeks spiritual support and reframing in the midst of life's difficulties (Pargament, 1997).

**Surrender to God.** Choosing to place control with God; an aspect of positive religious coping (Wong-McDonald & Gorsuch, 2000).

## **Summary**

Additional research is needed to better understand the role that religious coping mechanisms of surrender and God attachment may have in levels of depression and anxiety. While a recent study found that coping strategies can serve as mediators in the relationship between God attachment and positive/negative affect and depression, there is still a need to explore specific religious coping strategies (Parenteau, Hurd, Wu, & Feck, 2019). Previous research has established that mindfulness training can increase secure God attachment as well as improve symptoms of depression and anxiety (Kim, 2018). Additionally, a previous study has considered how religious coping can impact emotional regulation (Myers, 2014) and how surrender to God can increase mindfulness (Fox et al., 2016). However, further correlational studies are needed as spirituality, mindfulness, and attachment have not been found to have a clinically significant relationship in a recent study (Cobb, 2017). Reviewing data from a sample on measures of mindfulness, surrender, God attachment, and depression and anxiety may help to shed further light on what relationships may exist among these constructs.

## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

This study focuses on exploring the relationship between mindfulness attitudes, the religious coping mechanism of surrender, attachment to God, and symptoms of depression and anxiety. The current climate of population-specific intervention methods and evidence-based practices has birthed a new era in the treatment of mental health. At the forefront of current intervention strategies is the construct of mindfulness, which is an important part of the third wave of Cognitive Behavioral Therapy (Hayes & Hofmann, 2017). Previous research has shown that there are certain aspects of mindfulness that are more helpful in improving anxiety and depression. For example, symptoms of anxiety can be explicitly reduced through the centering aspect of mindfulness (Hoge et al., 2015). Not only has mindfulness been found to improve psychological wellbeing, but in a study that examined both mindfulness and religious coping skills training, both led to positive health outcomes (Gholami, Hafezi, Asgari, & Naderi, 2017). However, little research on which aspects of religious coping are most correlated with positive mental health outcomes exists. Surrender is just one important aspect of religious coping that should be further explored. Attachment to God has also been found to have a significant correlation with mental health factors. For example, anxious God attachment and avoidant styles are both correlated with higher levels of depression and anxiety (Homan, 2014). Thus, exploring attachment to God styles may help future researchers determine how cultivating a healthy God attachment can decrease symptoms of depression and anxiety.

This study builds on recent research that has explored mindfulness and religious coping. Additional research is needed to address gaps in the literature concerning mindfulness attitudes,

surrender, God attachment, and depression and anxiety. Research focusing on the specific religious coping mechanism of surrender to God, as it relates to the mental health variables of depression and anxiety, is especially lacking. The review of literature will explore both mental and religious coping mechanisms, how they relate to depression and anxiety, as well as attachment to God styles and mental health. Mindfulness, and how it relates to depression and anxiety, is the mental coping mechanism that will be explored as well as its correlation to religious coping. Surrender to God, and how it is related to depression and anxiety, is the religious coping construct that will be discussed. Additionally, God attachment styles will be explored, as well as how this attachment relates to psychological well-being.

### **Theoretical Framework**

Humans are biologically predisposed to form attachments with others (Bowlby, 1969). This innate desire for connectedness with others is the foundational element undergirding this study. Bowlby (1969) conceptualized attachment through four stages: pre-attachment, attachment-in-the-making, clear-cut attachment, and goal-corrected partnership. The pre-attachment stage is defined as infants 0-2 months. Children in this phase are not able to discern one person from their parents, and do not have difficulty when separated from them. The clear-cut attachment stage describes children ages 6 months up to 3 or 4 years of age. It is at this point that children experience separation anxiety. The goal-oriented partnership phase refers to children ages 3 to 4 years up and beyond and is when separation anxiety declines. Through the study of children and their behavior when separated from a primary caregiver, Bowlby described features of the attachment bond. The attachment bond can be described as: proximity maintenance, separation distress, safe haven, or secure base. Bowlby (1969) asserted that these

features of attachment were largely determined by the responsiveness and amount of nurturing provided by the primary caregiver.

Bowlby's research was further expounded upon by Ainsworth, Blehar, Waters, & Wall (1978) in the "strange situation" research experiments with children and their primary caregiver, usually the mother. These studies explored attachment behavior in children ages 12 to 18 months and studied how these children reacted towards their primary caregiver when a stranger entered the room and the caregiver left. Through the "strange situation" research, Ainsworth identified three attachment styles: secure, avoidant, and ambivalent (Ainsworth et al., 1978). Securely attached relationships represent a caregiver that is responsive to the child, and thus the child demonstrates trust in relation to the caregiver. Avoidant attachment relationship demonstrates that a child has no preference for the caregiver over a stranger and an emotionally disengaged caregiver. An ambivalent attachment style is characterized by an inconsistent caregiver and an anxious and insecure child. An additional attachment style, known as disorganized-insecure, was later identified by Main and Solomon (1990). The disorganized-insecure attachment style may often be seen when child abuse is occurring and in cases of loss. This attachment style represents both the fear and comfort a child may feel towards the caregiver.

Prior to the early 1990s, most of attachment theory research centered around the child and caregiver. Kirkpatrick (1988) first explored the idea of integrating attachment theory and the psychology of religion in his dissertation. Kirkpatrick (1998) later went on to further explore God as a substitute attachment figure, laying the groundwork for future research on attachment to God and adult attachment styles. Later research experiments found a correlation between internal working models of parents and God, further lending support to the idea of God as an

attachment figure (Birgegard & Granqvist, 2004). Estimates of parental loving were then later found to be correlated with positive God images (Granqvist, Ivarsson, Broberg, & Hagekull, 2007). This finding helped to further lend credence to studies exploring attachment to God as related, having similar features seen in attachment styles to primary caregivers. An additional study showed that attachment to God is further understood as a perception of closeness to God (Granqvist & Kirkpatrick, 2013). Research has also explored the correlation between God attachment styles and psychological wellbeing (Hill & Pargament, 2003). This research study seeks to extend the current body of knowledge on God attachment and psychological wellbeing by exploring ways to increase secure God attachment through exploring possible correlations with surrender to God and mindfulness.

## **Related Literature**

**Mindfulness.** The concept of mindfulness is largely attributed in the literature to ancient Buddhist practices and philosophy. The philosophical essence of mindfulness asserts that peace is not something that one should work at and strive for, but rather peace is available each moment and step in this journey of life and becoming fully aware of the present moment is where peace is experienced (Nhat Hanh, 1992). There are also elements of mindfulness seen throughout the Holy Scriptures, which pre-dates Buddhism. In the Scriptures, there is the admonishment to be continually prayerful and to remember how God has been mindful towards humanity. Philippians 4:6-7 (English Standard Version) reminds us, “do not be anxious about anything, but in everything by prayer and supplication with thanksgiving let your requests be made known to God. And the peace of God, which surpasses all understanding, will guard your hearts and your minds in Christ Jesus”. This remembrance then leads to a recognition or

awareness that encompasses gratitude and faith (Pieris, 2010). Mindfulness began to gain interest in the western world with Linehan's work with borderline personality disorder clients in the 1990s through dialectical behavior therapy as well as Kabat-Zin's early work with chronic depression (Kabat-Zin, 1990; Linehan, 1993). The integration of mindfulness and psychology opened the door for scientific exploration of the construct and yielded empirically supported evidence, demonstrating the effectiveness of mindfulness-based interventions (Shapiro, 2009).

Mindfulness is one of three aspects of self-compassion and is a way of bringing awareness to painful thoughts and feelings in a balanced way (Neff, 2003). It is being fully present in the here-and-now in a nonjudgmental way (Kabat-Zinn, 1990) and filtering the present moment through a lens of curiosity, openness, and acceptance (Bishop et al., 2004). It is also a mode of awareness and relating experience in the present moment with acceptance (Brown, Marquis, & Guiffrida, 2013). Researchers gathered together to come to a consensus on an operational definition of mindfulness and described the concept as having two components: self-regulation of attention and orientation to experience (Bishop et al., 2004). Self-regulation refers to the act of bringing the thoughts and feelings one is experiencing into conscious awareness. Orientation to experience encourages one to have a non-judgmental and curious attitude towards these thoughts or feelings.

Mindfulness is also understood as a multi-faceted construct comprising five key elements. Recent research has suggested the following description of these facets: awareness and attention, present-centeredness, external events, cultivation, and ethical-mindedness (Nilsson & Kazemi, 2016). Adding that the ethical-mindedness dimension is perhaps the biggest departure from the traditional facets of mindfulness as it has been understood for the past decade. The most

commonly accepted facets of mindfulness are: describing, observing, acting with awareness, nonjudging, and nonreactivity (Baer, Smith, Hopkins, Krietemeyer, & Toney 2006).

A focus on mindfulness, in disciplines of health and well-being, has led researchers to consider this intervention to be a part of third-wave cognitive-behavioral therapies, which greatly value understanding the philosophical underpinnings of intervention and prevention methods (Hayes & Hoffman, 2017). Research has shown that improving levels of self-compassion through three core components of self-kindness, common humanity, and mindfulness can also improve psychological well-being (Germer & Neff, 2013) and can be taught through mindfulness exercises such as reflective writing, yoga, journaling, and breathwork (Beck & Verticchio, 2018). Thus, exploring mindfulness as a mental coping strategy for improving mental health is of continued interest among researchers today.

**Mindfulness and depression and anxiety.** Exploring how mindfulness can help people with a variety of health and psychological concerns is at the forefront of research in a wide range of disciplines from psychology and counseling to the medical profession. Symptoms of depression and anxiety affect such a large number of individuals, many of whom only seek help through their primary care physician (Boogaard, Verhaak, VanDyck, & Spinhoven, 2011; McPherson & Armstrong, 2009). Understanding the specific mechanisms of mindfulness and how these interact with depression and anxiety can better help medical and psychological professionals assist those dealing with mental health concerns (Hofmann & Gomez, 2017). Depression and anxiety were specifically chosen due to their prevalence rates. Over 121 million people worldwide are affected by depression (BioMed Central, 2011). According to the World



Health Organization, approximately 4.4% of the world's population suffers from depressive disorders, and 3.6% of the global population suffers from an anxiety disorder (2015).

Careful analysis of how the mind and body respond to symptoms of depression and anxiety has paved the way for a deeper understanding of the components of psychological well-being. One such component is self-compassion; mindfulness is understood to exist under the umbrella of this construct. Self-compassion is known to be a component in managing symptoms of depression (Ford, Klibert, Tarantino, & Lamis, 2017). Of the three aspects of self-compassion, mindfulness is the most correlated with alleviating symptoms of depression (López, Sanderman, Ranchor, & Schroevers, 2018) and by increasing levels of self-compassion, the self-coldness aspect of depression can be specifically counteracted (Körner et al., 2015). Thus, negative patterns of thinking are a component of depression that can be specifically targeted with mindfulness training. Mindfulness helps by reducing the negative impact that these negative thoughts and feelings have (Williams, 2008). Interestingly, a genetic association has also been found between low mindfulness and symptoms of depression (Waszczuk et al., 2015). Further exploration of this genetic association may have implications for targeting those individuals that may be susceptible to depression and could greatly benefit from mindfulness training, as a preventative measure, before symptoms of depression appear.

Empirical evidence continues to build, showing that mindfulness can improve symptoms of depression and anxiety and can also be something that can be taught to clients (Dove & Costello, 2017). This continued evidence has paved the way for structured intervention methods and manualized training to aide practitioners wanting to incorporate mindfulness into their practice. Mindfulness-based stress reduction (MBSR) is a mindfulness training intervention

(Kabat-Zin, 2005) that has been studied and found to be effective in reducing both depression and anxiety (Hofmann, Sawyer, Witt, & Oh, 2010). This intervention was introduced largely devoid of its Buddhist roots (Kabat-Zin, 2011), yet the practice of mindfulness may still be perceived by traditionally religious families with some skepticism (Kane, Jacobs, Platt, Sherman, & DeRigne, 2017). It is important to consider that individuals that begin MBSR with higher levels of awareness, acceptance, and decentering will show the greatest improvement (Gawrysiak et al., 2018). Mindfulness training can be used in conjunction with other therapeutic strategies, but even as a stand-alone intervention, it has been shown to help decrease symptoms of depression and anxiety (Blanck et al., 2018). A recent meta-analysis of MBSR in healthy adults showed it to be effective in reducing depression and anxiety, as well as stress (Khoury, Sharma, Rush, & Fournier, 2015). Thus, improving mindfulness in individuals, irrespective of mental health variables or theoretical orientation, is a worthwhile endeavor.

It is important to note that while MBSR can help both clinical and non-clinical individuals. Certain populations may be better served with a more classic version of CBT. For example, clients with comorbid mood disorders showed the greatest improvement with classic CBT than third wave intervention methods, such as the mindfulness-based intervention Acceptance and Commitment Therapy (Wolitzky-Taylor, Arch, Rosenfield, & Craske, 2012). Mindfulness intervention strategies, specific to Christians, have also been explored and found to be effective in decreasing symptoms of anxiety (Garzon, 2013). Further study of how mindfulness, depression, and anxiety are related will help practitioners to understand the specific aspects of mental health that can be targeted with mindfulness training.

The importance of mindfulness and religious coping is of interest to researchers across a broad range of religious orientations. The importance of religion in the therapeutic process is more widely accepted and studied now more than ever (Koenig & Larson, 2001). Individuals are seeking intervention methods that incorporate faith. A shift towards researching how faith can improve psychological wellbeing and symptoms of depression and anxiety has brought to the forefront a need for further research on religious coping.

**Mindfulness and religious coping.** Circumstances and life events, from the mundane to the catastrophic, have a profound effect on emotional wellbeing. Learning effective strategies to regulate emotional responses and internal dialogue is perhaps at the core of most evidence-based practices in counseling today with a wide range of populations (Brown, 2016; Curtis & Cicchetti, 2007; Macklem, 2011; Perlick, 2017). While mindfulness and positive mental coping strategies have been the subject of numerous studies in the past decade, the importance of religious coping has not received as much attention from researchers (Chiesa, Calati, & Serretti, 2011; Creswell & Lindsay, 2014; Farb et al., 2010; Jha, Krompinger, & Baime, 2007). Religion was first analyzed as an aspect of coping in the early 1990s (Pargament et al., 1990). Later research expounded on the concept of religious coping and looked at perspectives on problem-solving (Tix & Frazier, 1998; Yoshimoto et al., 2006).

Two distinct religious coping styles were identified in this research: collaborative religious coping, which assumes shared responsibility for problem-solving with God, and deferred religious coping, which assumes that problems are given to God for him to solve (Pargament, 1997). Subsequent studies confirmed Pargament's findings on different coping styles and linked collaborative religious coping with positive mental health outcomes

(Fabricatore, Handal, Rubio, & Gilner, 2004; Pargament, Smith, Koenig, & Perez, 1998).

Though most research on religious coping has been with a Christian sample, positive religious coping is an important aspect of coping for those practicing other world religions (Abu-Raiya & Pargament, 2015).

Religious coping is a multi-dimensional concept and encompasses interactional, behavioral, emotional, and motivational aspects (Pargament et al., 1990). Positive and negative religious coping have an impact on mental health and well-being. The two types of religious coping are birthed out of one's belief about, and experience of, God (Pargament et al., 1990). Positive religious coping is associated with believing God is just and loving and experiencing him as a supportive partner (Pargament et al., 1990). Negative religious coping is related to beliefs in an angry, unjust God and experiencing him as a minimal role in helping to solve problems (Pargament et al., 1990). Positive religious coping behaviors are as follows: attending religious services, praying, reading the Bible, focusing on the afterlife, seeking support from church leaders and members, and trying to live a less sinful life (Pargament et al., 1990). Negative religious coping is associated with appraising negative life events as a punishment from an angry and distant God (Pargament et al., 1990). Positive coping is correlated with contributing to positive mental health and negative religious coping with damaging mental health (Weber & Pargament, 2014). Positive religious coping can also help to decrease symptoms of depression whereas negative religious coping is associated with increased symptoms of anxiety and depression (Areba, Duckett, Robertson, & Savik, 2018). Thus, increasing spiritual well-being can decrease anxiety (Steiner, Zaske, Durand, Molloy, & Arteta, 2017). Anxiety is also linked to religious doubt (Wilt, Grubbs, Lindberg, Exline, & Pargament 2016). Therefore, religious

coping, as well as religious problems, should be considered when working with a population with severe mental health problems (Pargament & Lomax, 2013). It is also important to note that an Israeli study found that religious coping was not helpful in female survivors of intimate partner violence (Abu-Raiya, Sasson, Palachy, Mozes, & Tourgeman, 2016). Further research on victims of domestic violence and the role of religious coping within other world religions is needed to see if these results can be replicated.

