

Childhood Abuse and the Mental Health of Seminary Students: The Mediating Role of R/S Struggles

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ABSTRACT

Seminary students have been found to be at a higher risk of experiencing abuse in childhood compared with the general U.S. population, as well as demonstrate mental health struggles. This study aims to understand how R/S struggles might explain the relationship between childhood abuse (emotional, physical, and sexual) among a sample of seminary students, a group that is at a higher risk of experiencing emotional and physical abuse in childhood compared to the general U.S. population. Drawing on a unique sample of seminary students at a Mainline Protestant seminary, (N = 535), regression results suggest that among seminary students, all forms of childhood abuse studied (emotional, physical, and sexual) were associated with greater depressive and anxiety symptoms. We also found consistent evidence that R/S struggles were a mediator of this pathway, explaining anywhere between 20-35% of the overall association between each form of childhood abuse and depressive and anxiety symptoms. This study adds to the growing body of literature describing the associations between childhood trauma and mental health, as well as the role of R/S struggles. We also discuss how seminaries and divinity schools should implement targeted programs for students with a history of childhood abuse.

Keywords: well-being; seminary students; childhood abuse; R/S struggles

INTRODUCTION

Childhood trauma is consistently considered a serious problem throughout the world (Frewen et al. 2024). It has been broadly defined as acts of commission or omission by caregivers or parents that result in possible harm to a child's health and includes experiences such as sexual, physical, and psychological abuse, as well as emotional or physical neglect (Daruy et al., 2011). Of all the forms of hardship that could occur in childhood, childhood abuse is associated with serious ramifications further on in the life course, including health problems (Hughes et al., 2017; Ferraro, Schafer, & Wilkinson, 2016), mental health problems (Young & Widom, 2014), and lower self-esteem (Waldron et al., 2018).

In the aftermath of adverse childhood experiences (ACEs), young adults may grapple with their religious faith and/or spirituality in addition to struggling with their well-being. Religion and spirituality (R/S) are often studied as coping resources (Jung, 2018), but it is not clear under which conditions victims of early life abuse use R/S as a positive coping strategy, and under which conditions experiences of childhood trauma may result in negative religious coping (R/S struggle), that is, when dimensions of religious or spiritual belief, practices, or experience become a source of negative emotions, generating conflict and further distress (Exline et al., 2014). Many studies have demonstrated negative associations between R/S struggles and mental well-being (Abu-Raiya et al., 2016; Ellison & Lee, 2010; Hill et al., 2021).

The focus of this study is to understand how R/S struggles might explain the relationship between one form of early life adversity, childhood abuse (emotional, physical, and sexual), and mental health among a sample of seminary students. The mental health of clergy has been of interest to scholars of religion and occupations for the last several decades. The unique

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3 conditions of the pastoral life, including long hours, a lack of social support, and role overload
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5 are some reasons why this profession is thought to be difficult and stressful (Miner, 2007;
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7 Bloom, 2019). Recent research has identified Mainline Protestant clergy as a group especially at
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9 risk for poor mental health, with clergy of this religious tradition reporting higher levels of
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11 depressive and anxiety symptoms than clergy from other traditions (Proeschold-Bell & Byassee,
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13 2018; Holleman & Eagle, 2023).
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17 In this study, we draw on unique data from seminary students at a Mainline Protestant
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19 seminary to examine experiences of childhood abuse and the role of R/S struggles in explaining
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21 the relationship between childhood abuse and mental well-being. Childhood trauma has been
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23 associated with attachment problems (Granqvist, 2002; Reinert & Edwards, 2009), and an
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25 individual who suffered abuse may be less able to maintain functional human relationships and
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27 suffer from a lack of support (Larsen et al., 2011; Walker, Holman, and Busby, 2009). This
28
29 negative attitude towards others for victims of abuse could also be transferred to the
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31 religious/spiritual domain, as one's relationship with God generally corresponds to a person's
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33 other attachment relationships (Rowatt & Kirkpatrick, 2002). Few studies have focused on R/S
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35 struggles among clergy members, but they have shown that because of their occupation, clergy
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37 may be vulnerable to mental health problems should troubles arise in their relationship with God
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39 (Ellison et al., 2010; Upenieks & Eagle, 2024). Therefore, we seek to contribute to the limited
40
41 body of evidence on experiences of childhood adversity in seminary students and R/S struggles
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43 in clergy's relationship with God and their faith and how this may impact well-being prior to
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45 beginning pastoral work.
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BACKGROUND

Adverse Childhood Experiences among Seminary Students

Broadly defined, adverse childhood experiences (ACEs) are any potentially traumatic experiences that threaten a child's sense of safety, stability, or secure attachment to a primary caregiver that occur before the age of eighteen (Felitti et al. 1998). Commonly documented ACEs include any form of abuse or neglect, household instability, and exposure to violence. Childhood adversity sets individuals on different trajectories of life course health by shaping the development of health behaviors, coping mechanisms, and access to resources and opportunities (Campbell, Walker, and Egede 2016; Felitti et al. 1998; Ferraro, Schafer, and Wilkinson 2016). ACEs have been linked to many health outcomes, including poor mental health (Felitti et al. 1998; Hales et al. 2023; Juwariah et al. 2022). A fairly linear relationship exists between the number of ACEs and mental health challenges such as depression, suicide attempts, and anxiety disorders (McLaughlin et al. 2010; Merrick et al. 2017).

Experiencing childhood adversity is a common experience in the United States, with an estimated 64 percent of American adults reporting at least one exposure, and 17 percent reporting four or more. Even with a high prevalence of early life adversity at the population level, previous research has shown that seminary students are *more likely* to have experienced various forms of childhood adversity compared to the United States population (Sedlacek 2023; Palmer 2023; Holleman, Upenieks, and Eagle 2024). Holleman and colleagues (2024) – the only of these analyses that compared the rates of ACEs in their seminary sample to the rates of ACEs in a demographically-matched sample from the general population – found that seminarians at a Mainline divinity school were significantly more likely to have experienced emotional abuse

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3 during childhood, with over 50% of seminarians reporting this type of abuse compared to just
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5 39% in the general U.S. population. Seminarians were also twice as likely to have experienced
6
7 sexual abuse during childhood compared to the general U.S. population (20% vs 9%). These
8
9 differences are striking because childhood emotional and sexual abuse are often the adversity
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11 domains which hold the strongest deleterious associations with adult mental health (Nurius et al.,
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13 2012; Merrick et al., 2017). Early life abuse has also been associated with greater suicidality,
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15 alcoholism, substance use disorder, and lower life satisfaction into adulthood (Danese et al.,
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17 2009; Hughes et al., 2017; Merrick et al., 2017).

21 **Religious/Spiritual Responses to Adverse Childhood Experiences: Growth or R/S** 22 **Struggles?**

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25 The life course perspective argues that transitions and turning points that make up life
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27 trajectories—including religious and spiritual life—could be shaped by childhood experiences
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29 (Manglos, 2013; Schafer 2014). Religion/spirituality is not always consistently practiced
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31 throughout the course of a lifetime (Hill & Pargament, 2008; Upenieks & Schafer, 2020;
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33 Upenieks, Schafer, & Mogosanu, 2021). Research indicates that trauma survivors often report
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35 changes in intensity of religious beliefs following a traumatic life event (Ter Kulie & Ehring,
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37 2014). There is some evidence that early life adversity is associated with greater spiritual
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39 openness and growth (Reinert & Smith, 1997; Schafer, 2014; Santoro et al., 2016). According to
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41 these accounts, religion could be a source of comfort for people during crisis and can help
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43 individuals derive meaning from childhood emotional and physical abuse (Walker et al., 2009;
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45 Upenieks, 2021). Individuals who seek to find comfort through their faith could be more likely to
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47 interpret the events of their lives as part of a greater divine plan, of which the call to ministry
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49 might be a part of. Having spiritual support through the belief that God is a loving and merciful
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51 protector could give individuals a sense of comfort in the aftermath of trauma and could give
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3 survivors a greater sense of agency over their adversity, which could increase the likelihood of
4 resilient outcomes (Pargament et al., 2000). For many, then, religion and spiritual beliefs could
5 be a tremendous source of comfort and encourage people to explore and find meaning in their
6 traumatic experiences (Rowatt & Kirkpatrick, 2002). This may partially explain why recent
7 research has found higher rates of ACEs among samples of religious leaders compared to the
8 general population (Roggenbaum et al. 2023; Brown et al. 2024)
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17 However, some people exposed to early life adversity might struggle to reconcile beliefs
18 about their trauma with their religious and spiritual beliefs, leaving them in a state of uncertainty
19 (Walker et al., 2009). Struggling with religious beliefs is one of the negative cognitions that may
20 flow from trauma and be linked with depression and other negative aspects of well-being (Gerber
21 et al., 2011; Wortmann et al., 2011). In the context of childhood abuse, negative religious coping
22 may include spiritual discontent or uncertainty, or blaming God for not being a protector, and has
23 been associated with poor psychological outcomes (Ano & Vasconcelles, 2005; Gerber et al.,
24 2011). In one prior study of black religious leaders, Roggenbaum et al. (2023) documented a
25 relationship between greater early life adversity and symptoms of PTSD, and found that negative
26 religious coping (which involves struggles with faith) exacerbated this harmful association. It is
27 plausible that if an individuals' religious and spiritual beliefs cannot help them find meaning in
28 their traumatic experiences or give them purpose, but rather pose an additional challenge to
29 contend with, including questioning God, this might make recovering from childhood trauma
30 even more daunting. In one prospective study, for instance, trauma exposure was related to
31 increased spiritual struggle, which was in turn associated with a greater frequency of mental
32 health problems (Gerber et al., 2011). In the next section, we highlight the distinctive challenges
33 faced by those in seminary who might report struggles with God following childhood abuse.
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R/S Struggles as an Explanatory Link Between Adverse Childhood Experiences and Mental Health in Seminary Students

