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Childhood Trauma and the Faith Maturity of Seventh-day Adventist Pastors and Seminarians

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ABSTRACT

CHILDHOOD TRAUMA AND THE FAITH MATURITY OF SEVENTH-DAY ADVENTIST PASTORS AND SEMINARIANS

by

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ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

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Title: CHILDHOOD TRAUMA AND THE FAITH MATURITY OF SEVENTH-DAY ADVENTIST PASTORS AND SEMINARIANS

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Problem

Unfortunately, Childhood Trauma is a fact of life. For instance, children lose parents/guardians through death or divorce. Children grow up in impoverished situations. Children have parents who suffer from mental illness and/or commit suicide. In addition, more unfortunately, some children are mistreated, neglected, and/or abused.

The long-lasting impact of Childhood Trauma includes increased morbidity and mortality, and decreased opportunities for prosperity. This research sought to establish a statistical relationship between Childhood Trauma and Faith Maturity. Childhood Trauma has been demonstrated to affect attachment processes in children and, since religion is an

attachment process and God is an attachment figure, it follows that Childhood Trauma has the potential to affect an individual's relationship with God.

Method

This research measured the prevalence of Childhood Trauma among those preparing for ministry, as well as those already serving in pastoral ministry. Next, a quantitative nonexperimental correlation research design examined whether Childhood Trauma was correlated with Faith Maturity. The independent variable Childhood Trauma was grouped in multiple ways and the means of the dependent variable Faith Maturity were compared with one-way ANOVAs. In addition, the respondents were grouped by demographic information (gender, age, race, marital status, and educational background), and their means were compared to see if there was any interaction.

Results

This research found a negative correlation between Childhood Trauma and Faith Maturity. While the results followed what was theorized in the literature review, as the study was conducted with pastors and seminarians, it is significant that despite their theological training, higher Faith Maturity scores and practice of spiritual disciplines (prayer, Bible study, etc.), there was still a negative relationship between Childhood Trauma and their Faith Maturity. This research found no interaction on the basis of demographics.

Conclusion

The results of this research suggest the need to create trauma-informed pastors, church administrators, and churches. This research needs to be repeated with a larger

sample and with a more diverse population to determine whether the negative correlation would be greater with a sample that includes those less trained, with lower average Faith Maturity scores and a less frequent practice of spiritual disciplines (prayer, Bible study, etc.), and with a larger, more diverse sample, would demographics show any interaction.

Andrews University

Seventh-day Adventist Theological Seminary

CHILDHOOD TRAUMA AND THE FAITH MATURITY OF SEVENTH-DAY ADVENTIST PASTORS AND SEMINARIANS

A Dissertation

Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

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DEDICATION

One of the next frontiers for the church is to create trauma-informed churches so that those who have suffered Childhood Trauma may get the healing, support, and love they need which can then transform their relationship with the God who loved them so much that He suffered trauma to heal our trauma. This is dedicated first to my wonderful and supportive wife, Dahlia, who walked with me and encouraged me throughout this long journey. It is dedicated next to my parents, Elders Kenneth and Pamela Palmer, who believed, like my wife, that I would accomplish this achievement; they nurtured my belief that I could achieve whatever I put my mind to. This is also dedicated to my son, Dr. Troy Levy, and his family who are some of my biggest supporters and to my friends, too many to mention, who also encouraged and prayed for me. Finally, this is dedicated to every survivor of Childhood Trauma. Please know that God sent me down this path to let survivors know that God never left them or forsook them as they suffered.

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LIST OF ABBREVIATIONS

ACEs	Adverse Childhood Experiences
ANOVA	Analysis of Variance
APA	American Psychological Association
CDC	Centers for Disease Control and Prevention
DMAP	Dimensional Model of Adversities and Psychopathology
DNA	Deoxyribonucleic Acid
FMS	Faith Maturity Scale
IWM	Internal Working Model
NIMH	National Institute of Mental Health
NSCH	National Survey of Children's Health
SDA	Seventh-day Adventist

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CHAPTER 1

INTRODUCTION

Background of the Problem

> One does not have to be a combat soldier or visit a refugee camp in Syria or the Congo to encounter trauma. Trauma happens to us, our friends, our families, and our neighbors. Research by the Centers for Disease Control and Prevention has shown that one in five Americans was sexually molested as a child; one in four was beaten by a parent to the point of a mark being left on their body; and one in three couples engages in physical violence. A quarter of us grew up with alcoholic relatives, and one out of eight witnessed their mother being beaten or hit. (Van der Kolk, 2014, pp. 1–18)

The reality of Childhood Trauma and what that might mean for the members of churches in terms of their spiritual health and well-being is a subject that most churches have been slow to acknowledge and/or address.

This focus on trauma; the treatment of trauma; and trauma-informed-care ranging from early intervention and prevention to residential treatment for the treatment of significant mental, emotional, and physical impacts of early childhood adversity and trauma (Van der Kolk, 2014) has come under more scrutiny since the Kaiser-Permanente study of 1997. Where there seems to be a need for additional research is on the impact of adverse childhood experiences on the spiritual health of those affected by this trauma. Understanding how the body, the mind, and the spirit are impacted by adversity is critical for professionals serving families. As the Adverse Childhood Experiences Study has confirmed, trauma that happens in childhood is linked to negative health outcomes

throughout the lifespan (Van der Kolk, 2014).

The U.S. Department of Health and Human Services (2019) gave the following statistics: “In 2017-2018, one in three children under the age of 18 were reported to have suffered at least one adverse childhood experience (ACE) in their lifetime and 14 percent experienced two or more ACEs” (para. 1).

Murphey and Sacks (2018) used data from the 2016 National Survey of Children’s Health (NSCH) to highlight the following findings:

- Just under half (45 percent) of children in the United States have experienced at least one ACE, which is similar to the rate of exposure found in a 2011/2012 survey. In Arkansas, the state with the highest prevalence, 56 percent of children have experienced at least one ACE.
- One in ten children nationally has experienced three or more ACEs, placing them in a category of especially high risk. In five states—Arizona, Arkansas, Montana, New Mexico, and Ohio—as many as one in seven children had experienced three or more ACEs.
- Children of different races and ethnicities do not experience ACEs equally. Nationally, 61 percent of black non-Hispanic children and 51 percent of Hispanic children have experienced at least one ACE, compared with 40 percent of white non-Hispanic children and only 23 percent of Asian non-Hispanic children. In every region, the prevalence of ACEs is lowest among Asian non-Hispanic children and, in most regions, is highest among black non-Hispanic children. (Key Findings sec)

In a 2019 study, Centers for Disease Control and Prevention (CDC) scientists found that 61% of 144,000 adults in 25 states had experienced at least one ACE (Merrick et al., 2019). Furthermore, it was reported that nearly 16 percent of the adults whose data were analyzed experienced four or more ACEs, while women and several racial and ethnic minority groups were at greater risk for experiencing a higher number of ACEs.

As will be documented in the literature review, various ACE studies have shown that ongoing health challenges result from Childhood Trauma. However, what we need a better understanding of is how this trauma may be impacting our members, our churches,

and especially, our pastors spiritually. The clear inference from van der Kolk is that what impacts the body, impacts the mind. Thus, it is inconceivable for these childhood traumas not to have an impact on an individual's spirituality which is housed in the mind.

While the prevalence of ACEs in our churches is complicated by what one church insurer describes in their article on child abuse prevention:

> Church people can be protective of their own and can be in denial about the prevalence or seriousness of child abuse. Many church members are adults who experienced abuse as children and minimize it as "over and done with" (sexual abuse) or legitimate "discipline" (physical, emotional, and verbal abuse). Additionally church folk often function with unconscious assumptions about children, such as they are "bad" by nature or that they tell tall tales. (Gibbons, 2007, Note to Leaders section)

It is possible that we are seeing evidence of Childhood Trauma.

In the publishers' description of Peter Scazzero's book (2003), the author's assessment of the church is quoted: "He says, "our churches are in trouble. They are filled with people who are

1) Unsure how to biblically integrate anger, sadness and other emotions,
2) Defensive, incapable of revealing their weaknesses,
3) Threatened by or intolerant of different viewpoints,
4) Zealous about ministering at church but blind to their spouses' loneliness at home,
5) So, involved in "serving" that they fail to take care of themselves, and
6) Prone to withdraw from conflict rather than to resolve it. (para 1)

Scazzero also said, "The sad truth is that too little difference exists, in terms of emotional and relational maturity, between God's people inside the church and those outside who claim no relationship to Jesus Christ" (p. 17). Now, while his assessment does not appear to be a researched assessment, but rather, an anecdotal one, it at least appears to have the ring of truth to it. He asked the following question:

Do any of the following people remind you of someone in your church?

1) The board member who never says, “I was wrong” or “Sorry.”
2) The children’s church leader who constantly criticizes others.
3) The high-control small group leader who cannot tolerate different points of view.
4) The middle-aged father of two toddlers who is secretly addicted to pornography.
5) The thirty-five-year-old husband busily serving in the church, unaware of his wife’s loneliness at home.
6) The worship leader who interprets any suggestion as a personal attack and personal rejection.
7) The Sunday school teacher struggling with feelings of bitterness and resentment toward the pastor but afraid to say anything.
8) The exemplary “servant’ who tirelessly volunteers in four different ministries but rarely takes any personal time to take care of himself or herself.
9) Two intercessors who use prayer meetings to escape from the painful reality of their marriage.
10) The people in your small group who are never transparent about their struggles or difficulties. (p. 17)

Behaviors are often observed within churches by members and by pastors which seem unreasonable and, at times, unconscionable. Anecdotally, stories are told of pastors and members acting in self-serving ways that seem clearly un-Christian. In addition, “sinful” behaviors by members and pastors that they struggle with for years, have been reported, which include struggles with addictions while attending church weekly. Over the last few years, prominent pastors have died of suicide (Mason, 2020).

Statement of the Problem

The problem this research addresses is the prevalence of Childhood Trauma among pastors and the relationship between Childhood Trauma and Faith Maturity in pastoral ministry and those preparing for pastoral ministry. It is possible that the prevalence of Childhood Trauma among ministers and those preparing for ministry mirrors that which is reported in the general population, but the challenge as stated above is that there is a tendency to underreport or to discount such Childhood Trauma, which

may be more acute among ministers, given some ministers' penchant to appear without weaknesses to those whom they serve. It is possible that some of the challenges/problems that ministers experience in their leadership and administration of churches are related to unrecognized trauma from childhood. It is hypothesized that ministers who have experienced Childhood Trauma tend to have reduced Faith Maturity as compared to those who have experienced little to no Childhood Trauma, and this reduced Faith Maturity contributes to leadership and administrative challenges in ministers.

Purpose Statement

The purpose of this research is to establish a statistical relationship between Childhood Trauma and Faith Maturity in ministers and those preparing for ministry. Their self-reported Childhood Trauma will be compared with their self-reported Faith Maturity.

Justification

"Researchers tend to see religion as a coping mechanism when it comes to early traumatic experiences" (Harris et al., 2021, p. 31). In the last 10 or so years, research has been done to explore the role of religious and spiritual coping in ameliorating Childhood Trauma (Brewer-Smyth & Koenig, 2014; Janù et al., 2020; Johnson et al., 2016; Murray-Swank & Waelde, 2013; Reinert et al., 2016; Sansone et al., 2013; Ter Kuile & Ehring, 2014; Zeligman et al., 2020).

The findings from different studies have been mixed at best and contradictory at worst. Researchers have reported growth, as well as decline, in religion and spirituality as a result of trauma. It has been postulated that these inconsistencies are due to differences

in the measurement of religiousness, spirituality, and trauma (Leo et al., 2021; Milstein, 2019). It has also been demonstrated that the impact of trauma on religiosity and/or spirituality can vary by sex or religious identity (Reinert et al., 2016); this leads to the inference that the effects of Childhood Trauma on religious and spiritual response may depend on individual differences in the population.

As will be discussed in the review of relevant literature, the spirituality of those affected by adverse childhood experiences has been studied as a protective/resilience factor. While there are studies that have looked at religiosity and the impact of post-traumatic stress disorder on one's religiosity, this study adds to the literature by considering Faith Maturity as what has been impacted by trauma as opposed to how Faith Maturity protects and/or provides resilience to trauma. This research will contribute to an understanding of how adverse childhood experiences might impact one's ability to minister to others by examining their Faith Maturity.

Part of the rationale for this research is the contention that in order for churches to provide trauma-informed care for its members and potential congregants, they must first start with the pastors, the spiritual leaders of congregations. It is the assertion of this research that the sooner Childhood Trauma and its impact on Faith Maturity are recognized in current and potential pastors (e.g., seminarians), the sooner pastors will be able to assist in trauma-informed care for congregations.

Conceptual Framework

The conceptual framework that provides the context for this research starts with the idea that "our relationship to the sacred is framed within our formative relational experiences" (Tomilinson et al., 2016, p. 4). Therefore, the processes described by the

Object Relations Theory and Attachment Theory become a way of understanding the development of spiritual maturity because research has found a correspondence between human and spiritual attachment (Howe, 2011; Maltby & Hall, 2012).

There is a body of research that infers that spiritual development seems to happen in conjunction with developmental processes and interpersonal experiences that are not consciously learned or processed (Hall, 2007, p. 29). As will be seen in the literature review, it is hard to conceive of a person being mature in faith without being developmentally and relationally mature. Therefore, what affects the developmental processes described by the Objects Relation Theory and Attachment Theory would be theorized to affect the development of spiritual maturity.

Researchers have found "that there are strong associations between early childhood maltreatments, insecure attachments, and later life challenges and negative outcomes" (Grady et al., 2016, p. 3). "One study demonstrated that maltreated children were likely to form insecure attachments that contribute to sustained problems managing relationships throughout the life span (Morton & Browne, 1998)" (Grady et al., 2016, p. 5). In addition, neurobiological research has confirmed that Childhood Trauma produces biochemical changes in the parts of the brain that regulate attachment behaviors (Beech & Mitchell, 2005).

In part, what this exploratory research attempts to establish conceptually in the literature review and then through empirical data is the relationship between Childhood Trauma and Faith Maturity.

> Although research has found a correspondence between human attachment and spiritual attachment, with trauma shown to disorganize the parent–child attachment bond (Howe, 2011; Maltby & Hall, 2012), it is less well understood how early

> relational trauma and lack of personal inner coherency is associated with adult relational spirituality. (Proctor et al., 2019, p. 87)

In measuring Faith Maturity, this research draws on the contemplative spirituality theory which places emphasis on developing an awareness of God as life is lived on a day-to-day basis (Hall, 2015, p. 7). "Faith Maturity is the degree to which a person embodies the priorities, commitments, and perspectives characteristic of vibrant and life-transforming faith, as these have been understood in 'mainline' Protestant tradition" (Benson et al., 1993, p. 3).

Research Questions

1. How prevalent is Childhood Trauma among those preparing for ministry and those already in ministry? How does that compare to the National Average?
2. What is (are) the relationship(s) between Faith Maturity and its two subscales (Awareness of God and Practicing the Presence of God) and Childhood Trauma?
    a. the number of specific types (physical abuse, sexual abuse, divorce, not properly nourished, etc.) of Childhood Trauma experienced;
    b. the different broad types of Childhood Trauma (i.e., abuse, household challenges, neglect, community trauma, and environmental trauma);
    c. specific indicators of Childhood Trauma (questions on ACE questionnaire)?
3. Do the relationships between Faith Maturity and Childhood Trauma vary by gender, age, ethnicity, marital status, and education?

Focus and Scope

This research focuses on the potential ability or inability of pastors to meet the

needs of their congregants based on their level of Faith Maturity as mediated by their adverse childhood experiences.

This research includes seminarians (pastors with limited experience, potential pastors, and soon-to-be pastors) currently enrolled at Andrews University, as well as pastors currently employed by the Allegheny East Conference of Seventh-day Adventists. This study is part of a broader and wider longitudinal study.

There is an aspect of this study which is not being researched because of the nature of the subjects being studied, that is, how one's Faith Maturity impacts one's ability to pastor effectively. For the purposes of this research, it is assumed that the more Faith Maturity one has, the more it will enhance one's effectiveness in ministry.

Definition of Terms

Adventist: A member of or pertaining to the Seventh-day Adventist Church.

Adverse Childhood Experiences (ACEs): All experiences that could have negatively impacted a child's life and life in adulthood. These include, but are not limited to sexual abuse, physical abuse, neglect, domestic violence, malnutrition, maltreatment, or exposure to substance abuse, mental illness, divorce or parental separation, or incarceration of a parent (Felitti et al., 1998). For this study, ACEs were also delineated into three categories: childhood abuse (physical, sexual, and/or verbal), neglect (physical or emotional), and household dysfunction (parental separation and divorce, domestic violence, mental illness, substance use, and incarceration of a parent; CDC, 2020).

Adverse Childhood Experiences Study: A major retrospective and 20-year prospective medical research project of the CDC and Kaiser Permanente involving 17, 337 middle-aged, middle-class adults, matching their current biomedical and mental

health, social function, and life span against 10 categories of adverse childhood experience during infancy, childhood, or adolescence (Felitti et al., 1998).

Attachment Theory: The "lasting psychological connectedness between human beings" (Bowlby, 1969, p. 194). According to this theory, when it is operating optimally, infants form a secure attachment to the mother (or whoever serves as the attachment figure) and perceives them as a dependable supplier of shelter and security. Infants who do not form secure attachments form insecure attachments.

Child abuse: "Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation or an act of failure to act which represents an imminent risk of serious harm" (CDC, 2017, para. 2).

Child neglect: "Failure to provide needs or to protect a child from harm or potential harm" (CDC, 2020, para. 3). This may include failure to provide for a child's basic physical, emotional, educational, or medical needs.

Childhood Trauma: A traumatic event in the life of a child (younger than 18 years of age) is one that threatens injury, death, or the physical integrity of self or others and also causes horror, terror, or helplessness at the time it occurs. Traumatic events include sexual abuse, physical abuse, domestic violence, community and school violence, medical trauma, motor vehicle accidents, acts of terrorism, war experiences, natural and human-made disasters, suicides, and other traumatic losses (American Psychological Association [APA], 2008, p. 2).

Connecting: Relating intimately with God and developing positive relationships with others. I have operationalized this process as having a strong sense of a positive

relationship with God, fostering that relationship through prayer and devotional activities, and extending that positive relationship to others.

Contemplative Spiritual Theory: A focused concentration on the present moment, which is often referred to as mindfulness. This is a level of consciousness that can operate in the activities of daily life such as washing dishes, gardening, or taking a walk, as well as less mundane actions. From a Christian Protestant perspective, this theory focuses on a developing awareness of God in the midst of daily life.

Cumulative Risk Model: The position that negative developmental outcomes are not the result of one distinct factor, but multiple risk factors. The greater the number of risk factors, the more likely an individual will experience negative developmental outcomes. With this model, each factor is assigned a 0 (absence of risk) or a 1 (presence of risk); the sum is then used to predict the outcome measure of interest. The contribution or weight of any particular risk factor is not evaluated.

Cumulative Risk Index: Each risk factor is assigned a 0 (absence of risk) or a 1 (presence of risk); the sum of the risk factors present for each individual is known as the cumulative risk index. The cumulative risk index is then used as a single predictor for the outcome of interest.

Expanded ACE: Expansion of the original ACE questionnaire from 10 to 20 items based upon the observations of seminary faculty and counselors. For example, spiritual abuse and bullying at school were not included in the original ACE study designed by Felitti and his colleagues (1998). Neither was there a significant frequency of more recent issues such as school shootings. Many seminary students are international students. Therefore, issues such as being exposed to war, famine, or government control of religion

were included in the Expanded ACE questionnaire (Sedlacek et al. 2014).

Faith Maturity: Faith Maturity is the degree to which individuals see God all around them and experience awe, wonder, and devotion to God and also take intentional steps to practice the presence of God through the means of prayer, Bible study, nature, and sharing their faith with others.

Faith Maturity Scale (FMS): The Thayer Long Form which is a short form of the Search Faith Maturity Scale (Benson et al., 1993) includes 15 items of the original 38 items. This short form of the FMS was designed to assess the Faith Maturity of Seventh-day Adventists better and was utilized in this research.

Internal Working Model (IWM): "As such, the IWM becomes like a mental blueprint that influences future interpersonal expectations and behaviors" (Grady et al., 2016, p. 2).

Ministering: Participating in God's mission of revelation, reconciliation, and restoration, which involves evangelism and witness, as well as service for no other reason but to relieve the suffering of humanity. I operationalize this process as involvement with humanitarian activities and sharing one's experience, strength, and hope.

Object Relations Theory: A branch of psychodynamic thinking and reflection which concentrates on the development of early childhood relationships and the formation of identity. In object relations theory, the sense of self is developed between infancy and early childhood through interactions between children and their primary caregivers (objects).

Relational Spirituality: Our relationship to that which we consider sacred is outlined by our formative relational experiences. "These ideas are based on a 'relational

metapsychology' that integrates understandings of attachment theory, the neurobiology of emotion, and object relations theory (Hall, 2007, p. 14)" (Tomlinson et al., 2016, p. 58).

Spirituality: "Benner (1989) described spirituality as a deep and mysterious human yearning for self-transcendence and surrender, a yearning to find meaning and a place in the world" (Bruce & Cockreham, 2004, p. 334). "An individual's personal belief in religious teachings or intrinsic commitment to one's faith" (Good & Willoughby, 2006, p. 41).

Limitations

One of the limitations of this study is the dependence of this research on the memories of those surveyed. It is possible that memories of traumas may have been repressed and therefore, respondents are unintentionally not truthful about their childhood experiences. A related limitation of this study is that respondents are not willing to admit that such trauma happened or diminish the extent of the trauma for personal or familial reasons.

Another limitation of this study arises from finding a widely accepted definition of spiritual/religious maturity. Different religions define spiritual/religious maturity differently. The holy grail of the psychology of religious experience is the attempt to define this universal human experience in a way that pushes beyond the bounds of religion. Without a widely accepted definition of Faith Maturity comes the difficulty of measuring what is often an amorphous, moving target, and this challenge is not only between religions, but even within the same religion. For instance, in Christianity, there are different denominations, and each of those denominations also defines Faith Maturity

differently. Therefore, any research in this area is limited by different understandings of the topic.

Delimitations

One delimitation was the population chosen to be studied: students at Andrews University Seminary, as well as the pastors of Allegheny East Conference. By not sampling a broader population, we may be researching those who, because of their commitment to spending their lives in ministry, may have a higher level of Faith Maturity than might have been projected given whatever trauma they have experienced as children.