A possible link between mindfulness, religious coping, and emotional regulation was explored in a Christian university sample, and results indicate that mindfulness mediates the relationship between religious coping and emotional regulation (Myers, 2014). Religious coping is also correlated with attachment and emotional regulation (Corsini, 2009). Both of these studies were completed with a Christian sample, and future research linking religious coping, attachment, and emotional regulation in the same population would further expound on these results. Additionally, there are very few studies linking mindfulness and religious coping, and there is a need to further explore this dynamic. Furthermore, exploring a specific aspect of religious coping, as well as specific mental health variables beyond emotion regulation, would also build on the limited body of research available. Thus, it is important that future research consider the various aspects of religious coping and mindfulness and how they are linked to mental health and wellness.

**Surrender to God.** Spiritual/religious coping is an important factor in learning to approach mental health and wellness from a perspective that encompasses the whole person. No longer is psychology and religion so divorced in the literature as once had been the case. There is an awareness and acceptance that religious coping is an important aspect of health and wellbeing

for people from various world religions (Zukerman & Korn, 2014). While there is more openness and understanding today of the importance of incorporating faith and religious coping in therapeutic interventions, there exists little research on specific aspects of religious coping (Judd, 2017). Just as the study of mindfulness has led to new discoveries in defining aspects previously not understood or defined, so it is important to further explore religious coping to understand its mechanisms better.

Surrender to God is just one aspect of positive religious coping and is understood as an active choice to place control with God instead of others or luck and is correlated with spiritual well-being (Wong-McDonald & Gorsuch, 2000). Additionally, there can be degrees, or levels of surrender, dependent upon the individual's view of God's providence (Lovejoy, 2010). Believing that God is in control will result in an individual that is more likely to surrender to God's will (Knabb, Frederick, & Cumming, 2017). Religious rituals that demonstrate how one surrenders to God is also an area needing further research and study. Contemplative prayer is one religious ritual that has been found to improve the experience of surrendering to God for Christians (Knabb & Vazquez, 2018). It is important to understand how surrender may impact mental health so that religious coping skills in this area can be further developed as a strategy for improving psychological well-being.

**Surrender and depression and anxiety.** The following commentary discusses a few studies in the literature that explore surrender and mental health variables. Experiencing surrender through centered prayer helps to reduce worry in Christians (Frederick & White, 2015) and has also been found to reduce stress (Clements & Ermakova, 2012) as well as decrease anxiety and increase mindfulness (Fox, Gutierrez, Haas, & Durnford, 2016). However, there is

only one study on surrender as it relates to depression and anxiety. In this experimental design, participants at a Christian university completed an intensive week of prayer and were found to have lower levels of depression and anxiety and higher levels of surrender to God. A 3-month post-test follow-up showed that lower levels of depression and anxiety were maintained, but higher levels of surrender to God were not (Lovejoy, 2010). Follow-up research within this same population will help to clarify the role of prayer in surrendering to God, as well as the benefits that this may have on symptoms of depression and anxiety.

Replicating these results would allow for stronger conclusions to be drawn on the relationship between surrender and depression and anxiety in Christians. There continues to be a growing need to explore the relationship between mindfulness, religious coping and specific aspects of religious coping, and mental health variables. A survey research design would allow researchers to identify possible correlations and mediating effects of mindfulness and religious coping on mental health and wellness.

**Attachment to God.** Attachment to God must be understood within the theoretical framework of attachment theory. Attachment theory posits that people are biologically predisposed to form attachments, and the attachment bond has repercussions throughout the lifespan (Bowlby, 1969). This bond is typically understood within the mother-child or child-caregiver relationship. Further research on attachment theory yielded the identification of four styles of attachment: secure attachment, anxious-resistant insecure attachment, anxious-avoidant insecure attachment, and disorganized/disoriented attachment (Ainsworth et al., 1978). The assertion is that disorganized/disoriented attachment is a result of a child's fear of the caregiver (Main & Solomon, 1990) and may be a second-generation effect of unresolved trauma in the

parents (Hesse & Main, 2000). Modern attachment theory asserts that attachment is the result of both nature and nurture and as such, should consider neurobiological functions in regulation theory (Schoore & Schoore, 2008).

A model of correspondence between attachment and religion has helped to solidify the importance of evaluating attachment to God (Kirkpatrick & Shaver, 1992.) Since the link between attachment theory and God attachment has been established, the groundwork is in place to explore this variable as an important aspect of relationships and mental health and wellbeing. Attachment to God can compensate for a lack of secure attachment with others (Kirkpatrick, 1997) and corresponds to experiences in human relationships (Kirkpatrick & Shaver, 1992).

Individuals that value a close and intimate relationship with others believe that there is the potential to have a similar relationship with God (Kirkpatrick, 1998) and even the effect of prayer on the individual has been found to be correlated to how one views their relationship with God (Bradshaw & Kent, 2018). Those who have a secure attachment to God also see an improvement in psychological well-being through prayer, and so God attachment moderates the relationship between prayer and mental well-being (Bradshaw & Kent, 2018).

Additionally, there is a link between attachment to God and attachment to fathers, specifically (Limke & Mayfield, 2011). A study exploring children of married and divorced parents found that children of married parents had a God attachment that was a projection of their relationship with their father and the children of divorced families sought proximity to God as a way to compensate for their absent father (Murunga, Linke-McLean, & Wright, 2017). An attachment and religion model of correspondence should also be understood within the greater context of psychological systems, with attachment as just one part of an evolving system and



religion a by-product of such psychological systems (Kirkpatrick, 2005). Attachment to God is understood within the traditional constructs of anxious or avoidance insecure attachment in attachment theory. Anxiously attached individuals also demonstrate attachment insecurity with God (Counted, 2016).

To have a secure attachment to God, individuals must perceive God as able and willing to meet their psychological needs (Miner, Dowson, & Malone 2014). God attachment is experienced as a relationship with God through God attachment language (Counted, 2016), but the perception of the relationship with God can also be described through attachment relationships (Granqvist & Kirkpatrick, 2013). Attachment to God has significant implications for relationships with others, religious coping such as surrender through prayer, and psychological well-being.

**Attachment to God and psychological well-being.** The importance of attachment in psychological well-being is well documented in the literature (Corcoran & McNulty, 2018; Pan, Zhang, Liu, Ran, & Teng, 2016; Rie, 2004; Wilkinson, 2004). Beliefs about a relationship with God and God attachment are also related to psychological wellbeing (Granqvist, 2014; Kirkpatrick, Shillito, & Kellas, 1999; Leman, Hunter, Fergus, & Rowatt, 2018; Limke & Mayfield, 2011; Miner, 2009; Miner et al., 2014). Essential to a healthy attachment to God, is the perception that God meets needs (Miner et al., 2014) and that God is a safe haven (Granqvist, Mikulincer, Gewirtz, & Shaver, 2012).

Attachment to God/closeness to God is also linked to mental health (Granqvist, 2014; Hill & Pargament, 2003), and differences in attachment to God styles can impact psychological health (Granqvist & Kirkpatrick, 2013). In fact, anxious God attachment is correlated with

perceived stress (Reiner, Anderson, Hall, & Hall, 2010), psychiatric symptoms (Ellison, Bradshaw, Flannelly, & Galek, 2014), psychological distress (Knabb & Pelletier, 2014), and even a greater risk of obesity (Krause & Hayward, 2016). Anxious God attachment heightens levels of distress, whereas secure attachment has a buffering effect on stressful life events (Bradshaw, Ellison, & Marcum, 2010; Ellison, Bradshaw, Kuyel, & Marcum, 2012).

Research also shows that an anxious style of attachment to God reflects a lower stage of faith development (Hart, Limke, & Budd, 2010), and secure attachment to God reflects spiritual maturity (TenElshof & Furrow, 2000). Anxious God attachment and avoidant God attachment styles are both correlated with higher levels of depression and anxiety (Homan, 2014), hopelessness (Cassibba, 2014), sexual addiction (Giordano, Cashwell, Lankford, King, & Henson, 2017) and also have implications for one's effect and personality traits (Rowatt & Kirkpatrick, 2002). Future research must explore how God attachment styles correlate with positive religious coping. For example, prayer has been found to reduce symptoms of anxiety-related disorders in securely attached individuals (Ellison et al., 2014).

Ways to move from anxious/avoidant to secure attachment to God should also be explored. Research indicates changes in God-image, or emotional experience of relationship with God (Davis, Moriarty, & Mauch, 2013) will parallel changes in God attachment (Moriarty, Hoffman, & Grimes, 2006). However, studies using a manualized approach to improving God image and attachment to God have had mixed results (Olson et al., 2016; Rasar, Garzon, Volk, O'Hare, & Moriarty, 2013; Thomas, Moriarty, Davis, & Anderson, 2011). Exploring God attachment will enable researchers to discover additional ways to improve symptoms of depression and anxiety.

## Summary

Depression and anxiety affect millions of people worldwide. It is important to understand and continue to explore effective intervention and prevention methods for helping those struggling with symptoms of depression and anxiety. Promising research on mindfulness has led the way in seeking to understand the power of the mind in regulating emotions. Religious coping was later identified as a correlated construct in psychological well-being and has been established as a common aspect of coping with negative life events (Pargament et al., 1990). Exploring specific aspects of mindfulness and religious coping and how they may work together can better help practitioners in the mental health field assist struggling clients. Surrender is an important religious coping mechanism and how it helps symptoms of depression, and anxiety need to be explored further. Additionally, the role of attachment in mental wellness has been well documented, but God as an attachment figure and God attachment styles as they relate to depression and anxiety, also needs further research. Religious coping and a relationship with God are intertwined. It is important to explore how one's relationship and view of God can impact the employment of religious coping skills. Understanding mindfulness and religious coping together will yield a depth of knowledge and understanding to the current body of research and will ultimately lead to greater understanding of how to incorporate these coping strategies to improve psychological wellbeing. Additionally, understanding how God attachment may be related to mindfulness has implications for future research into ways to help individuals move towards secure God attachment.

## **CHAPTER THREE: METHODS**

### **Overview**

There is a paucity of research on specific aspects of religious coping, such as surrender, as it relates to mental health outcomes. The religious coping mechanism of Surrender to God, as it relates to reduced levels of depression and anxiety, was the focus of this study. Additionally, the constructs of mindfulness and God attachment and how these relate to surrender as well as depression and anxiety were explored. The following describes the research design for this study, including research questions. The participants for this study, procedural method and variables are also set forth in detail. Finally, the measures and statistical analysis, including issues related to validity, are discussed.

### **Design**

This project implemented a quantitative survey research design. The use of survey research data is appropriate in exploring the relationship between variables and studying the effects of variables within a specific population (Heppner, Wampold, Owen, Wang, & Thompson, 2016). This research study sought to better understand the relationship between mindfulness, surrender and God attachment and how these relationships affect depression and anxiety. This survey research was completed through self-report questionnaires.

### **Research Questions**

**RQ1a.** Is secure God attachment, as measured by the AGI, a mediating variable between surrender to God, as measured by the SS and depression, as measured by the DASS-21?

**RQ1b.** Is secure God attachment, as measured by the AGI, a mediating variable between surrender to God, as measured by the SS and anxiety, as measured by the DASS-21?

**RQ2.** Is mindfulness, as measured by the FFMQ, a mediating variable between surrender to God, as measured by SS, and God attachment, as measured by AGI?

**RQ3.** Do increased levels of mindfulness, as measured by FFMQ, correlate to increased levels of surrender to God, as measured by SS?

### **Hypotheses**

**Ha1a.** God attachment, as measured by the AGI, will mediate the relationship between surrender to God, as measured by the SS, and depression, as measured by the DASS-21 scores.

**Ha1b.** God attachment, as measured by the AGI, will mediate the relationship between surrender to God, as measured by the SS, and anxiety, as measured by the DASS-21 scores.

**Ha2.** Mindfulness, as measured by the FFMQ, will mediate the relationship between surrender to God, as measured by SS, and God attachment, as measured by the AGI.

**Ha3.** Increased levels of Mindfulness, as measured by FFMQ, are correlated to increased levels of surrender, as measured by SS.

### **Participants**

Participants in this study were doctoral students at a large Christian university in central Virginia. The students in this study were in an online counselor education program, and their geographic location varied from that of the physical university campus. Participants were recruited via an email and announcement in Blackboard. All participants recruited through the university were adults and self-identified as Christian. Any current student enrolled in the online counselor education program at the time of the study was invited to participate. Approximately 800 students received an invitation to participate in this research study. A response rate of approximately 30% to 40% was expected (Heppner et al., 2016). A response rate of just over

10% was achieved, with 82 participants completing the surveys. This study was completed online through the Qualtrics platform. Qualtrics is a software application that allows users to design, implement, and analyze surveys in an online format.

### **Setting**

**Procedure.** This research project was submitted to the Institutional Review Board (IRB), and permission was granted to conduct the study. Permission from the author(s) of each of the instruments was requested and granted. After permission was received to use each instrument, the instruments were uploaded in the university's platform for conducting online research, Qualtrics.

Prior to using Qualtrics, the author underwent training and secured permission to use this platform from the university. Once IRB approval was secured, participants were asked to participate in the study via email and an announcement in Blackboard in the departmental discussion board. The IRB Exemption protocol number is 3818.060519. An email list of all students currently enrolled in the online counselor education program was solicited from the department, and all students were subsequently sent a request to participate in this research study. Participating students were provided an informed consent form. The informed consent form was in Qualtrics and provided at the beginning of the survey. Surveys were collected anonymously, as participant names were not kept or recorded. Data was gathered online, and results for each instrument were scored manually. Any raw data that was printed remains secured in a password-protected computer. Statistical procedures and analyses were run in SPSS Statistics version 26.

## Data Collection

The following constructs were measured in this research project: mindfulness, surrender to God, God attachment, depression, and anxiety. Demographic data were also collected.

**Mindfulness.** The FFMQ was used to measure the construct of mindfulness. The FFMQ is a 39 item self-report questionnaire using a 5-point Likert scale. Participants were asked to rate whether a statement is generally true for them. This measure explores the five aspects of mindfulness as it is currently conceptualized: observing, describing, acting with awareness, nonjudgmental stance of the inner experience, and not reacting to the inner experience (Baer et al., 2006). A sample statement from the observing scale is: “When I’m walking, I deliberately notice the sensations of my body moving.” An example of a statement from the describing scale includes: “I’m good at finding words to describe my feelings.” A statement from the acting with awareness scale is: “When I do things, my mind wanders off, and I’m easily distracted.” Non-judging from inner experience includes the following statement: “I criticize myself for having irrational or inappropriate emotions.” A sample statement from the non-reactivity to inner experience scale is: “I perceive my feelings and emotions without having to react to them.” It is important to understand the psychometric data of this instrument and its validity, which lends credence to its use in this research study. Strong validity for each of the subscales has a Cronbach’s alpha ranging from .75 to .91, indicating good psychometric properties (Baer et al., 2006). A follow-up study on the instrument’s validity and reliability also yielded results that affirmed the FFMQ as a reliable measurement of mindfulness (Baer et al., 2008). A copy of the assessment is located in Appendix G.

**Surrender to God.** The SS was used to assess surrender to a higher power. It is a 12 item, self-report questionnaire and requires an estimated 4-5 minutes to complete. The scale uses a 5-point Likert scale with responses ranging from 1-strongly disagree to 5-strongly agree (Reinert, 1997). The Surrender Scale was developed with a sample of participants in treatment for alcohol misuse. A sample question from the Surrender Scale is, “Some things in my life are beyond my control.” The higher the score, the higher the self-reported level of surrender to God. The instrument has a strong reliability coefficient of  $\alpha=.94$ . A copy of the assessment is located in Appendix E.

