

Do Religious/Spiritual Resources Moderate the Association Between Suffering and Religious/Spiritual Struggles? A Three-Wave Longitudinal Study of US Adults with Chronic Illness


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In this prospective study of US adults with chronic illness ($n = 302$), we examined the associations of subjective suffering and religious/spiritual (R/S) resources (i.e., religious coping, religious commitment, and spiritual fortitude) with the subsequent experience of R/S struggles. Using a rigorous analytic approach that involved adjusting for numerous covariates and prior values of all exposures and the outcome assessed in Wave 1, we found that suffering assessed in Wave 2 was associated with an increase in subsequent R/S struggles assessed 3 months later (Wave 3). There was modest evidence suggesting that religious commitment and spiritual fortitude (but not religious coping) moderated the association between suffering and subsequent R/S struggles, such that there was a stronger positive association between suffering and R/S struggles at higher levels of each moderator. This study provides preliminary evidence that R/S struggles may be commonly experienced by those with high religious engagement in the face of suffering.

Keywords: *suffering, religious and spiritual struggles, religious coping, spiritual fortitude, religious commitment.*

INTRODUCTION

Suffering has been formulated as essential to spiritual progress in a variety of religious traditions (Bodhi 2010; John Paul II 1984). Although great works of literature, religion, and philosophy

All data related to this study are publicly available on the Open Science Framework (<https://osf.io/2anvx>).

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have probed many facets of suffering, little work has been undertaken to evaluate it empirically (VanderWeele 2019b). Measuring and empirically studying a concept as intractable and complex as suffering is challenging, but scholars have recently made efforts to shed light on this profound arena of human experience (e.g., Cowden et al. 2021; VanderWeele 2019b).

The purpose of our study is twofold. First, to examine the effect of personal suffering on the experience of religious/spiritual (R/S) struggles in a sample of predominantly Judeo-Christian adults with a chronic medical condition. We expect that suffering will produce R/S struggles precisely because God is viewed by many as playing a role in the suffering (John Paul II 1984; May 2009). Second, we assess whether personal engagement with God (i.e., religious coping) or religiousness (i.e., commitment and fortitude) serve as moderators of this relationship. Little empirical evidence is available for this second aim, so we raise the question of whether religious resources and commitments serve as buffers against—or exacerbate—R/S struggles. Does engagement with God and/or religion provide resources to reduce R/S struggles, or does engagement increase the risk for greater R/S struggles?

As Wilkinson and Kleinman (2016:6) have written: “There are many occasions when it seems that the brute force of human affliction reduces the meaning of life to a worthless absurdity... there is no form of culture that appears adequate to the task.” Yet, if there is one expression of culture people turn to in order to face suffering, it is religion. Indeed, religion is so central in the lives of many that it would be unthinkable *not* to address God.

BACKGROUND

Suffering

Suffering can be described as an unwanted experience of significant intensity or duration that leaves the individual in a pervasive state of physical and/or emotional distress (VanderWeele 2019b). At times, it may be attributable to a specific cause, such as the loss of a loved one, physical pain, betrayal, failure, or loss of work. At other times, the source may be more enigmatic, emerging from some combination of causes or emanating from compounding factors, such as feelings of fear, powerlessness, isolation, hopelessness, or despair (Cassell 1998; Cowden et al. 2021). Suffering involves a threat to personhood, to the very sense that one is congruent with oneself and one’s history (Black 2013). It leaves open the question of whether “normalcy” will ever return or if the internal landscape has cataclysmically shifted in a permanent and undesirable fashion (Cassell 1998). Suffering entails a degree of passivity and a lack of control over one’s circumstances; to suffer is to bear an undesired burden that one lacks the complete agency to remove (Hanson and Kelly 2012).

Suffering has been examined within various fields of study, each of which conceptualizes it differently. The medical, psychological, and social models, for example, variously examine suffering as pain, an affective result of illness, psychopathology, and stress, among others (Black 2018). Studies indicate that pain and suffering are conceptually and empirically distinct (Fishbain, Lewis, and Gao 2015), that nonphysical suffering may take affective, relational, and spiritual forms (Baines and Norlander 2000), and that these may be present whether or not illness/physical pain is the proximate cause (Krikorian, Limonero, and Maté 2012).

Suffering has been associated with deleterious outcomes like threats to personal identity, loss of a relationship, lack of control over circumstances, and depression (Black 2013; Krikorian, Limonero, and Maté 2012). However, suffering may also serve as a vehicle for positive change. Those who come through suffering may find themselves reinvigorated in appreciation for personal relationships and opportunities, discover a new personal strength, or clarify their priorities in life (Ramos and Leal 2013; Tedeschi and Calhoun 2004). Importantly for the present subject, suffering has been linked to forward progress in spiritual growth and development (Tedeschi and

Calhoun 2004). This possibility carries downstream ramifications for our outcome of interest, religious/spiritual struggles.