A growing body of research in the broader literature on religion and health has identified that “spiritual struggles” can have negative consequences for well-being. Doubts or uncertainty about one’s faith have been shown to undermine well-being (Ellison & Lee, 2010; Hill et al., 2021). For seminary students who have discerned a vocational call to ministry, spiritual struggles could be particularly detrimental to health.

Pargament and colleagues (2005) defined R/S struggles as “efforts to conserve or transform a spirituality that has been threatened or harmed” (pg.247) and scholars have put forth three types of R/S struggles: (a) interpersonal struggles, or negative interactions that take place within religious settings, (b) intrapsychic doubting, or chronic doubting about one’s faith, and (c) divine struggles, or troubled relationships with God. We focus on the latter in this study and argue that an enhanced propensity to report struggles with God might partially explain the pernicious effects of early life adversity for seminary students.

Given the unique position of seminary students, we turn our attention briefly to how the call to ministry occurs. Seminary students often describe receiving a sacred call to ministry (Johnston et al., 2022). Though the cultivation of a direct, intimate relationship with a perceived divine being (e.g., God, Jesus) is crucial to the religious and spiritual lives of the general public, this relationship is particularly pronounced among clergy. Not all relationships with God are healthy, however, even among clergy. And there is sound reason to suspect that early life trauma might enhance the likelihood of experiencing such a struggle.

A core belief of Christianity is that God is available and responsive, providing a haven of safety and a secure base through which to explore the world (Kirkpatrick, 1992). As Kirkpatrick

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3 (1992, p.7) aptly noted, “the point is God is thought of as a protective and caring parent who is
4 always reliable and always available to His children when they are in need). Research has also
5 shown that God images and images one holds of the self tend to complementary. In other words,
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7 if God is viewed as caring, affectionate, and kind, people will tend to have more positive self-
8 concepts and greater self-esteem (Kirkpatrick 1992).
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15 However, childhood maltreatment tends to disrupt the formation of this type of
16 relationship with God. Indeed, neurobiological research has shown that childhood adversity
17 produces biochemical changes in parts of the brain that regulate attachment behaviors (Beech &
18 Mitchell, 2005). Childhood trauma has also been found to impede neural integration, which has
19 been found to hinder the ability to create and sustain secure attachment relationships (Grady et
20 al., 2021. As Maltby and Hall (2012) summarized, “people’s attachment to God is not exempt
21 from the influence of their early life experiences...The experience of trauma raises essential
22 questions about the goodness and omnipotence of God that demand an answer” (p.310). Early
23 life abuse, then, can potentially impact one’s relationship with God. One’s relationship to the
24 sacred is often formed within relational experiences (Tomlinson et al., 2016). Altogether, if
25 biochemical changes in the brain result from childhood trauma, then it is not unreasonable to
26 expect that this would have an impact on how a person experiences God or their faith more
27 generally.
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45 In the context of our study, victims of childhood abuse are less likely to view God as a
46 loving and caring figure than non-abused individuals (Bierman, 2005; Kosarkovska et al., 2020)
47 and are also more likely to believe they have been abandoned by God (Maltby & Hall, 2012).
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49 Prior work has found that victims of childhood abuse harbor more negative views of God
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51 (Bierman, 2005; Waldron et al., 2018), tending to view him as distant or unloving (Gall, 2006;
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3 Gall et al., 2007). Survivors of abuse have also tended to describe God using negative attributes
4 such as “wrathful” and “uncaring” (Kam, 2018) or “unavailable” (Granqvist et al., 2012). One
5 recent study suggested that viewing God in a negative light partially explains why emotional
6 abuse victims have lower self-esteem (Waldron et al., 2018). Empirical research has tended to
7 support the idea that early life trauma may lead individuals to experience greater struggles with
8 God. Generally speaking, people who have experienced childhood trauma are more likely to
9 report some kind of religious struggle (Janu et al., 2022; McCormick et al., 2017; Proctor et al.,
10 2019).

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12 Taken as a whole, this body of work suggests that seminary students who are exposed to
13 early life abuse might struggle to reconcile the experience of abuse with their religious beliefs
14 (e.g., that God is a loving, caring protector), leaving them in a state of religious uncertainty
15 (Walker et al., 2009; Walker et al., 2022; Wortmann et al., 2011). Childhood trauma might
16 diminish the capacity of seminary students to construct a loving and supportive relationship with
17 God. Put simply, the very resource that could help seminary students in the aftermath of
18 childhood abuse and in their studies and future pastoral work is also the one that could be eroded
19 or diminished for victims of abuse.

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21 R/S struggles in the aftermath of adversity may be particularly problematic for seminary
22 and divinity students. Clergy—and seminary students by extension—are somewhat unusual in
23 that they are called to vocation in their ministry by God (Johnston et al., 2022). Much of their
24 day-to-day lives are characterized by learning the doctrine of their faith and how this may be
25 applied to ministry. Any uncertainty or struggle could lead them to question their fitness to guide
26 others in their faith. As Krause and Wulff (2004) point out, divine struggles could be particularly
27 unsettling because of the cognitive dissonance that is produced. Recent work by Upenieks and
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3 Eagle (2024) on United Methodist clergy in congregational ministry found that troubled
4 relationships with God, characterized by feelings of abandonment or difficulties in trusting God,
5 were associated with greater depressive symptoms and more intense feelings of burnout. Among
6 clergy, who are trying to live in accordance with their religious beliefs and faith tenets, the lack
7 of ability to maintain a solid personal relationship with God or remain strong in their faith may
8 spur guilt and feelings that God may not forgive them. These experiences of internal struggle
9 tend to be an immense source of strain (Wilt et al., 2017) because such struggles are typically
10 discouraged among clergy and could be contributors to stress and mental health problems
11 (Ellison et al., 2010; Upenieks & Eagle, 2024).
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24 Considered as a whole, the arguments presented above suggest that seminary students
25 might feel greater distress if they are struggling with their faith, which is meant to both grow and
26 aid them in their ministry. When their call to the vocation and their work is perceived to be
27 sacred, and an immense amount of time and energy is being poured into training, the perception
28 of failing in one's personal relationship with God could adversely affect well-being. Thus, to the
29 extent that childhood abuse is associated with an increased likelihood of experiencing struggles
30 with God, we would expect this to be associated with lower mental well-being among seminary
31 students. The presence of R/S struggles, even in response to hardship outside of one's individual
32 control, might be counter-normative for seminary students and threaten a key aspect of their
33 identity. If the beneficence of God, the scope of divine power, or the thought of whether God is
34 punishing them for allowing misfortune to occur are occupying the minds of seminary students,
35 the consequences of childhood trauma might intensify the consequences of childhood trauma be
36 steep.
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3 Figure 1 outlines the pathway that we test in this study. We assess the relationship
4 between three types of childhood abuse: emotional, physical, and sexual abuse, and depressive
5 and anxiety symptoms among seminary students. We also examine the possible mediating role of
6 divine struggles in a unique sample of seminary students that we describe below.
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12 [Figure 1 about here]
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14 DATA AND METHODS