The second delimitation results from choosing a decidedly Christian instrument to measure Faith Maturity. This reduces the ability to generalize the findings beyond the Christian community.

Another delimitation of this research is the choice of using students from a Seventh-day Adventist seminary and pastors from Allegheny East Conference of Seventh-day Adventists. It is entirely possible that adherents of a different Christian denomination would score differently on the measure of Faith Maturity and thus, may also diminish the generalizability of the findings even to other Christian denominations.

A final delimitation of this research is that respondents were not asked to correlate their Faith Maturity and/or their faith journey with their Childhood Trauma. It is possible that a qualitative study where respondents were given the time and space to share their faith journeys and make connections with their histories of abuse could provide valuable insights. I chose to draw the connections between Childhood Trauma and Faith Maturity quantitatively.

Outline of the Chapters

This study is structured in the following manner: Chapter 1 outlines the background of the problem, the conceptual framework, the statement of the problem and research questions, and the purpose and the significance of the study, as well as a definition of terms used and the limitations and delimitations of the data.

Chapter 2 reviews literature on adverse childhood experiences and their impact on the development of the brains of children. It also reviews object relations theory and attachment theory and how they are potentially compromised by Childhood Trauma. Finally, the literature is reviewed describing relational spirituality and its impact on Faith Maturity which will be measured by the Faith Maturity Scale.

Chapter 3 outlines the methodology used in the study, including research design, population, statistical procedures, and information about the sample used. It also includes a description of the variables used and the scales that were created.

Chapter 4 responds to the research questions and discusses what correlations support or reject the hypothesis that spiritual maturity is negatively correlated with unresolved Childhood Trauma.

Chapter 5 is a summary of the study, discussion, and implications for how Childhood Trauma shapes spiritual maturity and what steps might be taken to identify and help those suffering from unresolved ACEs experience greater wholesomeness and joy in their relationship with God. Further areas of research are also suggested.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

The purpose of this chapter is to establish, from the literature reviewed, the potential relationship between ACEs and the maturation of one's faith. This will require an examination of the phenomenon of ACEs, what it is, how it is defined, and how prevalent it is. One of the questions that will be raised by the literature reviewed is whether or not the type of trauma can potentially make any difference in the long-term Faith Maturity of the individual impacted by the trauma. The literature will reveal that the long-term effects of ACEs on the brain impair functioning well into adulthood, impacting attachments (Attachment Theory), and set patterns for adult behavior (IWMs).

What this literature review will also explores is how human interactions (Attachment Theory and Internal Working Models) potentially correlate with how one views God and relate to this "divine parent." The literature reviewed will suggest that there is a strong correlation between the type of attachment formed with attachment figures and God as an attachment figure.

The literature reviewed will also propose the Faith Maturity Scale (Thayer Long Form) as an appropriate criterion variable for Seventh-day Adventists in evaluating the potential relationship between Childhood Trauma and Faith Maturity. The literature reviewed will further propose that while the ability to examine faith itself is difficult,

there are indicators of Faith Maturity which reveal the degree to which a person has internalized the priorities, commitments, and worldview representative of healthy and mature faith.

The first challenge for this research and this literature review is that before we can begin to assess the damage caused by ACEs on individuals throughout their lifetime, we must understand the impact of sin from a biblical perspective. The philosophical and theological question regarding sin is, "Do we come into this world as a blank slate only being impacted by external experiences or do we come into life with some latent vulnerabilities as a result of being born in sin and shaped in iniquity?" Hence, we begin this literature review exploring this question: "Do we come into this world broken and if so, how broken are we?"

Biblical-theological Framework

The question of how trauma suffered early in life impacts an individual's spiritual health and well-being is hard to quantify without a good understanding of the nature of a human being. What are the constituent parts? What is the interrelatedness of the constituent parts? This question for Bible-believing Christians takes us to the beginning of beginnings in Gen 1, where we learn that humans were made in the image of God.

> Then God said, "Let Us make man in Our image, according to Our likeness; and let them rule over the fish of the sea and over the birds of the sky and over the cattle and over all the earth, and over every creeping thing that creeps on the earth." God created man in His own image, in the image of God He created him; male and female He created them. (Gen 1:26–27, NASB95)

In trying to describe the *imago Dei* (image of God), theologians can generally be categorized by four views. There is the *substantive view* of the *imago Dei* which suggests that this image of God

> can be defined by one or more of its component parts such as the physical, psychological, ethical, or spiritual characteristics within human. . . However, of all these characteristics, perhaps the one most readily identifiable and distinguishable as being distinctively human would be our spiritual capacity. (Estep & Kim, 2010, pp. 17–18)

The second view is the *functional view* which identifies the *imago Dei* "as the God-ordained purpose and work specified to humans . . . The functional view sees our rule and oversight of God's creation as a reflection of the divine aspect of God as Ruler" (Estep & Kim, 2010, p. 18).

The third view, the *relational view*, "asserts that the *imago Dei* is seen in humanity's social or relational capacity . . . we reflect His image by being in relationship with one another and Him" (Estep & Kim, 2010, p. 18).

The last generalized view is the *teleological view* of the *imago Dei,* "suggesting it is reflective of the ultimate objective of human existence." In this view, "the i*mago Dei* is both a current reality and an eschatological, future reality." This view sees humanity as God's image bearers today, but that the fullest expression of the *imago Dei* will not be fully realized until eternity (Estep & Kim, 2010, p. 18).

The challenge with these four views is that "all of these separate approaches share a common fault" (Estep & Kim, 2010, p. 19). The challenge is described by Gregg R. Allison of Southern Baptist Theological Seminary:

> The problem is that all of these ideas tend to reduce the image of God to one particular part or aspect of our humanness; thus, they miss a key point: we human beings are not made in a piecemeal way and put together, like the many pieces of a jigsaw puzzle. Rather in our humanness, we are constructed holistically with a wholeness and completeness that does not allow us to be divided into this part or that part. We are human beings in our entirety . . . are created in the image of God. (Estep et al., 2008, p. 180)

Unfortunately, that *imago Dei* was marred by sin in Gen 3. We see evidence of this marring of the *imago Dei* in changes to humanity's vision:

> Then the eyes of both of them were opened, and they knew that they were naked; and they sewed fig leaves together and made themselves loin coverings. They heard the sound of the LORD God walking in the garden in the cool of the day, and the man and his wife hid themselves from the presence of the LORD God among the trees of the garden. (Gen 3:7–8, NASB95)

This opening of their eyes was more than physical as is alluded to in Gen 2:25 where we learn that they were created naked. Thus, what changed as a result of sin were not physical changes in their appearances, but rather, something changed in their brains. Whether that was mental, emotional, or spiritual can be debated, but what is indisputable is not only that something changed, but also that whatever it was that changed would have profound effects on them mentally, emotionally, and spiritually because of the interrelated nature of human beings.

> Sin's effects were devastating. We were physically (4:7, 10-11,16); intellectually (3:6, 13); emotionally (3:10); and morally (3:7, 12-13) compromised. Our relationship with one another (3:12, 16, 20) and God was broken. (3:8-9, 11, 13) Humanity's God-given rule of the earth was made significantly difficult in the presence of sin (3:17-19) and we became mortal—subject to death just as God had warned (3:22-24). (Estep & Kim, 2010, p. 22)

One of the challenges in connecting Childhood Trauma and Faith Maturity is that the Christian church for a large part of its history has held the view that humans have a two-part nature (dualism); there is the body and then there is the soul. In this view, it is asserted that the body is material and the spiritual soul is nonmaterial. In this designation of body and soul, the soul is thought to be superior to the body and exercises control over it because the soul is immortal, while the body is mortal and transitory (Brown & Strawn, 2012, p. 14).

Of late, authors such as the late Dallas Willard are recognizing that our sense of

self, our personhood, and our spiritual lives cannot be experienced apart from the body. In building on the passage from Paul, "the body is for the Lord, and the Lord for the body" (1 Cor 6:13), Willard (1988) made the following comments:

> We must proceed no further without some brief elaboration of the truth that the body is fulfilled in the spiritual life. There is an essential continuity and union between the person and the body. In an important sense to be explained, a person is his or her body. (p. 76)

The question that some theologians are asking is, "When the life of the soul is conditioned in every detail by bodily organs and processes, how can it be detached from the body and survive?" (Pannenberg, 1944, p. 182).

With advances in neuroscience and psychology, some authors have come to the following conclusion:

> "The highest and most distinctive characteristics of human nature are the outcome of the functioning of our bodies and brains and are no longer easily assigned to a nonmaterial soul or mind. All of the human characteristics that at various times in history have been presumed to be the exclusive domain of the soul have been found to be outcomes of bodily processes. (Brown & Strawn, 2012, pp. 29–30)

Secular humanist Abraham Maslow (1967) agreed:

> The so-called spiritual or "higher" life is on the same continuum (is the same kind of quality or thing) with the life of the flesh, or of the body, i.e., the animal life, the "lower" life. The spiritual life is part of our biological life. . . It is a defining characteristic of human nature without which human nature is not full human nature. It is part of the real self, of one's identity, of one's inner core, of one's specieshood, of full humanness. (p. 139)

Willard (1988) pointed to recent biblical scholarship by H. Wheeler Robinson and Oscar Cullman and made the following comments regarding the bodily character of human nature:

> This biblical scholarship even goes so far as to reject the idea of a purely spiritual "immortality" of the soul in the afterlife, regarding it as a Platonic imposition upon the biblical view of personality. Instead, resurrection is insisted upon as the true form of human existence beyond death. (p. 82)

Here is the point. Willard said, “We do not have any knowledge or experience that is totally free from involvement with our bodies” (p. 82). If this is the case, then what happens to the body as a result of adverse childhood experiences must necessarily impact one’s spirituality. Research has shown that brain physiology is altered by adverse childhood experiences (Herzog & Schmahl, 2018) and of necessity, the brain is part of the physical body.

It is in the brain that we experience the spiritual life. Our thoughts about God, our understanding of who God is, our worship of God, and so forth all take place within our brains. The “evidence from brain science . . . shows that the soulish capacities of persons are things that our bodies and brains do . . . we found ample evidence that these important human capacities are properties of the functioning of our brains and bodies” (Brown & Strawn, 2012, p. 49). Therefore, if our brains are injured by Childhood Trauma, then it is not a leap to expect that this would have an impact on how a person experiences God.

One of the more insightful connections as to how the dualist view has clouded the obvious connection between brain development and spirituality is found in *The Physical Nature of Christian Life*:

> The role of physical (brain) development and the necessity of social interaction and communication are almost universally built into church curricula for children. For some reason, our dualist presuppositions about persons create a disconnection between our understanding of Christian formation in children and our comprehension of the forces at work in adult Christian life. (Brown & Strawn, 2012, pp. 69–70)

It is against this backdrop that we must ask what impact the entrance of sin into human existence has in influencing each person’s ability to reflect the *imago Dei*? Locke (1632-1704) used a metaphor that is helpful in trying to understand how broken humanity is. He spoke of humanity as a *tabula rasa.* Estep and Kim (2010), building on Locke’s

metaphor, made the following assertion of humanity's condition:

> Borrowing from Locke's tablet illustration, perhaps the depiction of the human condition could be made of a clean, but broken, tablet. Humanity, in one sense, is born in innocence; the slate is clean. Yet the slate itself is broken, having been tainted by original sin that permeates all of humanity. We are broken but still blank. We bear the marks of humanity's brokenness and the consequences of Adam's sin. As humans, we are not directly guilty of the original sin, but we are indeed directly impacted by it. As individuals, we are a *tabula rasa*; but as humans, the slate itself is broken. (p. 27)

Brown and Strawn (2012) agreed with Estep's assessment of the human condition:

> Human beings are neither fixed at birth with certain immutable qualities via genetic endowment, nor are they totally blank slates (tabula rasa), to be etched and inscribed by life experiences. Rather, the human mind is a combination of certain predispositions and the experience-based emergence of mental capacities, personality, and character through a continuous history of situational and social interactions. (pp. 53–54)

It is against this tabula rasa, this broken, but blank slate, that we must consider the impact that Childhood Trauma potentially has on individuals. As humans, we start with certain latent vulnerabilities because of our broken slate. While it is difficult to identify and quantify the nature of these deficiencies that come from being broken as a result of sin, the sin problem does not end with birth. The slate may have been blank at the start of life, but when trauma is put on the slate early in life, the literature shows that this trauma impacts people throughout their lives. (ACE, 2020).

Childhood Trauma

It has long been thought that what happens in childhood can affect an individual's health, well-being, and prosperity. The study by Kaiser Permanente and the CDC from 1995 through 1997 has proven empirically that childhood adversity increases morbidity and mortality, and decreases opportunities for prosperity (Felitti et al., 1998; Gilbert et al., 2015; Metzler et al., 2017; Shonkoff, 2016). This study investigated the prevalence

and effect of childhood abuse, neglect, and household challenges. Over 17,000 health maintenance organization members received physical exams and completed confidential surveys investigating their childhood experiences, current health status and behaviors. The study showed that almost two-thirds of study participants described at least one adverse childhood experience (ACE) before the age of 18 years (Felitti et al., 1998). [

Adverse childhood experiences (Felitti et al., 1998) are described by the CDC (2020) as potentially traumatic events that occur in childhood (0-17 years) (for example, experiencing violence, abuse, or neglect; witnessing violence in the home or community; having a family member attempt or die by suicide). Also included are aspects of the child's environment that can undermine his/her sense of safety, stability, and bonding such as growing up in a household with substance misuse, mental health problems, instability due to parental separation, or household members being in jail or prison.

The CDC (2020) considers ACEs to be a serious threat to people's well-being and to be linked to chronic health problems, mental illness, and substance misuse in adulthood, as well as potentially negative impacts on education and job opportunities. Based on adults surveyed across 25 states, 61% reported at least one type of ACE, and about 17% reported experiencing four or more types of ACEs.

The economic and social impact on our families, communities, and society has been deemed to be extremely costly and estimated at hundreds of billions of dollars each year (National Center for Injury Prevention and Control, 2020). However, these estimated costs may pale in comparison to the inestimable costs of the lasting negative effects on health outcomes, emotional and mental well-being, and loss of opportunities for those who have experienced ACEs. Some of these potential negative consequences include

risks of injury, sexually transmitted infections, maternal and child health problems, teen pregnancy, involvement in sex trafficking, and a wide range of chronic diseases and leading causes of death such as cancer, diabetes, heart disease, and suicide (National Center for Injury Prevention and Control, 2020).

ACEs and associated conditions such as living in under-resourced or racially segregated neighborhoods, frequently moving, and experiencing food insecurity can cause toxic stress (extended or prolonged stress). Toxic stress from ACEs can change brain development and affect such things as attention, decision-making, learning, and response to stress (National Center for Injury Prevention and Control, 2020).

Children growing up with toxic stress may have difficulty forming healthy and stable relationships. They may also have unstable work histories as adults and struggle with finances, jobs, and depression throughout life. These effects can also be passed on to their own children. Some children may face further exposure to toxic stress from historical and ongoing traumas due to systemic racism or the impacts of poverty resulting from limited educational and economic opportunities (ACE, 2020; see Figure 1 below).

The ACE Pyramid (Figure 2) represents the conceptual framework for the ACE Study. The ACE Study has uncovered how ACEs are strongly related to development of risk factors for disease and well-being throughout one's life (ACE, 2020).

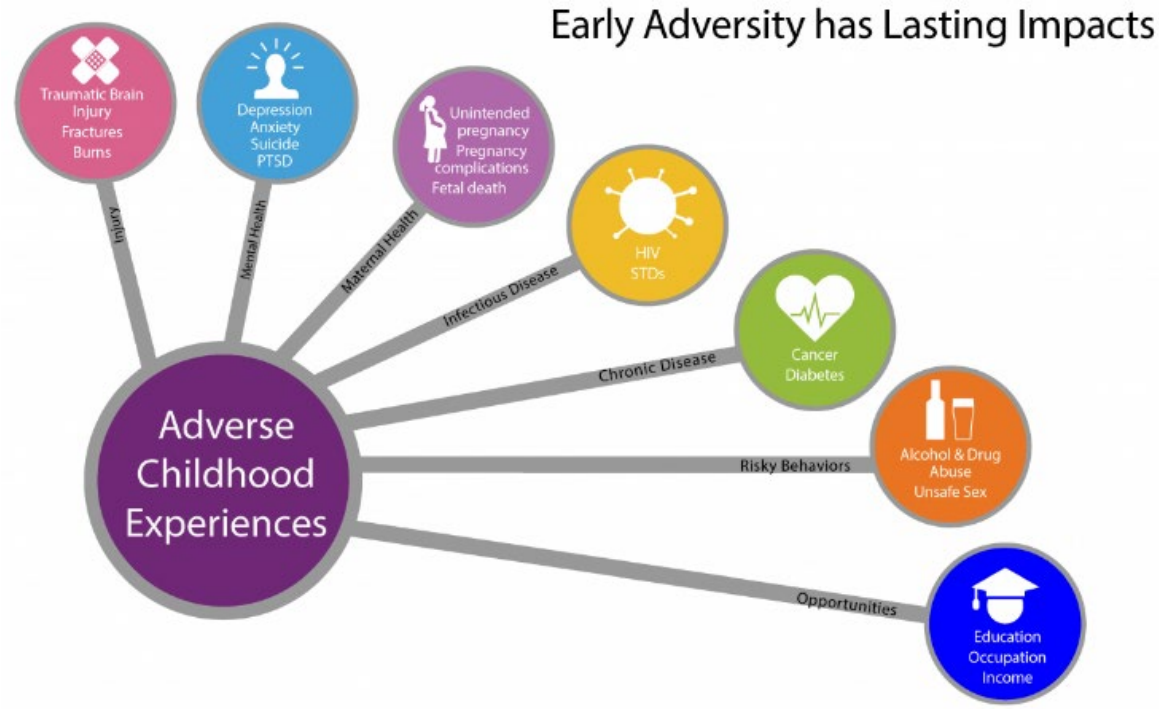

Figure 1. Early adversity has lasting impacts.

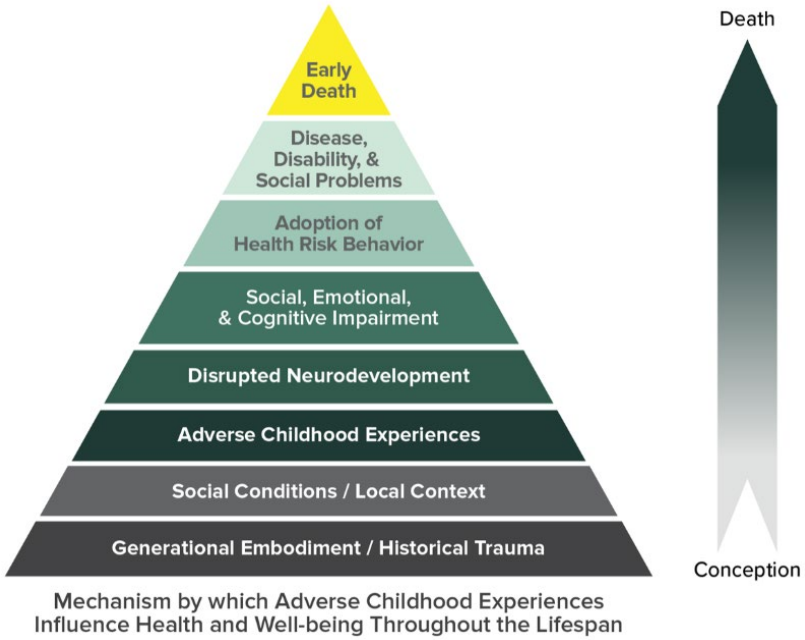

Figure 2. ACEs impact on health and well-being pyramid.

Categories of ACEs

According to the CDC study, the trauma that children suffer before the age of 18 are broken down into three categories which are useful in understanding the impact of ACEs on a child's life. The three categories of trauma that were originally identified by the ACEs questionnaire are abuse, household challenges, and neglect. Within each of these categories, the CDC differentiates how these traumas may be experienced by children (ACE, 2020).

A traumatic event in the life of a child (younger than 18 years of age) is

> one that threatens injury, death, or the physical integrity of self or others and also causes horror, terror, or helplessness at the time it occurs. Traumatic events include sexual abuse, physical abuse, domestic violence, community and school violence, medical trauma, motor vehicle accidents, acts of terrorism, war experiences, natural and human-made disasters, suicides, and other traumatic losses. (APA, 2008, p. 2)

There are five broad categories of Childhood Trauma. They are abuse, household challenges, neglect, community trauma, and environmental trauma.

The first category of trauma is abuse. Abuse can take three basic forms: emotional, physical, and sexual. Emotional abuse includes a parent, stepparent, or adult living in the home who swears, insults, puts down, or acts in a way that makes a child afraid of being physically hurt. Physical abuse is defined as a parent, stepparent, or adult who pushes, grabs, slaps, throws objects, or hits so hard that the child ends up with marks or is physically injured. Sexual abuse involves adults, relatives, family friends, or strangers who were at least 5 years older than the child who touched or fondled the child in a sexual way, caused the child to touch the older individual's body in a sexual way, or attempted to have any type of sexual intercourse with the child (ACE, 2020).

The second category of trauma that may be experienced by a child is referred to

as household challenges. These challenges include the trauma of watching a parent treated violently. The parent or stepparent was pushed, grabbed, slapped, had objects thrown at him/her, kicked, bitten, hit with a fist, hit with something hard, repeatedly hit for over at least a few minutes, or threatened or hurt with a knife or a gun by the other parent (stepparent) or boyfriend/girlfriend. Another household challenge is substance abuse in the household where a household member was a problem drinker, alcoholic, or used street drugs. Mental illness represents another household challenge where a member of the household was depressed, mentally ill, or attempted suicide. Included in household challenges is separation or divorce where a child's parents were separated or divorced during childhood. The last type of household challenge which can traumatize a child is incarceration, where a household member went to jail or prison (ACE, 2020).

The third category of trauma defined by the CDC (2020) is neglect. On the ACEs questionnaire, neglect is discovered by asking if the child was cared for and loved and then scored in reverse. And in this category of trauma there are two types of neglect that are defined. They are emotional and physical neglect. Emotional neglect is described as the child's not having someone in the household who helped him/her to feel important, special, or loved. Emotional neglect can also include growing up in a household where members did not look out for each other and felt close to each other. In emotional neglect, the household was not a source of strength and support. In physical neglect, there was no one to take care of, protect, and take the child to the doctor, if necessary. Physical neglect includes the child's not having enough to eat, parents (stepparents) or caretakers who were too drunk or too high to take care of the child, and this is sometimes evidenced by the child's having to wear dirty clothes (ACE, 2020).