**God Attachment.** The AGI is a 28 item self-report questionnaire that was used to measure attachment to God. It is based on the premise that a relationship to God is based on an attachment bond and has subscales of avoidance of intimacy and anxiety about abandonment (Beck & MacDonald, 2004). A high score on either the avoidance or anxiety subscale is indicative of an insecure attachment to God. Conversely, a low score on both subscales is indicative of a secure attachment to God. A sample question from the avoidance subscale is, “My experiences with God are very intimate and emotional.” A sample question from the anxiety subscale is, “I often worry about whether God is pleased with me.” The avoidance subscale has an  $\alpha=0.86$  and the anxiety subscale has an  $\alpha=0.84$ , indicating strong internal validity for both subscales (Beck & MacDonald, 2004). Additional research also compared the AGI with the Experiences in Close Relationships (ECR), Spiritual Well-Being Scale (SWBS), and the Relationship Questionnaire (RQ) and found the instrument to be reliable with good psychometric properties (Beck & MacDonald, 2004). A copy of the assessment is located in Appendix D.



**Depression and Anxiety.** The DASS-21 is 21 questions and uses a 4-point Likert scale. Items range from “0 = did not apply to me” to “3 = applied to me most of the time.” It requires an estimated 3 minutes to complete and measures the emotional states of depression, anxiety, and stress (Antony et al., 1998). The DASS-21 is a shortened assessment and is based on the original DASS, which is comprised of 42 questions (Lovibond & Lovibond, 1995). Participants were asked to answer questions based on how much a statement describes them in the past week. The depression scale examines dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement. A sample question from the depression subscale is, “I felt that I had nothing to look forward to”. The anxiety scale examines situational anxiety and the experience of anxious affect. A sample question from the anxiety subscale is, “I was worried about situations in which I might panic and make a fool of myself”. The stress scale examines difficulty relaxing, nervous arousal, and being easily upset, irritable and impatient. A sample question from the stress scale is, “I found myself getting agitated”. The DASS validity and reliability has been established, and it is widely used as an instrument to measure depression, anxiety, and stress (Antony & Barlow, 2010). Most recent data regarding the reliability of the DASS-21 was estimated using Cronbach’s alpha and was  $\alpha=.88$  (95% CI/.87–.89) for the Depression scale and  $\alpha=.82$  (95% CI/.80–.83) for the Anxiety scale (Henry & Crawford, 2005). A study comparing results from the Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI) with the DASS, found the DASS Depression scale correlated .74 with the BDI, and the DASS Anxiety scale correlated .81 with the BAI (Lovibond & Lovibond, 1995). A copy of the assessment is located in Appendix F.

A short demographic survey was also included and collected data regarding gender, age, ethnicity, marital status, and belief in God.

## **Data Analysis**

### **Research Question 1a.**

Is secure God attachment, as measured by the AGI, a mediating variable between surrender to God, as measured by the SS and depression, as measured by the DASS-21?

Two hypotheses were explored from research question 1:

***Null Hypothesis A:*** Secure God attachment (low scores on anxiety and avoidance subscales) does not mediate the difference between levels of surrender to God and depression.

***Alternate Hypothesis A:*** Secure God attachment, as measured by GAI, mediates the relationship between surrender to God, as measured by SS, and depression, as measured by the DASS-21.

Statistical Analysis Method: A mediation analysis, with Baron and Kenny's (1986) causal-step approach and bivariate analyses were conducted. The causal-step approach asserts that conducting a series of regression equations will yield information about mediating variables. First, a regression analysis is run of the mediating variable on the independent variable. Second, a regression analysis is conducted, looking at the dependent variable on the independent variable. Finally, a regression analysis is computed, looking at the dependent on independent variable and mediating variable. A Sobel test helps to further confirm the significance of the mediating variable by considering the indirect effect of the independent variable, on the dependent variable, as mediated by the proposed mediating variable (Baron & Kenny, 1986).

**Research Question 1b.** Is secure God attachment, as measured by the AGI, a mediating variable between surrender to God, as measured by the SS and anxiety, as measured by the DASS-21?

Null Hypothesis B: Secure God attachment (low scores on anxiety and avoidance subscales) does mediate the difference between levels of surrender to God and anxiety.

Alternate Hypothesis B: God attachment, as measured by GAI, mediates the relationship between surrender to God, as measured by SS, and anxiety as measured by the DASS-21.

Statistical Analysis Method: A mediation analysis, with Baron and Kenny's (1986) causal-step approach and bivariate analyses were conducted.

**Research Question 2.** Is mindfulness, as measured by the FFMQ, a mediating variable between surrender to God, as measured by SS, and God attachment, as measured by AGI?

Null Hypothesis: Mindfulness does not mediate between surrender to God and God attachment.

Alternate Hypothesis: Mindfulness, as measured by FFMQ, mediates the relationship between surrender to God, as measured by SS, and God attachment, as measured by GAI.

Statistical Analysis Method: A mediation analysis, with Baron and Kenny's (1986) causal-step approach and bivariate analyses were conducted. Prior to a regression analysis, the scores on all were variables centered (Warner, 2013).

**Research Question 3.** Do increased levels of mindfulness, as measured by FFMQ, correlate to increased levels of surrender to God, as measured by SS?

Null Hypothesis: Increased levels of mindfulness and increased levels of surrender to God are not correlated.

Alternate Hypothesis: Increased levels of mindfulness, as measured by FFMQ, are correlated to increased levels of surrender, as measured by SS.

Statistical Analysis Method: A linear regression analysis was conducted on the data.

## **CHAPTER FOUR: FINDINGS**

### **Overview**

The purpose of this study was to explore whether a relationship exists between mindfulness, surrender, and God attachment and whether any correlation could be made among these constructs and depression and anxiety. Participants ( $n=82$ ) comprised doctoral students in an online counseling program at a large Christian university. Participants completed four separate assessments via an online link in Qualtrics that measured mindfulness, surrender, God attachment, and depression, anxiety, and stress, as well as a brief demographic survey. Correlational and mediation statistical analyses were conducted for each of the three research questions.

### **Research Questions**

Research question 1 sought to explore whether God attachment is a mediating variable between surrender to God and depression and/or anxiety. This research question was separated into two parts: 1a addressed depression and 1b addressed anxiety. Research question 2 considered if mindfulness is a mediating variable between surrender to God and God attachment. Finally, research question 3 investigated whether increased levels of mindfulness correlated to increased levels of surrender to God.

### **Hypotheses**

It was hypothesized for research question 1a that God attachment would mediate the relationship between surrender to God and depression and also that God attachment would mediate the relationship between surrender to God and anxiety; question 1b. Research question 2 hypothesized that mindfulness would mediate the relationship between surrender to God and

God attachment. Finally, research question 3 hypothesized that increased levels of mindfulness is correlated to increased levels of surrender.

### **Descriptive Statistics**

**Research Question 1a Depression.** For research question one, two mediation analyses were conducted. The first mediation analysis, with Baron and Kenny's (1986) causal-step approach, was performed using the initial causal variable of surrender to God and the outcome variable of depression. The proposed mediating variable was God attachment. The analysis aimed to answer the question, is God attachment a mediating variable between surrender to God and depression?

Each variable was measured by a score on a self-report instrument. Reliability analyses were calculated for each measurement using the current data set. The measurement of God attachment demonstrated good reliability with a Cronbach's alpha coefficient of .91. As the item choices for the surrender to God instrument were dichotomous, a Richardson-20 (KR-20) reliability analysis was performed. The results indicated acceptable to good reliability with a coefficient of .70. Reliability for the depression scale was good with a Cronbach's alpha coefficient of .78.

While 97 individuals completed the survey, data for a sample of 82 participants were analyzed as 15 participants responses were removed due to incomplete response to items. Table H1 demonstrates the descriptive statistics for the variable analyzed

Table H1

*Descriptive Statistics*

	Mean	Standard Deviation
Surrender to God	20.3902	3.14174
Attachment	71.5610	26.50278
Depression	19.1220	5.21250

Table H2 provides a correlation matrix for the variables analyzed.

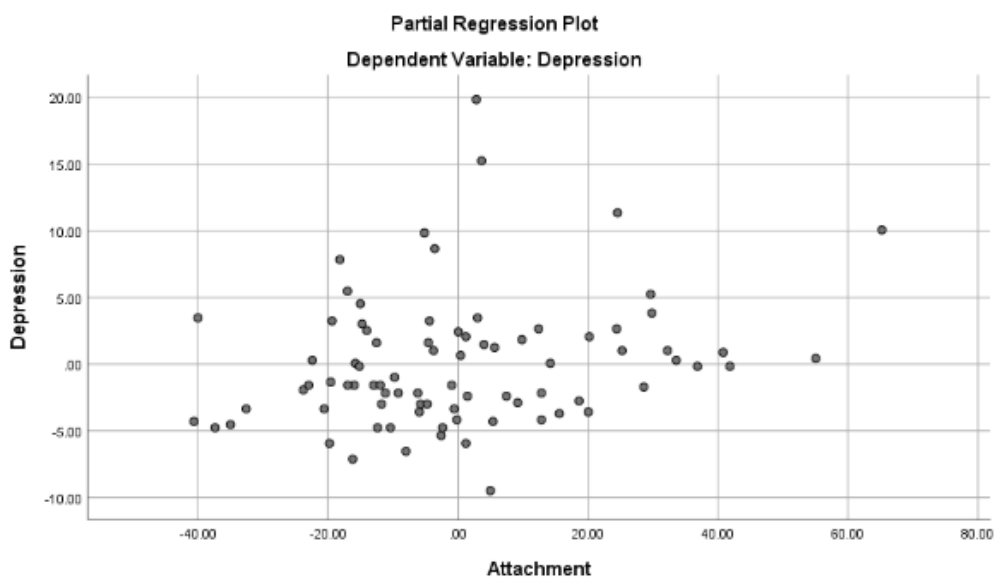
Table H2

*Correlation Matrix*

		Depression	Surrender to God	Attachment
Depression	Pearson	1	**-.356	**-.392
	Correlation			
	Sig. (2-tailed)		.001	.000
	N	82	82	82
Surrender to God	Pearson	**-.356	1	**-.617
	Correlation			
	Sig. (2-tailed)	.001		.000
	N	82	82	82
Attachment	Pearson	**-.392	**-.617	1
	Correlation			
	Sig. (2-tailed)	.000	.000	
	N	82	82	82

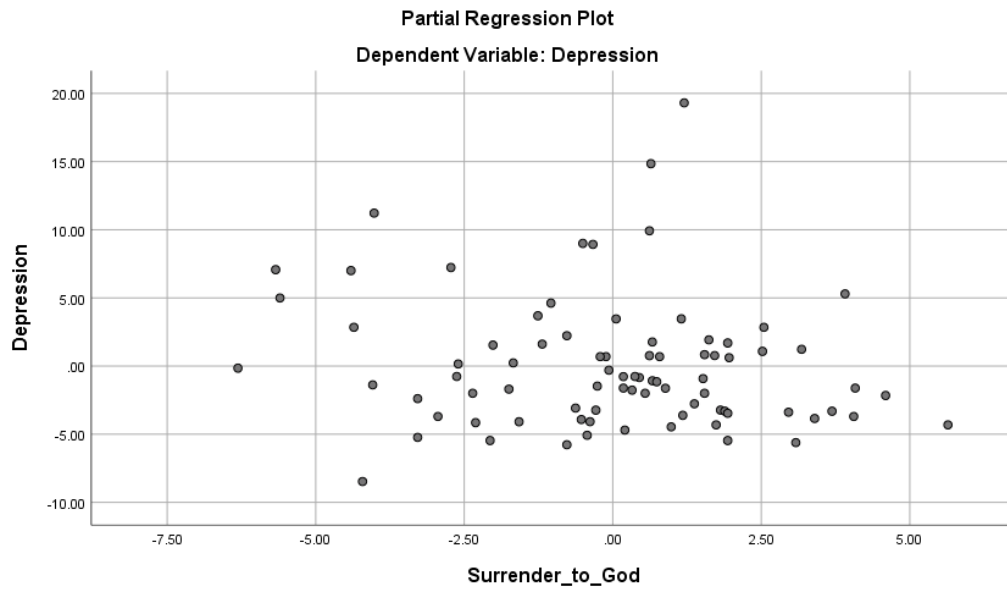
\*\*, Correlation is significant at the 0.01 level (2-tailed).

**Assumption testing.** Before conducting the analysis, assumption testing was completed. No gross violations of assumptions of normality or linearity were found. As the residuals form a somewhat horizontal band in the scatter plot created, the relationship between the outcome variable, depression, and casual and mediating variables is deemed linear (See Figure I1). Additionally, the partial regression plots, visually inspected, demonstrated a linear relationship between both the mediating and casual variable and the outcome variable (See Figures I2 and I3).



*Figure I2.* Attachment (Unstandardized Predicted Value)





*Figure I3.* Depression: Surrender to God (Dependent Variable)

Visual inspection of the P-P Plot demonstrated that the residuals are approximately normally distributed. (See Figure I4).

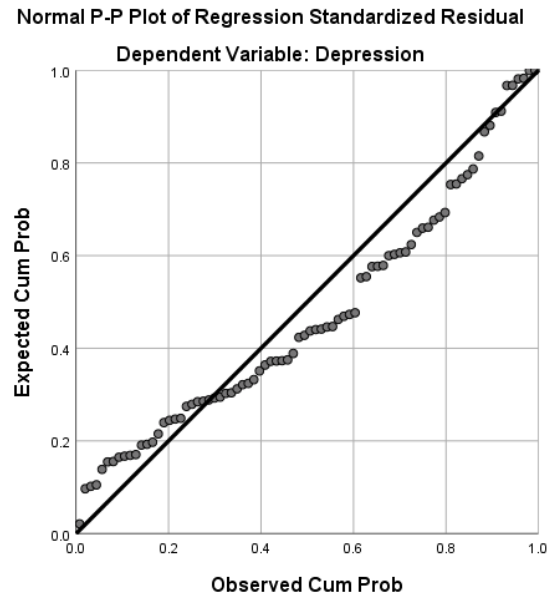
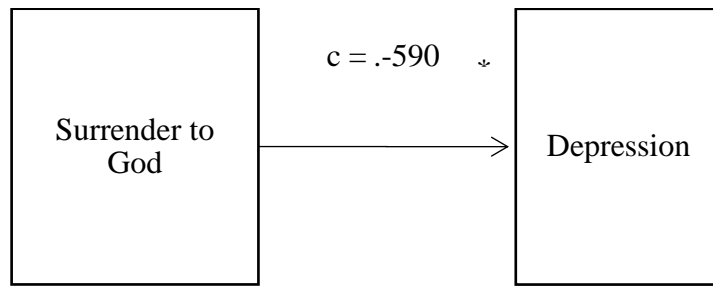


Figure I4. Dependent Variable Depression: Observed Cum Prob

As no gross violation of assumptions was found, the analysis was conducted as planned. In the results, unstandardized coefficients were used unless noted, and an  $\alpha = .05$ , two-tailed, was used to determine statistical significance.

**Mediation analysis.** Path c represents the association between surrender to God and depression, without consideration of the mediator. A bivariate regressions analysis was conducted to examine the total effect of surrender to God on depression. The results of the analysis were significant,  $c = -.590$ ,  $t(81) = -3.405$ ,  $p = .001$ , indicating that surrender to God significantly predicts depression. Each 1-point decrease in the surrender to God rating predicts approximately a .59 decrease in the depression rating (see Figure I5).



\*=significant at .05 level

*Figure I5. Depression Rating*

Path a represents the association between surrender to God and God attachment. Additional analyses were conducted to examine the role of the mediating variable. Another bivariate regression analysis was conducted and demonstrated that surrender to God was also significantly predictive of the mediating variable, God attachment;  $a = -5.21$ ,  $t(81) = -7.017$ ,  $p < .001$ . (see Figure I6 below). The relationship between the variables was negative. As an individual's surrender to God rating increases, the individual's attachment-related avoidance and attachment-related anxiety decreases.

Path b represents the association between God attachment and depression. Moreover, when controlling for surrender to God, God attachment was significantly predictive of depression,  $b = .05$ ,  $t(81) = 2.142$ ,  $p = .035$ . As the God attachment score increases, depression increases.

The overall model represents the predictive ability of surrender to God and God attachment on depression. Multiple regression analysis demonstrated that depression could be predicted from the linear combination of surrender to God and God attachment. When the overall

model is examined, surrender to God and God attachment statistically significantly predicts depression,  $F(2, 79) = 8.349, p = .001$ .  $R^2$  for the overall model was .174, a small size effect according to Cohen (1988).