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16 We use data from the Seminary-to-Early Ministry (SEM) study, a mixed-methods,
17 longitudinal cohort study of seminary students at a Mainline Protestant Divinity School (Eagle et
18 al. 2023). This Divinity School is founded and supported by the United Methodist Church
19 (UMC). While predominantly United Methodist, the school also attracts students from other
20 religious traditions. We used survey data collected from students entering a master's program in
21 the fall of 2019, 2020, 2021, and 2022. Surveys were administered online, and response rates
22 ranged from 73%-83%. Aggregated, the total number of students was 535. All students provided
23 informed consent and study procedures were approved by the Institutional Review Board at
24 (institution blinded for review).
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37 Dependent Variables

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39 *Depressive Symptoms:* Depressive symptoms were measured using the well-validated
40 CES-D 20-item depression scale (Radloff 1977). Respondents were asked to report on the
41 frequency in the last two weeks with which they felt, for instance "I could not shake off the
42 blues," "I could not get going," "I felt sad," "I had a lot of trouble getting to sleep." The response
43 options were coded as follows: 1 = Not at all/Less than 1 day, 2 = 1-2 days, 3 = 3-4 days, 4 = 5-7
44 days, and 5 = Nearly every day for the past 2 weeks. All responses were averaged to form a scale
45 (alpha = 0.92), where higher scores indicate greater depressive symptoms.
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3 *Anxiety Symptoms*: Measures of anxiety symptoms were derived from the Generalized
4 Anxiety Disorder 7-item (GAD-7) scale. (Spitzer, Kroenke, William, and Lowe 2006). Sample
5 items include how often in the last 2 weeks respondents felt, “nervous, anxious or on edge,
6 “worrying too much about different things,” and “feeling afraid something awful might happen.”
7 The response options were 1 = “Not at all,” 2 = “Several days,” 3 = “More than half the days,” 4
8 = “Nearly every day.” The responses across the seven-items were averaged to form a scale (alpha
9 = 0.86), where higher scores indicate the presence greater anxiety symptoms.

19 **Focal Independent Variables**

21 *Childhood Abuse*: The SEM project asked about three types of abuse, taken from the
22 ACEs Study Questionnaire developed by Felitti and colleagues (1998), which was prompted by
23 the following: “We’d like to ask you some questions about events that happened during your
24 childhood. Looking back before you were 18 years of age...” Emotional abuse was measured by
25 the question, “How often did a parent or adult in your home ever swear at you, insult you, or put
26 your down?” Physical abuse was measured by, “How often did a parent or adult in your home
27 ever hit, beat, kick, or physically hurt you in any way? (do not include spanking).” Finally,
28 sexual abuse was asked by, “How often did anyone have unwanted sexual contact with you?” On
29 each of these three measures of emotional, physical, or sexual abuse, we created a binary
30 variable of whether the respondent had ever reported experiencing this, with 0 = No and 1 = Yes.

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42 *Religious/Spiritual (R/S) Struggles*: To minimize respondent burden, ten questions were
43 selected from a 26-item scale measuring one’s struggle with various aspects of religion and
44 spirituality (Exline et al., 2014).¹ Respondents were asked, “Over the past few months, to what
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¹ We started with the 14-item short form of the scale offered by Exline and colleagues (2014) and removed the two questions about demonic possession/influences and the two questions about struggling to find meaning in life. Given that this was a mainline divinity school, the research team did not think that demonic possession (items 7 and 8) would come up frequently. In addition, given that these were divinity students, we did not expect them to endorse

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3 extent, if at all, have you had each of the experiences listed below?" The ten items were: (1) felt
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5 angry at God, (2) felt as though God had abandoned me, (3) felt as though God was punishing
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7 me, (4) had conflicts with other people about religious/spiritual matters, (5) felt angry at
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9 organized religion, (6) felt hurt, mistreated, or offended by religious/spiritual people, (7) felt
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11 guilty for not living up to my moral standards, (8) struggles to figure out what I really believe
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13 about religion/spirituality, (9) felt troubled by doubts or questions about religion/spirituality, and
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15 (10) worried about whether my beliefs about religion/spirituality were correct. Responses were
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17 coded as follows: 1 = Not at all, 2 = A little bit, 3 = Somewhat, 4 = Quite a bit, and 5 = A great
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19 deal." Responses were averaged to form a scale, with higher scores indicating greater R/S
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21 struggles (alpha = 0.81).
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26 **Covariates**

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28 We account for a variety of demographic factors that could confound observed
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30 relationships: age, sexuality, gender, and race. For the bivariate analyses, age was coded into a
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32 binary variable indicating respondents younger than age 30. Age was kept as a continuous
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34 variable in the multivariate analyses. Gender was coded as "male" or "female." We coded
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36 respondents as a sexual/gender minority if they indicated they had any sexual orientation other
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38 than heterosexual, if they indicated their gender identity was an identity other than "male" or
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40 "female," or if they indicated their current gender identity was different than their sex assigned at
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42 birth. We coded race into three categories: white and non-Hispanic, Black and non-Hispanic, and
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44 other. Though the SEM sample contains individuals from other racial and ethnic backgrounds,
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46 sample size was not sufficient to separate out other groups for analysis. In the multivariate
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54 items about meaninglessness in life (items 19 and 20). The chosen items seem to be the most commonly experienced
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56 struggles, and we felt confident that they would capture adequate variability to distinguish between students with
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58 high and low struggles, as indicated by the alpha reliability coefficient of 0.81.
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3 analyses, we collapse this to white and non-white. Additional analyses also adjusted for sexual
4 minority status (1 = yes, 0 = no) but main results did not change so this variable was excluded
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6 for the sake of parsimony.
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10 Finally, we also adjusted for the respondents' program of study in the Mainline Protestant
11 seminary as the different program options might attract different forms of students. The options
12 were: (1) Masters of Arts in Christian Practice (M.C.A.P., designed for students to engage in
13 disciplined theological reflection to enrich their Christian service in the church and world), (2)
14 Masters of Divinity (M.Div), (3) Masters of Divinity Hybrid (M.Div H), which combines
15 coursework, both online and in-person along with working full time, and (4) Masters of
16 Theological Studies (MTS). M.C.A.P serves as our reference group in all analyses.
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26 **PLAN OF ANALYSIS**

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28 The first part of our analyses consists of a series of OLS regression models, which were
29 used to assess the associations between the three types of childhood abuse and depressive and
30 anxiety symptoms. For each form of abuse, we note the main association between abuse and
31 each mental health outcome in one model, and then in the second model add in our measure of
32 R/S struggles to test for possible mediation. The first part of the analysis allows us to ascertain
33 whether childhood abuse, and which forms, are associated with mental health among seminary
34 students.
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44 The second part of the analyses then formally tests the possible pathways of mediation
45 through Sobel-Goodman analyses through R/S struggles for each form of abuse and both
46 depressive and anxiety symptoms. The Sobel-Goodman analyses use bootstrapped standard
47 errors and offers an estimate of the indirect effect of R/S struggles in the association between
48 each form of childhood abuse and depressive and anxiety symptoms.
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3 ($b = 0.14, p < .01$), and R/S struggles is also positively associated with depressive symptoms ($b =$
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5 0.28, $p < .001$). In Model 3, we observe that physical abuse is also correlated with higher
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7 depressive symptoms in our sample of seminary students ($b = 0.26, p < .001$), an association
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9 which is again weakened when R/S struggles are introduced in Model 4 ($b = 0.29, p < .001$). R/S
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11 struggles maintain a strong, positive association with depressive symptoms in Model 4 ($b = 0.29,$
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13 $p < .001$).

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16 Rounding out the analysis of depressive symptoms, results from Model 5 show that
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18 childhood sexual abuse is also associated with greater depressive symptoms ($b = 0.28, p < .001$).
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20 This association was also reduced in size with the addition of R/S struggles in Model 6 ($b = 0.23,$
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22 $p < .001$). And as with emotional and physical abuse, R/S struggles remain associated with
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24 greater depressive symptoms in Model 6.