Religious/Spiritual Struggles

Religious/spiritual struggles are characterized by doubt, conflict, anxiety, or concern regarding one or more aspects of R/S life (Cowden et al. 2022). These may include conflict with God; tension with coreligionists, clergy, or institutions; demonic spirits; or intrapersonal R/S struggles related to morality, doubt, or ultimate meaning (Pargament, Feuille, and Burdzy 2011). R/S struggles are experienced not only by those affiliated with all religious traditions, but also by those outside formal religious structures, including atheists, agnostics, and the “spiritual but not religious” (Abu-Raiya et al. 2015; Bradley et al. 2018; Exline et al. 2014; Mercadante 2020; Sedlar et al. 2018). R/S struggles arise not only when engaging specifically religious questions, but also as individuals address more broadly existential questions related to morality, meaning, and purpose (Pargament and Exline 2021).

A majority of studies examine R/S struggles as a predictor of ill health (Ano and Vasconcelles 2005; Exline 2013), including psychological distress (Abu-Raiya et al. 2015), problems with alcohol (Stauner et al. 2019), addictive behavior (Faigin, Pargament, and Abu-Raiya 2014), and depression (Pirutinsky et al. 2011).¹ However, a number of studies also examine variables that may produce R/S struggles. On this question, evidence indicates disengagement from religion (Exline et al. 2022); negative appraisal of stressful situations, insecure attachment to God, and neuroticism (Ano and Pargament 2013); childhood trauma (Janů et al. 2020); and chronic health problems (Exline, Krause, and Broer) are all associated with increased levels of R/S struggles.

Suffering and Religious/Spiritual Struggles: Direct-Effect Hypothesis

No research conducted to date specifically examines suffering and its consequences for R/S struggles. However, limited research using somewhat comparable variables has been conducted.² For example, in a sample of university students and adult MTurk workers, a cumulative measure of 19 stressful life events was linked to heightened R/S struggles (Stauner et al. 2019), and in a sample of 336 adult Protestants, negative life events in the prior year were related to increased levels of R/S struggles (Bjorck and Thurman 2007). Other studies have also indicated that R/S struggles are associated with stressful events such as illness, loss, and conflict (see Pargament et al. 2014).

Notably, two longitudinal studies have examined the effect of stressful life events on R/S struggles, with both indicating the presence of a direct positive effect (Gear Haugen 2012; Wortmann, Park, and Edmondson 2011). These studies are characterized by a shared limitation—they were conducted on single-university samples of college-aged students—but the results make a great deal of intuitive sense and we expect a similar result in our sample of older adults. God is commonly perceived as being intimately involved in the course and events of human life (Kent and Pieper 2019; Wuthnow 2010), and it is unremarkable to imagine that suffering could cause individuals to question God’s role in their present circumstances, manifested in R/S struggles. Thus, our first hypothesis can be stated as follows:

Hypothesis 1: Suffering will be associated with higher levels of subsequent R/S struggles.

¹The bulk of studies examining R/S struggles utilize Judeo-Christian samples and/or people from broadly Judeo-Christian cultures (e.g., South Africa, Israel, and Brazil). This should be assumed among cited studies unless otherwise noted.

²“Stressful life events” is the closest available variable, but it differs from suffering in at least two meaningful ways: (1) stressful life events may or may not lead to suffering, and (2) suffering can arise from nonstressful life events (Brady 2018; Cowden et al. 2021; Ho et al. 2022). Essentially, suffering is not strictly a stressful life event phenomenon.

Suffering, Religious/Spiritual Struggles, and Religious Resources: Moderation Research Questions

Given the state of the literature, our moderation research questions are somewhat exploratory. As such, we begin with an observation, a potential pitfall regarding verbiage in the outcome variable. Namely, “struggles” are easy to interpret solely as *negative* experiences. But “struggles” (as well as the adjacent term “negative” R/S coping) are not entirely deleterious, and conceptualizing them in this way risks facile theorizing with regard to religious experience. Rather, “struggle embodies the possibility of growth and transformation through the process of coping” (Pargament, Feuille, and Burdzy 2011:55). Interpreting struggles as potentially positive *or* negative provides nuance to the construct, and may result in varying research questions.