The indirect effect is represented by using pathway a and pathway b. Using the a and b coefficients, the indirect effect,  $ab$ , was calculated and found to be -2.864 (-5.21x.055). The Sobel test, as well as the results of the indirect procedure (Preacher & Hayes, 2008) for bootstrapping in SPSS, demonstrated that the indirect effect was significant. The Sobel (1982) test,  $z = -2.03, p = .042$ , was significant, and results of the indirect procedure (Preacher & Hayes, 2008) in SPSS using a 2,000 samples bootstrap showed that the lower limit was -.5471 and the upper limit was -.0606 for the 95% CI (i.e., they did not contain zero). In other words, the indirect path of surrender to God on symptoms of depression was mediated by God attachment.

The mediation analysis partitioned out total effect of surrender to God ( $c = -.590$ ) and the mediated effect ( $ab = -2.864$ ) into a direct effect ( $c' = -.31$ ). Comparison of the coefficients for the direct and indirect paths ( $c' = -.31$  vs.  $ab = -2.864$ ), coupled with the findings that the estimated direct effect of surrender to God, while controlling for God attachment, was not significant (e.g.,  $c' = -.31, t(81) = -1.416, p = .161$ ) suggested that God attachment almost fully mediates the relationship between surrender to God and depression. The significance of the indirect effect was supported via the results of the Sobel test as well as the indirect procedure (Preacher & Hayes, 2008).

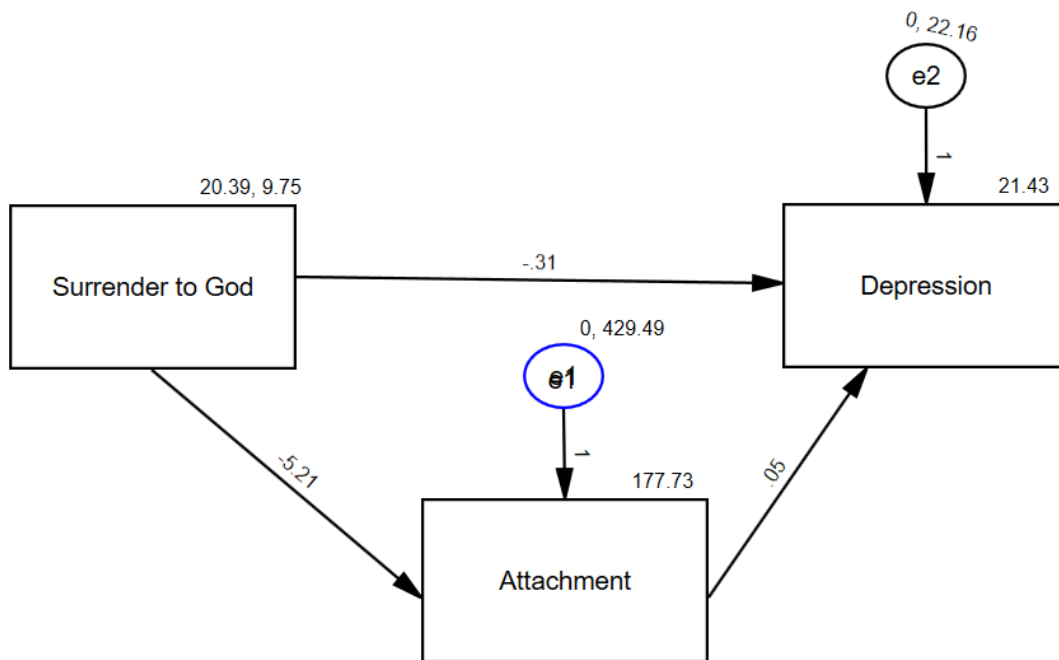


Figure 16. Empirical Results from a Multivariate Model for Question 1a

**Research Question 1b Anxiety.** A second mediation analysis, with Baron and Kenny's (1986) causal-step approach, was performed using the initial causal variable of surrender to God and the outcome variable of anxiety. The proposed mediating variable was God attachment. The aim of this analysis was to answer the question, Research Question 1b: is God attachment a mediating variable between surrender to God and anxiety?

As noted above, each variable was measured by a score on a self-report instrument. Reliability analyses were calculated for each measurement using the current data set. As reported above, the measurement of God attachment demonstrated good reliability with a Cronbach's alpha coefficient of .91. As the item choices for the surrender to God instrument were dichotomous, a Richardson-20 (KR-20) reliability analysis was performed. The results indicated

acceptable to good reliability with a coefficient of .70. Reliability for the anxiety scale was good with a Cronbach's alpha coefficient of .84.

While 97 individuals completed the survey, data for a sample of 82 participants were analyzed as 15 participants' responses were removed due to incomplete responses to items. Table H3 demonstrates the descriptive statistics for the variable analyzed.

Table H3

*Descriptive Statistics*

	Mean	Standard Deviation
Surrender to God	20.3902	3.14174
Attachment	71.5610	26.50278
Anxiety	18.8780	5.77006

Table H4 provides a correlation matrix for the variables analyzed. Here it is significant to note that neither the Surrender to God nor the mediating variable attachment predict anxiety. This suggests that the overall model containing surrender to God and God attachment will not predict anxiety. The results below confirm this.

Table H4

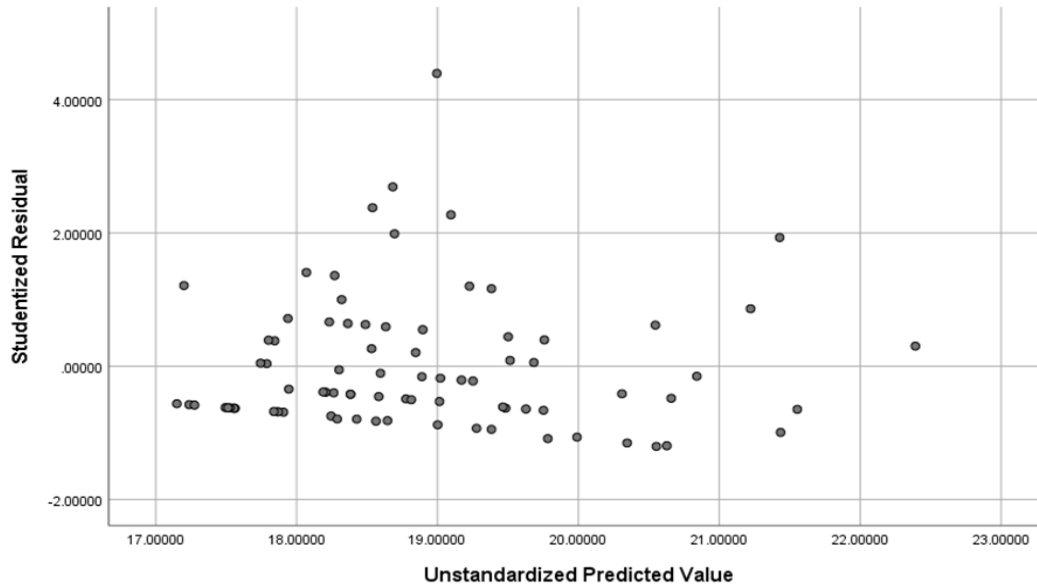
*Correlation Matrix*

		Surrender to God	Attachment	Anxiety
Surrender to God	Pearson Correlation	1	-.617**	-.195
	Sig. (2-tailed)		.000	.079
	N	82	82	82
Attachment	Pearson Correlation	-.617**	1	.138
	Sig. (2-tailed)	.000		.216
	N	82	82	82
Anxiety	Pearson Correlation	-.195	.138	1
	Sig. (2-tailed)	.079	.216	
	N	82	82	82

\*\* . Correlation is significant at the 0.01 level (2-tailed).

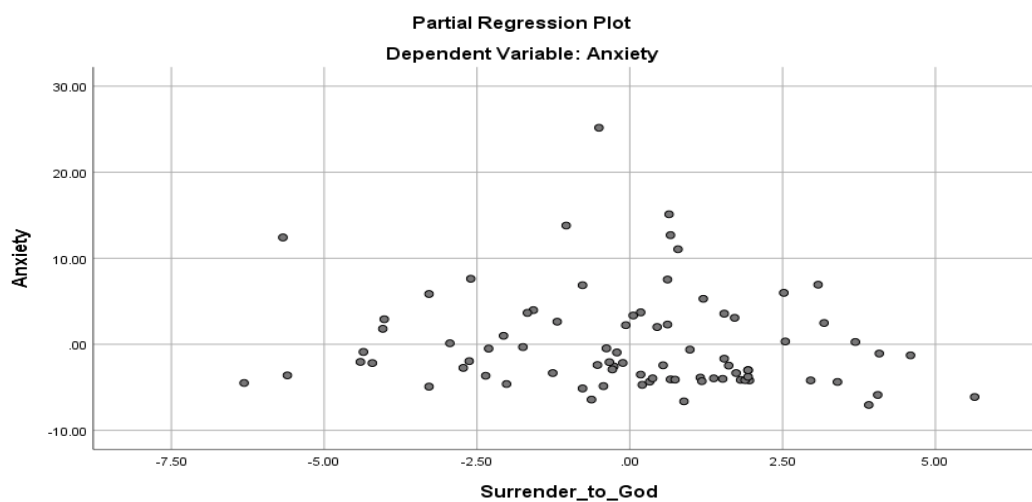
**Assumption testing.** Prior to conducting the analysis, assumption testing was completed. No gross violations of assumptions of normality or linearity were found. As the residuals form a somewhat horizontal band in the scatter plot created, the relationship between the outcome

variable, anxiety, and casual and mediating variables is deemed liner (See Figure I7).



*Figure I7.* Unstandardized Predicted Value

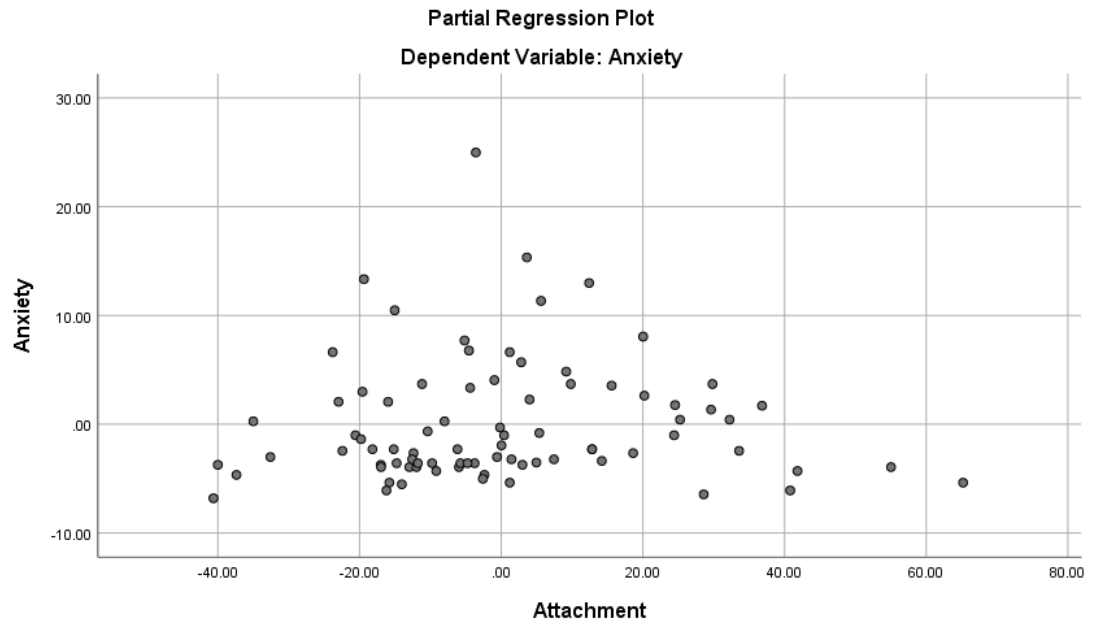
Through visual inspection, the partial regression plots demonstrated a linear relationship between both the mediating and casual variable and the outcome variable (See Figures I8 and I9).



*Figure I8.* Anxiety: Surrender to God

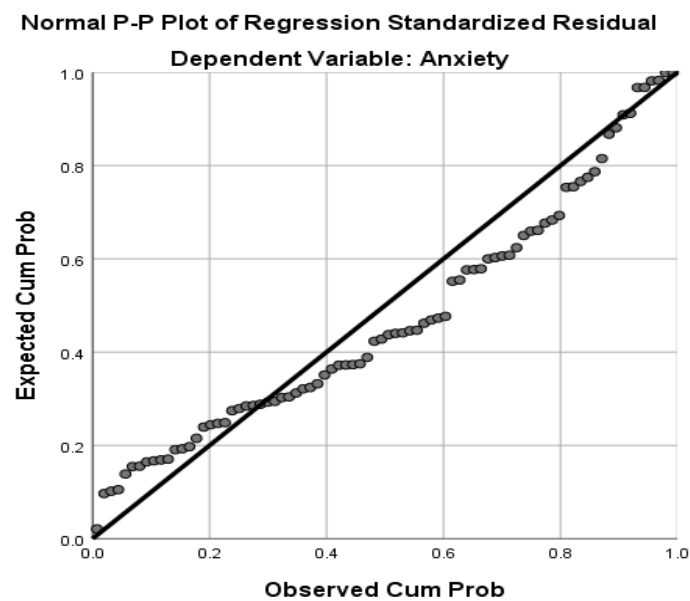


Figure I9. Attachment (Dependent Variable)



Vis

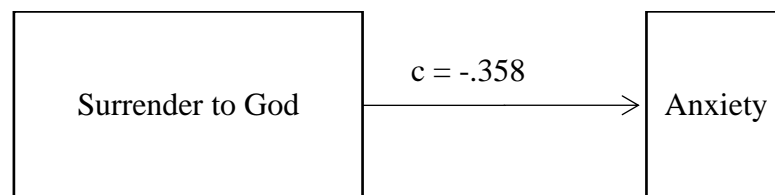
ual inspection of the P-P Plot also demonstrated that the residuals are approximately normally distributed (see Figure I10).



*Figure II0.* Observed Cum Prob (Dependent Variable)

As no gross violation of assumptions was found, the analysis was conducted as planned. Unstandardized coefficients were reported, and an  $\alpha = .05$ , two-tailed, was used to determine statistical significance.

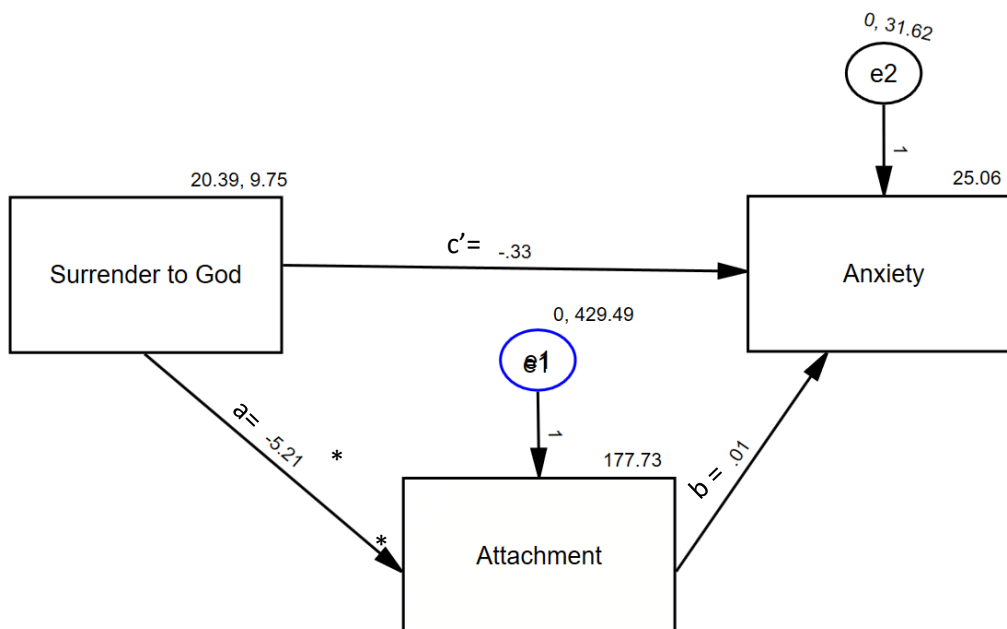
**Mediation analysis.** Path c is the association between surrender to God and anxiety; without consideration of the mediator. A bivariate regressions analysis was conducted to examine the total effect of surrender to God on anxiety; without consideration of the mediator. The results of the analysis, consistent with the above correlation analysis, were not significant,  $c = -.358$ ,  $t(81) = -1.777$ ,  $p = .079$ , indicating that surrender to God did not significantly predict anxiety (see Figure II1).