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27 [Table 2 about here]

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30 Table 3 displays results on our second indicator of mental well-being, anxiety symptoms.
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32 A very similar pattern to depressive symptoms emerges. Model 1 shows that childhood
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34 emotional abuse is associated with greater symptoms of anxiety ($b = 0.36, p < .001$). This
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36 association is reduced to $b = 0.23$ ($p < .01$) in Model 2 with the introduction of R/S struggles to
37
38 the model. R/S struggles in Model 2 is shown to be positively associated with greater anxiety
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40 symptoms ($b = 0.50, p < .001$).

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43 Model 3 shows that childhood physical abuse is likewise associated with greater anxiety
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45 symptoms ($b = 0.34, p < .001$). However, in Model 4 we again see that this association is
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47 reduced in magnitude and significance ($b = 0.24, p < .01$) with the introduction of R/S struggles.
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49 R/S struggles remains associated with greater symptoms of anxiety ($b = 0.51, p < .001$).

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3 Finally, the results shown in Model 5 also indicate that sexual abuse is associated with
4 greater symptoms of anxiety ($b = 0.34, p < .001$). With the introduction of R/S struggles in
5 Model 6, this association is reduced in size and significance level ($b = 0.25, p < .01$). And as
6 before, R/S struggles remain associated with greater anxiety symptoms.
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12 Taken as a whole, then, findings from the first part of our analysis indicate that each form
13 of childhood abuse (emotional, physical, sexual) is associated with greater symptoms of
14 depression and anxiety among seminary students. There was also evidence that these
15 associations were reduced in size with the introduction of R/S struggles into the model. In the
16 second part of our analyses, we turn to formally assess these mediating pathways through the use
17 of the Sobel-Goodman tests.
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26 [Table 3 about here]
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28 **Part 2: Sobel-Goodman Mediation Analyses**

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31 The first set of mediation analyses presented refers to analyses pertaining to depressive
32 symptoms and is presented in Table 4a. To facilitate an efficient presentation of our results, we
33 comment on the size of the indirect effects, comparing the percent mediated by R/S struggles for
34 each form of childhood abuse. We see that each form of childhood abuse is association with
35 greater R/S struggles in the second column of Table 4a, and as we saw in the previous section,
36 R/S struggles are associated with greater depressive symptoms.
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44 We observe in the final column of Table 4 that that R/S struggles explain 35.45% of the
45 relationship between childhood emotional abuse and depressive symptoms (indirect effect =
46 0.07, $p < .001$), 20.33% of the relationship between physical abuse and greater depressive
47 symptoms (indirect effect = 0.05, $p < .05$), and 18.04% of the relationship between sexual abuse
48 and depression symptoms (indirect effect = 0.05, $p < .05$).
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[Table 4a about here]

Turning now to the Sobel-Goodman mediation analyses with respect to anxiety symptoms (Table 4b), we see that again, each form of childhood abuse predicts greater R/S struggles, with emotional abuse holding the strongest association ($b = 0.26, p < .001$). As we saw in the first part of our analysis, R/S struggles are associated with greater anxiety symptoms in the presence of each form of childhood abuse.

In Table 4b, we see that R/S struggles explain 36.13% of the relationship between childhood emotional abuse and greater symptoms of anxiety (indirect effect = 0.13, $p < .001$). R/S struggles likewise explained 26.93% of the association between childhood physical abuse and greater anxiety symptoms (indirect effect = 0.09, $p < .05$). Finally, the last row of Table 4b shows that R/S struggles accounted for 26.10% of the observed association between childhood sexual abuse and higher anxiety symptoms (indirect effect 0.09, $p < .05$).

[Table 4b about here]

Our findings from the second part of our analyses suggest that R/S struggles explained more of the variation between emotional abuse and mental well-being, followed next by physical abuse and then sexual abuse. We do note, however, that each mediating pathway through R/S struggles was significant for each form of childhood abuse and each outcome of mental health, suggesting its consistency as a mediator in this sample of seminary students.

DISCUSSION

The chief goal of this study was to assess how R/S struggles might mediate the association between childhood abuse and mental health in a sample of seminary students at a Mainline Protestant seminary. To our knowledge, this is the first study undertaken which empirically examines the role of early life adversity and its associations with differing mental

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3 health profiles among seminary students, as well as the mediating role that R/S struggles were
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5 found to play.
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8 Several important findings emerged from our analyses. First, among seminary students,
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10 all forms of childhood abuse studied (emotional, physical, and sexual) were associated with
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12 greater depressive and anxiety symptoms. Previous research has identified seminary students to
13
14 be at a higher risk of experiencing emotional and physical abuse in childhood compared with the
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16 general U.S. population (Sedlacek 2023; Palmer 2023; Holleman et al., 2024), and this study
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18 demonstrates this has a negative impact on the mental well-being of seminary students. These
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20 results resonate with research from population-based samples which find that adverse childhood
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22 experiences (ACEs), particularly childhood abuse, is associated with a greater risk of
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24 psychological problems not only in childhood but also in adolescence and adulthood (Kessler,
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26 Davis, & Kendler, 1997; Nurius et al., 2015). Another implication that follows from this first
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28 finding is that there may be more “upstream” causes of poor mental health among Mainline
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30 Protestant clergy.
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36 A more ambitious goal of this study was to assess a possible mechanism linking
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38 childhood adversity with mental health outcomes among seminary students. We found consistent
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40 evidence that R/S struggles were a mediator of this pathway, explaining anywhere between 20-
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42 35% of the overall association between each form of childhood abuse and depressive and anxiety
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44 symptoms. Researchers have not made significant inroads in explaining possible associations
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46 between childhood trauma and R/S struggles, so this paper makes an important contribution that
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48 early life adversity may impact the religious and spiritual lives of many people, including those
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50 studying theology and training for pastoral work.
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3 Of all the forms of childhood abuse examined, R/S struggles explained a greater
4 proportion of depressive and anxiety symptom scores for emotional abuse. Indeed, roughly 35%
5 of the association between childhood emotional abuse and depressive and anxiety symptoms was
6 explained by greater R/S struggles. It is notable that over half of our sample of seminary students
7 reported being emotionally abused as a child. Since this was a fairly widespread occurrence, the
8 construct of stress proliferation is also useful to make sense of the mediation pathway through
9 R/S struggles. Individuals with early life circumstances that make them vulnerable, such as
10 experiences of emotional abuse from parents/caregivers, are then more likely to encounter and
11 generate stressful life events throughout their youth and into adulthood (Turner & Schieman,
12 2008), as well as to accumulate stress burden and develop both social and behavioral difficulties
13 (Aneshensel, 2009). These early life stressors also set the stage for how individuals might
14 interact with secondary stressors which come their way, including in the educational, work, and
15 relationship domains. These chains of risk become inextricably linked and generate differing
16 mental health outcomes (Ferraro & Shippee, 2009; Pearlin et al., 2005). In particular, early
17 stressors such as emotional abuse characteristic of a disordered family life might constrain access
18 to healthy social ties and lifestyles needed to build satisfactory support systems that might help
19 seminary students overcome R/S struggles (e.g., Hill et al. 2010).

20
21 R/S struggles were also a consistent mediator between childhood physical abuse and
22 sexual abuse and depressive and anxiety symptoms, explaining anywhere from 18-25% of the
23 focal associations tested. Severe physical and sexual abuse may greatly affect an individual's
24 perception of God (Maltby & Hall, 2012) as well as make one question their spiritual beliefs. For
25 instance, some survivors of sexual abuse have been found to harbor views of God as distant or
26 unloving (Gall, 2006; Gall et al., 2007). Seminary students who try to reconcile these early life