Where struggles are defined primarily as negative, struggling as a result of suffering would be seen as harmful. The most plausible research question, in that case, would be one in which religious resources *buffer against* R/S struggles (Oman and Lukoff 2018). Given the abundant empirical work demonstrating how religious resources can buffer against negative outcomes (e.g., Ellison and Henderson 2011; Kent, Bradshaw, and Uecker 2018), this makes sense. It also fits well with the research demonstrating the many harmful downstream consequences of R/S struggles (Abu-Raiya et al. 2015; Faigin, Pargament, and Abu-Raiya 2014). If R/S struggles produce harmful consequences, they must be negative in character.

But there is also a small pool of literature indicating the possibility of *positive* outcomes downstream of R/S struggles (Exline 2013; Pargament and Exline 2021). For example, several studies have identified a link between R/S struggles and posttraumatic growth (Jung et al. 2022; Pargament, Koenig, and Perez 2000). The possibility of growth through suffering and R/S struggles squares well with religious narratives in which “suffering produces perseverance; perseverance character; and character, hope” (NIV, Romans 5:3-4). Teachings of this kind echo how religion often reframes suffering as an opportunity for spiritual maturation (Bodhi 2010; John Paul II 1984; Rohr 1996). Indeed, evidence indicates that healthy faith tolerates some degree of questioning, complaint, and expression of negative emotion (Exline, Kaplan, and Grubbs 2012), particularly when people feel supported by confidants as they express R/S struggles (Exline and Grubbs 2011).

What, then, should we expect from the three measures of religiousness evaluated here as potential moderators? Religion and spirituality are complex phenomena, and different measures tap into various aspects of R/S, with a good deal of variation in the result (Kent 2020). Given this, we suspect our measures of religious coping, religious commitment, and spiritual fortitude may function as moderators between suffering and R/S struggles in different ways.

Religious coping examines how religious beliefs and relationship with the sacred are used to face adversity (Pargament, Feuille, and Burdzy 2011). VanderWeele (2019b) suggests that religious coping can be viewed as a positive option for response to the experience of suffering, in which God can be turned to as a source of solace and comfort. Engaging with God as a coping response invites God as a partner and source of hope, envisioning that God has sufficient power to change the circumstances or intervene in order to lessen the struggle or direct it in a way that is ultimately beneficial. A great deal of research has been conducted on religious coping as a moderating resource in which religious coping offsets a variety of deleterious consequences (e.g., Bjorck and Thurman 2007; Pargament et al. 2014). Given this evidence—along with the fact that high levels of religious coping signal trust and confidence in God’s providence and care—it is plausible that religious coping may reduce the level of R/S struggles in the face of suffering. However, to the authors’ knowledge, no studies have examined religious coping as a moderator between a *negative* exposure (such as suffering) and R/S struggles, providing little empirical evidence to draw from. Thus, we tentatively follow the bulk of research on coping to put forth the following research question:

Research Question 1a: The positive association between suffering and subsequent R/S struggles will be moderated by religious coping, such that the association will be mitigated at higher levels of religious coping.

Religious commitment refers to engagement in various aspects of faith, including reading about faith, making financial contributions, engaging in institutional faith activities, and spending time with fellow believers (Worthington et al. 2003). High levels of religious commitment reflect investment in faith, not only as a belief system, but also in terms of time, money, and institutional involvement. It is thus a multidimensional concept of the degree to which one is “all in” on faith. While high levels of commitment may seem suitable for the buffering premise, we suspect the exacerbating premise may be more suitable. Previous evidence indicates that those who identify as highly religious are likely to experience the most negative effects of R/S struggles (Ellison et al. 2013) and that religious salience is associated over time with increased R/S struggles (Wilt et al., 2017, 2019). Thus, people who are more invested in religion are also the most likely to engage in a struggle with their religious identity when they are suffering. Conversely, those who are least invested will also be least likely to struggle spiritually (the struggle in their case may shift to some other focal point). This approach views R/S struggles not as purely negative, but rather as a good faith effort to understand God’s role or plan in the midst of suffering, since questioning faith can be a healthy response to a negative experience (Exline 2013). We thus propose the following research question:

Research Question 1b: The positive association between suffering and subsequent R/S struggles will be moderated by religious commitment, such that the association will be amplified at higher levels of religious commitment.