The fourth broad type of Childhood Trauma is community trauma. Community trauma, which is also referred to in some literature as collective trauma, is defined as "an aggregate of trauma experienced by community members or an event that impacts a few people but has structural and social traumatic consequences" (Pinderhughes et al., 2015, p. 11). It is important to recognize that the definition for "community" can vary. "Community" can be defined geographically (e.g., a neighborhood), virtually (e.g., shared identity), or organizationally (e.g., a place of worship) (Weisner, 2020).

> The symptoms of community trauma are the product of decades of economic, political and social isolation, a lack of investment in economic development and for the maintenance and improvement in the built environment, the loss of social capital with the flight of middle-class families, and the concentration of poverty and exposures to high levels of violence. (Pinderhughes et al., 2015, p. 14)

The fifth and final broad type of trauma examined in this research is environmental trauma. Environmental trauma is defined as emotional, physical, or psychological response to an event, community environment, or a series of events that has lasting adverse effects on an individual's functioning.

The ACE score is then calculated by adding up the total number of ACEs reported by the participants regardless of category.

Prevalence of ACEs

ACEs have been found to be common among all populations. In nearly two-thirds of the ACE study participants, they reported at least one ACE, and more than 20% reported having experienced Childhood Trauma as defined by the ACE study. While there appear to be some populations that seem more susceptible to experiencing these childhood traumas due to the social and economic conditions in which they grow and develop, there are no populations without incidence of Childhood Trauma. The findings

show a graded dose-response relationship between these childhood traumas and negative health and well-being outcomes. This means that as the ACE score increases, so does the probability for adverse health and wellness effects.

Additive Versus Interactive Models for Risk Assessment

The ACE study sums up the number of adversities experienced to generate a risk score (Felitti et al., 1998). The underlying assumption of this model is that each adversity incrementally corresponds to a heightened risk for maladaptive functioning. However, in research studying depression, two prominent theoretical models have emerged which are explored here. There is the additive model and there is an interactive model (Cohen et al., 2019).

Much research assumes an additive framework in which the higher number of risk factors infers a higher incidence of negative outcomes (O'Hara et al., 2015; Smith et al., 2015). Substantial research has confirmed with multiple longitudinal studies the cumulative impact of risk factors from childhood and adolescence on depression in young adulthood (e.g., Chapman et al., 2004). "The consequences of an additive model can be linear in nature or non-linear suggesting that multiple traumas may exacerbate or attenuate risk (i.e., a steeling effect; Hammen et al. 2000)" (Cohen et al., 2019, p. 1354).

The cumulative risk model is an additive model for risk assessment and, rather than using the time-tested statistical model of multiple regression, it assumes that negative outcomes do not result from one distinct factor, but rather, from the accumulation or number of factors. Researchers who use the cumulative risk model combine the absence or presence of multiple risk factors to compute a cumulative risk index, which then becomes a single predictor for the outcome of interest. The cumulative

risk index can be distinguished from univariate regression in that the cumulative risk index is a contrived association of multiple predictors. The cumulative risk approach differs from a multiple regression analysis where a dependent measure is predicted from two or more independent variables. When multiple regression analysis is done, each predictor is assessed and combined to predict the independent variable most accurately (Glass & Hopkins, 1996). Conversely, the cumulative risk model does not assess each independent variable individually, but rather, once independent variables are put into categories, the categories are assessed as one variable (i.e., the cumulative risk index) with each factor being given equal weight (Rodriguez-Escobar, 2007).

The interactive model hypothesizes that additive risk does not increase incrementally, but rather, is better understood within the context of other risk factors (Rosen et al., 2018). Part of what this present study considers is whether or not the impact of ACEs on spirituality is simply additive or whether the type of adversity impacts the spiritual maturation of the respondents. There is abundant literature suggesting that "the impact of childhood maltreatment on future depression may vary on whether more proximal depression responses to maltreatment occurred. For instance, the onset of depression may elevate maltreatment-related negative cognitive styles (Gibb 2002), heightening depression risk" (Cohen et al., 2019, p. 1354).

When researching the relationship between child maltreatment and depression, McLaughlin (2016), McLaughlin et al. (2014), and others (e.g., O'Hara et al., 2015) have suggested that it may be important to differentiate between maltreatment subtypes such as abuse and neglect, rather than giving equal weight to different types of maltreatment. Research (Dimensional Model of Adversities and Psychopathology [DMAP] model:

McLaughlin, 2016; Miller et al., 2018) has shown that children who experience threat have disrupted regulation for fear of provoking stimuli, while children who are exposed to deprivation tend to have underdeveloped cognitive maturation and learning deficits. These latent vulnerabilities (McCrory et al., 2017) which have been correlated with abuse and neglect experiences represent possible differences in whether or not these experiences are additive or interactive and, for the purpose of this study, will form the difference in exploring whether or not childhood abuse is additive or interactive (Cohen et al., 2019).

Effects of Childhood Trauma on the Brain

Researchers Teicher and Samson (2016) conducted a review of "neuroimaging findings in children who experienced caregiver neglect as well as from studies in children, adolescents and adults who experienced physical, sexual and emotional abuse" (p. 241). As a result of this review, they gave some initial answers to the significance of nature and timing of exposure, differences in gender, reversibility, and the association between neural changes and psychopathology. They also addressed whether these changes corresponded to adaptive modifications or stress-induced damage.

Teicher and Samson (2016) summarized their findings in their conclusions with the following seven results: (1) childhood abuse is associated with altered brain structure and function; (2) the type of maltreatment makes a difference; (3) the age at which the trauma occurs matters; (4) it is not clear as to the temporal association between trauma and brain changes; (5) research has revealed that gender differences are associated with differences in impact of trauma; (6) maltreatment-related findings appear to make sense as neuroplastic adaptive responses; in other words, the alterations are experience-

dependent responses to the environment, not simply nonspecific stress-induced impairments; and (7) the connection between childhood abuse, brain changes, and psychiatric illness is amorphous (Teicher & Samson, 2016, pp. 256–258).

Nakazawa (2015) described the impact of Childhood Trauma on the developing brains of children. The first impact on the brains of children experiencing trauma early in life is *epigenetic shifts*. Research has found that when children and adolescents are repeatedly exposed to stress-inducing situations, "their physiological stress response goes into overdrive" (Nakazawa, 2015, Epigenetic Shifts section, para. 1). As a result, these children lose the ability to respond in appropriate and effective ways to future stressors well into adulthood. Due to these genetic modifications, "the stress response setting is changed to 'high' for life, stimulating inflammation and disease" (Nakazawa, 2015, Epigenetic Shifts section, para. 1). This can predispose individuals who have suffered trauma in childhood to overreacting to everyday stressors such as a mounting debt, arguments with a spouse, or a car that cuts them off in traffic and creates more inflammation. This makes us more susceptible to chronic conditions such as autoimmune disease, heart disease, cancer, and depression. Nakazawa summarized this latest research: "This research on early emotional trauma, epigenetic changes, and adult physical disease breaks down longstanding barriers between what the medical community has long seen as 'physical' disease versus what is 'mental' or 'emotional'" (Epigenetic Shifts section, para. 3).

The second impact on the developing brains of chronically stressed children is the *size and shape of the brain* (Sheridan et al., 2012). Studies have found that a hormone is released that decreases the size of the hippocampus. This reduction in the area of our

brain that is responsible for processing emotion, memory, and managing stress has a profound effect on developing brains. Nakazawa (2015) summarized research on the size and shape of the brain in this way:

> Recent magnetic resonance imaging (MRI) studies suggest that the higher an individual's ACE score, the less gray matter she or he has in other key areas of the brain, including the prefrontal cortex, an area related to decision-making and self-regulatory skills, and the amygdala, or fear-processing center. Kids whose brains have been changed by their adverse childhood experiences are more likely to become adults who find themselves over-reacting to even minor stressors. (Size and Shape of the Brain section, para. 1)

The third impact of chronic stress on the developing brains of children is what is referred to as *neural pruning* (Nakazawa, 2015). Throughout childhood, their brains are hard at work making sense of the world around them. Part of this process is trimming excess neurons and connections. Research has now found that microglial cells, which are non-neuronal, are part of the immune system and prune synapses like a gardener prunes a hedge. These microglia "engulf and digest entire cells and cellular debris, thereby playing an essential housekeeping role (Cunningham et al., 2013)" (Nakazawa, 2015, Neural Pruning section, para. 1). "'When a child faces the unpredictable and chronic stress associated with Childhood Trauma, these microglial cells can get really worked up and crank out neurochemicals that lead to neuroinflammation' says Margaret McCarthy, PhD, whose research team at the University of Maryland Medical Center studies the developing brain. 'This below-the-radar state of chronic neuroinflammation can lead to changes that reset the tone of the brain for life'" (Nakazawa, 2015, Neural Pruning section, para. 2). This means

> that kids who come into adolescence with a history of adversity and lack the presence of a consistent, loving adult to help them through it may become more likely to develop mood disorders or have poor executive functioning and decision-making skills. (Nakazawa, 2015, Neural Pruning section, para. 3)

The fourth impact on the development of the brains is the effect on *telomeres* which are "the protective caps that sit on the ends of DNA strands, like the caps on shoelaces, to keep the genome healthy and intact" (Nakazawa, 2015, Telomeres section, para. 1). Trauma early in life often makes children appear older, emotionally speaking, than other children their age. However, scientists at Duke University; the University of California, San Francisco; and Brown University have now discovered that ACEs may cause children to age prematurely on a cellular level (Shalev et al., 2013). "As our telomeres erode, we're more likely to develop disease, and our cells age faster" (Nakazawa, 2015, Telomeres section, para. 1).

Another negative effect of early Childhood Trauma is the diminishment of the *default mode network*. The default mode network connects memories and thought integration, preparing us for what we should do next by helping us distinguish what is relevant and what is not relevant. "When children face early adversity and are routinely thrust into a state of fight-or-flight, the default mode network starts to go offline; it's no longer helping them to figure out what's relevant, or what they need to do next" (Nakazawa, 2015, Default Mode Network section, para. 2). It appears that children who have suffered early and/or repeated Childhood Trauma have diminished activity in the default mode network and may have problems responding appropriately to life (Nakazawa, 2015).

Another system negatively impacted by Childhood Trauma is what Nakazawa (2015) referred to as the *brain-body pathway*. Barney (2016) reported that research performed at the University of Virginia School of Medicine discovered an elusive pathway traveling between the brain and the immune system via lymphatic vessels. This

discovery revealed that the immune system pathway includes the brain.

> The results of this study have profound implications for ACE research. For a child who's experienced adversity, the relationship between mental and physical suffering is strong: the inflammatory chemicals that flood a child's body when she's chronically stressed aren't confined to the body alone; they're shuttled from head to toe. (Nakazawa, 2015, Brain-Body Pathway section, para. 2)

The last adverse effect of trauma on the brains of children is the reduction of brain connectivity as reported by Nakazawa (2015). She referenced Ryan Herringa, neuropsychiatrist and assistant professor of child and adolescent psychiatry at the University of Wisconsin and summarized his research this way: He "found that children and teens who'd experienced chronic childhood adversity showed weaker neural connections between the prefrontal cortex and the hippocampus" (Nakazawa, 2015, Brain Connectivity section, para. 1). This relationship between prefrontal-cortex and the amygdala is critical in how individuals perceive "common" events of our day to day lives as stressful and/or dangerous. Herringa (as cited in Nakazawa, 2015) found that

> girls with these weakened neural connections stood at a higher risk for developing anxiety and depression by the time they reached late adolescence. This may, in part, explain why females are nearly twice as likely as males to suffer from later mood disorders. (Brain Connectivity section, para. 3)

It is clear from the literature that the impact and prevalence of ACEs with their resultant adverse impact on the brains of traumatized children have lasting effects. Unfortunately, as the literature has demonstrated, if untreated and/or unmitigated, these negative effects continue into adulthood. Thus, for those of us who are engaged in the process of making and growing disciples, there are at least two questions which this research hopes to begin to answer: (a) How does Childhood Trauma impact the making of disciples? and (b) How does Childhood Trauma impact the growth and maturity of disciples? The challenge of these two questions reveals a deeper question that researchers

have been wrestling with at least as far back as William James' (2017) *Varieties of Religious Experience*, which is how one measures or gauges a person's spirituality. To answer these two questions, we start with object relations theory in which mature dependence has been shown to have correspondence with mature spirituality. Next, we ground our understanding of spirituality in attachment theory (which builds on object relations theory), and then discuss the marriage of spirituality with attachment theory, which has resulted in what the literature refers to as relational spirituality.

Object Relations Theory

Object relations theory is a branch of psychodynamic thinking and reflection which concentrates on the development of early childhood relationships and the formation of identity. This theory traces its roots to the works of Fairbairn (1952) and Winnicott (1953). Object relations emphasizes the value of dynamic interface between self and other. Within the object relations school of thought, the spotlight is placed on the challenge of developing satisfying relationships. "Fairbairn (1952) asserted that the basic striving in the human was not for pleasure (as originally suggested by classical Freudian theory) but for relationship" (Prout et al., 2012, p. 451).

In object relations theory, the sense of self is developed between infancy and early childhood through the interactions between children and their primary caregivers. Infants are initially unable to differentiate between themselves and their primary caregiver and, over time, children begin to understand themselves as both separate and interdependent. As infants mature developmentally, they continue to negotiate this dual identity which is characterized by probing movements in the direction of and away from their primary caregiver and when successfully navigated, it leads to a secure sense of self. "It is out of

these early experiences that the individual develops object representations of self and other. These qualitative mental representations inform the way an individual will approach and interact with the world" (Prout et al., 2012, p. 451).

Blatt and Levy (2003) presented object representations as cognitive schemata that develop over a lifetime. These mental representations are formed by the interactions experienced both in reality and in the internalization of object relations. It is these representations that impact and influence one's capacity for shared, rewarding, and harmonious relationships later in life. Over time, assuming normal developmental processes, object representations become progressively more precise, better articulated, and "conceptually complex structures (Levy, Blatt, & Shaver, 1998)" (Prout et al., 2012, p. 451). Unfortunately, when individuals do not develop appropriate object representations, their representations can be wildly erroneous, inflexible, overly denigrated, and problematic when trying to articulate.

> Object representations act as templates through which an individual experiences the self and the object world (Blatt & Lerner, 1983). Blatt also integrated attachment theory to further elucidate the importance of early object relations and their impact on adult development. (Prout et al., 2012, p. 451)

Research investigating the correspondence between attachment theory and object relations theory have looked at "the quality of early internalizations and their effects on behavior, perception and affect regulation (Diamond & Blatt, 1994; Eagle, 1997; Fishier, Sperling, & Carr, 1990; Levy et al., 1998; Zelnick & Buchholz, 1990)" (Priel & Besse, 2001, p. 87). Having reviewed multiple studies, it concludes that while there is significant overlap between objects relation theory and attachment theory not only theoretically, but also empirically, they are not identical constructs. Therefore, an understanding of attachment theory is necessary.

Attachment Theory

Bowlby's (1969, 1973, 1980) present attachment theory as an alternative to psychoanalytic object-relations theory. This theory proposes a primary, biosocial behavioral system in infants. Infants send out social signals, such as crying or clinging, to which the mother (or some other attachment figure) responds in a way that elicits more of this behavior to get the attention the infant is seeking. When this system is operating optimally, the theory proffers that the infant forms a secure attachment to the mother (or whoever serves as the attachment figure) and perceives him/her as a dependable supplier of shelter and security. This secure attachment relationship allows the infant to explore their environment confidently knowing that the attachment figure is nearby and comfort can be obtained when threats are perceived. The attachment figure provides a secure base and a safe place for the infant (Kirkpatrick, 1992).

According to this theory, infants who do not form secure attachments form insecure attachments. Research has revealed two patterns of insecure attachments: first, the avoidant type, in which infants do not view the attachment figure as a safe place nor as a protected base for exploration of their environment; second, the anxious/ambivalent type, in which infants alternate between clinging, proximity, and comfort-seeking behaviors and episodes of anger and resistance. Research has demonstrated a link between individual differences in infant-attachment classifications and maternal caregiving behaviors and attitudes (Kirkpatrick, 1992).

While the focus of Bowlby's (1969, 1973, 1980) development of attachment theory was on providing protection to human infants, he passionately asserted that the attachment system was influential on behavior from birth to death. His assertion about the

ongoing influence of the attachment system has been further buttressed by Weiss's (1973) seminal work on loneliness, which demonstrated that social isolation was related to attachment dynamics. The research done by Shaver et al. (1988) further strengthens the relationship between infant attachment and adult romantic love (Kirkpatrick, 1992).

Religion Provides an Attachment Process

Religion clearly serves many psychosocial functions. For example, Spilka, Hood, et al. (1985) and Spilka, Shaver, et al. (1985) have emphasized that religious attributions provide adherents with a sense of meaning, control, and self-esteem. Religious beliefs offer answers to otherwise unanswerable questions, moral direction, and values around which people can meaningfully organize their lives. Security and protection represent one important set of human motives among many. Perhaps the unparalleled success of religion as a human institution is owed to the fact that religious traditions have demonstrated remarkable breadth in their ability to address so many fundamental human concerns in so many ways (Kirkpatrick, 1992).

A core belief of Christianity and many other theistic religions is the availability and responsiveness of a God who serves as an attachment figure, providing both a haven and a secure base. Devout individuals proceed with faith that their "God" is available to protect and comfort them when life becomes stressful; the perceived presence of God and His availability allows them to take on the cares and vicissitudes of day-to-day life with a sense of calm and assurance (Kirkpatrick, 1992).

While not using the language of attachment theory, the twin concepts of religion as a safe haven and a secure base can be found throughout the studies of psychology of religion. One can find the seeds of this attachment theory in the writings of James (1917):

"The sense of Presence of a higher and friendly Power seems to be the fundamental feature in the spiritual life" and added that "in the Christian consciousness this sense of the enveloping friendliness becomes most personal and definite" (p. 269). He illustrated the point with this quotation from Voysey (1882, as cited in James, 1917):

> It is the myriads of trustful souls, that this sense of God's unfailing presence with them in their going out and in their coming in, and by night and day, is a source of absolute repose and confident calmness. It drives away all fear of what may befall them. That nearness of God is a constant security against terror and anxiety. (p. 275)

Johnson (1945) also alluded to this connection between religion and what would later be called attachment theory in his remarks on the function of faith in providing a generalized sense of emotional security:

> The emotional quality of faith is indicated in a basic confidence and security that gives one assurance. In this sense faith is the opposite of fear, anxiety, and uncertainty. Without emotional security there is no relaxation, but tension, distress, and instability. Assurance is the firm emotional undertone that enables one to have steady nerves and calm poise in the face of danger or confusion. (p. 191)

God as Attachment Figure

An important advancement in the field of psychology of religion and theology has been studying God attachment, God images, and even identity formation. These studies (Evans, 2015a, 2015b; Davis, 2010; Granqvist, 1998; Granqvist & Kirkpatrick, 2008; Kirkpatrick & Shaver, 1992; McDonald et al., 2005; Rizzuto, 1979) were grounded in models of psychoanalytic development (Freud, 1913) and object-relations theories (Bowlby, 1969; Rizzuto, 1979).

Kaufman (1981) found that the application of attachment theory to belief in God provides a secure base and a safe haven that humans attachment figures struggle to

furnish. His following statement makes clear the psychological importance of this application of attachment theory:

> The idea of God is the idea of an absolutely adequate attachment-figure .... We need not debate here whether mother-imagery or father-imagery would be more to the purpose: the point is that God is thought of as a protective and caring parent who is always reliable and always available to its children when they are in need. (as cited in Kirkpatrick, 1992, p. 7)

One of the times when children seek new attachment figures is adolescence. Probably not coincidentally, it is a time when it has been observed that conversion takes place. Part of the rationale for these adolescence conversions that has been advanced include links to puberty and sexual instincts (Coe, 1916; Thouless, 1923). Others have theorized that the needs for meaning, purpose, and sense of identity (Starbuck, 1899) and self-realization (Spilka, Hood et al., 1985) contribute to the high incidence of conversion during this stage of life.

It is theorized that during the turbulence of adolescence with its accompanying fears, uncertainties, and distresses, in discovering the inadequacies and weaknesses of their human attachment figures, children search for a different attachment figure, one who is advertised to be all-powerful and, at the same time, all-loving. Weiss (1982) listed a number of serious potential consequences for adolescents who are considering replacing their parents as attachment figures, the most important for this discussion being a vulnerability to loneliness. For Weiss, loneliness, “indicates the absence from one’s internal world of an attachment figure” (p. 178). In such a potential season of loneliness, adolescents may turn to an omnipotent (or a respected religious/spiritual leader) as a substitute attachment figure (Kirkpatrick, 1992).

The relationship of the God image relative to one’s image of a human attachment

figure and the relationship of one's image of God in comparison to one's image of self have been the foci of research within the psychology of religion literature since the 1950's, although not always using attachment theory verbiage. This research (Nicholson & Edwards, 1979; Spilka, 1978), despite its challenges, have contradicted the Freudian hypothesis that originally began this line of inquiry, that God is evidently perceived as more of a mother type than a father type (Godin & Hallez, 1965; Nelson, 1971; Strunk, 1959) or alternatively, to an individual's preference for one parent or the other (Nelson & Jones, 1957). These two findings, while predating the attachment theory, are consistent with an attachment interpretation. It is reasonable to assume that the image of God would most resemble the preferred parent, given that that parent is the primary attachment figure. Since the primary attachment figure in many cultures is mother rather than father, then God is not the exalted father figure as theorized by Freud, but rather, the exalted attachment figure (Lamb, 1978).

Research exploring the relationship between one's God image and self-concept are also coherent with an attachment explanation. Bowlby's (1973) findings pointed to a strong connection between models of attachment figures and models of self. He found that when children believe "their attachment figures love them, care about them, and protect them" they "are also likely to view themselves as lovable and worthy of being cared for and protected" (Kirkpatrick, 1992, p. 13). Research has confirmed the basic finding that God images and self-images are usually complementary. The psychological effects of people who view God as basically caring, affectionate, generous, and kind are that they tend to have higher self-esteem and more positive self-concepts (Kirkpatrick, 1992).

Attachment and Adverse Childhood Experiences

Given that the quality of infants' attachment is based on the sensitivity and the ability of the caregiver to meet the infants' needs (Benoit, 2004; Bowlby, 1973; Shillkret & Shillkret, 2011), children begin to anticipate similar responses and organize their behaviors accordingly (for example, they develop alternative strategies if their needs are being ignored (Benoit, 2004). Researchers have discovered three organized patterns or styles and one disorganized style of attachments in infants (Benoit, 2004; Main & Solomon, 1990). Three of these four different styles form the basis for insecure attachments, while only one forms the basis for a secure attachment (Hazan & Shaver, 1987; Main & Solomon, 1990; Grady et al., 2016).