*Figure III.* Effect of Surrender to God on Anxiety

Path b is the association between God attachment and anxiety. Moreover, God attachment, while controlling for surrender to God, did not significantly predict anxiety,  $b = .01$ ,  $t(81) = .205$ ,  $p = .838$ .

Path a is the association between surrender to God and God attachment and the overall model. While the bivariate regression analysis demonstrated that surrender to God did significantly predict the mediating variable, God attachment;  $a = -5.21$ ,  $t(81) = -7.017$ ,  $p < .001$ , the model including surrender to God and God attachment did not significantly predict anxiety statistically,  $F(2, 79) = 1.58$ ,  $p = .212$ .  $R^2$  for the overall model was .038, a small size effect according to Cohen (1988). Therefore, it was concluded that there were no mediating or moderating effects (see Figure I12) and no further analyses were completed.



\*=significant at .05 level

Figure I12. Empirical Results from a Multivariate Model for Question 1b

## Research Question 2

A mediation analysis, with Baron and Kenny's (1986) causal-step approach, was performed using the initial causal variable of surrender to God and the outcome variable of God attachment. The proposed mediating variable was mindfulness. This analysis aimed to answer the question, is mindfulness a mediating variable between surrender to God and God attachment? Each variable was measured by a score on a self- report instrument.

Reliability analyses were calculated for each measurement using the current data set. The measurement of God attachment demonstrated good reliability with a Cronbach's alpha coefficient of .91. As the item choices for the surrender to God instrument were dichotomous, a Richardson-20 (KR-20) reliability analysis was performed. The results indicated acceptable to good reliability with a coefficient of .70. The measurement for mindfulness also had good reliability with a Cronbach's alpha coefficient of .91.

Ninety-seven participants completed the survey. However, data for a sample of 82 participants were analyzed as 15 participants' responses were removed due to incomplete responses to items. Table H5 demonstrates the descriptive statistics for the variable analyzed.

Table H5

### *Descriptive Statistics*

	Mean	Standard Deviation	N
Surrender to God	20.3902	3.14174	82
Attachment	71.5610	26.50278	82
Mindfulness	137.6220	19.90697	82

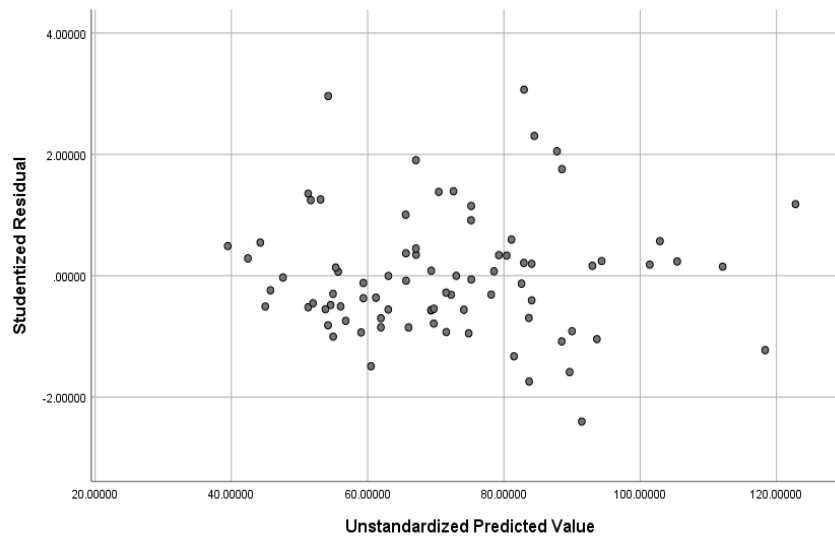
Table H6 provides a correlation matrix for the variables analyzed.

Table H6

*Correlation Matrix*

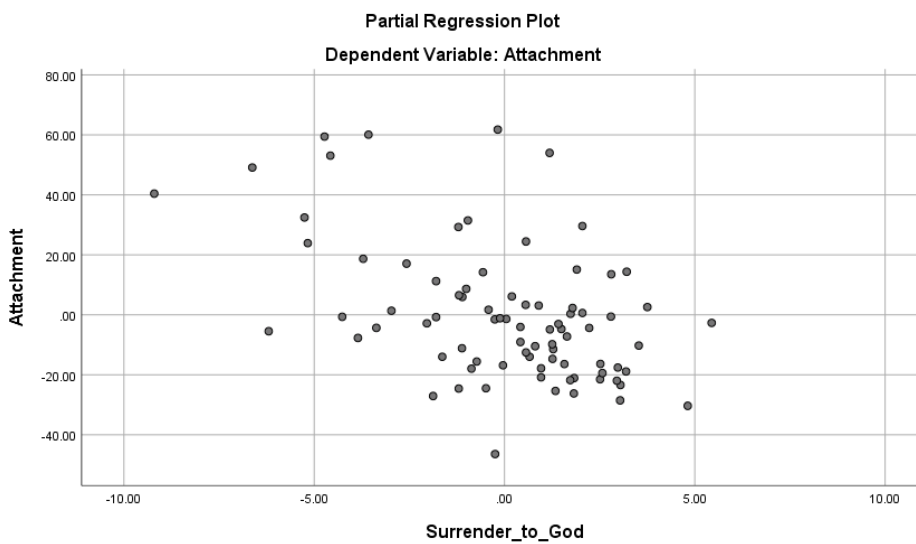
		Surrender to God	Attachment	Mindfulness
Surrender to God	Pearson	1	-.617**	.492**
	Correlation			
	Sig. (2-tailed)		.000	.000
	N	82	82	82
Attachment	Pearson	-.617**	1	-.513**
	Correlation			
	Sig. (2-tailed)	.000		.000
	N	82	82	82
Mindfulness	Pearson	.492**	-.513**	1
	Correlation			
	Sig. (2-tailed)	.000	.000	
	N	82	82	82
**. Correlation is significant at the 0.01 level (2-tailed).				

**Assumption testing.** Before conducting the analysis, assumption testing was completed. No gross violations of assumptions of normality or linearity were found. As the residuals form a somewhat horizontal band in the scatter plot created, the relationship between the outcome variable, God attachment, and causal and mediating variables is deemed linear (See Figure I13).

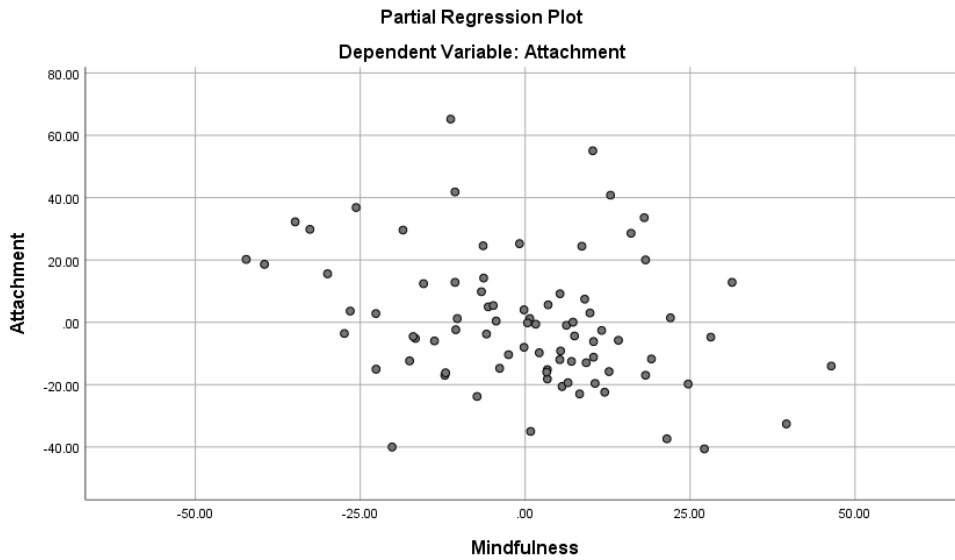


*Figure II3.* Unstandardized Predicted Value

Additionally, the partial regression plots visually inspected demonstrated a linear relationship between both the mediating and casual variable and the outcome variable (See Figures II4 and II5).

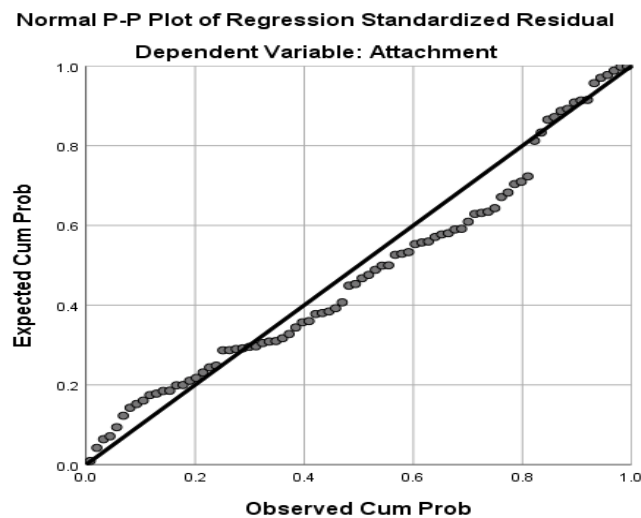


*Figure II4.* Surrender to God: Attachment (Dependent Variable)



*Figure I15. Attachment: Mindfulness (Dependent Variable)*

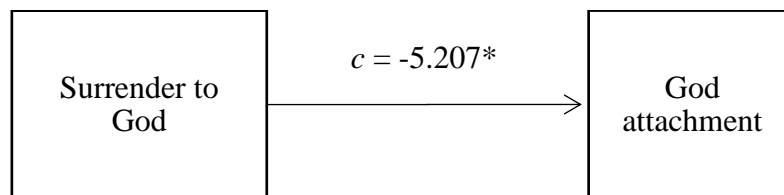
Visual inspection of the P-P Plot demonstrated that the residuals are approximately normally distributed (see Figure I16).



*Figure I16. Observed Cum Pro (Dependent Variable)*

As no gross violation of assumptions was found, the analysis was conducted as planned. In the results, unstandardized coefficients were used, unless noted, and  $\alpha = .05$ , two-tailed, was used to determine statistical significance.

**Analysis results.** Path c is the association between surrender to God and God attachment, without mediator considered. First, a bivariate regressions analysis was conducted to examine the total effect of surrender to God on God attachment. The results of the analysis were significant,  $c = -5.207$ ,  $t(81) = -7.017$ ,  $p < .001$ , indicating that surrender to God significantly predicts God attachment. Each 1-point decrease in the surrender to God rating predicts approximately a 5-point decrease in the God attachment rating (see Figure I17).



\*=significant at .05 level

*Figure I17. God Attachment rating*

Path a is the association between surrender to God and mindfulness. Additional analyses were conducted to examine the role of the mediating variable. Another bivariate regression analysis was conducted and demonstrated that surrender to God was also significantly predictive of the mediating variable, mindfulness;  $a = 3.115$ ,  $t(81) = 5.048$ ,  $p < .001$  (see Figure 18 below). The relationship between the variable was positively denoted by the positive coefficient of 3.115. As surrender to God increases, mindfulness increases



Path b is the association between mindfulness and God attachment, while controlling for surrender to God. When controlling for surrender to God, mindfulness was significantly predictive of God attachment,  $b = -.37$ ,  $t(81) = -2.853$ ,  $p = .006$ . As the mindfulness score increases, God attachment scores decrease.

The overall model represents the predictive ability of linear combination of mindfulness and surrender to God on God attachment. The multiple regression analysis demonstrated that God attachment could be predicted from the linear combination of surrender to God and mindfulness,  $F(2, 79) = 30.89$ ,  $p = .001$ .  $R^2$  for the overall model was .439, a moderate size effect according to Cohen (1988).

Path c' is the estimated direct effect of surrender to God, while controlling for mindfulness, and was  $c' = -4.06$ ,  $t(81) = -4.975$ ,  $p < .001$ . The results were significant, indicating that there is a significant association between surrender to God and God attachment.

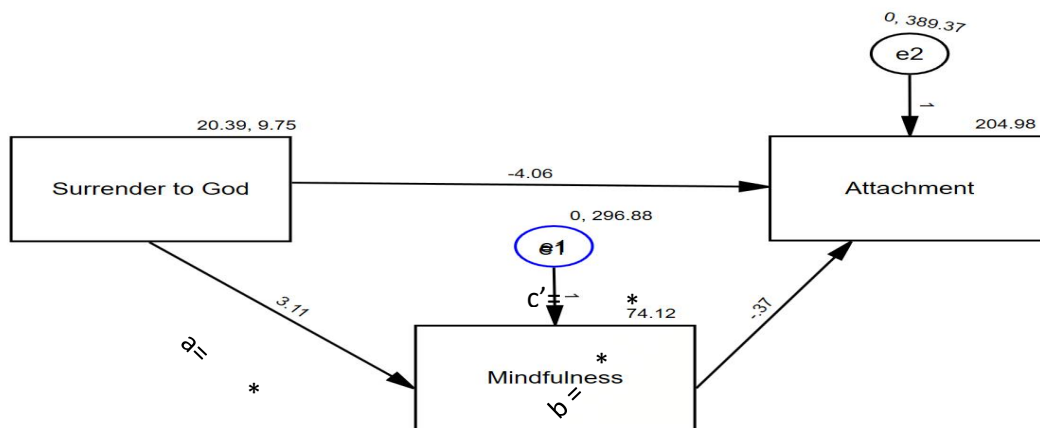


Figure I18. Empirical Results from A Multivariate Model for Question 2.

The indirect effect was calculated using pathway a and b. Using the a and b coefficients, the indirect effect,  $ab$ , was calculated and found to be -1.15 ( $3.11 \times -.37$ ). Comparison of the coefficients for the direct and indirect paths ( $c' = -4.06$  vs.  $ab = -1.15$ ), coupled with the findings that the estimated direct effect of surrender to God, while controlling for mindfulness, was significant (e.g.,  $c' = -4.06$ ,  $t(81) = -4.975$ ,  $p < .001$ ) suggests that mindfulness has a small influence on the relationship between surrender to God and God attachment.

This is confirmed by the Sobel test as well as the results of the indirect procedure (Preacher & Hayes, 2008) for bootstrapping in SPSS, which both demonstrated that the indirect effect was significant. In other words, the indirect of surrender to God through or mediate by mindfulness was significant. The Sobel (1982) test,  $z = -2.48$ ,  $p = .013$ , was significant, and results of the indirect procedure (Preacher & Hayes, 2008) in SPSS using a 2,000 samples bootstrap showed that the lower limit was -.03 and the upper limit was -.0003 for the 95% CI (i.e., they did not contain zero).

In sum, the mediation analysis demonstrated that mindfulness mediated the relationship between surrender to God and God attachment; however, mindfulness had a relatively small effect.

### **Research Question 3**

A simple linear regression was used to assess the linear relationship between the two continuous variables of mindfulness and surrender to God and answer research question 3, Do increased levels of mindfulness correlate to increased levels of surrender to God? Reliability analyses were calculated for each measurement using the current data set. As the item choices for the surrender to God instrument were dichotomous, a Richardson-20 (KR-20) reliability analysis

was performed. The results indicated acceptable to good reliability on the measure of surrender with a Cronbach's alpha coefficient of .70. The measurement for mindfulness also had good reliability with a Cronbach's alpha coefficient of .91. Ninety-seven participants completed the survey. However, data for a sample of 82 participants were analyzed as 15 participants' responses were removed due to incomplete responses to items. The variables are significantly associated ( $r = .492, p < .001$ ), and the descriptive statistics for each variable are reported in Table H7.

*Table H7*

Descriptive Statistics

	Mean	Standard Deviation	N
Surrender to God	20.3902	3.14174	82
Mindfulness	137.6220	19.90697	82

**Assumption testing.** Prior to conducting the analysis, assumptions were tested. A scatterplot was visually inspected to examine linearity between the variables, and the scatterplot indicated a linear relationship existed. It also demonstrated that there were no extreme outliers, and homoscedasticity was tenable (see Figure I19).