The final R/S moderator we consider is *spiritual fortitude*, a recently proposed construct assessing the degree to which individuals are confident their spiritual resources will enable them to engage with and grow through stressful events (Van Tongeren et al. 2019). Spiritual fortitude combines three constructs: *spiritual endurance* (ability to draw on faith and overcome challenges), *spiritual enterprise* (ability to maintain integrity and will to live), and *redemptive purpose* (confidence that a renewed sense of purpose will be discovered in time). As spiritual fortitude assesses confidence in spiritual resources and intent to grow through adversity, we can see it either serving to buffer against the chance suffering will produce R/S struggles or exacerbate R/S struggles that might arise from suffering. In the case of a buffering effect, those with high fortitude may be less fazed by suffering such that fewer R/S struggles are encountered. In the case of exacerbation, an intent to grow through suffering could conceivably lead to the embrace of R/S struggles as a tool for spiritual maturation. Of two studies specifically engaging this nascent construct, one indicates spiritual fortitude is associated with higher levels of meaning vis-à-vis religious coping (McElroy-Heltzel et al. 2018), and another shows (using a longitudinal design) that declines in fortitude occur in the wake of a natural disaster (Davis et al. 2021). The latter study indicates a mismatch between perceived and actual fortitude, highlighting the possibility that intent to find meaning and growth through trauma does not necessarily translate to actual growth. Given the finding and strong methodological design of the latter study, we anticipate that spiritual fortitude will follow a similar pattern as religious commitment, leading to the following research question:

Research Question 1c: The positive association between suffering and subsequent R/S struggles will be moderated by spiritual fortitude, such that the association will be amplified at higher levels of spiritual fortitude.

Having offered these research questions, we note that much of the literature on coping and stress is set in a context in which stress might not actually be present. For example, the prompt employed for measures of religious coping often asks respondents to indicate how they might respond when facing stress, but there is no assurance any stress is present at the time of the

assessment. In that case, respondents may answer with a specific, present stressor, in mind, or they may envision a past stressor or even an idealized response to an imagined stressor. The present study has the advantage of evaluating a sample currently experiencing at least one chronic health condition. We cannot be certain respondents associate suffering with their health condition, but the study provides an opportunity to evaluate suffering and R/S struggles in a context where suffering is plausibly taking place.

DATA AND METHOD

Participants and Procedure

Data for this study were drawn from a prospective cohort study conducted to investigate psychospiritual functioning in a community sample of US adults living with chronic illness (see Davis et al. 2021). Individuals who were 18 years or older, resided in the United States, and had at least one chronic illness were eligible for inclusion in the study, established with the following item: "Do you have at least one chronic health condition (or chronic disease)? According to the Centers for Disease Control, a chronic health condition (or chronic disease) is a medical condition that lasts 1 year or more and requires ongoing medical attention, limits activities of daily living, or both." Participants were recruited via Qualtrics Panels. Quotas were used to match the sample to the general US population on the basis of geographic region, gender, racial/ethnic status, and religious affiliation. Participants completed a web-based survey up to five times. In this study, we used the first three waves of data that were collected. The baseline survey was administered in September 2019 (T1). Surveys 2 and 3 were completed 3 months (T2: December 2019) and 6 months later (T3: February 2020). All surveys included an identical set of measures, with the exception that the T1 survey also included a set of time-invariant sociodemographic items. In this study, the exposure variables of suffering, religious coping, religious commitment, and spiritual fortitude were taken from T2. The outcome variable (R/S struggles) was taken from T3. All covariates were taken from T1.

The sample size at T1 was $N = 1036$. A total of $n = 734$ (70.85%) participants were lost to follow-up at T3. We used analysis of variance tests and Chi-square tests of independence to compare the T1 sociodemographic characteristics of participants who remained in the cohort to those lost to follow-up (Table S1). Younger age, fewer chronic health conditions, minority racial/ethnic status, and having more than two household members were each associated with a lower likelihood of retention at T3 (all p -values $\leq .028$).

In Table 1, we present the sociodemographic characteristics of the full analytic sample ($n = 302$). Participants (males, 52.65%) were between 18 and 82 years of age ($M_{\text{age}} = 62.08$, $SD = 12.31$), were primarily white/Caucasian (71.85%), heterosexual (94.04%), and identified as religious adherents (75.17%). A majority of the sample was married or in a domestic partnership (61.26%) and had graduated with a college degree or better (67.22%). The mean number of chronic health conditions was 1.87 ($SD = 1.05$). High blood pressure (48.68%), arthritis (30.13%), and diabetes (26.49%) were the conditions reported most frequently, followed by mood disorder (9.93%), heart disease (8.94%), asthma (8.61%), chronic pulmonary obstructive disease (6.95%), osteoporosis (6.29%), cancer (5.30%), and kidney disease (4.97%). Five conditions were reported in less than 1% of the sample: Parkinson's disease, Chron's disease, epilepsy, stroke, and multiple sclerosis.

Measures

The following measures were administered to participants. Internal consistency estimates for all psychometrically validated measures can be found in Table 2.