The relationship between the children and their primary caregiver/attachment figures helps them form what is called an internal working model (IWM) which often serves as a template for future relationships with others (Bretherton, 1992). Internal Working Models help shape one's self-image and contribute to the setting of expectations of care and consistency for future relationships (Bowlby, 1969/1982; Bretherton, 1992). "As such, the IWM becomes like a mental blueprint that influences future interpersonal expectations and behaviors" (Grady et al., 2016, p. 2). Researchers have found a strong correlation between childhood and adult attachment patterns (Shilkret & Shilkret, 2011), which infers that childhood attachment patterns can serve as predictors of adult patterns (Grady et al., 2016).

A review of the literature by Grady et al. (2016) points to a strong correlation between adverse childhood experiences and attachment, although a causal relationship cannot be definitively ascertained. The reason for this lack of definitiveness is that it is

probable that there is some interchange between maltreatment and emerging attachment deficits. Thus, one can reasonably question whether mistreated children who are forming insecure attachments present in ways that further stress primary caretakers into abusive behaviors, which further diminishes the quality of the attachments being formed. However, what has been clearly demonstrated by the research is "that there are strong associations between early childhood maltreatments, insecure attachments, and later life challenges and negative outcomes (Grady et al., 2016, p. 3). One study demonstrated that maltreated children were likely to form insecure attachments that contribute to sustained problems managing relationships throughout the life span (Morton & Browne, 1998)" (Grady et al., 2016, pp. 4–5).

Neurobiological research has confirmed that ACEs produce biochemical changes in the parts of the brain that regulate attachment behaviors (Beech & Mitchell, 2005). Additional research has found evidence that Childhood Trauma hinders neural integration, which has been hypothesized to impede the ability to create and sustain secure attachment relationships (Creeden, 2009; Teicher et al., 2002; Grady et al., 2016).

There are at least two case studies that seek to assert the connection between the adverse effects of Childhood Trauma on attachment to God. One of the more recent case studies by Proctor et al. (2019) builds on previous research by Howe (2011) and Maltby and Hall (2012):

> Although research has found a correspondence between human attachment and spiritual attachment, with trauma shown to disorganize the parent–child attachment bond (Howe, 2011; Maltby & Hall, 2012), it is less well understood how early relational trauma and lack of personal inner coherency is associated with adult relational spirituality. (p. 87)

One of the more insightful and relevant statements made by Proctor et al, (2019) demonstrates the need for this current research:

> There is an increased need to understand the role of relational factors in Christian spirituality, including recognizing the challenges facing those who yearn for relationship with God and community, but who are without a coherent sense of self and the necessary developmental experiences to guide them in their relational endeavors (Simpson, Newman, & Fuqua, 2008). (p. 104)

Maltby and Hall (2012) made the following comment in their concluding remarks concerning their case study:

> Literature on attachment and spirituality has clearly demonstrated that people's attachment to God is not exempt from the influence of their early experiences and nonverbal ways of knowing. Just as attachment is relevant to spirituality, so too is trauma. The experience of trauma raises essential questions about the goodness and omnipotence of God that demand an answer. (p. 310)

Based on the literature reviewed so far, we have established both a theoretical foundation and examples from case studies that ACEs have the potential to affect children's ability to form secure attachments. We have also established that adult attachments are correlated with attachment patterns formed in childhood. Therefore, there is the potential theoretically for ACEs to impact one's relationship with God as an attachment figure. We now turn our attention to establishing a theoretical basis for measuring the potential impact on one's relationship with God as an attachment figure and with others. This begins with a review of the relatively new concept of relational spirituality, which is based on attachment theory.

Relational Spirituality

One of the areas in which research in spirituality and religion has increased is psychology (Paloutzian & Park, 2013). In attempts to ground psychological research of spirituality and religion, numerous theoretical frameworks have been proposed. The

theories most related to this research fall under the category of relational frameworks. These relational frameworks present news ways of measuring religiousness and spirituality in the study of psychology of spirituality and religion (Hill & Edwards, 2013).

Recent research has found that relationality is an important organizing principle for the understanding of human development (Damon et al., 2008). During roughly the same time frame, spirituality has been theorized in relational terms (Hall, 2004; Hill & Pargament, 2008; Shults & Sandage, 2006), and the phrase "relational spirituality" has appeared in conceptual and empirical literature. "Simply put, in this theoretical orientation, our relationship to the sacred is framed within our formative relational experiences. These ideas are based on a 'relational metapsychology' that integrates understandings of attachment theory, the neurobiology of emotion, and object relations theory (Hall, 2007, p. 14)" (Tomlinson et al., 2016, p. 58).

Relational spirituality is a conceptual framework of theistic spirituality that is based on relationality. This interdisciplinary approach to the study of religiosity and spirituality has coalesced a number of theories to form a relational framework for understanding human development. Thus, relational spirituality draws on "attachment theory (Bowlby, 1969/1982; 1973; 1980), infant research (Beebe & Lachmann, 1988), affective neuroscience (Bucci, 1997; Schore, 1994; Siegel, 1999), and relational psychoanalysis (Mitchell, 2000)" (Hall, 2015, p. 5). One of the inferences that is being drawn from this research is that "experiences in attachment relationships influence the development of brain systems that mediate social and emotional development" (Hall, 2015, p. 5).

A robust theoretical case has been made that relational maturity may be a key

component in the development of spiritual maturity. Chamberlain and Hall (2000) referenced this relational form of spiritual maturity as "realized" Christian spirituality. "Indicators of this realized form of spirituality, including attachment to God or community, have been linked to positive mental health outcomes in empirical studies (Hall, 2004)" (Tomlinson et al., 2016, p. 58).

One of the important implications from relational spirituality is that spiritual development seems to happen in conjunction with developmental processes and interpersonal experiences that are not consciously learned or processed (Hall, 2007, p. 29). Relational psychoanalytic researchers refer to this as implicit relational development where implicit relational representations are formed. These models, which are developed within the mind of the individual, "shape knowledge of self, knowledge of others and emotional appraisals of meaning in relationships, including relationship with the sacred Hall (2004)" (Tomlinson et al., 2016, p. 58). In other words, within the framework of relational spirituality, our affiliation within sacred representations are constructed within the context of our formative relational experiences. Hall (2004) has proposed the foundational principle that "people are fundamentally motivated by, and develop in the context of emotionally significant relationships" (p. 68).

Building on his foundational principle, Hall (2004) proposed that there are two separate means of knowing and processing relational experiences and two corresponding forms of memory which are explicit knowledge/memory and implicit relational knowledge/memory. Implicit relational knowledge (Stern et al., 1998) is the individual's sense of how significant relationships work at a visceral level. As implicit experiences seem to repeat with attachment figures, there develops a gut-level memory which

becomes the prototype for future relational experiences.

> These templates have been variously referred to as emotion schemas (Bucci, 1997), mental models (Siegel, 1999), object representations in object relations theory (e.g., Fairbairn, 1952), and internal working models in attachment theory (Bowlby, 1973), all of which point to representations of relational experiences that are encoded in implicit memory, which form the foundation of the self because they are processed automatically and nonconsciously. (Hall, 2015, pp. 5–6)

Applying implicit relational knowledge/memory to the development of spirituality, Hall (2004) advocated the idea that it is not possible to separate individuals into spiritual and psychological processes. Because these are processed automatically and unconsciously, they represent a psychospiritual unity (Benner, 1998), which implies that implicit relational processes and spiritual process are, for all intents and purposes, practically inseparable.

> Relational spirituality theory, then, would suggest that one's internal working models, or patterns of relationship, with humans, as defined by an implicit relational framework, are reliably associated with one's spiritual functioning at an implicit level. There is now a growing body of empirical evidence to support this theory. (Hall, 2015, p. 6)
>
> Hall and his colleagues have argued and provided empirical support for the notion that internal working models of human attachment figures generally parallel internal working models of God as an attachment figure at the implicit/experiential level—referred to as the "implicit IWM correspondence" (Hall et al. 2009; Fujikawa et al. 2011). (Hall, 2015, p. 6)

Over the last decade and a half, researchers have found more evidence to support the theory that there is a correspondence between human attachments and God as an attachment figure by using implicit measures (e.g., Birgegard & Granqvist, 2004; Cassiba et al., 2008; Granqvist et al., 2007). However, attachment to God tends to be only moderately correlated with attachment to others, indicating that the two forms of attachment are related, but not equivalent (Rowatt & Kirkpatrick, 2002).

Measuring Faith Maturity

Measuring religiousness and spirituality has challenged researchers for at least a half century. In trying to establish the psychology of religion and spirituality on firmer footing, attempts to measure religiousness and spirituality can be traced back to works by Allport and Ross (1967) and others. Gorsuch (1984) contended that the major frontier for the psychology of religion was a measurement which he suggested was both a boon and a bane for the field.

There are an overwhelming number of measures of religiosity and spirituality. These are exemplified by the collection of 125 measures by Hood which looked at those that had been developed through 1996 and published in 1999. Some have suggested that conservative estimates of 100 or more new measures have been developed since Hood's compendium of research instruments (Hall, 2015, pp. 3–4).

The instrument selected as the criterion variable for Faith Maturity is the FMS (Thayer Long Form [Thayer, 1993]). The original Search FMS (Benson et al., 1993) was designed with three principal research purposes. The first was to provide a reference point and give descriptive data on the strength of faith among adults, adolescents, and congregational leaders. The second purpose of this research tool was to evaluate the potential contributions of demography, personal biography, and congregational dynamics to the maturing of faith. Finally, this instrument was intended to function as "a criterion variable for evaluating the impact of religious education and its many separate dynamics" (Benson et al., 1993, p. 3).

This scale uses the following working definition of Faith Maturity: "Faith Maturity is the degree to which a person embodies the priorities, commitments, and

perspectives characteristic of vibrant and life-transforming faith, as these have been understood in "mainline" Protestant tradition" (Benson et al., 1993, p. 3). The emphasis of this definition is on demonstrable gauges of faith rather than on faith itself. "The definitional and empirical work centered on naming and measuring the range of beliefs, values, attitudes, and behaviors considered to be manifestations of 'real' faith, of faith-as-intended" (Benson et al., 1993, p. 3). The labor involved in this empirical work is akin to separating the sheep from the goats (Duncombe, 1969). What the FMS attempts to do is describe the indicators in conduct, carriage, and attitude, that faith—genuine, active, life-transforming faith—is present.

The FMS has 8 basic assumptions (Benson et al., 1993, pp. 4–5) that undergird its development:

1. There is a continuum along which Faith Maturity grows. Measurement of that growth is based on the degree to which indicators are observed. Indicators are weighted equally.

2. There are multiple domains of Faith Maturity, and the instrument should have approximately equally distributed indicators in each domain. Integration of the multiple domains is a key assumption of mature faith.

3. The domains of a mature-faith tool should be reflective of two basic themes found in most faith traditions, whether they are Christian or non-Christian. The first theme centers on one's personal relationship to God, an individual's efforts to seek out God, and their personal transformation as they encounter the divine. This theme could be referred to as the vertical dimension of faith. This vertical dimension of faith must be balanced with the second theme, otherwise this could be understood as " 'individualism

preserving religion' (Benson & Williams, Religion on Capitol Hill: Myths and Realities, 1986)" (Benson et al., 1993, p. 4). The second theme reflects on the responsibilities and activities from human to human. This is emblematic of the social service and social justice components of faith. This dimension of faith is referenced as horizontal faith, a love-your-neighbor type of faith. However, as with the first dimension of faith, this dimension must be balanced by a traditional religious underpinning. Therefore, maturing faith is understood to be an integration of these two themes.

4. The tool should have the frame of reference that allows for the explanation and discussion of maturing faith in educational settings.

5. The instrument's length and response format should make it sensitive enough to be useful in discriminating changes following program interventions.

6. The tool should not specify economic, educational, and racial-ethnic differences.

7. The indicators of maturing faith should not have an underlying presumption of institutional attachment or involvement.

8. The domains and their sampled indicators should minimize any denominational specificity by focusing on common understandings within a number of denominations.

A Scale More Sensitive for Adventists

Over the years, there have been some challenges raised about the FMS's sensitivity for some denominations. For instance, in a fairly comprehensive review of the scale, Naden (1993) raised theological, cultural, and other concerns about the suitability of greater than half of the items. Furst (1990) made the claim that FMS has diminished

validity for Adventist samples. Thayer (1992) also pointed out that the response format might be inappropriate for many items. These challenges to the instrument were based exclusively on review of the items of the scale (Thayer, 1993). An example of why a denomination-specific scale was desired was item 35, where SDA's tend to view church involvement in politics differently from most mainline denominations.

As a result of this desire for a more suitable scale for SDA's, two denomination-specific scales were developed that can be used with Adventists, a subset of the 38 items of the long form and a subset of the 12 items of the short form. These scales are referred to as the Thayer Long Form and Thayer Short Form scales (Thayer, 1993).

Conclusion

The review of the literature above established that while we cannot fully gauge the degree to which each individual is impacted by the sin committed by Adam and Eve in the garden of Eden, it is useful to think of each child as a broken, clean slate. While it would be difficult to establish that children are born with proclivities that are the result of original sin, as the literature reviewed suggests, there may be underlying susceptibilities which become exposed and exploited by Childhood Trauma.

As was demonstrated by the literature review, ACEs are unfortunately quite prevalent and quite pervasive in our society. In fact, ACEs are so common that they are listed as a public health hazard by the CDC on their website. For many individuals who have experienced Childhood Trauma, they have experienced more than one ACE. Thus, raising the question of whether or not multiple traumas have an additive versus an interactive effect. Multiple studies since the initial study have confirmed the fact that

ACEs impact individuals physiologically and psychologically for decades after the trauma has occurred.

The literature reviewed clearly shows that Childhood Trauma that falls within the categories of ACEs (abuse, household challenges, and neglect) clearly has effects on the brains of those experiencing the trauma. The changes can be categorized broadly as adaptive modifications or stress-induced damage. These changes in the brain structure are largely responsible for the ongoing negative outcomes well into adulthood.

One of the ways that Childhood Trauma affects individuals both in childhood and can affect them in adulthood, as well, is the kind of attachments that are formed. Children who suffer from ACEs often form insecure attachments, and these become part of their internal working model which they take into adulthood and into their romantic relationships. Because God can be seen as an attachment figure, it is possible that these adverse experiences can also potentially affect one's relationship with God.

In order to detect these potential damages to one's relationship with God, a measure of spiritual maturity is needed. The Thayer Long Form of the FMS is an instrument that, in addition to its validation, has been tailored for Seventh-day Adventists.

It seems from the literature reviewed that it is entirely possible that Childhood Trauma as described in the ACE study (Felitti et al., 1998) could have negative consequences on one's relationship with God. The challenge is that there may be mitigating factors which either mask or diminish the negative effects of Childhood Trauma as it relates to one's relationship with God. These factors are beyond the scope of

this research and, therefore, literature related to these mitigating factors was not reviewed.

The literature reviewed revealed a need for more empirical studies researching the potential relationship between Childhood Trauma and how survivors connect and relate to God. Thus, this research attempts to add to the research connecting Childhood Trauma to one's relationship with God. For those of us who are engaged in the process of making and growing disciples, there are at least two questions which this research hopes to begin to answer: (a) How prevalent is Childhood Trauma among our pastors and those studying to be pastors and (b) How does Childhood Trauma impact the quality and depth of their spiritual maturity? The inference that we hope to draw from this study is that if there is negative relationship between Childhood Trauma and spiritual maturity among pastors and those studying to be pastors, the same would be true for the general populations of our churches.

CHAPTER 3

METHODOLOGY

Introduction

This research explored the relationship between Childhood Trauma and Faith Maturity. As was articulated in the literature review, there is evidence that Childhood Trauma affects the physical and emotional health of survivors well into adulthood. More specifically, Childhood Trauma has adverse effects on the brain development of those affected by Childhood Trauma. Since spirituality is housed in the brain, this study attempts to examine the incidence of Childhood Trauma, as well as the relationship between types of Childhood Trauma experienced and Faith Maturity.

The proposed measure of the dependent variable, Faith Maturity, was the FMS, which does not examine faith itself, but rather, examines the indicators of faith to reveal the degree to which a person has internalized the priorities, commitments, and worldview representative of healthy and mature faith. The independent variable, Childhood Trauma, was measured by the Adverse Childhood Experiences (Felitti et al. 1998) and the Expanded Adverse Childhood Experiences (Sedlacek et al. 2014) surveys.

Research Design

This research first quantified the prevalence of Childhood Trauma among those preparing for ministry, as well as those already serving in pastoral ministry, and

compared it to the averages among the general population in the United States.

Next, a quantitative nonexperimental correlation research design explored the relationship between Childhood Trauma and Faith Maturity. The independent variable Childhood Trauma was grouped in three different ways to compare the means of the dependent variable Faith Maturity with one-way ANOVAs.

To assess the relationship between the number of types of Childhood Trauma and Question 14, which was about growing up with a household member dealing with mental illness, was the first significant result for Faith Maturity; Question 16, which asked if the child felt dominated and had no voice, was the next significant result for Faith Maturity; Question 17, which dealt with perception by the respondent that spiritual writings were abused and their needs neglected due to parental/guardian overinvolvement in ministry was another significant result for Faith Maturity; Question 22, which asked respondents if they felt pressure to perform or if love and approval had to be earned was an almost significant result for Faith Maturity; and Question 12, which asked whether the respondent's mother was physically abused., the independent variable Childhood Trauma was grouped according to the number of types of trauma experienced. In other words, does the number of trauma types experienced make a difference?

To test whether the broad type of trauma makes a difference, the independent variable was grouped according to the different broad types of ACEs (abuse, household challenges, neglect, community trauma, and environmental trauma in an interactive framework).

To test whether or not specific types of trauma (the 20 questions of the combined ACEs and Expanded survey) impact Faith Maturity differently, the Faith Maturity scores

of each specific indicator of Childhood Trauma were compared.

To test whether there was interaction between gender and other demographics on Faith Maturity, the respondents were grouped by their demographic information (gender, age, race, marital status, and educational background) to look for interaction between the independent variable and the demographics on the dependent variable, Faith Maturity.

Research Questions

1. How prevalent is Childhood Trauma among those preparing for ministry and those already in ministry? How does that compare to the National Average?

2. What is (are) the relationship(s) between Faith Maturity and its two subscales (Awareness of God and Practicing the Presence of God) and Childhood Trauma?

    a. the number of specific types (physical abuse, sexual abuse, divorce, not properly nourished, etc.) of Childhood Trauma experienced;

    b. the different broad types of Childhood Trauma (i.e., abuse, household challenges, neglect, community trauma, and environmental trauma);

    c. specific indicators of Childhood Trauma (questions on ACE questionnaire)?

3. Do the relationships between Faith Maturity and Childhood Trauma vary by gender, age, ethnicity, marital status, and education?

Variables Definition

Independent Variable: The independent variable is Childhood Trauma. A traumatic event in the life of a child (younger than 18 years of age) is the following:

> One that threatens injury, death, or the physical integrity of self or others and also causes horror, terror, or helplessness at the time it occurs. Traumatic events include

> sexual abuse, physical abuse, domestic violence, community and school violence, medical trauma, motor vehicle accidents, acts of terrorism, war experiences, natural and human-made disasters, suicides, and other traumatic losses. (APA, 2008, p. 2)

For the purpose of this research, Childhood Trauma is categorized in five different ways. There are specific types of Childhood Trauma as described by the APA (sexual abuse, domestic violence, community violence, war experiences, etc.) There are three broad types of Childhood Trauma as described by the CDC (2017): (abuse; household challenges; and neglect). The last categorization of Childhood Trauma comes from specific indicators of Childhood Trauma (the questions from the ACE questionnaire) To understand better the broad types of Childhood Trauma, they are described in the following paragraphs.

Abuse can take three basic forms which are emotional, physical, and sexual. Emotional abuse includes a parent, stepparent, or adult living in the home who swears, insults, puts down or acts in a way that makes a child afraid that he/she may be physically hurt. Physical abuse is defined as a parent, stepparent, or adult who pushes, grabs, slaps, throws objects, or hits so hard that the child ends up with marks or is physically injured. Sexual abuse involves adults, relatives, family friends, or strangers who were at least 5 years older than the child who touched or fondled the child in a sexual way, caused the child to touch the older individual's body in a sexual way, or attempted to have any type of sexual intercourse with the child (ACE, 2020).

Household challenges include the trauma of watching a parent being treated violently. The parent or stepparent was pushed, grabbed, slapped, had objects thrown at him/her, kicked, bitten, hit with a fist, hit with something hard, repeatedly hit for over at least a few minutes or threatened or hurt with a knife or a gun by the other parent

(stepparent) or a boyfriend/girlfriend. Another household challenge is substance abuse in the household where a household member was a problem drinker, alcoholic, or used street drugs. Mental illness represents another household challenge where a member of the household was depressed, or mentally ill, or attempted suicide. Included in household challenges is separation or divorce where a child's parents were separated or divorced during childhood. The last type of household challenge which can traumatize a child is incarceration where a household member went to jail or prison (ACE, 2020).

The third broad type of Childhood Trauma is neglect. On the ACEs questionnaire, neglect is discovered by asking if the child was cared for and loved and then scored in reverse. In this category of trauma, two types of neglect are defined: emotional and physical. Emotional neglect is described as the child's not having someone in the household who helped the child feel important, special, or loved. Emotional neglect can also include growing up in a household where members do not look out for each other and feeling close to one another. In emotional neglect, the household was not a source of strength and support. In physical neglect, there was no one to take care of, protect, and take the child to the doctor if necessary. Physical neglect includes the child's not having enough to eat and parents (stepparents) or caretakers were too drunk or too high to take care of the child; this is sometimes evidenced by the child's having to wear dirty clothes (ACE, 2020).

The fourth broad type of Childhood Trauma is community trauma. Community trauma, also referred to in some literature as collective trauma, is defined as "an aggregate of trauma experienced by community members or an event that impacts a few people but has structural and social traumatic consequences" (Pinderhughes et al., 2015,

p. 11). It is important to recognize that the definition for "community" can vary. Community can be defined geographically (e.g., a neighborhood), virtually (e.g., shared identity), or organizationally (e.g., a place of worship; Weisner, 2020).