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3 traumatic events with their religious beliefs (of God as a caring protector, and of parents as
4 responsible for promoting flourishing among children) might struggle to do so. Such a process
5 could erode important resources for seminary students, who feel called to the vocation they are
6 studying to perform (Johnston et al., 2023). And among seminary students, uncertainty in their
7 faith or relationship with God might lead them to doubt whether they are fit to guide others in
8 their spiritual journeys.
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11 Taken together, the consistent mediating pathway of each form of childhood abuse via
12 R/S struggles to lower mental well-being is significant among seminary students. Despite the
13 theological training they are receiving, and the practice of spiritual discipline they often
14 undertake (e.g., Bible study, prayer), these individuals are not exempt from the negative
15 consequences of childhood trauma on their faith maturity. This suggests that the long-lasting
16 impact of childhood trauma might exact a steep toll if it is not offset without intentional attempts
17 to mitigate its effects. Each form of childhood abuse was associated with greater R/S struggle,
18 especially emotional abuse, and R/S struggles were found to be strongly associated with greater
19 depressive and anxiety symptoms (Ellison & Lee, 2010; Hill et al., 2021). As we elaborate
20 below, seminaries and divinity schools should implement targeted programs for students with a
21 history of childhood abuse and should carefully monitor whether these individuals are also
22 struggling with aspects of their faith, interactions with other religious community members, and
23 in their personal relationship with God.
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27 There are several limitations to the current study. First, our sample of seminary students
28 comes from four entering cohorts of one Mainline Protestant divinity school. The sample was
29 also overwhelmingly Mainline Protestant and White, which precluded us from making
30 significant comparisons on the basis of religious tradition and race. Our findings, therefore, may
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3 not be directly generalizable to Conservative Protestant, Catholic, or other religious
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5 denominations. We also acknowledge that all our measures, including, R/S struggles are
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7 measured at only one time point. As a result, we cannot make firm conclusions about the
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9 direction of causality. Future research should leverage longitudinal data to demonstrate the
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11 robustness of the findings we report here, for instance, to capture changes in R/S struggles
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13 among seminary students who have or have not been victims of childhood abuse.
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17 Finally, research is also needed to explore possible changes in levels of religiosity and
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19 religious coping over the life course following childhood trauma in this unique sample of
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21 seminary students. One direction of future research would be to explore the co-occurrence of
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23 childhood adversities (Edwards, Holden, Felitti, & Anda, 2003), shifting attention from single
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25 forms to cumulative exposures (Arata et al., 2007). Future research employing longitudinal data
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27 could assess whether any changes in religious beliefs or struggles could be linked with positive
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29 or negative coping following childhood trauma. It is crucial that researchers attend to both the
30
31 negative and positive characteristics of religious coping styles for those heavily immersed in the
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33 religious role, such as seminary students and clergy.
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38 Our findings should also highlight the need for seminaries and divinity schools to provide
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40 resources for students who are victims of childhood trauma, and to support the mental health of
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42 all seminary students during times of adversity. Given the importance of mitigating the
43
44 pernicious effects of childhood trauma, early intervention is particularly important for targeting
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46 risk factors and building or harnessing protective factors, thus improving mental health outcomes
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48 further on in the life course. It should become standard practice to assess adverse childhood
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50 experiences through surveys (e.g., Felitti et al., 1998) in theology departments at both the
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52 undergraduate and graduate levels. Bringing attention to these issues during pastoral training
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3 should also increase the likelihood that pastors who eventually go on to lead congregations will
4 be trauma informed. Part of seminary training might also include how to overcome R/S struggles
5 after adverse experiences, either dating back to childhood or stressors that may happen in the
6 more immediate timeframe. Finally, seminary leaders and counselors should ensure that
7 students' adverse childhood experiences be kept confidential to prevent any bias or
8 discrimination against these students on the basis of trauma histories. Altogether, greater
9 attention to how deleterious childhood trauma is for mental health and its effects on children's
10 emotional, social, behavioral, physical, and spiritual development is also a worthy goal. The
11 results of our study, at their core, draws attention to the need to better understand the "upstream"
12 causes of poor pastoral mental health by tracing many of the issues to childhood or to the
13 stressors faced in the seminary.
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28 In sum, this study adds to the growing body of literature describing the associations
29 between childhood trauma and mental health, as well as the role of R/S struggles (Janu et al.,
30 2022; McCormick et al., 2017; Walker et al., 2002). While seminary students can be affected by
31 many stressors during their period of study and formation, early life trauma, to the extent that it
32 facilitates R/S struggles, appears to be associated with lower mental well-being. We would
33 encourage future research to build on these findings, paying particular attention to R/S struggles
34 among seminary students with an eye towards identifying resources that can foster resilience and
35 ultimately protect the well-being of seminary students.
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58
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REFERENCES

- Abu-Raiya, Hisham, Kenneth I. Pargament, and Neal Krause. 2016. "Religion as problem, religion as solution: Religious buffers of the links between religious/spiritual struggles and well-being/mental health." *Quality of Life Research* 25:1265-1274.
- Aneshensel, Carol S. 2009. "Toward explaining mental health disparities." *Journal of Health and Social Behavior* 50(4):377-394.
- Ano, Gene G., and Erin B. Vasconcelles. 2005. "Religious coping and psychological adjustment to stress: A meta-analysis." *Journal of Clinical Psychology* 61(4):461-480.
- Arata, Catalina M., Jennifer Langhinrichsen-Rohling, David Bowers, and Natalie O'Brien. 2007. "Differential correlates of multi-type maltreatment among urban youth." *Child Abuse & Neglect* 31(4):393-415.
- Beech, Anthony R., and Ian J. Mitchell. 2005. "A neurobiological perspective on attachment problems in sexual offenders and the role of selective serotonin re-uptake inhibitors in the treatment of such problems." *Clinical Psychology Review* 25(2):153-182.
- Bierman, Alex. 2005. "The effects of childhood maltreatment on adult religiosity and spirituality: Rejecting God the Father because of abusive fathers?" *Journal for the Scientific Study of Religion* 44(3):349-359.
- Bloom, Matt. 2019. *Flourishing in ministry: How to cultivate clergy wellbeing*. New York: Rowman & Littlefield.
- Brown, Eric, Eu Gene Chin, David Wang, Blaire Lewis, Christin Fort, Laura Captari, Sarah Crabtree, Steven Sandage. 2024 "Adverse Childhood Experiences, Religious Coping, and Congregational Support among Black Clergy and Religious Leaders." *Religions* 15(4):396.

- 1
2
3 Campbell, Jennifer A., Rebekah J. Walker, and Leonard E. Egede. 2016. "Associations Between
4
5 Adverse Childhood Experiences, High-Risk Behaviors, and Morbidity in Adulthood."
6
7 *American Journal of Preventive Medicine* 50(3):344–52
8
9
- 10 Danese, Andrea, Terrie E. Moffitt, HonaLee Harrington, Barry J. Milne, Guilherme Polanczyk,
11
12 Carmine M. Pariante, Richie Poulton, and Avshalom Caspi. 2009. "Adverse childhood
13
14 experiences and adult risk factors for age-related disease: depression, inflammation, and
15
16 clustering of metabolic risk markers." *Archives of Pediatrics & Adolescent*
17
18 *Medicine* 163(12):1135-1143.
19
20
- 21 Daruy-Filho, L., E. Brietzke, B. Lafer, and R. J. A. P. S. Grassi-Oliveira. 2011. "Childhood
22
23 maltreatment and clinical outcomes of bipolar disorder." *Acta Psychiatrica*
24
25 *Scandinavica* 124(6):427-434.
26
27
- 28 Eagle, David, Josh Gaghan, and Erin Johnston. 2023. "Introducing the seminary to early ministry
29
30 study." *Religious Education* 118(2):133-145.
31
32
- 33 Edwards, Valerie J., George W. Holden, Vincent J. Felitti, and Robert F. Anda. 2003.
34
35 "Relationship between multiple forms of childhood maltreatment and adult mental health
36
37 in community respondents: results from the adverse childhood experiences
38
39 study." *American Journal of Psychiatry* 160(8):1453-1460.
40
41
- 42 Ellison, Christopher G., and Jinwoo Lee. 2010. "Spiritual struggles and psychological distress: Is
43
44 there a dark side of religion?" *Social Indicators Research* 98:501-517.
45
46
- 47 Ellison, Christopher G., Lori A. Roalson, Janelle M. Guillory, Kevin J. Flannelly, and John P.
48
49 Marcum. 2010. "Religious resources, spiritual struggles, and mental health in a
50
51 nationwide sample of PCUSA clergy." *Pastoral Psychology* 59:287-304.
52
53
54
55
56
57
58
59
60