Table 1: Baseline sociodemographic characteristics of the full analytic sample ($n = 302$)

Characteristic	n (%)	$M \pm SD$ (range)
Age (years)		62.08 \pm 12.31 (18–82)
Number of chronic health conditions		1.87 \pm 1.05 (1–6)
Gender ^a		
Female	142 (47.02)	
Male	159 (52.65)	
Nonbinary	1 (0.33)	
Racial/ethnic status		
Racial/ethnic minority	85 (28.15)	
White	217 (71.85)	
Sexual orientation		
Sexual minority	17 (5.63)	
Heterosexual	284 (94.04)	
Religious status ^b		
Christian	197 (65.23)	
Jewish	22 (7.28)	
Muslim	2 (0.66)	
Buddhist	1 (0.33)	
Atheist or agnostic	40 (13.25)	
Nothing in particular	35 (11.59)	
Other	5 (1.66)	
Marital status		
Single	116 (38.41)	
Married or in a domestic partnership	185 (61.26)	
Educational attainment		
Up to high school equivalency	99 (32.78)	
College degree or better	203 (67.22)	
Annual household income		
< \$50,000	100 (33.11)	
\$50,000–\$99,999	100 (33.11)	
\geq \$100,000	98 (32.45)	
Number of people living in the household		
≤ 2	243 (80.46)	
> 2	59 (19.54)	
Geographic region		
Midwest	59 (19.54)	
Northeast	60 (19.87)	
South	105 (34.77)	
West	78 (25.83)	

Note: Percentages (%) are unweighted and may not add up to 100% due to missing values.

Abbreviations: M , mean; SD , standard deviation.

^aOperationalized in models as female or nonbinary versus male.

^bOperationalized in models as religious versus nonreligious.

Table 2: Descriptive statistics, estimated internal consistency, and intercorrelations of measures in the full analytic sample

Variable	<i>M</i> ± <i>SD</i> (range)	ω	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Covariates (T1)														
(1) Lifetime trauma exposure	11.20 ± 11.43 (0–72)	.94 ^a												
(2) Anxiety	3.78 ± 4.85 (0–21)	.96 ^a	.27 ^{***}											
(3) Depression	4.45 ± 5.04 (0–25)	.94 ^a	.26 ^{***}	.79 ^{***}										
(4) Suffering	2.55 ± 2.74 (0–10)	.96 ^b	.30 ^{***}	.66 ^{***}	.69 ^{***}									
(5) Religious coping	2.08 ± 1.07 (1–4)	.99 ^a	.17 ^{**}	.05	.00	.08								
(6) Religious commitment	2.16 ± 1.22 (1–5)	.98 ^a	.12 [*]	-.01	-.01	.08	.81 ^{***}							
(7) Spiritual fortitude	3.52 ± 0.81 (1.22–5)	.88 ^a	.11	-.22 ^{***}	-.28 ^{***}	-.17 ^{***}	.74 ^{***}	.68 ^{***}						
(8) Religious/spiritual struggles	1.20 ± 0.39 (1–3.86)	.93 ^a	.12 [*]	.29 ^{***}	.25 ^{***}	.28 ^{***}	.19 ^{**}	.14 [*]	-.01					
Exposures (T2)														
(9) Suffering	2.44 ± 2.65 (0–10)	.96 ^b	.36 ^{***}	.64 ^{***}	.67 ^{***}	.82 ^{***}	.08	.09	-.15 ^{***}	.33 ^{***}				
(10) Religious coping	2.10 ± 1.06 (1–4)	.98 ^a	.17 ^{**}	.07	.02	.10	.91 ^{***}	.77 ^{***}	.71 ^{***}	.19 ^{**}	.11			
(11) Religious commitment	2.17 ± 1.23 (1–5)	.98 ^a	.15	-.04	-.05	.03	.80 ^{***}	.88 ^{***}	.67 ^{***}	.10	.02	.85 ^{***}		
(12) Spiritual fortitude	3.51 ± 0.79 (1–5)	.85 ^a	.06	-.21 ^{***}	-.24 ^{***}	-.16 ^{***}	.67 ^{***}	.63 ^{***}	.78 ^{***}	.05	-.14 [*]	.72 ^{***}	.72 ^{***}	
Outcome (T3)														
(13) Religious/spiritual struggles	1.20 ± 0.42 (1–4)	.94 ^a	.24 ^{***}	.26 ^{***}	.23 ^{***}	.31 ^{***}	.16 ^{**}	.19 ^{**}	.03	.55 ^{***}	.40 ^{***}	.16 ^{**}	.16 ^{**}	.05

Abbreviations: *M*, mean; *SD*, standard deviation; ω , omega internal consistency coefficient.

^aOrdinal omega total.

^bOmega total.