> The symptoms of community trauma are the product of decades of economic, political and social isolation, a lack of investment in economic development and for the maintenance and improvement in the built environment, the loss of social capital with the flight of middle-class families, and the concentration of poverty and exposures to high levels of violence. (Pinderhughes et al., 2015, p. 14)

The fifth and final broad type of trauma examined in this research is environmental trauma—emotional, physical, or psychological response to an event, community environment, or series of events that has lasting adverse effects on an individual's functioning.

Dependent Variable: The dependent variable is Faith Maturity which for the purposes of this research is the degree to which individuals first see God all around them and experience awe, wonder, and devotion to God, and second, take intentional steps to practice the presence of God through the means of prayer, Bible study, nature, and sharing their faith with others.

The definition used in this research is different from the definition from the original designers of the FMS. They defined Faith Maturity in the following way: "Faith Maturity is the degree to which a person embodies the priorities, commitments, and perspectives characteristic of vibrant and life-transforming faith, as these have been understood in 'mainline' Protestant tradition" (Benson et al., 1993, p. 3). The emphasis of this definition is on demonstrable gauges of faith rather than on faith itself. "The definitional and empirical work centered on naming and measuring the range of beliefs,

values, attitudes, and behaviors considered to be manifestations of 'real' faith, of faith-as-intended" (Benson et al., 1993, p. 3).

The definition of Faith Maturity used in this research was derived from the two subscales that resulted from factor analysis of the FMS based on the data in this research. The Search FMS (Benson et al., 1993, p. 3) has two subscales—vertical and horizontal. When Adventist theologians, Bible teachers, and so forth were polled, they, for the most part, left out the horizontal component of faith. The scale items that were left created the FMS used in this research. When I performed a factor analysis on the FMS with my data, I got two subscales. I labeled these two subscales as Awareness of God and Practicing the Presence of God (the factor loadings for these two factors are found in Table 1).

Table 1

Factor Loadings of Faith Maturity Scale (Thayer Long Form)

Scale Items	Component 1	Component 2
I have a real sense that God is guiding me	0.845	
Every day I see evidence that God is active in the world.	0.765	
My life is filled with meaning and purpose.	0.702	
I am spiritually moved by the beauty of God's creation.	0.662	
My life is committed to Jesus Christ.	0.647	0.425
I feel God's presence in my relationships with other people.	0.640	0.393
I like to worship and pray with others.	0.547	0.546
I go out of my way to show love to people I meet.	0.534	0.440
My faith helps me know right from wrong.	0.474	0.426
I devote time to reading and studying the Bible.		0.795
I help others with their religious questions and struggles.		0.780
My faith shapes how I think and act each and every day.	0.303	0.724
I take time for periods of prayer or meditation.		0.719
I talk with other people about my faith.	0.462	0.646
I seek out opportunities to help me grow spiritually.	0.546	0.630

The following scale items were associated with the Awareness of God subscale: I have a real sense that God is guiding me; I see evidence that God is active in the world every day; My life is filled with meaning and purpose; I am spiritually moved by the beauty of God's creation; My life is committed to Jesus Christ; I feel God's presence in my relationships with other people.

The remaining scale items were associated with Practicing the Presence of God: I like to worship and pray with others; I go out of my way to show love to people I meet; My faith helps know right from wrong; I devote time to reading and studying the Bible; I help others with their religious questions and struggles; My faith shapes how I think and act each and every day; I take time for periods of prayer or meditation: I talk with other people about my faith: I seek out opportunities to help me grow spiritually.

Instrumentation

The survey instrument used in this research consisted of the original ACE questionnaire (Felitti et al., 1998), as well as the Expanded ACE questionnaire (Sedlacek et al., 2014), and the FMS.

The original ACEs have been expanded from seven to ten, and while other researchers have developed their own forms of the ACE study, the original ACE study remains the foundation for creating best practices as it relates to Childhood Trauma and its ongoing physical, emotional, and behavioral health.

The Expanded ACE questionnaire (Sedlacek et al., 2014) was tested with a pilot study of 49 incoming seminary students at Andrews University Theological Seminary in the fall semester of 2019. Using an expanded ACE questionnaire (Sedlacek et al., 2014) revealed that 55% of students had 1 or more ACEs and that 41% had 2 or more ACEs

using the original 10 ACEs. Using the expanded ACE questionnaire (Sedlacek et al., 2014), these numbers increased to 67% with 1 or more ACEs and 53% with two or more ACEs.

The second part of the instrumentation was the FMS (Thayer Long Form). The Search FMS (Benson et al., 1993) was used in Adventist studies that included the Valuegenesis study. The Thayer Long Form of the FMS was created after concerns were raised about the Search FMS suitability for Adventists (see Furst, 1990; Naden, 1993; Thayer, 1992).

Validity and Reliability of Instrument

The validity of a study is dependent on the ability of a test to measure what it was intended to assess while reducing systematic errors or biases (Dalli et al., 2003).

Validity and Reliability of the Original ACEs Questionnaire: In the original ACE study, the respondent (n = 59,508) and nonrespondent (n = 53,986) groups were comparable.

Questions from available and distributed surveys were used to construct the ACE Study questionnaire. The Conflicts Tactics Scale (Straus & Gelles, 1990) was used to model questions for psychological and physical abuse during childhood and violence against the respondent's mother. Four questions from Wyatt (1985) were used to characterize contact sexual abuse during childhood. Questions regarding exposure to alcohol or drug abuse during childhood were developed from the 1988 National Health Interview Survey (National Center for Health Statistics, 1988). All of the questions we used in this study to determine childhood experiences were introduced with the phrase "While you were growing up during your first 18 years of life . . ." (Felitti et al., 1998).

Questions about health-related behaviors and health problems were taken from health surveys such as the Behavioral Risk Factor Surveys (Siegel et al., 1991) and the Third National Health and Nutrition Examination Survey (Crespo et al., 1996), both of which are directed by the CDC. Questions about depression came from the Diagnostic Interview Schedule of the National Institute of Mental Health (NIMH; Robins et al., 1981). Other information for this analysis, such as disease history, was obtained from the standardized questionnaire used in the Health Appraisal Clinic. (A copy of the questionnaires used in this study may be found at www.elsevier.com/locate/amepre; Felitti et al., 1998).

For more than 20 years, the ACEs questionnaire has been used repeatedly to assess Childhood Trauma and its ongoing effects on the health and well-being of those reporting having suffered Childhood Trauma.

Validity and Reliability of the Faith Maturity Scale (Thayer Long Form): Considerable evidence supports the validity of the FMS. The development of the original Search FMS as a criterion-based instrument began with the significant contributions of three expert panels (seminary scholars, denominational experts, clergy) and imply a certain validity for those denominations who were included in the panels. Content validity was also suggested by creating the indicators from the eight core dimensions of Faith Maturity.

Face and content validity of the FMS may also exist for other religious traditions other than those included in the expert panels. The FMS has been included in national studies involving the Seventh-day Adventist Church (Benson & Donahue, 1990) and the Lutheran Church-Missouri Synod (Benson & Eklin, 1990), not to mention in local and

regional studies of Catholic, Episcopal, American Baptist, and Reform Church of America congregations. The FMS has also been employed in a study of Seventh-day Adventists in Australia.

Construct validity for the FMS has been weighed through known groups, expert raters, its relation to the age of the respondent, and its relation to other measures.

Known Groups: It was theorized that faith-maturity mean scores would be positively correlated with religious-leadership training and experience. Therefore, the expectation is that the rank order of the five groups to whom the Search FMS was administered would be pastors, coordinators of Christian education, teachers, adults, and youth (from high to low). Table 2 confirms this prediction.

Table 2

Search Faith Maturity Means and Sample Sizes for Various Groups

	N	**Mean**
Pastor	454	5.32
Coordinator	404	4.85
Teacher	3043	4.74
Adult	3582	4.64
Youth	2364	4.07

Expert Raters: One of the ways the validity of the FMS was assessed was by asking 10 mainline pastors and 10 denominational executives to rate a total of 123 persons on their Faith Maturity in May of 1988. They were asked to use a ten-point scale for their ratings using their previous knowledge of the individual's level of Faith Maturity as described in the eight core dimensions. Once those ratings were received, they were then correlated with the scores of the individuals on the FMS. The ratings-to-survey score

correlation was .61 ($p < .001$; Benson et al., 1993).

Also in May of 1988, 48 married couples filled out the survey instrument, describing their assessment of their Faith Maturity, as well as that of their spouse. The correlation of self-report with spouses' predicted responses was .56.

Relation with Age: Developmental theory posited that Faith Maturity would be positively correlated with age. The hypothesis was that learning from the perspective of others, integration of different belief and action factors, as well as seeking the good of others were cognitively mature psychosocial views requiring both intellectual preparation and experiences (Wrightsman, 1988). This prediction was confirmed, as shown in the Table 3.

Table 3

Faith Maturity Means by Age

Age	**N**	**Mean**
13-15	1205	4.03
16-18	940	4.09
20-29	309	4.46
30-39	681	4.50
40-49	724	4.63
50-59	660	4.76
60-69	681	4.93
70-79	410	5.07
80 or older	95	5.01

Relationship to other measures:

> Faith Maturity correlates .58 with intrinsic religiousness and is unrelated to extrinsic religiousness, based on a field study with 102 adults, using Feagin's (1964) twelve-item intrinsic/ extrinsic measure; .57 with self-reported importance of religion; .47 with frequency of prayer; .47 with frequency of reading religious literature other than the Bible; .65 with a four-item Good Samaritan scale; .48 with a measure of support for racial equality; and .34 with frequency of social justice behaviors. (Benson et al., 1993, p. 14).

Development of the Thayer Long Form of the FMS: The FMS was mailed to 532 SDA educators and pastors. This group included all professors in the SDA Theological Seminary at Andrews University (N = 44), all professors in departments of religion in the SDA colleges and universities in the United States (N = 73), a sample of professors from these colleges and universities in departments other than religion (N = 196), and all of the pastors in the Lake Union of Seventh-day Adventists (Illinois, Indiana, Michigan, and Wisconsin (N=219). The responses received totaled 216 persons, representing a return of 38-52% from each of the respective groups (Thayer, 1993).

> Using a criterion of 75% approval, 18 of the items were rated as appropriate for inclusion and 20 were not. Fifteen of the items receiving favorable ratings loaded high on factor 1 (general faith). The other three items with strong approval had poor psychometric characteristics. All items loading on factors 2 and 3 (social/political and psychological) and those not loading on any factors received lower approval. (Thayer, 1993, p. 102)

The intent was to have the Thayer scales be comparable to other short forms of the Search FMS (Benson et al., 1993), while preserving good psychometric characteristics and including items which would be agreeable in terms of face value and consistent content validity for Adventists. The final Thayer Long Form of the FMS included 15 items. Ten of the 15 items on the Thayer scale met all 10 criteria (See Appendix B for the 10 criteria) which were items 3, 4, 9, 11, 14, 15, 23, 24, 31, and 34.

Three items met all but one criterion (items 30, 36, and 38). Two items met all but two criteria (items 7 and 33).

Table 4 reports statistical characteristics of the Thayer Long Form and Short Form of the FMS, and the other scales.

> The reliability coefficients (coefficient alpha) of the Thayer scales were .89 and .93. The reliability coefficients of the Search/Valuegenesis scale and the Donahue and Erickson scales were between .88 and .91. The lowest correlations between an item on each scale and the total scale were .48 and .51 for the Thayer scales and between -.13 and .37 for the other scales. The Thayer long-form scale had no items with an item-scale correlation below .50, the Thayer short-form scale had one, while the other scales had between 3 and 22 items. (Thayer, 1993, p. 106)

Table 4

Statistical Characteristics of Scales

Scale	Number of Items	Coefficient Alpha	Lowest Item-scale r	No. of Items with Item-scale r < .50	r with Search Scale	r with Thayer Short/long scales	
Valuegenesis	38	.89	-.13	22 (58%)	---	.90	.90
Donahue	12	.88	.37	3 (25%)	.94	.95	.92
Erickson	16	.91	.20	3 (19%)	.93	.96	.98
Thayer long-form	15	.93	.48	1 (7%)	.90	.96	---
Thayer short-form	8	.89	.51	0 (0%)	.90	---	.96

The Thayer Long Form and Short Form of the FMS showed higher mean scores for the various populations tested in the Valuegenesis study as shown in Table 5. While Donahue and Erickson developed short form scales of the Search Faith Maturity Scale (Benson et al., 1993), the two Thayer scales developed are considered more appropriate for use with Adventists (Thayer, 1993, p. 111).

Table 5

Means Scores for Sub-groups on Different Faith-Maturity Scales

Scale	Pastors	Principals	Teachers	Parents	SDA Youth in SDA Schools
Valuegenesis	5.35	5.15	5.15	4.89	4.44
Donahue	5.75	5.52	5.52	5.16	4.39
Erickson	5.97	5.77	5.76	5.44	4.61
Thayer long-form	6.26	5.97	5.93	5.59	4.59
Thayer short-form	6.21	5.93	5.90	5.48	4.62

Data Collection Procedures

Subjects were emailed an invitation and a link for the instrument which was responded to through an online inventory. They received the original ACE questionnaire (Felitti et al., 1998), Expanded ACE questionnaire (Sedlacek et al., 2014) along with the Thayer Long Form of the FMS. The Thayer Long Form of the FMS uses a 6-point Likert scale ranging from 1 – Very untrue of me to 6 – Very true of me. The original ACE questionnaire, along with the Expanded ACE questionnaire, are simple "yes" or "no" questions. Once subjects completed the online inventory, the data was uploaded into a database for analysis.

Population and Sample

The following five tables (Tables 6-10) describe the demographic characteristics of the sample. Of the 195 respondents, 165 (85.1%) self-identified as male, while 29 (14.9%) self-identified as female. There was 1 respondent who skipped the gender question. Of the respondents, 26 (13.3%) were between the ages of 21 and 25, 40 (20.5%) were between the ages of 26 and 30, 36 (18.5%) were between the ages of 31 and 35, 23 (11.8%) were between the ages of 36 and 40, 24 (12.3%) were between the ages of 40-45,

14 (7.2%) were between the ages of 46 and 50, 6 (3.1%) were between the ages of 51 and 55, 11 (5.6%) were between the ages of 56 and 60, 10 (5.1%) were between the ages of 61 and 65, and 5 (2.6%) were 66 or older. Of the 195 respondents, 24 (12.3%) self-identified as European American; 73 (37.4%), as African American/Black; 40 (20.5%), as Latino/a; 30 (15.4%), as Asian American/Pacific Islander; 24 (12.3%), as other; and 2 skipped the question. Of the 195 respondents, 39 (20.0%) identified as never married/single and not involved in an exclusive relationship, 15 (7.7%) identified as never married/single who are involved in an exclusive relationship, 127 (65.1%)

Table 6

Sample Demographics by Gender

	Frequency	**Percent**
Male	165	85.6%
Female	29	14.9%
Missing	1	0.5%
Total	195	

Table 7

Sample Demographics by Age

	Frequency	**Percent**
21-25	26	13.3%
26-30	40	20.5%
31-35	36	18.5%
36-40	23	11.8%
41-45	24	12.3%
46-50	14	7.2%
51-55	6	3.1%
56-60	11	5.6%
61-65	10	5.1%
66 or over	5	2.6%
Missing	0	0.0%
Total	195	

identified as married, 1 (0.5%) individual identified as separated, 10 identified as divorced and not remarried, 2 persons identified as widowed and not remarried, and 1 individual skipped the question. Of the respondents, 1 (0.5%) self-identified as having completed high school, 6 (3.1%) said they had completed some college, 89 (45.6%) had completed an undergraduate degree, 80 (41.0%) had completed a Master's degree, 18 (9.2%) had completed a doctoral degree, and 1 person chose not to respond.

Table 8

Sample Demographics by Ethnicity

	Frequency	**Percent**
Other	24	12.3%
European American	24	12.3%
African American/Black	36	18.5%
Latino/a	40	20.5%
Asian American/Pacific Islander	30	15.4%
Native American	2	1.0%
Missing	0	0.0%
Total	195	

Table 9

Sample Demographics by Relationship Status

	Frequency	**Percent**
Single Not Involved	39	20.0%
Single Involved	15	7.7%
Married	127	65.1%
Latino/a	40	20.5%
Separated	1	0.5%
Divorced Not Remarried	10	5.1%
Widowed Not Remarried	2	1.0%
Missing	1	0.5%
Total	195	

Table 10

Sample Demographics by Education Background

	Frequency	Percent
Completed High School	1	0.5%
Some College	6	3.1%
Undergraduate Degree	89	45.6%
Master's Degree	80	41.0%
Doctoral Degree	18	9.2%
Missing	1	0.5%
Total	195	

Analysis of Data

The first hypothesis tested by correlation was whether there was a relationship between adverse childhood experiences (the independent variable) and Faith Maturity (the dependent variable).

The second hypothesis tested by a one-way ANOVA was whether the type of trauma (broad categories as well as individual indicators) was related to Faith Maturity.

The third hypothesis tested by a univariate analysis of variance was whether demographics (age, sex, marital status, etc.) impacted the relationship between trauma and Faith Maturity.

Chapter Summary

This chapter presented details on the research design; population and sample; conceptual, operational, and instrumental definition of variables; as well as an overview of statistical procedures that were used in the research analyses. A quantitative, nonexperimental, correlational design using data collected by survey formed the basic research design. The research population consisted of the students enrolled in the

Adventist Theological Seminary of Andrews University in Berrien Springs, MI and pastors employed in the Allegheny East Conference of Seventh-day Adventists.

CHAPTER 4

RESEARCH RESULTS

Introduction

The purpose of this study was to examine the relationship between Childhood Trauma and a person's relationship with God. In chapter 2, the literature review, significant time and space was given to establishing theoretically the negative impact of Childhood Trauma on the ability to form secure attachments. It has been proposed theoretically that the damage done to attachments would extend to one's relationship with God, as well. While there are a few case studies which have suggested the resultant damage from Childhood Trauma to attachments, this chapter reports the attempts to examine the statistical relationship between Childhood Trauma and spiritual maturity.

Research Questions

Statistical analysis was performed to answer the research questions listed below:

1. How prevalent is Childhood Trauma among those preparing for ministry and those already in ministry? How does that compare to the National Average?

2. What is (are) the relationship(s) between Faith Maturity and its two subscales (Awareness of God and Practicing the Presence of God) and Childhood Trauma?

    a. the number of specific types (physical abuse, sexual abuse, divorce, not properly nourished, etc.) of Childhood Trauma experienced;

b. the different broad types of Childhood Trauma (i.e., abuse, household challenges, neglect, community trauma, and environmental trauma);

c. specific indicators of Childhood Trauma (questions on ACE questionnaire)?

3. Do the relationships between Faith Maturity and Childhood Trauma vary by gender, age, ethnicity, marital status, and education?

Research Question #1

The first research question (How prevalent is Childhood Trauma among those preparing for ministry and those already in ministry? How does that compare to the National Average?) was addressed by looking at the frequency of the independent variable trauma as reported by the ACE questionnaire (questions 6-15), the Expanded ACE questionnaire (questions 16-25), and finally, the full questionnaire (questions 6-25). The results were grouped as follows: no trauma (0), moderate number of types of trauma (1-3), and severe number of types of trauma (4 or more).

The independent variable Childhood Trauma was measured by asking respondents to answer whether or not they had experienced each type of trauma with a simple "yes" or "no" response. The original ACE questionnaire was made up of 10 questions. The responses were grouped for the sake of statistical analysis as following: no trauma (0), moderate number of types of trauma (1-3); and severe number of types of trauma (4 or more). The results of the 194 respondents are reported in Table 11 below. The Expanded ACE questionnaire (Sedlacek et al., 2014) contained 10 additional questions and yielded the results shown in Table 12, again with the same grouping as

Table 11. The combined results from both the original ACE questionnaire and the Expanded ACE questionnaire yielded the results shown in Table 13, again with the same grouping as Table 11.

Table 11

Number of Trauma Types in Original ACE (10 Items)

Trauma Types	Frequency	Percent
0	69	35.6
1-3	87	44.8
4 or more	38	19.6

Table 12

Number of Trauma Types in Expanded ACE (10 Items)

Trauma Types	Frequency	Percent
0	52	26.8
1-3	106	54.6
4 or more	36	18.6

Table 13

Number of Trauma Types in Combined ACE (20 Items)

Trauma Types	Frequency	Percent
0	26	13.4
1-3	96	49.5
4 or more	72	37.1

The incidence of at least one type of ACE from the 10 questions of the original ACE questionnaire was found to be slightly higher than the national averages: 64.6% of the respondents had experienced at least 1 Childhood Trauma. When adults were

surveyed across 25 states in the United States, it was found that 61% reported at least one type of ACE before the age of 18 (U.S. Department of Health & Human Services, 2022). In this research, it was found that 19.6% of the respondents had experienced 4 or more types of trauma, whereas according to the same survey in 25 states, it was found that nearly 1 in 6 (16.7%) reported 4 or more types of ACEs (U.S. Department of Health & Human Services, 2022).

The incidence of at least one type of ACE in the Expanded ACEs questionnaire was found to be 73.2%. Those experiencing 4 or more types of ACEs on the Expanded ACEs questionnaire was 18.6%. On the total ACEs questionnaire (20 questions from the original and expanded questionnaires) the report of at least one type of ACE was 86.6%, and those found to have reported four or more types of ACEs was 37.1%.

Research Question #2

The second research question was addressed by testing whether Faith Maturity overall and the two subscales, Awareness of God and Practicing the Presence of God, differed based on the trauma experienced by the grouped number of types of trauma (0, 1-3, 4 or more) using a one-way ANOVA. Next, it was tested whether Faith Maturity and the two subscales, Awareness of God and Practicing the Presence of God, differed based on the trauma experienced by broad types of trauma (abuse, household challenges, neglect, community trauma, and environmental trauma) using one-way ANOVA's. Next, Faith Maturity overall and the two subscales, Awareness of God and Practicing the Presence of God, were tested for differences based on the trauma experienced by the specific indicators of trauma (the individual questions from both the ACEs questionnaire and the Expanded ACEs questionnaire) using one-way ANOVA's.

First, the means of those with no reported trauma were compared with those with moderate exposure to types of trauma (1-3 types) and those with severe exposure to types of trauma (4 or more types of trauma) using a one-way ANOVA for Faith Maturity and its two subscales.

The mean score for Faith Maturity among those who had experienced no trauma was 6.29. The mean score for Faith Maturity among those who had experienced 1-3 types of trauma was 6.00. The mean score for Faith Maturity among those who had experienced 4 or more types of trauma was 5.80. The *p*-value of 0.016 showed that the means were statistically different.