- 1
2
3 Exline, Julie J., Kenneth I. Pargament, Joshua B. Grubbs, and Ann Marie Yali. "The Religious
4 and Spiritual Struggles Scale: Development and initial validation." *Psychology of*
5
6 *Religion and Spirituality* 6, no. 3 (2014): 208-222.
7
8
9
10 Felitti, Vincent J., Robert F. Anda, Dale Nordenberg, David F. Williamson, Alison M. Spitz,
11
12 Valerie Edwards, and James S. Marks. 1998. "Relationship of childhood abuse and
13
14 household dysfunction to many of the leading causes of death in adults: The Adverse
15
16 Childhood Experiences (ACE) Study." *American Journal of Preventive*
17
18 *Medicine* 14(4):245-258.
19
20
21 Ferraro, Kenneth F., and Tetyana Pylypiv Shippee. 2009. "Aging and cumulative inequality:
22
23 How does inequality get under the skin?" *The Gerontologist* 49(3):333-343.
24
25
26 Ferraro, Kenneth F., Markus H. Schafer, and Lindsay R. Wilkinson. 2016. "Childhood
27
28 disadvantage and health problems in middle and later life: Early imprints on physical
29
30 health?" *American Sociological Review* 81(1):107-133.
31
32
33 Frewen, Paul, Andrew Vincent, and Miranda Olf. 2024. "Childhood trauma histories in men and
34
35 women assessed by the childhood attachment and relational trauma screen (CARTS) and
36
37 the global psychotrauma screen (GPS): Results from the global collaboration on
38
39 traumatic stress (GC-TS)." *Child Abuse & Neglect* 149:106610.
40
41
42 Gall, Terry Lynn. 2006. "Spirituality and coping with life stress among adult survivors of
43
44 childhood sexual abuse." *Child Abuse & Neglect* 30(7):829-844.
45
46
47 Gall, Terry Lynn, Viola Basque, Marizete Damasceno-Scott, and Gerard Vardy. 2007.
48
49 "Spirituality and the current adjustment of adult survivors of childhood sexual
50
51 abuse." *Journal for the Scientific Study of Religion* 46(1):101-117.
52
53
54
55
56
57
58
59
60

- 1
2
3 Gerber, Monica M., Adriel Boals, and Darnell Schuettler. 2011. "The unique contributions of
4 positive and negative religious coping to posttraumatic growth and PTSD." *Psychology of*
5
6 *Religion and Spirituality* 3(4):298-307.
7
8
9
10 Grady, Melissa D., Jamie Yoder, and Adam Brown. 2021. "Childhood maltreatment experiences,
11 attachment, sexual offending: Testing a theory." *Journal of Interpersonal*
12
13 *Violence* 36(11-12):NP6183-NP6217.
14
15
16
17 Granqvist, Pehr. 2002. "Attachment and religiosity in adolescence: Cross-sectional and
18 longitudinal evaluations." *Personality and Social Psychology Bulletin* 28(2):260-270.
19
20
21 Granqvist, Pehr, Mario Mikulincer, Vered Gewirtz, and Phillip R. Shaver. 2012. "Experimental
22 findings on God as an attachment figure: Normative processes and moderating effects of
23 internal working models." *Journal of Personality and Social Psychology* 103(5):804-818.
24
25
26
27
28 Hales, George K., Zeliha E. Saribaz, Agata Debowska, and Richard Rowe. 2023. "Links of
29 Adversity in Childhood with Mental and Physical Health Outcomes: A Systematic
30 Review of Longitudinal Mediating and Moderating Mechanisms." *Trauma, Violence, &*
31 *Abuse* 24(3):1465–82
32
33
34
35
36
37
38 Hill, Terrence D., Liwen Zeng, Simone Rambotti, Kryisia N. Mossakowski, and Robert J.
39 Johnson. 2021. "Sad eyes, crooked crosses: Religious struggles, psychological distress
40 and the mediating role of psychosocial resources." *Journal of Religion and*
41 *Health* 60(4):2573-2591.
42
43
44
45
46
47 Hill, Terrence D., Lauren M. Kaplan, Michael T. French, and Robert J. Johnson. 2010.
48 "Victimization in early life and mental health in adulthood: An examination of the
49 mediating and moderating influences of psychosocial resources." *Journal of Health and*
50 *Social Behavior* 51, no. 1 (2010): 48-63.
51
52
53
54
55
56
57
58
59
60

- 1
2
3 Holleman, Anna, and David Eagle. 2023. "Is there a crisis in clergy health? Reorienting research
4 using a national sample." *Journal for the Scientific Study of Religion* 62(3):580-604.
5
6
7
8 Holleman, Anna, Laura Upenieks, and David Eagle. 2024. "Adverse Childhood Experiences
9 Among Seminarians: Personal Experiences of Trauma and Implications for Pastoral
10 Well-Being and Ministerial Training." *Journal of Psychology and Theology* 52(1):3-17.
11
12
13
14 Hughes, Karen, Mark A. Bellis, Katherine A. Hardcastle, Dinesh Sethi, Alexander Butchart,
15 Christopher Mikton, Lisa Jones, and Michael P. Dunne. 2017. "The effect of multiple
16 adverse childhood experiences on health: a systematic review and meta-analysis." *The
17 Lancet Public Health* 2(8):e356-e366.
18
19
20
21
22
23
24 Janů, Anna, Klara Malinakova, Alice Kosarkova, and Peter Tavel. 2022. "Associations of
25 childhood trauma experiences with religious and spiritual struggles." *Journal of Health
26 Psychology* 27(2):292-304.
27
28
29
30
31 Johnston, Erin, and David Eagle. 2023. "Expanding the Horizontal Call: A Typology of Social
32 Influence on the Call to Ministry." *Journal for the Scientific Study of Religion* 62(1):68-
33 88.
34
35
36
37
38 Ter Kuile, Hagar, and Thomas Ehring. 2014. "Predictors of changes in religiosity after trauma:
39 Trauma, religiosity, and posttraumatic stress disorder." *Psychological Trauma: Theory,
40 Research, Practice, and Policy* 6(4):353-360.
41
42
43
44
45 Jung, Jong Hyun. 2018. "Childhood adversity, religion, and change in adult mental
46 health." *Research on Aging* 40(2):155-179.
47
48
49 Juwariah, Titik, Fendy Suhariadi, Oedojo Soedirham, Agus Priyanto, Erni Setiyorini, Auliasari
50 Siskaningrum, Heni Adhianata, and Angelina Da Costa Fernandes. 2022. "Childhood
51
52
53
54
55
56
57
58
59
60

- 1
2
3 Adversities and Mental Health Problems: A Systematic Review." *Journal of Public*
4
5 *Health Research* 11(3):227990362211066.
6
7
8 Kam, Christopher. 2018. "Integrating divine attachment theory and the enneagram to help clients
9
10 of abuse heal in their images of self, others, and God." *Pastoral Psychology* 67(4):341-
11
12 356.
13
14
15 Kessler, Ronald C., Christopher G. Davis, and Kenneth S. Kendler. 1997. "Childhood adversity
16
17 and adult psychiatric disorder in the US National Comorbidity Survey." *Psychological*
18
19 *Medicine* 27(5):1101-1119.
20
21
22 Kira, Ibrahim A., Thomas Templin, Linda Lewandowski, Vidya Ramaswamy, Bulent Ozkan,
23
24 Sharifa Abou-Mediane, Jamal Mohanesh, and Hala Alamia. 2011. "Cumulative tertiary
25
26 appraisals of traumatic events across cultures: Two studies." *Journal of Loss and*
27
28 *Trauma* 16(1):43-66.
29
30
31 Kirkpatrick, Lee A. 1992. "An attachment-theory approach psychology of religion." *The*
32
33 *International Journal for the Psychology of Religion* 2(1):3-28.
34
35
36 Kosarkova, Alice, Klara Malinakova, Jitse P. van Dijk, and Peter Tavel. 2020. "Childhood
37
38 trauma and experience in close relationships are associated with the god image: does
39
40 religiosity make a difference?" *International Journal of Environmental Research and*
41
42 *Public Health* 17(23):8841.
43
44
45 Krause, Neal, and Keith M. Wulff. 2004. "Religious doubt and health: Exploring the potential
46
47 dark side of religion." *Sociology of Religion* 65(1):35-56.
48
49
50 Larsen, Carly D., Jonathan G. Sandberg, James M. Harper, and Roy Bean. 2011. "The effects of
51
52 childhood abuse on relationship quality: Gender differences and clinical
53
54 implications." *Family Relations* 60(4):435-445.
55
56
57
58
59
60