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

Suffering

The seven-item Personal Suffering Assessment (VanderWeele 2019b) was used to assess the subjective experience of personal suffering. One item is a global question (i.e., “To what extent are you suffering?”) that captures the extent of suffering experienced (0 = *Not suffering at all*; 10 = *Suffering terribly*). The remaining six items assess key aspects of suffering, including intolerability of intensity and duration, powerlessness over the suffering, its pervasiveness, its disruptiveness to purposes in life, and its threat to personhood (e.g., “The intensity of what I have been experiencing feels intolerable”). Each of these items was rated using an 11-point response format (0 = *Strongly disagree*; 10 = *Strongly agree*). A total score was obtained by aggregating responses to all seven items.

Religious Coping

The seven-item Positive Religious Coping subscale of the Brief RCOPE (Pargament, Feuille, and Burdzy 2011) was used to measure the extent to which participants have made use of coping strategies that rest on a secure connection with the divine or sacred to deal with a negative life event (e.g., “Sought God’s love and care”). Responses to each item were provided using a 4-point response format (1 = *Not at all*; 4 = *A great deal*). A total score was derived by summing participants’ responses to all the items.

Religious Commitment

Participants completed the Religious Commitment Inventory-10 (Worthington et al. 2003). The 10 items capture adherence to religious beliefs, values, and practices (e.g., “My religious beliefs lie behind my whole approach to life”), which collectively provide a measure of how involved participants are in their religion. A 5-point response format (1 = *Not at all true of me*; 5 = *Totally true of me*) was used to rate each item. Responses to each item were summed for a total religious commitment score.

Spiritual Fortitude

The nine-item Spiritual Fortitude Scale (Van Tongeren et al. 2019) was used to assess spiritual fortitude (e.g., “My faith helps push me to overcome difficult tasks in life”). Items were rated using a 5-point response format (1 = *Strongly disagree*; 5 = *Strongly agree*). A total score was obtained by aggregating responses to each item. Higher scores are more indicative of a trait-like capacity to endure and find meaning through adversity by drawing on spiritual/religious connections with the divine.

Religious/Spiritual Struggles

The seven-item Negative Religious Coping subscale of the Brief RCOPE (Pargament, Feuille, and Burdzy 2011) was used to measure R/S struggles. Participants used a 4-point response format (1 = *Not at all*; 4 = *A great deal*) to rate each item (e.g., “Wondered whether God had abandoned me”). Responses to the items were combined for a total score. Higher scores reflect greater tension, confusion, and insecurity about the divine.

Covariates

We controlled for several covariates assessed at T1. Sociodemographic covariates included age (continuous), gender (female or nonbinary vs. male), racial/ethnic status (racial/ethnic minority vs. White), sexual orientation (sexual minority vs. heterosexual), religious status (nonreligious vs. religious), marital status (single vs. married or in a domestic partnership), educational attainment (high school vs. college degree or better), annual household income (< \$50,000 vs. \$50,000–\$99,999 vs. ≥ \$100,000), number of people living in the household (≤ 2 vs. > 2), geographic region (Midwest vs. Northeast vs. South vs. West), and number of chronic health conditions (continuous). We also controlled for several relevant psychological characteristics (all

continuous) assessed at T1, including lifetime trauma exposure (Traumatic Life Events Questionnaire, Kubany et al. 2000), anxiety (Generalized Anxiety Disorder-7, Spitzer et al. 2006), and depression (Patient Health Questionnaire, Kroenke, Spitzer, and Williams 2001).

Covariates were selected based on available data and the disjunctive cause criterion for confounder selection, a method which prioritizes covariates that might be causes (or sufficient proxies for causes), of the exposure, outcome, or both (VanderWeele 2019a). For example, we controlled for depression symptoms because previous studies have shown that depression symptoms are related to suffering (Ho et al. 2022) and R/S struggles (Captari et al. 2022). We adjusted for covariates assessed in the wave that immediately preceded the wave in which the exposure variables of suffering and the R/S resources were assessed, which reduces concerns that covariates included potential mediators. To reduce the possibility of reverse causation, analyses controlled for the prior value of the outcome variable (i.e., R/S struggles) assessed at T1. Models also controlled for prior values of each exposure (i.e., suffering, religious coping, religious commitment, and spiritual fortitude) assessed at T1, which helps to further reduce potential reverse causation and unmeasured confounding (VanderWeele, Mathur, and Chen 2020).

Statistical Processing

All data analyses were performed in R (R Core Team 2020) using an available-case approach. Omega total estimates of internal consistency were produced with the *userfriendlyscience* package. With the *apaTables* package, we computed Pearson correlations to estimate the bivariate associations among the measures assessed at T1 (covariates), T2 (exposures), and T3 (outcome). We also used the *apaTables* package to explore the distribution of R/S struggles in the sample by regressing R/S struggles at T3 on all T1 covariates simultaneously.