A further examination of the subscales of Faith Maturity revealed the following: The means of the subscale Awareness of God among those who had experienced no trauma was 6.45. The mean score for Awareness of God among those who had experienced 1-3 types of trauma was 6.08. The mean score for Awareness of God among those who had experienced 4 or more types of trauma was 5.91. The *p*-value of 0.017 indicated that the differences in the means were statistically significant. The mean score for the subscale Practicing the Presence of God among those who had experienced no trauma was 6.15. The mean score for this subscale among those who had experienced 1-3 types of trauma was 5.94. The mean score for Practicing the Presence of God among those who had experienced 4 or more types of trauma was 5.69. The *p*-value of 0.031 showed that the differences in means were statistically significant. Table 14 summarizes the above results.

Table 14

Faith Maturity Mean Scores by Trauma Groups

	No Trauma (0)	**Moderate Trauma (1-3)**	**Severe Trauma (4 or more)**	**Significance**
Faith Maturity	6.29	6.00	5.80	0.016
Awareness of God	6.45	6.08	5.91	0.017
Practicing His Presence	6.15	5.94	5.69	0.031

Comparison of Broad Types of Trauma

Next, the question of whether or not the broad types of trauma (abuse, neglect, household challenges, community trauma, and environmental trauma) were correlated with Faith Maturity and its two subscales were tested using a one-way ANOVA. The questions on the ACE questionnaire and the Expanded ACE questionnaire were grouped in the following ways: Abuse (q6, q7, q8, q16, q18); Neglect (q9, q10, q17); Household Challenges (q11, q12, q13, q14, q15, q19, q22); Environmental Trauma (q20); and Community Trauma (q21, q23, q24, q25)

For those who had experienced no abuse, the Faith Maturity mean score was 6.14 and for those who had experienced abuse, the mean score for Faith Maturity was 5.83. The *p*-value of 0.006 showed that differences in Faith Maturity between those who had experienced abuse versus those who had not were statistically significant. For those who had experienced no neglect, the Faith Maturity mean score was 6.12, whereas for those who reported having experienced neglect, the mean score was 5.68. The *p*-value of 0.000 again indicated that the differences between mean scores were statistically significant.

The differences in Faith Maturity for those experiencing the other three broad types of trauma (household challenges, environmental trauma, and community trauma) were not statistically significant (see Table 15).

Table 15

Faith Maturity Means by Broad Types of Trauma

Broad Type	**Not Experienced**	**Experienced**	**Significance**
Abuse	6.14	5.83	0.006
Neglect	6.12	5.68	0.000
Household Challenges	6.00	5.94	0.567
Environmental	5.98	5.53	0.260
Community	6.04	5.90	0.192

Again, a further examination of the subscales of Faith Maturity revealed the following: The mean score for the subscale Awareness of God or those who had experienced no abuse was 6.23 and for those who had experienced abuse, 5.93. The *p*-value of 0.011 showed that differences in the subscale Awareness of God between those who had experienced abuse versus those who had not were statistically significant. For those who had experienced no neglect, the mean score was 6.21, whereas for those who reported experiencing neglect, the mean score was 5.81. The *p*-value of 0.001 again proved that the differences between mean scores were statistically significant and disproved the null hypothesis. The other three broad types of trauma (household challenges, environmental trauma, and community trauma) for the subscale Awareness of God were not statistically significant (see Table 16).

Table 16

Awareness of God Means by Broad Types of Trauma

Broad Type	Not Experienced	Experienced	Significance
Abuse	6.23	5.93	0.011
Neglect	6.21	5.81	0.001
Household Challenges	6.11	6.03	0.490
Environmental	6.07	5.71	0.387
Community	6.14	6.00	0.249

Next, the means of the subscale Practicing the Presence of God were compared using the broad types of trauma using a one-way ANOVA. For those who had experienced no abuse, the mean score was 6.05 and for those who had experienced abuse, the mean score was 5.74. The *p*-value of 0.009 indicated that differences in the subscale between those who had experienced abuse versus those who had not were statistically significant. For those who had experienced no neglect, the mean score was 6.04, whereas for those who reported experiencing neglect, the mean score was 5.56. The *p*-value of 0.000 again showed that the differences between mean scores were statistically significant. The other three broad types of trauma household challenges, environmental trauma, and community trauma for Practicing the Presence of God were not statistically significant (see Table 17).

Table 17

Practicing His Presence Means by Broad Types of Trauma

Broad Type	Not Experienced	Experienced	Significance
Abuse	6.05	5.74	0.009
Neglect	6.04	5.56	0.000
Household Challenges	5.90	5.85	0.681
Environmental	5.89	5.38	0.217
Community	5.96	5.80	0.249

Comparison of Specific Types of Childhood Trauma

Next, the relationship between Faith Maturity and its two subscales (Awareness of God and Practicing the Presence of God) and each of the 20 questions from the ACE and Expanded ACE questionnaires was examined. The means were compared using a one-way ANOVA. Of the 20 questions, only five were statistically significant or nearly significant for Faith Maturity (see Table 18).

Table 18

Faith Maturity Means by Specific Indicators of Trauma

Question #	Short Description of Questions	Not Experienced	Experienced	Significance
6.	Verbally Abused	5.98	5.92	0.673
7.	Physically Abused	5.96	5.97	0.949
8.	Sexually Abused	5.97	5.87	0.578
9.	Neglected Emotionally	5.98	5.89	0.570
10.	Neglected Physically	5.97	5.96	0.960
11.	Parents Separated/Divorced	5.92	6.06	0.252
12.	Mother Physically Abused	5.93	6.26	0.062
13.	Lived with Alcohol/Drug User	5.99	5.83	0.320
14.	Household Member with Mental Illness	6.06	5.66	0.003
15.	Household Member went to Prison	5.97	5.95	0.943
16.	Dominated/No Voice	6.03	5.77	0.036
17.	Spiritual Writings/Ministry Abused	6.10	5.53	0.000
18.	Bullied w/o Effective Intervention	6.00	5.87	0.296
19.	Death/Abandoned by Family Member	5.95	6.03	0.620
20.	Exposed to War/Famine/PTSD	5.98	5.53	0.260
21.	Gangs/Violence/Feeling Unsafe	5.96	5.99	0.857
22.	Pressure to Perform/Earn Love/Approval	6.04	5.82	0.070
23.	Church/Conference Hurt	6.00	5.87	0.301
24.	Abused Due to Race/Religion/ Gender, etc.	5.98	5.88	0.584
25.	Govt. Control of Religion/Life	5.96	5.97	0.983

The question about growing up with a household member dealing with mental illness, was the first significant result for Faith Maturity. The mean scores for this question were 6.06 for those who responded “no” and 5.66 for those who responded “yes,” showing diminished mean scores. The p-value was 0.003.

The question which asked whether the child felt dominated and had no voice, was the next significant result for Faith Maturity. The mean scores for question 16 were 6.03 for those who responded “no” and 5.77 for those who responded “yes,” demonstrating diminished mean scores. The *p*-value was 0.036.

The question which dealt with the perception by the respondent that spiritual writings were abused and their needs neglected due to parental/guardian overinvolvement in ministry was another significant result for Faith Maturity. The mean scores for question 17 were 6.10 for those who responded “no” and 5.53 for those who responded “yes” showing diminished means. The *p*-value was 0.000.

The question which asked respondents if they felt pressure to perform or if love and approval had to be earned was an almost significant result for Faith Maturity. The mean scores for question 22 were 6.04 for those who responded “no” and 5.82 for those who responded “yes.” The *p*-value was 0.070 which, while not statistically significant, suggests that this question is important because it is statistically significant on the subscale, Practicing the Presence of God.

There were some questions where, instead of Faith Maturity decreasing with increased trauma, Faith Maturity increased with increased trauma: parents separated or divorced; mother physically abused; lived with alcoholic/drug user; death/abandoned by family member; and gangs/violence/feeling unsafe. Only one question (mother physically

abused) was nearly statistically significant. The mean scores were 5.93 for those who indicated that their mother had not been physically abused and 6.26 for those who indicated that their mother had suffered this abuse. The *p*-value was 0.062 which, while not technically statistically significant, is very close to being significant and is, therefore, included in this part of the reporting. This question is statistically significant on the subscale Practicing the Presence of God, which is why it is so close to being significant on Faith Maturity.

The same analysis was performed for the Faith Maturity subscale Awareness of God. Of the 20 questions, only three were statistically significant or nearly significant (see Table 19).

Question 14, which was about growing up with a household member dealing with mental illness, was the first significant result for the Faith Maturity subscale Awareness of God. The mean scores for question 14 were 6.17 for those who responded "no" and 5.74 for those who responded "yes." The *p*-value was 0.002.

Question 17, which dealt with perception by the respondent that spiritual writings were abused and their needs neglected due to parental/guardian overinvolvement in ministry, was another significant result for the Faith Maturity subscale, Awareness of God. The mean scores for question 17 were 6.18 for those who responded "no" and 5.70 for those who responded "yes." The *p*-value was 0.001.

Question 16, which asked if the child felt dominated and had no voice, was nearly a significant result for the Faith Maturity subscale, Awareness of God. The mean scores for question 16 were 6.13 for those who responded "no" and 5.88 for those who responded "yes." The *p*-value was 0.058, which means that the difference in means is not

Table 19

Awareness of God Means by Specific Indicators of Trauma

Question #	Short Description	Not Experienced	Experienced	Significance
6.	Verbally Abused	6.06	6.07	0.953
7.	Physically Abused	6.06	6.07	0.942
8.	Sexually Abused	6.07	5.95	0.486
9.	Neglected Emotionally	6.09	5.93	0.323
10.	Neglected Physically	6.07	6.04	0.888
11.	Parents Separated/Divorced	6.01	6.19	0.157
12.	Mother Physically Abused	6.04	6.29	0.185
13.	Lived with Alcoholic/Drug User	6.10	5.89	0.215
14.	Household Member with Mental Illness	6.17	5.74	0.002
15.	Household Member went to Prison	6.07	6.08	0.964
16.	Dominated/No Voice	6.13	5.88	0.058
17.	Spiritual Writings/Ministry Abused	6.18	5.70	0.001
18.	Bullied w/o Effective Intervention	6.10	5.98	0.374
19.	Death/Abandoned by Family Member	6.07	6.03	0.805
20.	Exposed to War/Famine/PTSD	6.08	5.71	0.387
21.	Gangs/Violence/Feeling Unsafe	6.06	6.09	0.868
22.	Pressure to Perform/Earn Love/Approval	6.12	5.96	0.197
23.	Church/Conference Hurt	6.10	5.97	0.340
24.	Abused Due to Race/Religion/ Gender, etc.	6.08	5.96	0.491
25.	Govt. Control of Religion/Life	6.06	5.88	0.847

technically statistically significant but is statistically significant on the other subscale and, therefore, is reported here.

There were some questions where, instead of the means for the subscale, Awareness of God, dropping as a result of trauma, they increased. Questions 11 (Parents Separated/Divorced), 12 (Mother Physically Abused), and 21 (Gangs/violence/feeling unsafe), while not statistically significant, did have means that increased with trauma rather than decreasing.

Again, the same analysis was performed with the Faith Maturity subscale,

Practicing the Presence of God. Of the 20 questions, only five were statistically significant (see Table 20 below).

Question 14, which was about growing up with a household member dealing with mental illness, was the first significant result for the Faith Maturity subscale, Practicing the Presence of God. The mean scores for question 14 were 6.06 for those who responded "no" and 5.66 for those who responded "yes." The *p*-value was 0.003.

Table 20

Practicing His Presence Means by Specific Indicators of Trauma

Question #	Short Description	Not Experienced	Experienced	Significance
6.	Verbally Abused	5.91	5.80	0.425
7.	Physically Abused	5.87	5.88	0.958
8.	Sexually Abused	5.88	5.81	0.709
9.	Neglected Emotionally	5.88	5.86	0.888
10.	Neglected Physically	5.87	5.88	0.983
11.	Parents Separated/Divorced	5.84	5.95	0.432
12.	Mother Physically Abused	5.83	6.24	0.032
13.	Lived with Alcoholic/Drug User	5.89	5.78	0.502
14.	Household Member with Mental Illness	5.96	5.60	0.010
15.	Household Member went to Prison	5.88	5.84	0.870
16.	Dominated/No Voice	5.95	5.68	0.041
17.	Spiritual Writings/Ministry Abused	6.03	5.38	0.000
18.	Bullied w/o Effective Intervention	5.92	5.77	0.286
19.	Death/Abandoned by Family Member	5.85	6.02	0.273
20.	Exposed to War/Famine/PTSD	5.89	5.38	0.217
21.	Gangs/Violence/Feeling Unsafe	5.87	5.90	0.862
22.	Pressure to Perform/Earn Love/Approval	5.96	5.70	0.038
23.	Church/Conference Hurt	5.91	5.78	0.319
24.	Abused Due to Race/Religion/ Gender, etc.	5.88	5.82	0.705
25.	Govt. Control of Religion/Life	5.88	5.85	0.895

Question 16, which asked if the child felt dominated and had no voice, was the next significant result for the Faith Maturity subscale, Practicing the Presence of God. The mean scores for question 16 were 6.04 for those who responded "no" and 5.77 for those who responded "yes." The *p*-value was 0.036.

Question 17, which dealt with perception by the respondent that spiritual writings were abused and their needs neglected due to parental/guardian overinvolvement in ministry was another significant result for the Faith Maturity subscale, Practicing the Presence of God. The mean scores for question 17 were 6.10 for those who responded "no" and 5.53 for those who responded "yes." The *p*-value was 0.000.

Question 22, which asked respondents if they felt pressure to perform or if love and approval had to be earned was another significant result for the Faith Maturity subscale, Practicing the Presence of God. The mean scores for question 22 were 6.04 for those who responded "no" and 5.82 for those who responded "yes." The *p*-value was 0.003.

The last significant result was question 12, which asked respondents whether their mother was physically abused. This result was one of the questions where, instead of the mean scores for the Faith Maturity subscale, Practicing the Presence of God, dropping as a result of trauma, they increased. Questions 11 (Parents Separated/Divorced), 12 (Mother Physically Abused), 19 (Death/abandoned by family member), and 21 (Gangs/violence/feeling unsafe) had mean scores that increased with trauma rather than decreasing. The mean scores for question 12 were 5.83 for those who responded "no" and 6.24 for those who responded "yes." The *p*-value was 0.032.

Research Question #3

The third research question was addressed by testing whether there was interaction in Faith Maturity overall and the two subscales, Awareness of God and Practicing the Presence of God, based on gender, age, ethnicity, marital status, or education.

The respondents were grouped according to gender, age, ethnicity, marital status, and educational background to see whether the differences in Faith Maturity and its two subscales between trauma groups would be consistent across demographic groups by examining the interaction effect on Faith Maturity of the demographic variables with trauma.

Table 21 below shows the difference in Faith Maturity of the trauma groups (no trauma [0], moderate number of trauma types [1-3], and severe number of trauma types [4 or more]) did not vary based on demographics. The demographics of gender, age, ethnicity, marital status, and education had *p* values which showed that differences in means were statistically insignificant.

The same analysis as above was performed to see whether the means across trauma groups were consistent across the demographic groups for the Faith Maturity subscale, Awareness of God, by examining the interaction effect on the Faith Maturity subscale of the demographic variables with trauma (see Table 22).

Table 21

Faith Maturity Means by Demographics

	No Trauma	Moderate # of Trauma	Extreme # of Trauma	Significance
Gender				
Male	6.28	6.02	5.81	
Female	6.40	5.93	5.80	
Gender x Trauma Interaction				0.937
Age				
21-25	6.23	5.86	5.52	
26-30	6.04	5.83	5.66	
31-35	6.03	5.82	5.89	
36-45	6.07	6.10	5.73	
46 & above	6.83	6.28	6.15	
Age x Trauma Interaction				0.936
Ethnicity				
European American	6.10	5.57	5.64	
African American/Black	6.64	6.22	5.98	
Latino/a American	6.02	5.88	5.60	
Asian American/Pacific Islander	5.95	5.84	5.73	
Ethnicity x Trauma Interaction				0.954
Marital Status				
Never Married & Not Involved	6.02	5.73	5.58	
Never Married & Involved	6.73	5.94	5.48	
Married	6.35	6.01	5.95	
Separated, Divorced, Widowed	*	6.47	5.18	
Marital Status x Trauma Interaction				0.237
Educational Level				
Undergraduate Degree	6.16	5.81	5.66	
Graduate Degree	6.44	6.15	6.04	
Education x Trauma Interaction				0.957

*No one in this category reported no trauma.

Table 22

Awareness of God Means by Demographics

		No Trauma	Moderate # of Trauma	Extreme # of Trauma	Significance
Gender					
	Male	6.44	6.09	5.91	
	Female	6.57	6.02	5.99	
	Gender x Trauma Interaction				0.888
Age					
	21-25	6.64	5.76	5.60	
	26-30	6.14	5.84	5.86	
	31-35	6.18	5.95	6.01	
	36-45	6.29	6.26	5.86	
	46 & above	6.84	6.42	6.13	
	Age x Trauma Interaction				0.824
Ethnicity					
	European American	6.54	5.59	5.71	
	African American/Black	6.68	6.33	6.05	
	Latino/a American	6.25	5.87	5.75	
	Asian American/Pacific Islander	6.09	6.05	5.86	
	Ethnicity x Trauma Interaction				0.837
Marital Status					
	Never Married & Not Involved	6.21	5.76	5.78	
	Never Married & Involved	7.00	5.96	5.71	
	Married	6.49	6.10	6.01	
	Separated, Divorced, Widowed	*	6.59	5.38	
	Marital Status x Trauma Interaction				0.394
Educational Level					
	Undergraduate Degree	6.33	5.88	5.83	
	Graduate Degree	6.58	6.22	6.07	
	Education x Trauma Interaction				0.921

*No one in this category reported no trauma.

The table above shows that for the subscale, Awareness of God, the means of the trauma groups (no trauma [0], moderate number of trauma types [1-3], and severe number of trauma types [4 or more]) did not vary based on demographics

The same analysis as above was performed to see whether the means across trauma groups were consistent across the demographic groups for the Faith Maturity subscale, Practicing the Presence of God, by examining the interaction effect on Faith

Maturity of the demographic variables with trauma by examining the interaction effect on the Faith Maturity subscale of the demographic variables with trauma (see Table 23 below).

Table 23

Practicing the Presence of God Means by Demographics

	No Trauma	Moderate # of Trauma	Extreme # of Trauma	Significance
Gender				
Male	6.14	5.95	5.73	
Female	6.25	5.86	5.63	
Gender x Trauma Interaction				0.949
Age				
21-25	5.88	5.96	5.46	
26-30	5.95	5.82	5.49	
31-35	5.91	5.71	5.77	
36-45	5.88	5.96	5.61	
46 & above	6.82	6.16	6.17	
Age x Trauma Interaction				0.800
Ethnicity				
European American	5.72	5.55	5.58	
African American/Black	6.60	6.12	5.93	
Latino/a American	5.81	5.89	5.46	
Asian American/Pacific Islander	5.83	5.65	6.63	
Ethnicity x Trauma Interaction				0.884
Marital Status				
Never Married & Not Involved	5.85	5.71	5.41	
Never Married & Involved	6.50	5.93	5.27	
Married	6.22	5.93	5.90	
Separated, Divorced, Widowed	*	6.38	5.00	
Marital Status x Trauma Interaction				0.169
Educational Level				
Undergraduate Degree	6.01	5.75	5.50	
Graduate Degree	6.31	6.09	6.01	
Education x Trauma Interaction				0.761

*No one in this category reported no trauma.

The table above shows that for the subscale, Practicing the Presence of God, the means of the trauma groups (no trauma [0], moderate number of trauma types [1-3], and severe number of trauma types [4 or more]) did not vary based on demographics.

Summary of Major Findings

For the first research question, it was found that the incidence of at least one trauma type, 64.6%, was found to be slightly higher than the national average of 61%, according to the original ACE questionnaire (questions 6-15). It was also found that the percentage of respondents reporting four or more types of ACEs (19.6%) was also higher than the national average of 16.7%. The incidence of at least one type of ACE on the Expanded ACE questionnaire (questions 16-25) was found to be 73.2%. The percentage of those experiencing 4 or more types of ACEs on the Expanded ACE questionnaire was found to be 18.6%. On the total ACE questionnaire (questions 6-25), the incidence of trauma substantially increased. The report of at least one type of ACE was 86.6%, and those found to have reported four or more types of ACEs was 37.1%

For the second research question, it was found that there was a negative correlation between trauma and Faith Maturity. Those with no trauma scored higher on Faith Maturity than those with one or more trauma types. As would be expected, there was a negative correlation between trauma and the two subscales of Faith Maturity, Awareness of God and Practicing the Presence of God.

When Faith Maturity means scores were compared with broad types of trauma, only two were negatively correlated with Faith Maturity, abuse and neglect. Similarly, when the means of the subscales were compared with the broad types of trauma, again, the only two that were statistically significant were abuse and neglect.

When Faith Maturity means were compared with the specific indicators of trauma (questions 6-25) only five were statistically significant or nearly significant: Question 14, which was about growing up with a household member dealing with mental illness, was the first significant result for Faith Maturity; Question 16, which asked if the child felt dominated and had no voice, was the next significant result for Faith Maturity; Question 17, which dealt with perception by the respondent that spiritual writings were abused and their needs neglected due to parental/guardian overinvolvement in ministry was another significant result for Faith Maturity; Question 22, which asked respondents if they felt pressure to perform or if love and approval had to be earned was an almost significant result for Faith Maturity; and Question 12, which asked whether the respondent's mother was physically abused.

When the mean scores of the Faith Maturity subscale, Awareness of God, were compared with the specific indicators of trauma, only two questions were statistically significant: Questions 14, which was about growing up with a household member dealing with mental illness, and question 17, which dealt with perception by the respondent that spiritual writings were abused and their needs neglected due to parental/guardian overinvolvement in ministry.

When the mean scores of Practicing the Presence of God were compared with the specific indicators of trauma, five questions were found to be statistically significant: Question 12, which asked whether the respondent's mother was physically abused; Question 14, which was about growing up with a household member dealing with mental illness; Question 16, which asked if the child felt dominated and had no voice; Question 17, which dealt with perception by the respondent that spiritual writings were abused and

their needs neglected due to parental/guardian overinvolvement in ministry; and Question 22, which asked respondents if they felt pressure to perform or if love and approval had to be earned.

Another major finding was that there were questions which had increasing means on Faith Maturity and the two subscales, Awareness of God and Practicing the Presence of God. However, of those that had means which increased with trauma, only Question 12, which asked whether the respondent's mother was physically abused, was statistically significant.