- 1
2
3 Maltby, Lauren E., and Todd W. Hall. 2012. "Trauma, attachment, and spirituality: A case
4 study." *Journal of Psychology and Theology* 40(4):302-312.
5
6
7
8 Manglos, Nicolette D. 2013. "Faith pinnacle moments: Stress, miraculous experiences, and life
9 satisfaction in young adulthood." *Sociology of Religion* 74(2):176-198.
10
11
12 McCormick, Wesley H., Timothy D. Carroll, Brook M. Sims, and Joseph Currier. 2017.
13 "Adverse childhood experiences, religious/spiritual struggles, and mental health
14 symptoms: Examination of mediation models." *Mental Health, Religion &*
15 *Culture* 20(10):1042-1054.
16
17
18
19
20
21 McLaughlin, Katie A., Jennifer Greif Green, Michael J. Gruber, Nancy A. Sampson, Alan M.
22 Zaslavsky, and Ronald C. Kessler. 2012. "Childhood Adversities and First Onset of
23 Psychiatric Disorders in a National Sample of US Adolescents." *Archives of General*
24 *Psychiatry* 69(11):1151-60.
25
26
27
28
29
30
31 Merrick, Melissa T., Katie A. Ports, Derek C. Ford, Tracie O. Afifi, Elizabeth T. Gershoff, and
32 Andrew Grogan-Kaylor. 2017. "Unpacking the impact of adverse childhood experiences
33 on adult mental health." *Child Abuse & Neglect* 69:10-19.
34
35
36
37
38 Miner, Maureen H. 2007. "Changes in burnout over the first 12 months in ministry: Links with
39 stress and orientation to ministry." *Mental Health, Religion & Culture* 10(1):9-16.
40
41
42
43 Nurius, Paula S., Patricia Logan-Greene, and Sara Green. 2012. "Adverse childhood experiences
44 (ACE) within a social disadvantage framework: Distinguishing unique, cumulative, and
45 moderated contributions to adult mental health." *Journal of Prevention & Intervention in*
46 *the Community* 40(4):278-290.
47
48
49
50
51
52
53
54
55
56
57
58
59
60

- 1
2
3 Nurius, Paula S., Sara Green, Patricia Logan-Greene, and Sharon Borja. 2015. "Life course
4 pathways of adverse childhood experiences toward adult psychological well-being: A
5 stress process analysis." *Child Abuse & Neglect* 45:143-153.
6
7
8
9
10 Palmer, Pete. 2023. "Childhood Trauma and the Faith Maturity of Seventh-day Adventist Pastors
11 and Seminarians." PhD dissertation, Religious Education, Seventh-Day Adventist
12 Theological Seminary.
13
14
15
16
17 Pargament, Kenneth I., Harold G. Koenig, and Lisa M. Perez. 2000. "The many methods of
18 religious coping: Development and initial validation of the RCOPE." *Journal of Clinical*
19 *Psychology* 56(4):519-543.
20
21
22
23
24 Pargament, Kenneth I., Gina M. Magyar, Ethan Benore, and Annette Mahoney. 2005. "Sacrilege:
25 A study of sacred loss and desecration and their implications for health and well-being in
26 a community sample." *Journal for the Scientific Study of Religion* 44(1):59-78.
27
28
29
30
31 Pearlman, Leonard I., Scott Schieman, Elena M. Fazio, and Stephen C. Meersman. 2005. "Stress,
32 health, and the life course: Some conceptual perspectives." *Journal of Health and Social*
33 *Behavior* 46(2):205-219.
34
35
36
37
38 Proctor, Marie-Thérèse, Michelle Cleary, Rachel Kornhaber, and Loyola McLean. 2019.
39 "Christians with chronic complex trauma and relationally focused spiritual difficulties: A
40 conversational model perspective." *Journal of Spirituality in Mental Health* 21(2):77-
41 110.
42
43
44
45
46
47 Proeschold-Bell, Rae Jean, and Jason Byassee. 2018. *Faithful and fractured: Responding to the*
48 *clergy health crisis*. Grand Rapids, MI: Baker Academic.
49
50
51 Radloff, Lenore Sawyer. 1977. "The CES-D scale: A self-report depression scale for research in
52 the general population." *Applied Psychological Measurement* 1(3):385-401.
53
54
55
56
57
58
59
60

- 1
2
3 Reinert, Duane F., and Carla E. Edwards. 2009. "Attachment theory, childhood mistreatment,
4 and religiosity." *Psychology of Religion and Spirituality* 1(1):25-34.
5
6
7 Reinert, Duane F., and Caroline E. Smith. 1997. "Childhood sexual abuse and female spiritual
8 development." *Counseling and Values* 41(3):235-245.
9
10 Roggenbaum, Laura, David C. Wang, Laura Dryjanska, Erica Holmes, Blaire A. Lewis, and Eric
11 M. Brown. 2023. "Secondary traumatic stress, religious coping, and medical mistrust
12 among African American clergy and religious leaders." *Religions* 14(6):793.
13
14 Rowatt, Wade, and Lee A. Kirkpatrick. 2002. "Two dimensions of attachment to God and their
15 relation to affect, religiosity, and personality constructs." *Journal for the Scientific Study*
16 *of Religion* 41(4):637-651.
17
18 Santoro, Anthony F., Sonia Suchday, Amina Benkhokha, Natasha Ramanayake, and Suman
19 Kapur. 2016. "Adverse childhood experiences and religiosity/spirituality in emerging
20 adolescents in India." *Psychology of Religion and Spirituality* 8(3):185-194.
21
22 Schafer, Markus H. 2014. "Childhood misfortune, ultimate redemption? A stress process–life
23 course analysis of adult born-again experiences." *Sociology of Religion* 75(1):25-56.
24
25 Sedlacek, David. 2023. "A New Opportunity: Transforming Trauma." *Journal of Adventist Youth*
26 *and Young Adult Ministries* 1(8):33-39.
27
28 Spitzer, Robert L., Kurt Kroenke, Janet BW Williams, and Bernd Löwe. 2006. "A brief measure
29 for assessing generalized anxiety disorder: the GAD-7." *Archives of Internal*
30 *Medicine* 166(10):1092-1097.
31
32 Tomlinson, James, Elizabeth S. Glenn, David R. Paine, and Steven J. Sandage. 2016. "What is
33 the “relational” in relational spirituality? A review of definitions and research
34 directions." *Journal of Spirituality in Mental Health* 18(1):55-75.
35
36
37
38
39
40
41
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47
48
49
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59
60

- 1
2
3 Turner, Heather A., and Scott Schieman. 2008. *Stress processes across the life course*. Vol. 13.
4
5 New York: Elsevier.
6
7
8 Upenieks, Laura. 2021. "Resilience in the aftermath of childhood abuse? Changes in religiosity
9
10 and adulthood psychological distress." *Journal of Religion and Health* 60(4):2677-2701.
11
12 Upenieks, Laura, and David E. Eagle. 2024. "Divine struggles among those doing God's work: A
13
14 longitudinal assessment predicting depression and burnout and the role of social support
15
16 in United Methodist Clergy." *Sociology of Religion* 85(1):83-111.
17
18
19 Upenieks, Laura, and Markus H. Schafer. 2020. "Religious attendance and physical health in
20
21 later life: A life course approach." *Journal of Health and Social Behavior* 61(4):486-502.
22
23
24 Upenieks, Laura, Markus H. Schafer, and Andreea Mogosanu. 2021. "Does childhood religiosity
25
26 delay death?" *Journal of Religion and Health* 60(1):420-443.
27
28
29 Waldron, Jonathan C., Angela Scarpa, and Jungmeen Kim-Spoon. 2018. "Religiosity and
30
31 interpersonal problems explain individual differences in self-esteem among young adults
32
33 with child maltreatment experiences." *Child Abuse & Neglect* 80:277-284.
34
35
36 Walker, Eric C., Thomas B. Holman, and Dean M. Busby. 2009. "Childhood sexual abuse, other
37
38 childhood factors, and pathways to survivors' adult relationship quality." *Journal of*
39
40 *Family Violence* 24:397-406.
41
42
43 Walker, Hannah E., Rachel Wamser-Nanney, and Kathryn H. Howell. 2022. "Relationships
44
45 between childhood interpersonal trauma, religious coping, post-traumatic stress
46
47 symptoms, and resilience." *Journal of Interpersonal Violence* 37(13-14): NP11296-
48
49 NP11314.
50
51
52 Wilt, Joshua A., Todd Hall, Kenneth I. Pargament, and Julie J. Exline. 2017. "Trajectories of
53
54 religious/spiritual struggles between years 1 and 2 of college: The predictive role of
55
56
57
58
59
60

1
2
3 religious belief salience." *The International Journal for the Psychology of*
4
5 *Religion* 27(4):172-187.