Hypothesis 1 and Research Questions 1a–c were tested using three hierarchical regression models. We performed modeling procedures and produced summary statistics with the *stats* and *apaTables* packages. For each model, variables were entered in the following order: the covariates and suffering (Step 1), one of the R/S resources (Step 2), and the two-way interaction between suffering and the corresponding R/S resource that was entered in Step 2 (Step 3). We standardized ($M = 0$, $SD = 1$) the outcome (i.e., R/S struggles) and all continuous exposures in each model. All covariates that were adjusted for in each model were assessed in T1, including prior values of suffering, religious coping, religious commitment, spiritual fortitude, and R/S struggles. Interactions that reached statistical significance were followed by simple slope tests performed with the *interactions* package. Analysis of simple slopes was conducted by specifying $-1 SD$ (low) and $+1 SD$ (high) values for the moderator variable.

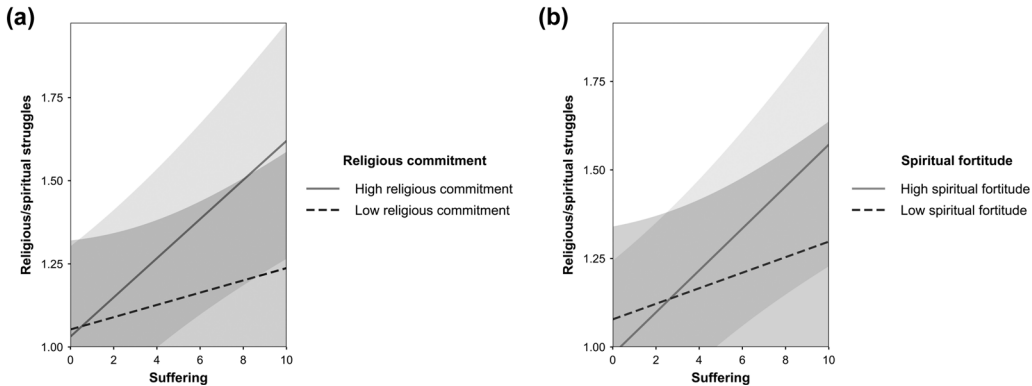
We assessed the robustness of the main effects to potential unmeasured confounding by computing *E*-values (VanderWeele and Ding 2017). An *E*-value provides an estimate (on the risk ratio) of the minimum strength of association that an unmeasured confounder would need to have with both the exposure and the outcome to entirely explain away the observed exposure-outcome association, after accounting for the measured covariates. The lowest possible *E*-value is 1, with a higher value providing stronger evidence that an observed association is robust to unmeasured confounding.

RESULTS

In Table 2, we present the descriptive statistics, estimated internal consistency, and zero-order correlations among the measures. Omega total values for all measures were $\geq .85$. There was a moderate positive association between suffering at T2 and R/S struggles at T3 ($r = .40$). Both religious coping and religious commitment at T2 evidenced small positive associations with R/S struggles at T3 (both r values = .16). The association of spiritual fortitude at T2 with R/S

Figure 1

Two-way interactions of suffering \times religious commitment (a) and suffering \times spiritual fortitude (b) on religious/spiritual struggles.



struggles at T3 was negligible in effect size ($r = .05$). When R/S struggles at T3 was regressed on all T1 covariates simultaneously, lifetime trauma exposure, religious commitment, and baseline R/S struggles were each associated with higher levels of R/S struggles reported 3 months later (Table S2).

The results of the three hierarchical multiple regression analyses are reported in Table 3. After adjusting for covariates, Step 1 revealed a positive association between suffering and R/S struggles reported 3 months later ($sr^2 = .02$; Hypothesis 1). The model fit did not improve significantly when each of the R/S resources were entered into respective models in Step 2, with little evidence found linking religious coping, religious commitment, and spiritual fortitude with R/S struggles (all sr^2 values = .00). When the two-way interactions between suffering and each of the R/S resources were entered into respective models in Step 3, the fit of each model improved marginally. Significant two-way interaction effects emerged for religious commitment ($sr^2 = .02$; Research Question 1b) and spiritual fortitude ($sr^2 = .02$; Research Question 1c), but not for religious coping ($sr^2 = .01$; Research Question 1a).