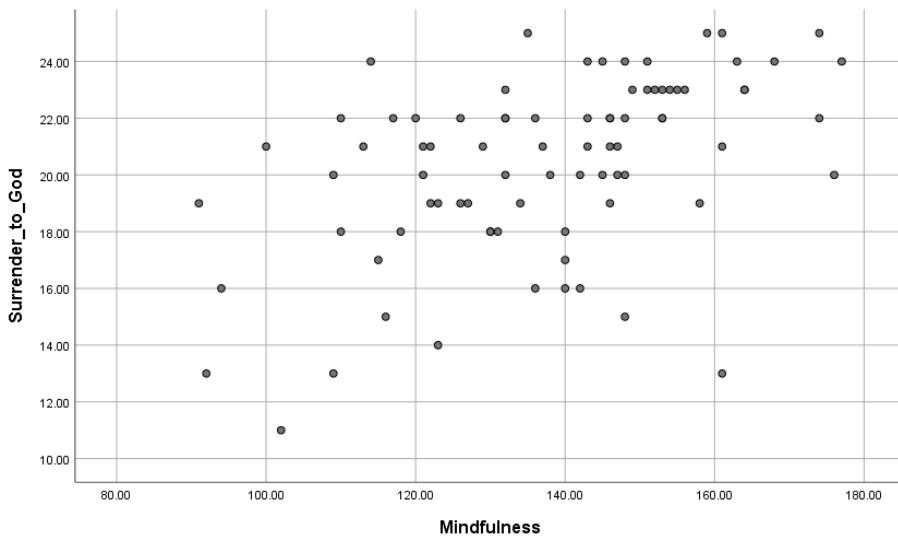


Figure I19. Mindfulness Scatterplot

The normal P-P plot demonstrated no violations in the assumption of normality.

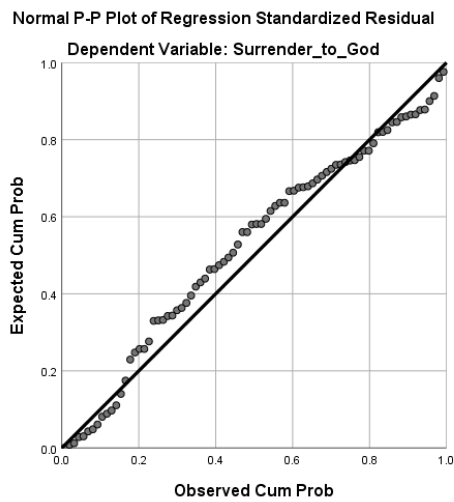


Figure I20. Normal P-P Plot

Finally, the Durbin-Watson statistic of 2.026 indicated that there was independence of errors (residuals). As all assumptions were tenable, the regression analysis was conducted as planned.

**Analysis results.** The results of the regression analysis were significant and provided evidence to reject the null hypothesis,  $F(1, 80) = 25.49, p < .001, R^2 = 0.24$ . Mindfulness significantly predicted surrender to God and explained 24% of the variability in the variable. As individuals' mindfulness increased, their surrender to God increased. The effect size was small to moderate. Table H8 provides a summary of the regression coefficients, and the regression formula for predicting surrender to God using mindfulness is,  $\text{surrender to God} = 9.714 + (.078 \times \text{mindfulness})$ .

Table H8

*Summary of Regression Coefficients (N = 82)*

Variable	B	SE B	$\beta$
Mindfulness	.078	*.015	.492

\* $p < .05$

## Reliability

A Cronbach's alpha coefficient needs to be calculated to assess the internal consistency of an instrument that uses a Likert-type scale. Kuder-Richardson-20 (KR-20) Reliability Analysis test of internal consistency evaluates internal consistency among dichotomous variables. Note that both are run the same way in SPSS and are reported as Cronbach's alpha.

What constitutes a good level of internal consistency differs depending on what source you refer to, most recommend values are 0.7 or higher (Kline, 2005). 0.6 indicates acceptable reliability, and 0.7 or higher indicates good reliability. Very high reliability (0.95 or higher) is

not necessarily desirable, as this indicates that the items may be entirely redundant. Cronbach's alpha coefficient for the 10 items of the pretest was 0.67, and Cronbach's alpha coefficient for the 10 items of the posttest was 0.78.

Reliability analyses were calculated for each measurement using the current data set. The measurement of God attachment demonstrated good reliability with a Cronbach's alpha coefficient of .91. As the item choices for the surrender to God instrument were dichotomous, a Richardson-20 (KR-20) reliability analysis was performed. The results indicated acceptable to good reliability with a coefficient of .70. The measurement for mindfulness also had good reliability with a Cronbach's alpha coefficient of .91.

Reliability for the depression and anxiety scales scale was also good with a Cronbach's alpha coefficient of .78 and .84.

Table H9

*God Attachment*

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.908	.914	28

Table H10

*Surrender to God*

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.697	.728	25

Table H11

*Depression*

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.784	.810	7

Table H12

*Anxiety*

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.841	.847	6

Table H13

*Mindfulness*

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.913	.916	39

## Results

For research question 1a: is God attachment a mediating variable between surrender to God and depression? God attachment completely mediates the significant relationship between surrender to God and depression. Thus, the null hypothesis is rejected.

For research question 1b: is God attachment a mediating variable between surrender to God and anxiety? The data indicates to fail to reject the null hypothesis. Surrender to God does not predict anxiety. God attachment does not predict anxiety. Furthermore, the linear combination of surrender to God and God attachment do not predict anxiety; thus, there is no mediating or moderating effect.

For research question 2: is mindfulness a mediating variable between surrender to God and God attachment? The linear combination of surrender to God and mindfulness significantly predicts God attachment. The association between surrender to God and God attachment is significant while controlling for mindfulness. The indirect effect is significant. Mindfulness partially mediates the significant relationship between surrender to God and God attachment. Thus, the null hypothesis is rejected.



For research question 3: do increased levels of mindfulness correlate to increased levels of surrender to God? Mindfulness significantly predicated surrender to God; as mindfulness increased, so did surrender to God. The null hypothesis is rejected.

## **CHAPTER FIVE: CONCLUSIONS**

### **Overview**

This study explored if relationships exist between mindfulness, surrender, God attachment and depression and anxiety. Participants were 82 individuals who enrolled in an online doctoral counseling program at a large Christian university. This study sought to explore whether God attachment had a mediating role in the relationship between surrender to God and depression and anxiety. Specifically, this study also wanted to understand if a relationship between God attachment, surrender, and mindfulness exists, and how these variables impact levels of depression and anxiety.

### **Discussion**

Results indicate that surrender to God fully mediates the relationship between God attachment and depression. However, this same association was not found to exist between God attachment and anxiety. Mindfulness was found to partially mediate the relationship between surrender to God and God attachment. Additionally, mindfulness significantly predicted surrender to God in that increased levels of mindfulness also correlated to increased levels of surrender. Table H14 provides a summary of the results.

Table H14

*Research Conclusions*

Question	Decision about Null	Conclusion
Research Question 1a: is God attachment a mediating variable between surrender to God and depression?	Reject the null hypothesis	The indirect effect was significant. Surrender to God fully mediates the significant relationship between God attachment and depression.
Research Question 1b: is God attachment a mediating variable between surrender to God and anxiety?	Fail to reject the null hypothesis	The overall model and the indirect effect were not significant. The linear combination of surrender to God and God attachment does not predict anxiety. There is no significant association between God attachment and anxiety.
Research Question 2: is mindfulness a mediating variable between surrender to God and God attachment?	Reject the null hypothesis	The indirect effect was significant. Mindfulness partially mediates the significant relationship between surrender to God and God attachment.
Research Question 3: do increased levels of mindfulness correlate to increased levels of surrender to God?	Reject the null hypothesis	The results of the regression analysis were significant. Mindfulness significantly predicted surrender to God and explained 24% of the variability in the variable. As individuals' mindfulness increased, their surrender to God increased. The effect size was small to moderate.

## **Implications**

This study yields valuable information for clinicians working with a Christian population struggling with depression. Clinicians can utilize mindfulness strategies as a way to increase levels of surrender in clients. Increased levels of surrender were found to be an intervening variable between God attachment and depression. Thus, using mindfulness as a tool for increasing surrender may help Christian clients move towards a more secure attachment to God, which may, in turn, help to address symptoms of depression. This study adds to the body of knowledge that seeks to implement religious coping mechanisms in the treatment of depression. It also yields further credence to studies that have concluded that positive religious coping can help increase psychological wellbeing and possibly help to mitigate symptoms of depression. A meta-analysis concluded that mental health interventions, which include religious adaptations, resulted in favorable outcomes (Smith, Bartz, & Richards, 2007).

## **Limitations**

A primary limitation of this study is that participants were from a nonclinical convenience sample and were graduate students at a large Christian university. Thus, these results cannot be generalized to the general population. Additionally, this study used self-report measures that depend largely on participants' ability to authentically synthesize the information and accurately reflect their responses.

## **Recommendations for Future Research**

Future research recommendations include an experimental research design with a pre and post-test, following a mindfulness intervention protocol that targets surrender and God attachment. Furthermore, longitudinal studies may yield further understanding in best practices

for implementing mindfulness strategies in an effort to increase positive religious coping mechanisms. Additionally, future research is needed to explore what specific aspects of mindfulness are correlated to surrender to God. Future research should also explore culturally and spiritually diverse populations.

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## APPENDICES

### Appendix A

#### Recruitment email

Hello, fellow Department of Community Care & Counseling online doctoral students. My name is Shalana Palermo, and I am also a doctoral student pursuing an EdD in Community Care & Counseling, Traumatology cognate.

I am writing to invite you to participate in the research for my dissertation. I am studying mindfulness, surrender, God attachment, depression, and anxiety. You are eligible to participate if you are 18 years old or older and a Liberty University Online student in the Department of Community Care & Counseling pursuing an EdD in any of the following three cognates: pastoral, traumatology, and marriage and family.

If you would like to participate, you will be asked to complete an online survey, which may take up to 45 minutes to complete. All data collected is anonymous; no personal identifying information will be collected.

A consent form will be provided when you first open the survey link. Additional information about my research and the study is included in the consent form, but you will not need to sign it.

To participate in my dissertation research, please go to the following link:

[https://liberty.co1.qualtrics.com/jfe/form/SV\\_6lOxkqs8IIAK1G5](https://liberty.co1.qualtrics.com/jfe/form/SV_6lOxkqs8IIAK1G5)

If you have any further questions or concerns, please don't hesitate to contact me at: [smvaron@liberty.edu](mailto:smvaron@liberty.edu).

Thank you!

## **Appendix B**

### **Consent Form**

#### **The Relationship between Mindfulness, Surrender, and God Attachment and its Impact on Depression and Anxiety**

Shalana Palermo

Liberty University

Department of Community Care and Counseling/School of Behavioral Sciences

You are invited to be in a research study on mindfulness, surrender, God attachment, and depression and anxiety. You were selected as a possible participant because you are over the age of 18 and currently a Liberty University Online student in the Department of Community Care and Counseling pursuing an EdD in any of the following cognates: traumatology, pastoral, or marriage and family. Please read this form and ask any questions you may have before agreeing to be in the study.

Shalana Palermo, a doctoral candidate in the Department of Community Care and Counseling/School of Behavioral Sciences at Liberty University, is conducting this study.

**Background Information on the Research Study:** The purpose of this study is to explore how God attachment may impact surrender to God and also how mindfulness may relate to the relationship between surrender and God attachment. Additionally, this study explores how surrender, God attachment and mindfulness might work together to impact depression and anxiety.

**Procedures:** If you agree to be in this study, I would ask you to do the following things:

1. Please complete the following survey, which includes questions about demographic information, surrender, mindfulness, God attachment, depression, anxiety, and stress. This survey will take about 45 minutes to complete.

**Risks:** This study has minimal risks similar to what you would encounter in everyday life.

**Benefits:** This study does not provide direct benefits to the participant. However, data gleaned from this study might benefit researchers studying the relationship between mindfulness, surrender, God attachment, depression, and anxiety.

**Compensation:** Participants will not be compensated for participating in this study.

**Confidentiality:** The records of this study will be kept private. Your participation in this study is anonymous. All data will be stored on a password-locked computer. After three years, all

electronic records will be deleted. The researcher, dissertation chair, dissertation reader, and statistical consultant are the only ones that will have access to the data.

**Voluntary Nature of the Study:** Participation in this study is voluntary. Whether you decide to participate or not, will have no bearing on your current or future relationship with Liberty University. If you decide to participate, you are free not to answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

**How to withdraw from the Study:** If you would like to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

**Questions and Contact Information:** The researcher conducting this study is Shalana Palermo. She can be reached at [smvaron@liberty.edu](mailto:smvaron@liberty.edu) or 440-226-6449. The dissertation chair for this research study is Dr. Patricia Hinkley. She can be reached at [pathomps@liberty.edu](mailto:pathomps@liberty.edu) or 434-592-4026. You are encouraged to contact the Institutional Review Board if you have questions or concerns regarding this study and would like to talk to someone other than the researcher or her dissertation chair. They can be reached at [irb@liberty.edu](mailto:irb@liberty.edu) or Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515.

*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.

## **Appendix C**

### Demographic Information

#### **Age:**

Are you 18 or older?

Yes or No

#### **Gender:**

Male or Female

#### **Ethnicity:**

White, Hispanic, African, Asian, Native American/Pacific Islander, or Other

#### **Marital Status:**

Single, Married, Widowed, or Divorced



## **Appendix D**

Attachment to God Inventory

Removed to comply with copyright laws.

## **Appendix E**

Reinert S Scale

Removed to comply with copyright laws.

## **Appendix F**

Depression, Anxiety, and Stress Scale-21

Removed to comply with copyright laws.

## **Appendix G**

Five Facet Mindfulness Scale

Removed to comply with copyright laws.

## Appendix H

### List of Tables

Table H1

#### *Descriptive Statistics*

Descriptive Statistics		
	Mean	Standard Deviation
Surrender to God	20.3902	3.14174
Attachment	71.5610	26.50278
Depression	19.1220	5.21250

Table H2

#### *Correlation matrix*

		Correlations		
		Depression	Surrender to God	Attachment
Depression	Pearson Correlation	1	-.356**	.392**
	Sig. (2-tailed)		.001	.000
	N	82	82	82
Surrender to God	Pearson Correlation	-.356**	1	-.617**
	Sig. (2-tailed)	.001		.000
	N	82	82	82
Attachment	Pearson Correlation	.392**	-.617**	1
	Sig. (2-tailed)	.000	.000	
	N	82	82	82
**. Correlation is significant at the 0.01 level (2-tailed).				

Table H3

*Descriptive Statistics*

Descriptive Statistics		
	Mean	Standard Deviation
Surrender to God	20.3902	3.14174
Attachment	71.5610	26.50278
Anxiety	18.8780	5.77006

Table H4

*Correlation Matrix*

Correlation Matrix				
		Surrender to God	Attachment	Anxiety
Surrender to God	Pearson	1	-.617**	-.195
	Correlation			
	Sig. (2-tailed)		.000	.079
	N	82	82	82
Attachment	Pearson	-.617**	1	.138
	Correlation			
	Sig. (2-tailed)	.000		.216
	N	82	82	82
Anxiety	Pearson	-.195	.138	1
	Correlation			
	Sig. (2-tailed)	.079	.216	
	N	82	82	82
**, Correlation is significant at the 0.01 level (2-tailed).				