6
7
8 Wortmann, Jennifer H., Crystal L. Park, and Donald Edmondson. 2011. "Trauma and PTSD
9
10 symptoms: Does spiritual struggle mediate the link?" *Psychological Trauma: Theory,*
11
12 *Research, Practice, and Policy* 3(4):442-452.

13
14
15 Young, Joanna Cahall, and Cathy Spatz Widom. 2014. "Long-term effects of child abuse and
16
17 neglect on emotion processing in adulthood." *Child Abuse & Neglect* 38(8):1369-1381.
18
19
20
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22
23
24
25
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Table 1. Seminarian Sample Characteristics (Total Sample N = 535)

	Percentage/ Mean	Standard Deviation	Minimum	Maximum
Depressive Symptoms	1.64	0.59	1	4.5
Anxiety Symptoms	2.21	0.93	1	5
Emotional Abuse	52.63%			
Physical Abuse	19.71%			
Sexual Abuse	20.21%			
R/S Struggles	2.43	0.67	1	5
Covariates				
Gender (female = 1)	41.89%			
Race		515		
White	71.70%			
Other	29.30%			
Age	29.72	21.23	21	74
Married/Partnered	19.20%			
Program				
M.A.C.P.	9.94%			
M.Div	60.54%			
M. Div H	11.04%			
MTS	18.47%			
Source: The Seminary to Early Ministry (SEM) Study 2019, 2020, 2021, and 2022.				

Table 2. Childhood Abuse and Depressive Symptoms Among Seminary Students (N = 535)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Emotional Abuse	0.22*** (0.05)	0.14** (0.05)				
Physical Abuse			0.26*** (0.06)	0.21** (0.06)		
Sexual Abuse					0.28*** (0.07)	0.23*** (0.06)
R/S Struggles		0.28*** (0.04)		0.29*** (0.04)		0.29*** (0.04)
<i>Covariates</i>						
Age	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01** (0.00)	-0.01** (0.00)
Female	0.07 (0.05)	0.05 (0.05)	0.07 (0.05)	0.05 (0.05)	0.02 (0.05)	0.01 (0.05)
White	0.10 (0.06)	0.10 (0.06)	0.10 (0.06)	0.10 (0.06)	0.10 (0.06)	0.04 (0.06)
Married/Partnered	-0.01 (0.05)	-0.03 (0.05)	0.01 (0.05)	-0.02 (0.05)	-0.01 (0.05)	-0.02 (0.05)
<i>Program (ref = M.A.C.P.)</i>						
M.Div	0.04 (0.10)	0.06 (0.10)	0.04 (0.10)	0.06 (0.09)	0.05 (0.10)	0.06 (0.10)
M.Div H	-0.04 (0.11)	-0.02 (0.10)	-0.03 (0.11)	-0.01 (0.10)	-0.02 (0.11)	-0.01 (0.10)
MTS	0.07 (0.11)	0.09 (0.11)	0.07 (0.11)	0.09 (0.11)	0.06 (0.11)	0.09 (0.11)
R ²	0.09	0.18	0.08	0.19	0.09	0.19

Notes. Unstandardized coefficients and robust standard errors shown in parentheses.

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

Table 3. Childhood Abuse and Anxiety Symptoms Among Seminary Students (N = 535)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Emotional Abuse	0.36*** (0.08)	0.23** (0.08)				
Physical Abuse			0.34*** (0.10)	0.24** (0.09)		
Sexual Abuse					0.34*** (0.10)	0.25** (0.09)
R/S Struggles		0.50*** (0.06)		0.51*** (0.06)		0.51*** (0.06)
<i>Covariates</i>						
Age	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)
Female	0.29*** (0.08)	0.27*** (0.08)	0.30*** (0.08)	0.27*** (0.08)	0.24** (0.08)	0.23** (0.09)
White	0.25** (0.09)	0.14 (0.09)	0.25** (0.10)	0.14 (0.09)	0.23* (0.09)	0.13 (0.09)
Married/Partnered	-0.17 (0.08)	-0.20* (0.08)	-0.15 (0.08)	-0.19* (0.08)	-0.16 (0.09)	-0.19* (0.08)
<i>Program</i> (ref = M.A.C.P.)						
M.Div	0.01 (0.16)	0.04 (0.14)	0.02 (0.16)	0.05 (0.14)	0.03 (0.16)	0.05 (0.15)
M.Div H	0.08 (0.17)	0.12 (0.16)	0.12 (0.17)	0.15 (0.16)	0.12 (0.17)	0.15 (0.16)
MTS	0.07 (0.18)	0.11 (0.16)	0.06 (0.18)	0.10 (0.16)	0.05 (0.18)	0.10 (0.17)
R ²	0.13	0.25	0.11	0.25	0.11	0.24

Notes. Unstandardized coefficients and robust standard errors shown in parentheses.

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

Table 4a. Sobel Mediation Analyses, Childhood Abuse→R/S Struggles→Depressive Symptoms

Childhood Abuse	Childhood Abuse → R/S Struggles	R/S Struggles → Depressive Symptoms	Z-score	Indirect Effect	p-value	% Mediated by R/S Struggles
Emotional Abuse	0.26*** (0.06)	0.28*** (0.04)	3.86	0.07	<.001	35.45%
Physical Abuse	0.18* (0.07)	0.29*** (0.04)	2.31	0.05	.021	20.33%
Sexual Abuse	0.17* (0.08)	0.29*** (0.04)	2.19	0.05	.028	18.04%

Notes. Models adjust for all study covariates shown in Tables 2 and 3.

* $p < 0.05$, ** $p < 0.01$, *** $p < .001$

Table 4b. Sobel Mediation Analyses, Childhood Abuse→R/S Struggles→Anxiety Symptoms

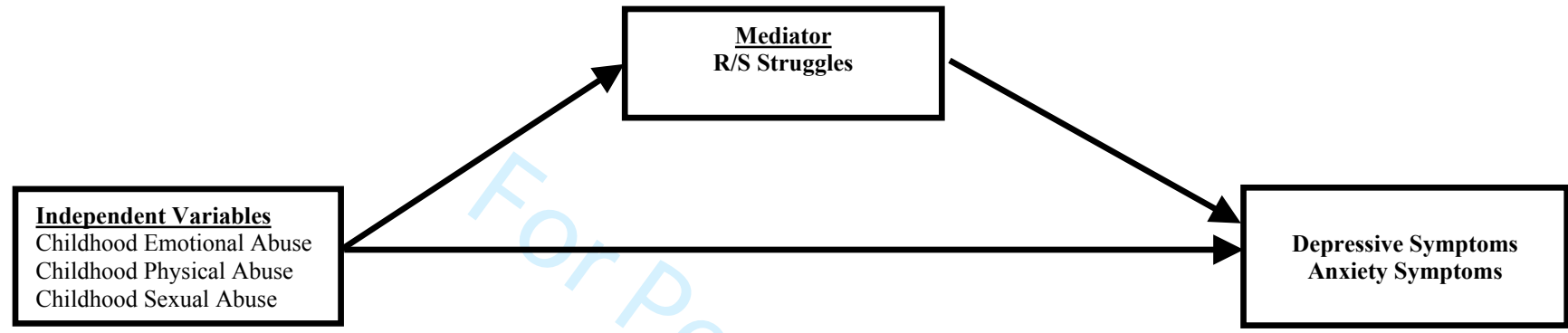
Childhood Abuse	Childhood Abuse → R/S Struggles	R/S Struggles → Anxiety Symptoms	Z-score	Indirect Effect	p-value	% Mediated by R/S Struggles
Emotional Abuse	0.26*** (0.06)	0.49*** (0.06)	4.00	0.13	<.001	36.13%
Physical Abuse	0.18* (0.07)	0.51*** (0.06)	2.33	0.09	.019	26.93%
Sexual Abuse	0.17* (0.08)	0.51*** (0.06)	2.21	0.09	.027	26.10%

Notes. Models adjust for all study covariates shown in Tables 2 and 3.

* $p < 0.05$, ** $p < 0.01$, *** $p < .001$

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Figure 1. *Conceptual Model*



For Peer Review

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For Peer Review