Finally, after examining the interaction effect on Faith Maturity and its two subscales of the demographic variables with trauma, there was no interaction between trauma groups and demographics; all trauma groups performed the same as relating to Faith Maturity and the two subscales, Awareness of God and Practicing the Presence of God, regardless of gender, age, ethnicity, marital status, or educational background.

CHAPTER 5

SUMMARY, DISCUSSION AND IMPLICATIONS

Introduction

Trauma, the treatment of trauma, and trauma-informed care, ranging from early intervention and prevention to residential treatment for the treatment of significant mental, emotional, and physical impacts of early childhood adversity has been the major focus of various studies. It has become clear that what impacts the body, impacts the mind. Thus, the focus of this study is the impact of childhood traumas on an individual's spirituality. As various ACE studies have confirmed, what happens in childhood impacts the individual throughout his or her lifespan.

The impact of Childhood Trauma on spirituality has been studied in various ways. The spirituality of those affected by ACEs has been studied as a protective/resilience factor. Other studies have looked at religiosity and the impact of post-traumatic stress disorder on one's religiosity. Findings from different studies have been mixed, at best, and contradictory, at worst. Researchers have reported growth, as well as a decline in religion and spirituality as a result of traumas. It has been postulated that these inconsistencies are due to differences in the measurement of religiousness, spirituality, and trauma (Leo et al., 2021; Milstein, 2019). Other studies have shown that the impact of trauma on religiosity and/or spirituality may vary by sex or religious identity (Reinert et al., 2016).

This study researches the prevalence of Childhood Trauma among pastors and those preparing for ministry, as well as the relationship between Childhood Trauma and spirituality as defined by Faith Maturity. It was hypothesized that ministers who have experienced Childhood Trauma will tend to have reduced Faith Maturity as compared to those who have experienced little to no Childhood Trauma.

Part of the rationale for this research is the contention that in order for churches to provide trauma-informed care for its members and potential congregants, it must first start with the pastors, the spiritual leaders of congregations. It is the assertion of this research that the sooner Childhood Trauma is recognized in current and potential pastors (seminarians), as well as its impact on their Faith Maturity, the sooner pastors will be able to assist in trauma-informed care for congregations.

Purpose Statement

The purpose of this research is to determine the statistical relationship between Childhood Trauma and Faith Maturity in ministers and those preparing for ministry. Their self-reported Childhood Trauma will be compared with their self-reported Faith Maturity.

Literature Review Summary

Conceptual Framework

The conceptual framework for this research was grounded in the idea that "our relationship to the sacred is framed within our formative relational experiences" (Tomilinson et al., 2016, p. 4) Therefore, the processes described by the Object Relations Theory and Attachment Theory become a way of understanding the development of Faith

Maturity because research has found a correspondence between human attachment and spiritual attachment (Howe, 2011; Maltby & Hall, 2012).

Biblical-theological Framework

The question of how trauma suffered early in life impacts an individual's spiritual health and well-being is hard to quantify without a good understanding of the nature of a human being from a biblical perspective. For Bible-believing Christians, this takes us to the beginning of the beginnings in Gen 1, where we learn that humans were made in the image of God:

> Then God said, "Let Us make man in Our image, according to Our likeness; and let them rule over the fish of the sea and over the birds of the sky and over the cattle and over all the earth, and over every creeping thing that creeps on the earth." God created man in His own image, in the image of God He created him; male and female He created them. (Gen 1:26–27, NASB95)

Unfortunately, that *imago Dei* (the image of God) was marred by sin in Gen 3. The evidence of the damage done to humanity by sin was seen when their eyes were opened. What they had been looking at in purity from their creation, nakedness (Gen 2:25), now was seen as shameful and needed to be covered. What was favorable before sin was now disfavored and we see them as having undergone profound changes mentally, emotionally, and spiritually. Whatever physical changes there may have been appear to have been in the brain.

It is in the brain that we experience spiritual life. Our thoughts about God, our understanding of who God is, our worship of God, and so forth. all take place within our brains. Their fear of God, their desire to hide from God all took place within their brains.

> [The] evidence from brain science . . . shows that the soulish capacities of persons are things that our bodies and brains do. . . we found ample evidence that these important

> human capacities are properties of the functioning of our brains and bodies. (Brown & Strawn, 2012, p. 49)

Therefore, if our brains are injured by Childhood Trauma, then it is not a leap to expect that this would have an impact on how a person experiences God.

Childhood Trauma

A traumatic event in the life of a child (less than 18 years of age) is

> one that threatens injury, death, or the physical integrity of self or others and also causes horror, terror, or helplessness at the time it occurs. Traumatic events include sexual abuse, physical abuse, domestic violence, community and school violence, medical trauma, motor vehicle accidents, acts of terrorism, war experiences, natural and human-made disasters, suicides, and other traumatic losses. (APA, 2008, p. 2)

Adverse childhood experiences (Felitti et al., 1998) are described by the CDC website as potentially traumatic events that occur in childhood (0-17 years), for example, experiencing violence, abuse, or neglect; witnessing violence in the home or community; or having a family member attempt or die by suicide. Also included are aspects of the child's environment that can undermine their sense of safety, stability, and bonding such as growing up in a household with substance misuse, mental health problems, instability due to parental separation, or household members being in jail or prison.

Prevalence of ACEs

Adverse Childhood Experiences have been found to be common among all populations. Based on adults surveyed across 25 states, 61% reported at least one type of ACE and about 17% reported experiencing four or more types of ACEs. While there appear to be some populations that seem more susceptible to experiencing these childhood traumas due to the social and economic conditions in which they grow and develop, there are no populations without incidence of Childhood Trauma. Findings show

a graded dose-response relationship between these childhood traumas and negative health and well-being outcomes. This means that as the ACE score increases, so does the probability for adverse health and wellness effects.

Effects of Childhood Trauma on the Brain

Childhood Trauma affects the brain in the following ways: (a) childhood abuse is associated with altered brain structure and function; (b) the type of maltreatment makes a difference; (c) the age at which the trauma occurs matters; (d) it is not clear as to the temporal association between trauma and brain changes; (e) research has revealed that gender differences are associated with differences in impact of trauma; (f) maltreatment-related findings appear to make sense as neuroplastic adaptive responses; in other words, the alterations are experience-dependent responses to the environment, not simply nonspecific stress-induced impairments; and (g) the connection between childhood abuse, brain changes, and psychiatric illness is amorphous (Teicher & Samson, 2016, pp. 256–258).

Attachment and Adverse Childhood Experiences

Attachment theory proposes a primary, biosocial behavioral system in infants. Infants send out social signals such as crying or clinging, to which the mother (or some other attachment figure) responds in a way that elicits more of this behavior to get the attention the infant is seeking. When this system is operating optimally, the theory proffers that the infant forms a secure attachment to the mother (or whoever serves as the attachment figure) and perceives that individual as a dependable supplier of shelter and security. This secure attachment relationship allows the infant to explore the environment

confidently, knowing that the attachment figure is nearby and comfort can be obtained when threats are perceived. The attachment figure provides a secure base and a safe place for the infant (Kirkpatrick, 1992). According to this theory, infants who do not form secure attachments form insecure attachments.

Researchers have found "that there are strong associations between early childhood maltreatments, insecure attachments, and later life challenges and negative outcomes" (Grady et al., 2016, p. 3). "One study demonstrated that maltreated children were likely to form insecure attachments that contribute to sustained problems managing relationships throughout the life span (Morton & Browne, 1998)" (Grady et al., 2016, p. 5). In addition, neurobiological research has confirmed that Childhood Trauma produces biochemical changes in the parts of the brain that regulate attachment behaviors (Beech & Mitchell, 2005).

Neurobiological research has confirmed that ACEs produce biochemical changes in the parts of the brain that regulate attachment behaviors (Beech & Mitchell, 2005). Additional research has found evidence that Childhood Trauma hinders neural integration, which has been hypothesized to impede the ability to create and sustain secure attachment relationships.

The literature review established both a theoretical foundation and examples from case studies that ACEs have the potential to affect children's ability to form secure attachments. The literature also showed that adult attachments are correlated with attachment patterns formed in childhood. Therefore, there is the theoretical potential for ACEs to impact one's relationships with attachment figures.

God as Attachment Figure

An important advancement in the field of psychology of religion and theology has been studying God attachment, God images, religion as an attachment process, and even identity formation. When children believe "their attachment figures love them, care about them, and protect them," they "are also likely to view themselves as lovable and worthy of being cared for and protected" (Kirkpatrick, 1992, p. 13). Research has confirmed the basic finding that God images and self-images are usually complementary. The psychological effects of people who view God as basically caring, affectionate, generous, and kind are that the individuals tend to have higher self-esteem and more positive self-concepts (Kirkpatrick, 1992).

Measuring Faith Maturity

The instrument selected as the criterion variable for Faith Maturity was the Faith Maturity Scale (Thayer Long Form, [Thayer, 1993]). The Search FMS (Benson et al., 1993) was designed with three principal research purposes. The first was to provide a reference point and give descriptive data on the strength of faith among adults, adolescents, and congregational leaders. The second purpose of this research tool was to evaluate the potential contributions of demography, personal biography, and congregational dynamics to the maturing of faith. Finally, this instrument was intended to function as "a criterion variable for evaluating the impact of religious education and its many separate dynamics" (Benson et al., 1993, p. 3).

The Search FMS uses the following working definition of Faith Maturity: "Faith Maturity is the degree to which a person embodies the priorities, commitments, and perspectives characteristic of vibrant and life-transforming faith, as these have been

understood in ‘mainline’ Protestant tradition” (Benson et al., 1993, p. 3). The emphasis of this definition is on demonstrable gauges of faith, rather than on faith itself.

As a result of this desire for a more suitable scale for SDAs, two denomination-specific scales were developed from a subset of the 38 items of the long form and a subset of the 12 items of the short form that can be used with Adventists. These scales are referred to as the Thayer Long Form and Thayer Short Form of the FMS (Thayer, 1993).

Methodology

This research first measured the prevalence of Childhood Trauma among those preparing for ministry, as well as those already serving in pastoral ministry. Next, a quantitative, nonexperimental correlation research design examined whether Childhood Trauma is correlated with Faith Maturity. The independent variable Childhood Trauma was grouped in three different ways to compare the means of the dependent variable Faith Maturity with one-way ANOVAs. First, the independent variable Childhood Trauma was grouped according to the number of types of trauma experienced. The results were grouped as follows: no trauma (0), moderate number of types of trauma (1-3); and severe number of types of trauma (4 or more). Next, the independent variable was grouped according to the different broad types of ACEs (abuse, household challenges, neglect, community trauma, and environmental trauma). The means were then compared by examining the specific indicators of trauma (the individual questions from both the ACEs questionnaire and the Expanded ACEs questionnaire). In addition, the respondents were grouped by demographic information (gender, age, race, marital status, and educational background), and their means were compared.

Independent Variable: The independent variable was Childhood Trauma. A traumatic event in the life of a child (less than 18 years of age) is

> one that threatens injury, death, or the physical integrity of self or others and also causes horror, terror, or helplessness at the time it occurs. Traumatic events include sexual abuse, physical abuse, domestic violence, community and school violence, medical trauma, motor vehicle accidents, acts of terrorism, war experiences, natural and human-made disasters, suicides, and other traumatic losses. (APA, 2008, p. 2)

Dependent Variable: The dependent variable was Faith Maturity, which is the degree to which individuals first see God all around them and experience awe, wonder, and devotion to God, and second, take intentional steps to practice the presence of God through the means of prayer, Bible study, nature, and sharing their faith others. The dependent variable Faith Maturity was examined as a single factor. Next, it was examined as two subscales which were derived from factor analysis and have been labeled Awareness of God and Practicing the Presence of God.

Summary of Major Findings

For the first research question, it was found that the incidence of at least one trauma type (64.6%), was found to be slightly higher than the national average of 61%, using the original ACEs questionnaire (questions 6-15). It was also found that the percentages of those respondents reporting four or more types of ACEs (19.6%), was also higher than the national average of 16.7%. The incidence of at least one type of ACE on the Expanded ACEs questionnaire (questions 16-25) was found to be 73.2%. The percentage of those experiencing 4 or more types of ACEs on the Expanded ACEs questionnaire was found to be 18.6%. On the total ACEs questionnaire (questions 6-25), the incidence of trauma increased substantially to 86.6% of respondents reporting at least one type of ACE, and those reporting four or more types of ACEs increased to 37.1%.

For the second research question, there was a negative correlation between trauma and Faith Maturity. Those with no trauma scored higher on Faith Maturity than those with one or more trauma types. As would be expected, there was a negative correlation between trauma and the two subscales of Faith Maturity, Awareness of God and Practicing the Presence of God.

When Faith Maturity means scores were compared with broad types of trauma, only two were negatively correlated with Faith Maturity—abuse and neglect. Similarly, when the means of the subscales were compared with the broad types of trauma, again only two were statistically significant—abuse and neglect. Household challenges, community trauma, and environmental trauma were not significant for Faith Maturity overall.

When Faith Maturity overall was compared with the specific indicators of trauma (questions 6-25), only five questions were statistically significant or nearly significant: Did you grow up with a household member dealing with mental illness? Did you feel dominated and had no voice? Did you feel that spiritual writings were abused and your needs were neglected due to parental/guardian overinvolvement in ministry? Did you feel pressure to perform or feel that love and approval had to be earned? Was your mother physically abused?

When the mean scores of the Faith Maturity subscale, Awareness of God, were compared by to specific indicators of trauma, only two questions were statistically significant: Did you grow up with a household member dealing with mental illness? Did you feel that spiritual writings were abused and your needs were neglected due to

parental/guardian overinvolvement in ministry? One question was nearly significant: Did you feel dominated and had no voice?

When the mean scores of Practicing the Presence of God were compared to the specific indicators of trauma, five questions were found to be statistically significant: Was your mother physically abused? Did you grow up with a household member dealing with mental illness? Did you feel dominated and had no voice? Did you feel that spiritual writings were abused and your needs were neglected due to parental/guardian overinvolvement in ministry? Did you feel pressure to perform or feel that love and approval had to be earned?

Another major finding was that there were questions which had increasing means in the Faith Maturity and the two subscales, Awareness of God and Practicing The Presence of God. However, of those that had means which increased with trauma, only the question, Was your mother physically abused? was statistically significant.

Finally, after examining the interaction effect on Faith Maturity and its two subscales of the demographic variables with trauma, there was no interaction between trauma groups and demographics. All trauma groups performed the same as they related to Faith Maturity and the two subscales, Awareness of God and Practicing the Presence of God, regardless of gender, age, ethnicity, marital status, or educational background.

Discussion

This research provides empirical evidence that the same prevalence of Childhood Trauma found in the general public of the United States is found among those preparing for pastoral ministry and those already engaged in pastoral ministry. While the percentage of those reporting at least one type of ACE is slightly higher than the national

average, because of the nature of the population sampled, it remains to be seen whether the reporting of one type of ACE is the same as the national average or remains slightly higher if this study is repeated with the congregants of the SDA denomination in the North American Division. However, what is clear is that the same trauma that afflicts those outside the denomination appears to afflict our pastors and those preparing for pastoral ministry. More significantly, those reporting more than four types of ACEs, which was again slightly higher than the averages reported in various studies, are known to be the point at which the impact on the individual increases substantially.

The findings from this research established a clear negative correlation between childhood traumas and Faith Maturity: as ACE scores increased, Faith Maturity scores decreased. The pattern from the research demonstrated that those with no trauma consistently had higher Faith Maturity scores than those with little to moderate number of types of trauma (1-3 types of trauma) and even more than those with severe number of traumas (4 or more types of trauma). This was a somewhat expected finding based on the literature reviewed. It was clear from the literature that Childhood Trauma has an impact on the ability to form attachments. Since attachments help us to form internal working models which are then applied to other relationships and given that religion is an attachment process and God is seen as an attachment figure, this is not a surprising result. However, it is significant that despite the theological training and the practice of spiritual disciplines (prayer, Bible study, etc.), pastors are not exempt from the negative consequences of Childhood Trauma affecting their Faith Maturity. This suggests that the long-lasting impact of Childhood Trauma is not diminished without intentional attempts to mitigate its effects.

A somewhat unexpected finding was that not all types of trauma appear to be associated with declining Faith Maturity. Of the five broad types of trauma (abuse, neglect, household challenges, community trauma, and environmental trauma) that were tested for their correlation with Faith Maturity, only abuse and neglect were shown to be statistically significant with declining Faith Maturity means.

The following questions were associated with abuse and neglect.

Abuse

6. Did a parent or other adult in the household often swear at you, insult you, put you down, or humiliate you? Did that individual act in a way that made you afraid that you might be physically hurt?

7. Did a parent or other adult in the household often push, grab, slap, or throw something at you? Did that individual ever hit you so hard that you had marks or were injured?

8. Did an adult or person at least 5 years older than you ever touch or fondle you or have you touch their body in a sexual way? Did that individual try to or actually have oral, anal, or vaginal sex with you?

16. Did anyone in your family exercise dominance or control over other family members to the point where others felt that they had no voice?

18. Were you bullied at school over time physically, verbally or through cyber technology without effective intervention from parents or teachers?

Neglect

9. Did you often feel that no one in your family loved you or thought you were important or special? Did you feel that your family didn't look out for each other, feel close to each other, or support each other?

10. Did you often feel that you didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? Did you feel that your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

17. Were spiritual writings such as the Bible used by parents or other significant leaders to make you see things their way or to control your behavior? Was a parent or primary caregiver committed to ministry to others to the point that your needs were neglected?

A possible reason that only abuse and neglect were statistically significant might have to do with what is called attachment trauma.

> Attachment or intimacy traumas impact the shared affective exchange with a companionship for the adult or with parents for the infant and child. It affects the feeling of warmth and connectedness for the adult and the feeling of security and trust for the young child who depends on the attachment figure for survival. Early Childhood Trauma that affects attachment can disturb the whole sequence of child emotional development. (Kira, 2001, p. 75)

While other traumatic events can have negative ongoing consequences for the individual suffering them, it appears that those traumas specifically related to the relationship between the child and the attachment figure result in diminished Faith Maturity due to the internal working model developed with human attachments imposed on the relationship with God as an attachment figure.

Another interesting finding was that the question about feeling dominated/no voice from the abuse items; the question about spiritual writings being abused and feeling

neglected by those doing ministry from the neglect items, and the question regarding household members with mental illness/trying to commit suicide from the household items were the only three statistically significant indicators of trauma (the individual questions) as it relates to Faith Maturity overall. It is possible that the reason the broad type of trauma—household challenges—did not register as statistically significant on Faith Maturity overall was because there was another item (mother physically abused), which had an increase in Faith Maturity means as a result of this particular Childhood Trauma.

When the two subscales were examined by the specific indicators of trauma, there were many results that had interesting implications.

On the subscale, Awareness of God, the two statistically significant specific indicators of trauma were the following: "Was a household member depressed or mentally ill or did a household member attempt suicide"; "Were spiritual writings such as the Bible used by parents or other significant leaders to make you see things their way or to control your behavior"; or "Was a parent or primary caregiver committed to ministry to others to the point that your needs were neglected." There seems to be the implication that these issues obscure one's awareness of God. It is possible that a family member with mental illness or who tries to commit suicide makes it difficult for the individual to see God in the fog and haze of coping with mental illness. There is a negative correlation between mental illness/suicide and Awareness of God. Similarly, when spiritual writings are used to control the child's view of life and behavior or their attachment figures neglect the child's needs in order to do ministry, it is negatively correlated with the subscale, Awareness of God. This second finding is a warning for parents who are

engaged and involved in ministry. This finding suggests that the perception on the part of the child that their needs are being sacrificed to do ministry or that their lives are being unduly controlled by spiritual writings could lead to the obscuring of their Awareness of God.

On the subscale, Practicing the Presence of God, five specific indicators of trauma were found to be statistically significant: "Was your mother or stepmother often pushed, grabbed, slapped, or had something thrown at her; sometimes or often kicked, bitten, hit with a fist, or hit with something hard; or ever repeatedly hit over at least a few minutes or threatened with a gun or knife"; "Was a household member depressed or mentally ill or did a household member attempt suicide"; "Did anyone in your family exercise dominance or control over other family members to the point where others felt that they had no voice"; "Were spiritual writings such as the Bible used by parents or other significant leaders to make you see things their way or to control your behavior or was a parent or primary caregiver committed to ministry to others to the point that your needs were neglected"; and "Did you feel pressured to perform in school or in other ways in order to earn your parents love or approval or to prove your own value/worth."

Of these five statistically significant specific indicators of trauma, the one that is contrary to the rest of the results is the question, "Was your mother or stepmother: often pushed, grabbed, slapped, or had something thrown at her? Or sometimes or often kicked, bitten, hit with a fist, or hit with something hard? Or ever repeatedly hit over at least a few minutes or threatened with a gun or knife?" This specific indicator of trauma instead of decreasing the scores for the subscale, Practicing the Presence of God, the scores increased with Childhood Trauma. This trauma actually led to an individual practicing

the presence of God more. While a somewhat surprising result, it is consistent with other studies. A study exploring the relationship of subjective wellbeing to post-traumatic growth summarizes some of these other studies: "A growing number of studies are indicating that people report psychological growth after experiencing trauma. Studies, mostly influenced by the positive psychology movement, explored this phenomenon. This was nicknamed posttraumatic growth [2], and stress-related growth [3], amongst others" (Galea, 2014, p. 1). Post-traumatic growth has been disputed and contextualized. Some have suggested that this growth takes place only after substantial time has elapsed since victimization (Kunst, 2010). Others have suggested that post-traumatic growth is most relevant in those survivors who ascribe lasting meaning to the trauma (Kleim & Ehlers, 2009). Regardless of why or how this growth takes place, it is a significant finding that this particular trauma actually leads to growth in practicing the presence of God.

These are the other four statistically significant specific indicators of trauma: "Was a household member depressed or mentally ill or did a household member attempt suicide"; "Did anyone in your family exercise dominance or control over other family members to the point where others felt that they had no voice"; "Were spiritual writings such as the Bible used by parents or other significant leaders to make you see things their way or to control your behavior or was a parent or primary caregiver committed to ministry to others to the point that your needs were neglected"; and "Did you feel pressured to perform in school or in other ways in order to earn your parents love or approval or to prove your own value/worth" were correlated with diminished means for this subscale, as well.

The question, "Was a household member depressed or mentally ill or did a household member attempt suicide," as with the previous subscale, Awareness of God, was correlated with diminished practice of the presence of God. Thus, not only are people who have suffered this trauma less inclined to be aware of God's presence, but even if they are aware of God's presence, they are less inclined to practice His presence than those who have not suffered this type of Childhood Trauma.