Table H5

*Descriptive Statistics*

Descriptive Statistics			
	Mean	Standard Deviation	N
Surrender to God	20.3902	3.14174	82
Attachment	71.5610	26.50278	82
Mindfulness	137.6220	19.90697	82

Table H6

*Correlation matrix*

Correlations				
		Surrender to		
		God	Attachment	Mindfulness
Surrender to God	Pearson Correlation	1	-.617**	.492**
	Sig. (2-tailed)		.000	.000
	N	82	82	82
Attachment	Pearson Correlation	-.617**	1	-.513**
	Sig. (2-tailed)	.000		.000
	N	82	82	82
Mindfulness	Pearson Correlation	.492**	-.513**	1
	Sig. (2-tailed)	.000	.000	
	N	82	82	82

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table H7

*Descriptive Statistics*

	Mean	Standard Deviation	N
Surrender to God	20.3902	3.14174	82
Mindfulness	137.6220	19.90697	82

Table H8

*Summary of Regression Coefficients (N = 82)*

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Variable	B	SE B	$\beta$
Mindfulness	.078	*.015	.492

\* $p < .05$

Table H9

*God Attachment*

Reliability Statistics		
	Cronbach's Alpha Based on	
Cronbach's Alpha	Standardized Items	N of Items
.908	.914	28

Table H10

*Surrender to God*

Reliability Statistics		
Cronbach's Alpha Based on		
Cronbach's Alpha	Standardized Items	N of Items
.697	.728	25

Table H11

*Depression*

Reliability Statistics		
Cronbach's Alpha Based on		
Cronbach's Alpha	Standardized Items	N of Items
.784	.810	7

Table H12

*Anxiety*

Reliability Statistics		
Cronbach's Alpha Based on		
Cronbach's Alpha	Standardized Items	N of Items
.841	.847	6

Table H13

*Mindfulness*

Reliability Statistics		
Cronbach's Alpha Based on Cronbach's Standardized Items		
Alpha	Items	N of Items
.913	.916	39

Table H14

*Research Conclusions*

Question	Decision about Null	Conclusion
<b>Research Question 1a: Is God attachment a mediating variable between surrender to God and depression?</b>	Reject the null hypothesis	The indirect effect was significant. Surrender to God fully mediates the significant relationship between God attachment and depression.
<b>Research Question 1b: Is God attachment a mediating variable between surrender to God and anxiety?</b>	Fail to reject the null hypothesis	The overall model and the indirect effect were not significant. The linear combination of surrender to God and God attachment does not predict anxiety. There is no significant association between God attachment and anxiety.
<b>Research Question 2: Is mindfulness a mediating variable between surrender to God and God attachment?</b>	Reject the null hypothesis	The indirect effect was significant. Mindfulness partially mediates the significant relationship between surrender to God and God attachment.
<b>Research Question 3: Do increased levels of mindfulness correlate to increased levels of surrender to God?</b>	Reject the null hypothesis	The results of the regression analysis were significant. Mindfulness significantly predicted surrender to God and explained 24% of the variability in the variable. As individuals' mindfulness increased, their surrender to God increased. The effect size was small to moderate.

## Appendix I

### List of Figure

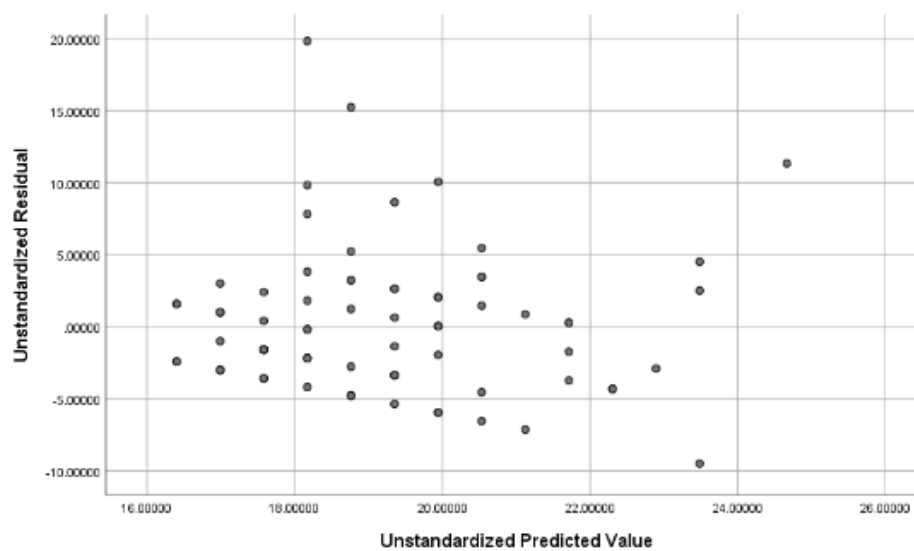


Figure II. Unstandardized Predicted Value

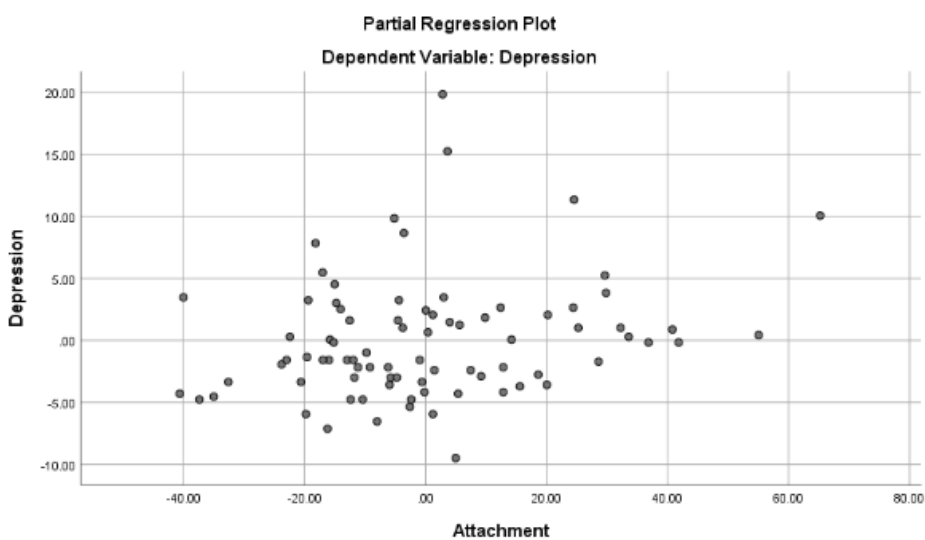
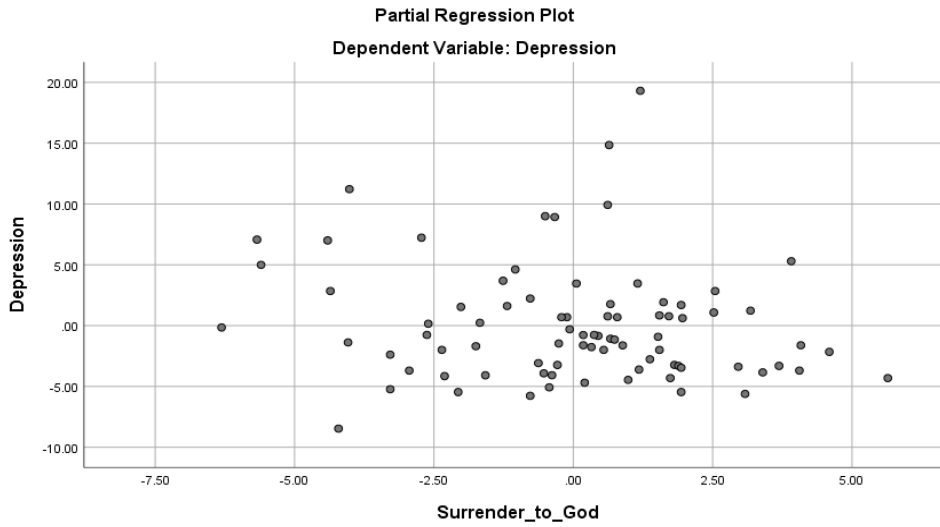
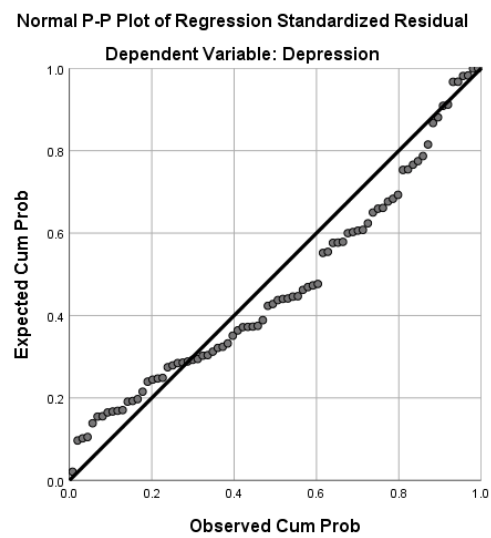


Figure I2. Attachment (Unstandardized Predicted Value)





*Figure I3.* Depression: Surrender to God (Dependent Variable)



*Figure I4.* Dependent Variable Depression: Observed Cum Prob

	Surrender to God	$c = -.590$ *	Depression
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\*=significant at .05 level

Figure 15. Depression Rating

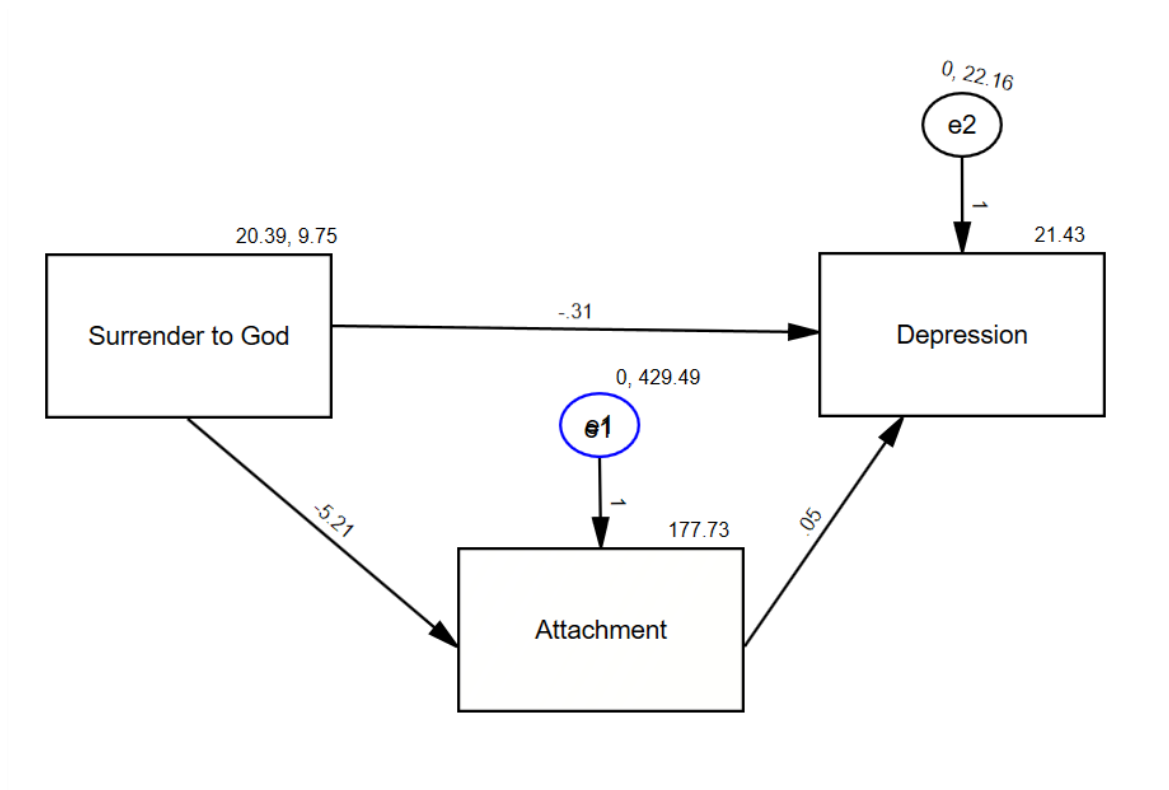


Figure 16. Empirical Results from a Multivariate Model for Question 1a

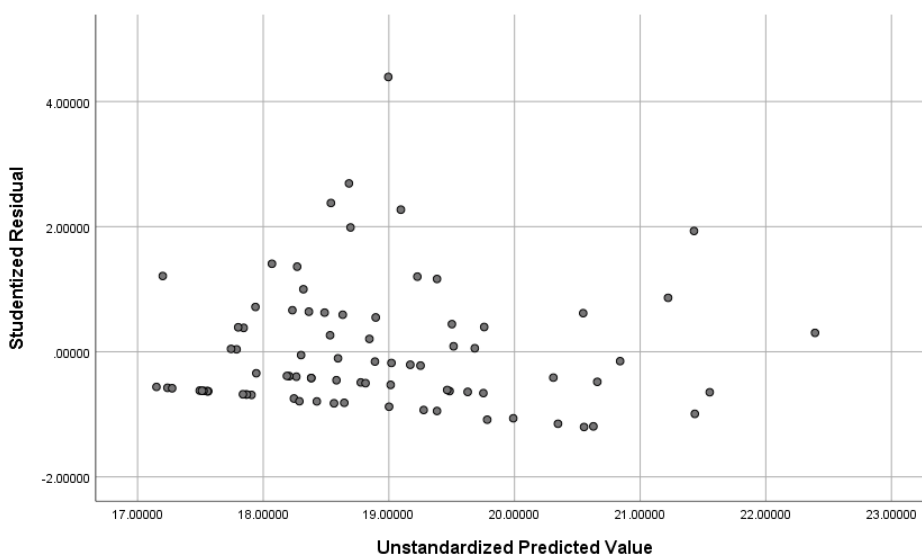


Figure I7. Unstandardized Predicted Value

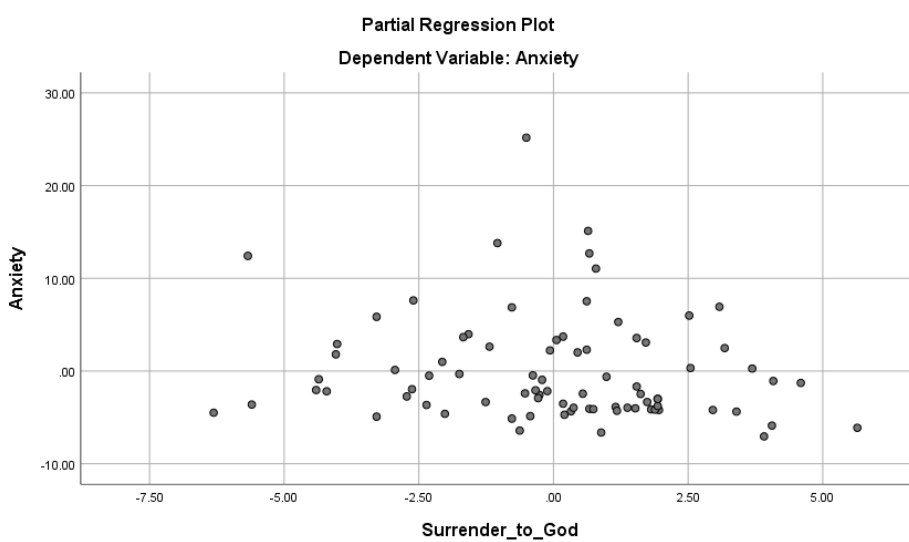


Figure I8. Anxiety: Surrender to God

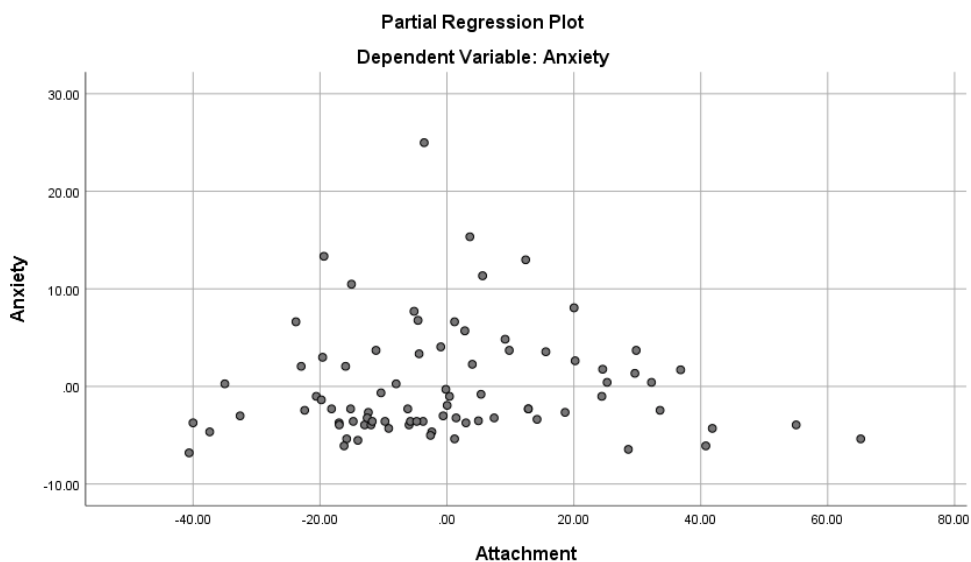


Figure I9. Attachment (Dependent Variable)

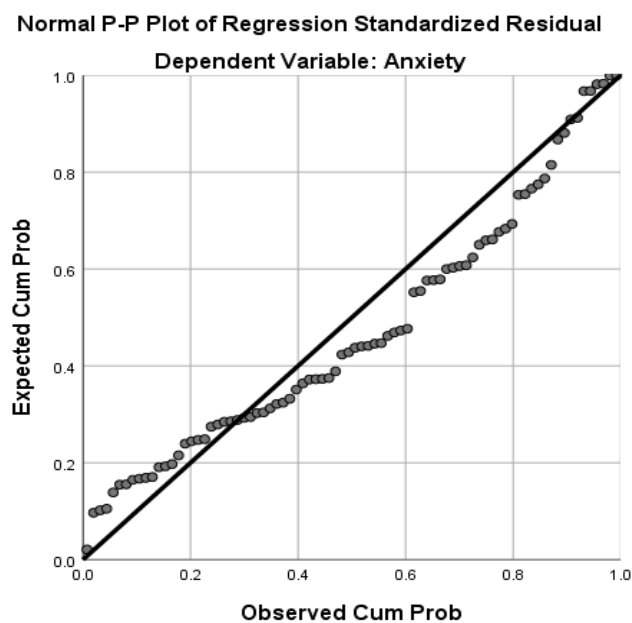


Figure II0. Observed Cum Prob (Dependent Variable)

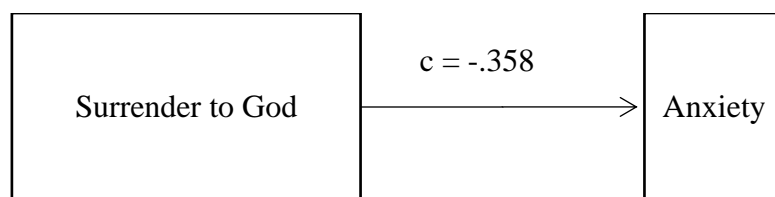


Figure III.

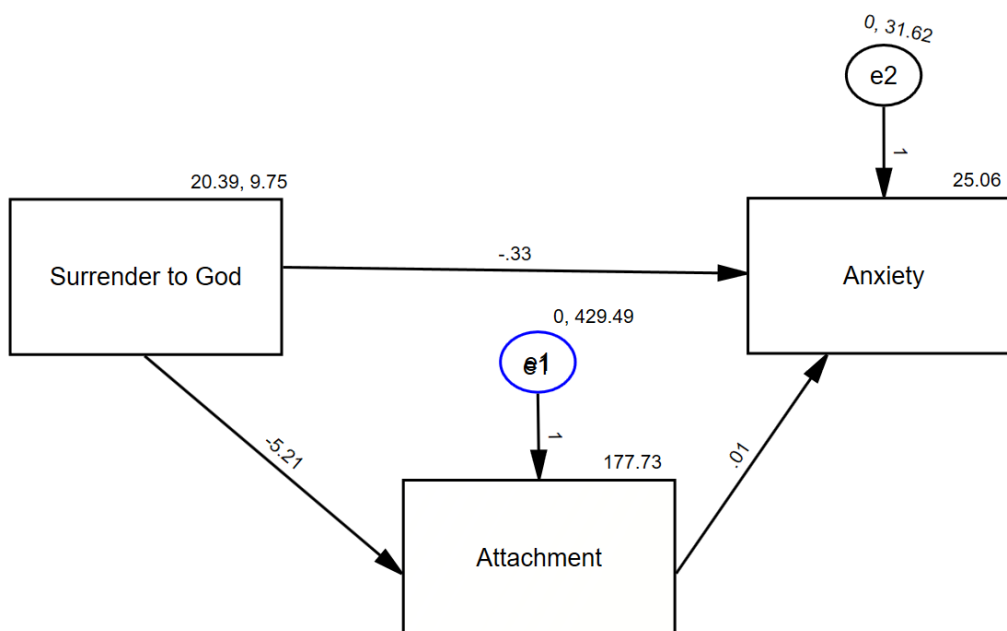


Figure II2. Empirical Results from a Multivariate Model for Question 1b

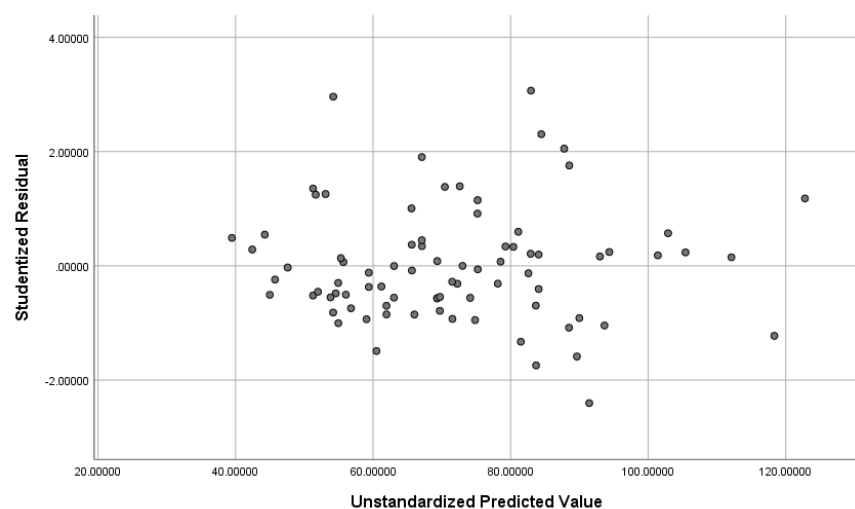


Figure II3. Unstandardized Predicted Value

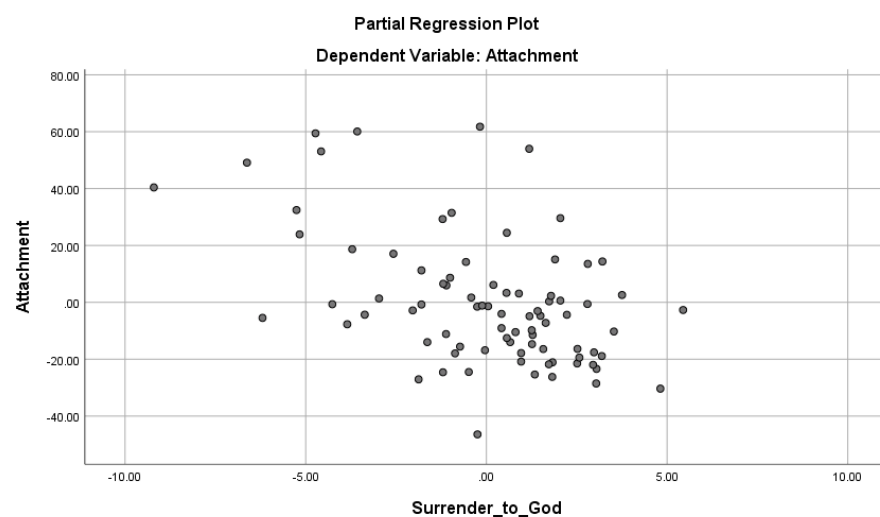


Figure II4. Surrender to God: Attachment (Dependent Variable)

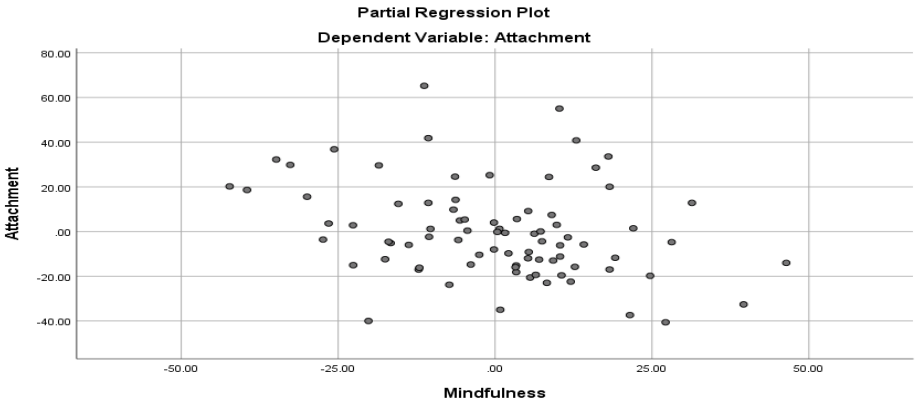


Figure II5. Attachment: Mindfulness (Dependent Variable)

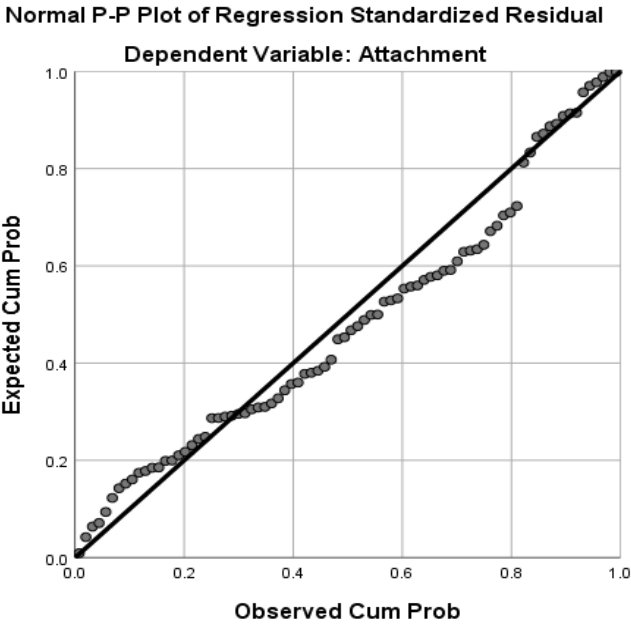


Figure II6. Observed Cum Pro (Dependent Variable)

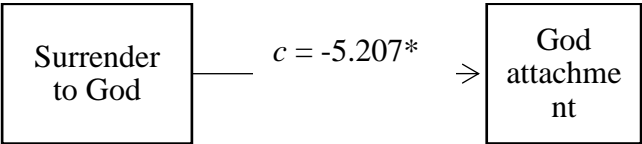
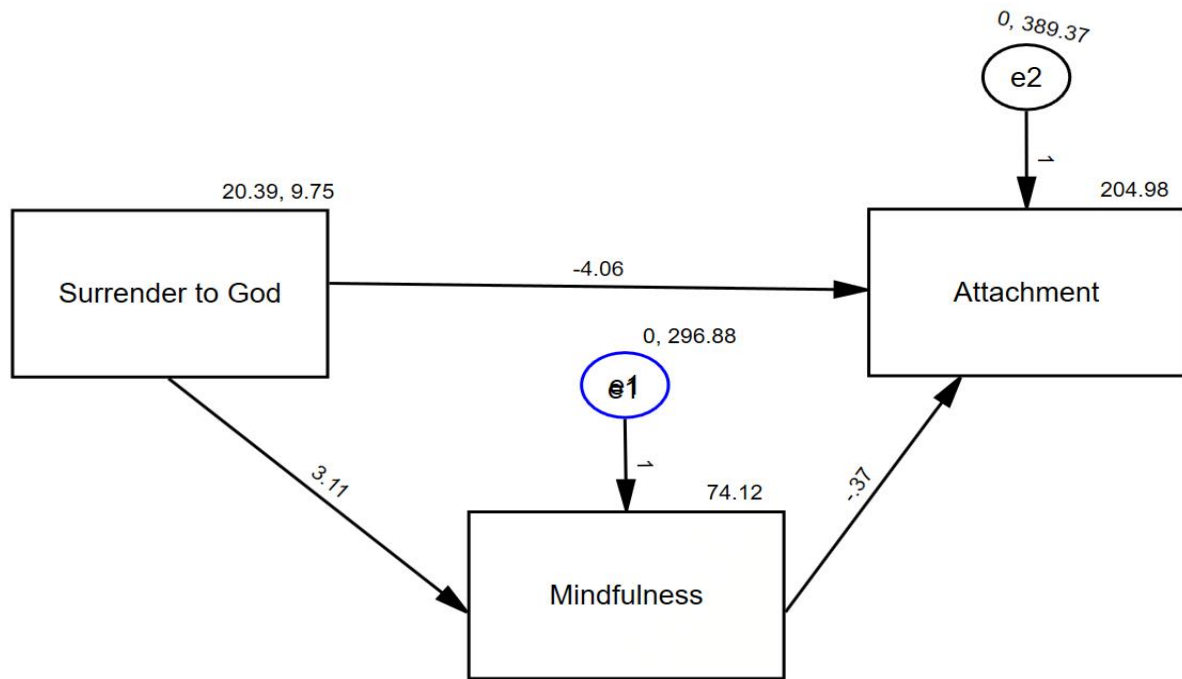


Figure II7. God Attachment rating



\*=significant at .05 level

Figure I18. Empirical Results from A Multivariate Model for Question 2.

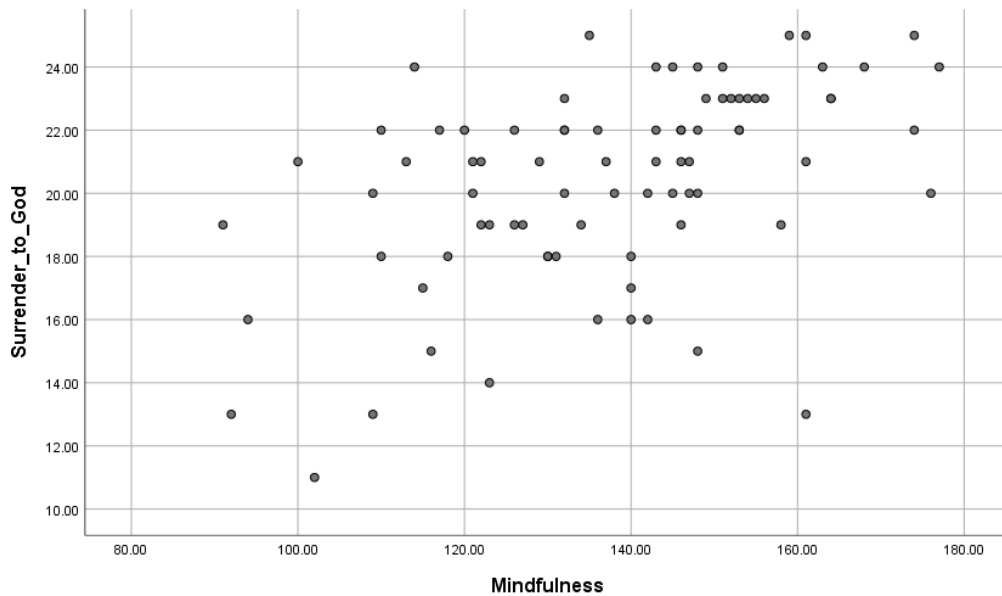


Figure I19. Mindfulness



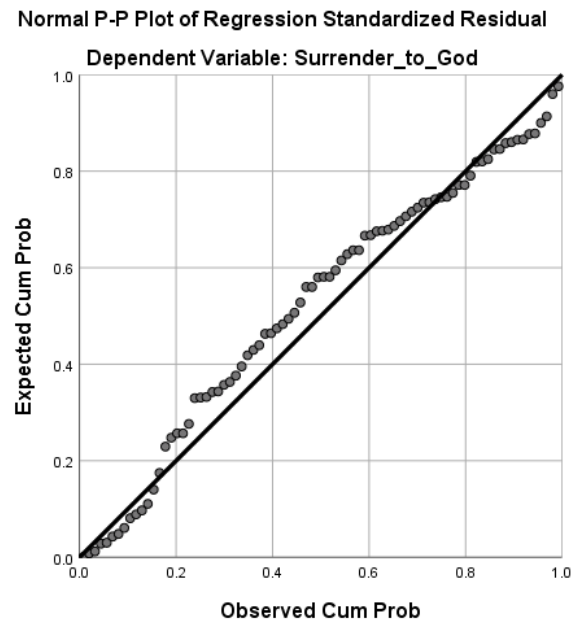


Figure I20. Normal P-P Plot

## Appendix J

June 5, 2019

Shalana Palermo IRB Exemption 3818.060519: The Relationship between Mindfulness, Surrender, and God Attachment and Its Impact on Depression and Anxiety

Dear Shalana Palermo,

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 that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:

(3) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects;

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](mailto:irb@liberty.edu).

Sincerely,

G. Michele Baker, MA, CIP Administrative Chair of Institutional Research Research Ethics  
Office

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