The question, "Did anyone in your family exercise dominance or control over other family members to the point where others felt that they had no voice," was correlated with diminished practice of the presence of God. The inference appears to be that being dominated and controlled led to trying to avoid the presence of God in an attempt to avoid similar control and domination.

The question, "Were spiritual writings such as the Bible used by parents or other significant leaders to make you see things their way or to control your behavior or was a parent or primary caregiver committed to ministry to others to the point that your needs were neglected?" also statistically inclined one to practice the presence of God less. The implication seems to be that the perception that one is being controlled by the Bible or other spiritual writings yields the same result as being dominated and/or controlled by an individual (see preceding paragraph). Furthermore, the perception that one's needs are being neglected to do ministry for God by their caregivers leads to diminished practice of the presence of God.

Similarly, the question, "Did you feel pressured to perform in school or in other ways in order to earn your parents love or approval or to prove your own value/worth," was again correlated with lower scores for this subscale, Practicing the Presence of God.

A possible inference from this finding is that feeling pressured to perform and having to earn love/approval leads to not wanting to perform for God and thus diminishes one's practice of the presence of God.

Finally, the finding that there was no interaction between trauma groups and demographics, with all trauma groups performing the same on Faith Maturity and its two subscales regardless of gender, age, ethnicity, marital status, or educational background, is in contradiction to the findings of other studies. In the literature reviewed, it was found that the impact of trauma on religiosity and/or spirituality can vary by sex or religious identity (Reinert et al., 2016); this leads to the inference that the effects of Childhood Trauma on the religious and spiritual response may depend on individual differences in the population. This study did not find indications of these kinds of individual differences. It may be that a larger population sample would be needed to validate the current findings or detect the individual findings that other studies have found.

Conclusions and Recommendations

This research found that those preparing for pastoral ministry and those engaged in pastoral ministry are not exempt from Childhood Trauma. They, at a minimum, experience Childhood Trauma to the same extent as the population-at-large. Furthermore, this Childhood Trauma, in general, has been correlated with diminished Faith Maturity of those who have been affected. When considering the two subscales, Awareness of God and Practicing the Presence of God, this study found that Childhood Trauma is associated with lower Faith Maturity scores on the subscale, Practicing the Presence of God, than on the subscale, Awareness of God. The inference is that the lower scores on devotional activities like praying, Bible study etc. than the ability to see and experience God in the

world are related to higher incidences of Childhood Trauma. This research also found these results to be universal among the respondents regardless of gender, age, ethnicity, marital status, or education.

For Best Practice

Unfortunately, Childhood Trauma is a fact of life. It should be the goal to prevent Childhood Trauma, but some childhood traumas are unpreventable. For instance, children lose parents/guardians through death and divorce. Children grow up in impoverished situations. Children have parents who suffer from mental illness and/or commit suicide. Thus, while an ounce of prevention would be worth a pound of cure, it is not possible to prevent all childhood traumas.

However, since prevention is not probable in all circumstances, then treatment and remediation of Childhood Trauma as early as possible is the next best thing. As has been shown in the literature review, children who experience trauma risk significant long-term effects. However, research has shown that children tend to show more resilience when child-serving programs, institutions, and service systems practice what is referred to as trauma-informed care. Trauma-informed care includes understanding the impact of Childhood Trauma, sharing common talk and thoughts about trauma, and integrating effective practices and policies to address trauma (Bartlett & Steber, 2019).

It is important to recognize that trauma-informed care is not the sole province of mental health professionals. The need for evidence-based trauma treatment is critical for the healing of children who need it, but it is not the only way to provide trauma-informed care. Every program and service system that provides care and support to children can play an important role in trauma-informed care (Bartlett & Steber, 2019).

Trauma-informed care in the context of religious organizations would be to create and sustain trauma-informed churches that provide trauma-informed care first, to its children, but also to adults who have suffered Childhood Trauma. Trauma-informed care would include recognizing the symptomology of trauma in children, but recognition of Childhood Trauma is not the end of creating trauma-informed churches. Below are some of the recommendations for creating trauma-informed churches.

Creating trauma-informed churches begins with trauma-informed pastors and conference administrators adopting the six key principles of a trauma-informed approach.

> A trauma-informed approach reflects adherence to six key principles rather than a prescribed set of practices or procedures. These principles may be generalizable across multiple types of settings, although terminology and application may be setting- or sector-specific.
>
> SIX PRINCIPLES ARE THE KEY PRINCIPLES OF A TRAUMA-INFORMED APPROACH
>
> 1. Safety
> 2. Trustworthiness and Transparency
> 3. Peer Support
> 4. Collaboration and Mutuality
> 5. Empowerment, Voice, and Choice
> 6. Cultural, Historical, and Gender Issues
>
> (U.S. Department of Health and Human Services; Substance Abuse and Mental Health Services Administration, 2014, p. 10)

In this study, a negative correlation between Childhood Trauma and Faith Maturity among pastors and those preparing for pastoral ministry was determined. As the table below demonstrates, in the original Faith Maturity validation, it was shown that pastors had the highest mean scores. While it remains to be statistically determined whether the same correlation exists among members of Seventh-day Adventist congregations, it is a reasonable expectation that such a relationship between Childhood Trauma and Faith Maturity exists. Thus, what has been demonstrated to affect our pastors and those training for pastoral ministry would be likely to affect our membership in a

similar fashion. Furthermore, our pastors and future pastors are called to pastoral ministry from the membership of our Adventist congregations. Therefore, addressing Childhood Trauma would not only potentially increase the Faith Maturity of members of SDA congregations, but also potentially increase the Faith Maturity of future pastors.

Given that pastors tend to have higher Faith Maturity scores than others within the church, it is hard to imagine trauma-informed churches with pastors who are dealing with unrecognized Childhood Trauma and are not receiving trauma-informed care. The earlier those in the ministry are recognized as having suffered Childhood Trauma—especially those suffering four or more types of trauma—and begin to receive trauma-informed care, the better. It should become standard practice to administer the Adverse Childhood Experiences Survey (Felitti et al., 1998) as well as the Expanded Adverse Childhood Experiences Survey (Sedlacek et al. 2014) in SDA theology departments at the undergraduate level as well as at the graduate level.

For those pastors already employed in ministry it would be well, if as part of creating trauma-informed churches, that conferences that wish to move in that direction ask every employed pastor and every lay pastor to take the ACEs Survey and the Expanded ACEs survey. But there are also warning signs that should alert SDA conference administrators to go beyond an ACEs Survey along with the Expanded Survey. For instance pastors who have moral failings, show signs of addictive behavior, repeated sexual indiscretions, or repeated patterns of negative behavior and conflict in multiple church assignments should be referred for evaluation, where part of the evaluation explores the possibility of unresolved Childhood Trauma.

The next step in helping pastors to provide trauma-informed care to their

parishioners is to have them trained through seminars and continuing education courses to identify the signs of Childhood Trauma as well as how best to provide trauma-informed care in the church setting.

Once, trauma-informed pastors are leading congregations, The next recommendation is to help congregations appreciate how extensive Childhood Trauma is and its pervasive effects on children's emotional, social, behavioral, cognitive, brain, and physical development. In addition, as this research has shown, there can also be potential deficits spiritually. Furthermore, we must realize that trauma also impacts family members, first responders, service providers, and those who may experience secondary stress (which results from exposure to another's traumatic events).

Another recommendation is to identify the symptomatology of trauma which can manifest differently based on gender, age, or type of trauma or setting. Once Childhood Trauma is identified, there must be an understanding that challenging behaviors are to be expected and are part of the individuals' attempts to protect themselves and adapt to their stressful situations. For example, hypervigilance may be the result of physical abuse by a parent. In trauma-informed churches, those sensitized by training will recognize that trauma may impact one's engagement in ministries, interactions with other members, and responsiveness to rules and guidelines.

Also, the language and behavior of leaders should be adjusted in order to support recovery and resilience to trauma. We must consider the policies, procedures, and practices as to whether or not they support the healing of these individuals who have been traumatized as children.

Last, in trauma-informed churches, there must be active resistance to re-

traumatizing individuals who have suffered from Childhood Trauma. Pastors should lead their congregations to do all within their power to avoid triggering sounds, sights, smells, objects, places, or people who are reminiscent of the original trauma. Trauma-informed pastors and congregations protect individuals from further trauma that can interrupt their healing.

Research has shown that there are ways of increasing children's resilience (Rutter, 1979) after experiencing trauma and would probably be helpful for adults, as well. The following suggestions should probably be implemented as pastors lead congregations to create trauma-informed churches:

- Support from parents, friends, family, school, and community,
- resources that help to buffer negative consequences on daily life,
- feeling safe at home, school, and in the community,
- having high self-esteem.an overall positive sense of self-worth,
- possessing a sense of self-efficacy—child's belief that he or she can be successful in different areas of life,
- having a sense of meaning in one's life, which might include spiritual or cultural beliefs, connections with others, or goals and dreams,
- possessing talents or skills in certain areas (e.g., the arts, athletics, academics), and
- possessing a variety of adaptive and flexible coping skills that he or she can use in different situations (National Child Traumatic Stress Network, 2022).

SDA churches and conferences that want to provide trauma-informed care for its members and adherents will begin with becoming better informed about the issues

surrounding Childhood Trauma and then provided the resources that their pastors will need to make them better informed. With these recommendations, we can hopefully increase the Faith Maturity of our future and current pastors and the congregations they serve, by extension.

For Future Research

One of the major findings of this research is that the prevalence of Childhood Trauma among pastors and those preparing for pastoral ministry was found to be slightly higher than that of estimates and projections of Childhood Trauma among the population of the United States. This study should be replicated with samples that include the membership of the Seventh-day Adventist population to determine whether the prevalence of Childhood Trauma mirrors what has been found in society.

Another finding of this study is that Childhood Trauma is negatively correlated with Faith Maturity among pastors and those preparing for pastoral ministry. Again, this research should be replicated with samples that include the membership of the Seventh-day Adventist population to determine the nature of the relationship between Childhood Trauma and Faith Maturity in the broader Seventh-day Adventist membership. In redoing this research with larger and more diverse populations, it would also give the opportunity to look for additional correlations beyond the broad types of abuse and neglect which were negatively correlated with Faith Maturity. It may be that the broad types of household neglect, community trauma, and environmental trauma would be correlated with Faith Maturity with a larger and more diverse population.

Another finding of this research is that there were specific types of trauma (questions from the original ACEs and Expanded ACEs) that showed a positive

correlation with Faith Maturity. This finding that specific types of Childhood Trauma increased Faith Maturity should be established by future research.

Another finding that suggests the need for future research is that there were no differences based on demographics (gender, age, ethnicity, marital status, and education) which is inconsistent with other studies (Reinert et al., 2016). It may be that the population sample was too small (195 respondents) to pick up on these differences.

In future research in this area, it may be interesting to use a different gauge of spirituality, one that is more sensitive to attachment issues. For instance, the Spiritual Transformation Inventory 2.0 by Hall (2015) is based on relational spirituality and draws on attachment theory. As was discussed in the review of relevant literature, research has shown that Childhood Trauma tends to lead to insecure attachments, and since religion is seen as an attachment process and God is seen as an attachment figure, a tool that is more sensitive to attachments might reveal more interesting or even different findings.

This current research should not be considered conclusive or definitive, but rather, more exploratory and deserving of future research. While the literature review revealed other studies in this area, there is still the need for more research to understand better the connection between Childhood Trauma and spirituality, as well as how best to help those who have been affected.

Chapter Summary

This chapter began by reviewing the body of literature that the research attempted to add to in looking at the relationship between Childhood Trauma and spirituality. It was demonstrated that the impact of sin on humanity was more extensive and pervasive than might be thought at first blush. The literature established that Childhood Trauma impacts

attachments, and since God is seen as an attachment figure, there is a philosophical connection between Childhood Trauma and spirituality. The methodology for establishing this relationship between Childhood Trauma and spirituality utilizing the original ACEs, Expanded ACEs, and the FMS was discussed briefly. A brief review of the major findings was also discussed which established empirically that Childhood Trauma and spirituality are negatively correlated. Finally, this chapter contains suggestions for best practices and future research.

APPENDIX A

SURVEYS

Spiritual Impact of Adverse Childhood Experiences Survey

1. What is your gender? M/F
2. How old are you? 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-60, 61-65, 65 or over
3. What is your ethnicity?
   European American
   African American/Black
   Latino/a
   Asian American/Pacific Islander
   Native American
   Other (please specify)

4. What is your current relationship status?
   Never married/single & not involved in an exclusive relationship
   Never married/single & involved in an exclusive relationship
   Married
   Separated
   Divorced & not remarried
   Widowed & not remarried

5. What is your educational background?
   Completed high school
   Some college
   Undergraduate degree
   Master's degree
   Doctoral degree

While you were growing up, during your first 18 years of life:

6. Did a parent or other adult in the household often swear at you, insult you, put you down, or humiliate you? Or act in a way that made you afraid that you might be physically hurt?
   Yes/No

7. Did a parent or other adult in the household often push, grab, slap, or throw something at you? Or ever hit you so hard that you had marks or were injured?
   Yes/No

8. Did an adult or person at least 5 years older than you ever touch or fondle you or have you touch their body in a sexual way? Or try to or actually have oral, anal, or vaginal sex with you?
   Yes/No

9. Did you often feel that no one in your family loved you or thought you were important or special? Or your family didn't look out for each other, feel close to each other, or support each other?
   Yes/No

10. Did you often feel that ... you didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? Or your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
    Yes/No

11. Were your parents ever separated or divorced?
    Yes/No

12. Was your mother or stepmother: often pushed, grabbed, slapped, or had something thrown at her? Or sometimes or often kicked, bitten, hit with a fist, or hit with something hard? Or ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
    Yes/No

13. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
    Yes/No

14. Was a household member depressed or mentally ill or did a household member attempt suicide?
    Yes/No

15. Did a household member go to prison?
    Yes/No

16. Did anyone in your family exercise dominance or control over other family members to the point where others felt that they had no voice?
    Yes/No

17. Were spiritual writings such as the Bible used by parents or other significant leaders to make you see things their way or to control your behavior Or was a parent or primary caregiver committed to ministry to others to the point that your needs were neglected?
    Yes/No

18. Were you bullied at school over time physically, verbally or through cyber technology without effective intervention from parents or teachers?
    Yes/No

19. As a child, did you experience the death of a parent or sibling Or\ did either or your parents abandon the family?
    Yes/No

20. Were you exposed over time to war or famine or been diagnosed with Post-trumatic stress disorder (PTSD)?
    Yes/No

21. Were you raised in a neighborhood where there was frequent gang activity, violence or other activity that resulted in your feeling unsafe?
    Yes/No

22. Did you feel pressured to perform in school or in other ways in order to earn your parents love or approval or to prove your own value/worth?
    Yes/No

23. In your ministry prior to coming to the seminary, were you demeaned, controlled or otherwise significantly hurt by conference leadership, another pastor or a congregation?
    Yes/No

24. Did you experience traumatic or regular mistreatment or abuse due to your race, religion, gender, sexual orientation or culture?
    Yes/No

25. Were you raised in a country where there was government control of religion and other aspects of life or where dissent was met with force or imprisonment?
    Yes/No

Please respond on the seven-point scale below going from 0 never true to 6 always true.

1=Never true
2=Rarely true
3=True once in a while
4=Sometimes true
5=Often true
6=Almost always true
7=Always true

26. My faith shapes how I think and act each and every day.
27. I help others with their religious questions and struggles.
28. My faith helps me know right from wrong.
29. I devote time to reading and studying the Bible.
30. Every day I see evidence that God is active in the world.
31. I seek out opportunities to help me grow spiritually.
32. I take time for periods of prayer or meditation.
33. I feel God's presence in my relationships with other people.
34. My life is filled with meaning and purpose.
35. My life is committed to Jesus Christ.
36. I talk with other people about my faith .
37. I go out of my way to show love to people I meet.
38. I have a real sense that God is guiding me.
39. I like to worship and pray with others.
40. I am spiritually moved by the beauty of God's creation.

Categorical Assignment of Questions for Types of Trauma

Abuse (q6, q7, q8, q16, q18)

6. Did a parent or other adult in the household often swear at you, insult you, put you down, or humiliate you? Or act in a way that made you afraid that you might be physically hurt?

7. Did a parent or other adult in the household often push, grab, slap, or throw something at you? Or ever hit you so hard that you had marks or were injured?

8. Did an adult or person at least 5 years older than you ever touch or fondle you or have you touch their body in a sexual way? Or try to or actually have oral, anal, or vaginal sex with you?

16. Did anyone in your family exercise dominance or control over other family members to the point where others felt that they had no voice?

18. Were you bullied at school over time physically, verbally or through cyber technology without effective intervention from parents or teachers?

Neglect (q9, q10, q17)

9. Did you often feel that no one in your family loved you or thought you were important or special? Or your family didn't look out for each other, feel close to each other, or support each other?

10. Did you often feel that ... you didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? Or your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

17. Were spiritual writings such as the Bible used by parents or other significant leaders to make you see things their way or to control your behavior Or was a parent or primary caregiver committed to ministry to others to the point that your needs were neglected?

Household Challenges (q11, q12, q13, q14, q15, q19)

11. Were your parents ever separated or divorced?

12. Was your mother or stepmother: often pushed, grabbed, slapped, or had something thrown at her? Or sometimes or often kicked, bitten, hit with a fist, or hit with something hard? Or ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

13. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?

14. Was a household member depressed or mentally ill or did a household member attempt suicide?

15. Did a household member go to prison?

19. As a child, did you experience the death of a parent or sibling Or\ did either or your parents abandon the family?

Environmental Trauma (q20)

20. Were you exposed over time to war or famine or been diagnosed with Post-traumatic stress disorder (PTSD)?

Community Trauma (q21, q22, q23, q24, q25)

21. Were you raised in a neighborhood where there was frequent gang activity, violence or other activity that resulted in your feeling unsafe?

22. Did you feel pressured to perform in school or in other ways in order to earn your parents love or approval or to prove your own value/worth?

23. In your ministry prior to coming to the seminary, were you demeaned, controlled or otherwise significantly hurt by conference leadership, another pastor or a congregation?

24. Did you experience traumatic or regular mistreatment or abuse due to your race, religion, gender, sexual orientation or culture?

25. Were you raised in a country where there was government control of religion and other aspects of life or where dissent was met with force or imprisonment?

APPENDIX B

CRITERIA FOR ITEM SELECTION FOR THE FMS

(THAYER LONG FORM)

Ten validity, reliability, and comparability criteria were used to select items for the final scales:

1. Item factor loadings of .50 or above in the 38-item factor analysis one-factor solution.

2. Item factor loadings of .50 or above in the 19-item factor analysis one-factor solution.

3. Item factor loadings of .50 or above on the first factor in the 19-item factor analysis two-factor solution.

4. Item-scale correlation of .50 or above with the Search/Value genesis scale for the SDA sample.

5. Item-scale correlation of .50 or above with the Search/Value genesis scale for the mainline Protestant sample.

6. Item-scale correlation of .50 or above with the Thayer long form scale.

7. Over 75% approval of the item by the survey sample of SDA educators and pastors indicating the item is appropriate for an SDA scale.

8. Presence of the item on the Donahue and Erickson scales.

9. Appropriateness of the item for a frequency-response format.

10. Item-scoring direction is the same for SDA and mainline Protestants.

APPENDIX C

CONSENT FORMS

Andrews University
Office of Research & Creative Scholarship

October 9, 2020

Pete Palmer
Tel. 610-310-3607
Email: pappyc47@verizon.net

RE: APPLICATION FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS
IRB Protocol #: 20-090 **Application Type:** Original **Dept.:** Discipleship & Religious Education
Review Category: Exempt **Action Taken**: Approved **Advisor:** David Sedlacek
Title: The impact of adverse childhood experiences on the spiritual development of seminary students at Andrews University.

Your IRB application for approval of research involving human subjects entitled: "*The impact of adverse childhood experiences on the spiritual development of seminary students at Andrews University*" IRB protocol # 20-090 has been evaluated and determined Exempt from IRB review under regulation CFR 46.104 (2)(i): Research involving survey procedures in which 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 subject. You may now proceed with your research.

Please note that any future changes made to the study design and/or informed consent form require prior approval from the IRB before such changes can be implemented. Incase you need to make changes please use the attached report form.

While there appears to be no more than minimum risks with your study, should an incidence occur that results in a research-related adverse reaction and/or physical injury, this must be reported immediately in writing to the IRB. Any research-related physical injury must also be reported immediately to the University Physician, Dr. Katherine, by calling (269) 473-2222.

We ask that you reference the protocol number in any future correspondence regarding this study for easy retrieval of information.

Best wishes in your research.

Sincerely,

Mordekai Ongo, PhD.
Research Integrity and Compliance Officer

Institutional Review Board – 8488 E Campus Circle Dr Room 234 - Berrien Springs, MI 49104-0355
Tel: (269) 471-6361 E-mail: irb@andrews.edu

Seventh-day Adventist
Theological Seminary
Andrews University

August 16, 2020

Institutional Review Board
8488 E Campus Circle Dr Buller Hall Room 234 Andrews University
Berrien Springs, MI 49104-0355

Subject: Letter of Authorization to Conduct Research at Andrews University Theological Seminary

Dear Institutional Review Board:

Based on my review of the proposed research by Pete Palmer, I give permission for the researcher to conduct the study entitled "Impact of Adverse Childhood Experiences on the Spiritual Development of Seminarians" within the Theological Seminary at Andrews University, Berrien Springs, MI. I authorize the researcher(s) to distribute a questionnaire by email. The permission has been granted to the extent of the procedures outline in the IRB protocol we have reviewed. Individuals' participation will be voluntary and at their own discretion. Therefore, the researcher will have to obtain informed consent prior to the subjects' participation.

We will provide the researcher with needed support: the email addresses of seminarians; as well as a letter of support for this research to be included with the link to the questionnaire to make the data collection process a success.

We understand that the research will include a questionnaire with the Spiritual Transformation Inventory; the original ACEs questionnaire and the expanded ACEs questionnaire. .

We understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Andrews University IRB.

Please feel free to contact us if you have any concerns or require additional information.

Sincerely,

Dr. Jiri Moskala
Seminary Dean

Department of Discipleship & Religious Education
4145 E Campus Circle Dr N210
Berrien Springs MI 49104-1567
Office: 269-471-6186
URL: andrews.edu/sem
Seek Knowledge. Affirm Faith. Change the World.

REFERENCE LIST

REFERENCE LIST

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