The two-way interaction effects that reached statistical significance are visually displayed in Figure 1. The pattern of results from the tests of simple slopes was consistent across both moderators. Suffering was positively associated with R/S struggles at higher levels of religious commitment (+1 SD : $\beta = .37$, 95% CI [.17, .56], $p < .001$) and spiritual fortitude (+1 SD : $\beta = .37$, 95% CI [.17, .56], $p < .001$). Associations of suffering with R/S struggles remained positive at lower levels of religious commitment (-1 SD : $\beta = .11$, 95% CI [-.09, .32], $p = .277$) and spiritual fortitude (-1 SD : $\beta = .14$, 95% CI [-.06, .34], $p = .175$), but the strength of those associations was more negligible.³

The E -values suggested that the associations of suffering with R/S struggles that emerged in Step 2 of each hierarchical regression model were at least somewhat robust to potential unmeasured confounding (Table 4). For example, an unmeasured confounder would need to be associated with both suffering and R/S struggles by risk ratios of 1.86, above and beyond all the adjusted covariates, to entirely explain away the observed association found in Model 1. To shift the confidence interval for the association of suffering with R/S struggles in Model 1 to include the null, an unmeasured confounder would need to be associated with both variables by risk ratios of 1.37.

³A sensitivity analysis was performed to determine whether removal of religious nonadherents ($n=80$) would impact the estimated effects observed in the primary analysis. Effect sizes for the main effects were comparable to those found for the full analytic sample. Although interaction effects attenuated slightly, they remained statistically significant and in the same direction observed in the results from the primary analysis (Table S3).

Table 3: Hierarchical regression models for the associations of suffering, religious coping, religious commitment, and spiritual fortitude with religious/spiritual struggles

Predictor	Step 1		Step 2		Step 3		
	Models 1–3 β [95% CI]	Model 1 β [95% CI]	Model 2 β [95% CI]	Model 3 β [95% CI]	Model 1 β [95% CI]	Model 2 β [95% CI]	Model 3 β [95% CI]
Suffering	.26 [.08, .44]**	.26 [.08, .44]**	.27 [.09, .44]**	.26 [.08, .44]**	.23 [.05, .41]*	.24 [.06, .42]**	.25 [.07, .43]**
Religious coping		-.02 [-.25, .21]			-.02 [-.25, .21]		
Religious commitment			.10 [-.12, .31]			.09 [-.12, .30]	
Spiritual fortitude				.02 [-.14, .18]			-.00 [-.17, .16]
Suffering × religious coping							
Suffering × religious commitment					.09 [-.00, .18]		.13 [.04, .21]**
Suffering × spiritual fortitude							.11 [.03, .20]**
<i>F</i> (<i>df</i>)	7.86 _(23, 272) ***	7.51 _(24, 271) ***	7.56 _(24, 271) ***	7.51 _(24, 271) ***	7.42 _(25, 270) ***	7.74 _(25, 270) ***	7.68 _(25, 270) ***
<i>R</i> ² _{Adjusted}	.348	.346	.348	.346	.352	.363	.361
Δ <i>R</i> ² _{Adjusted}	–	-.002	-.001	-.002	.006	.016	.015

Note: To facilitate interpretation of effect estimates, the outcome and continuous predictors were standardized (*M* = 0, *SD* = 1). All models adjusted for prior values of age, gender, racial/ethnic status, sexual orientation, religious status, educational attainment, annual household income, number of household members, geographic region, number of chronic health conditions, lifetime trauma exposure, anxiety, depression, suffering, religious coping, religious commitment, spiritual fortitude, and religious/spiritual struggles assessed at T1. Abbreviations: β, standardized effect size; CI, confidence interval. *n* = 296 for all analyses.

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

Table 4: Robustness to unmeasured confounding (*E*-values^a) for the associations of suffering, religious coping, religious commitment, and spiritual fortitude with religious/spiritual struggles

Exposure	Model 1		Model 2		Model 3	
	Effect estimate ^b	CI limit ^c	Effect estimate ^b	CI limit ^c	Effect estimate ^b	CI limit ^c
Suffering	1.86	1.37	1.86	1.38	1.85	1.37
Religious coping	1.15	1.00	–	–	–	–
Religious commitment	–	–	1.41	1.00	–	–
Spiritual fortitude	–	–	–	–	1.15	1.00

Abbreviation: CI, confidence interval.

^aThe formula for calculating *E*-values can be found in VanderWeele and Ding (2017).

^bThe *E*-value for the effect estimate is the minimum strength of association that an unmeasured confounder would need to have with both the exposure and the outcome to fully explain away the observed effect, after accounting for the measured covariates.

^cThe *E*-value for the limit of the 95% confidence interval (CI) closest to the null denotes the minimum strength of association that an unmeasured confounder would need to have with both the exposure and the outcome to shift the confidence interval to include the null value, after accounting for the measured covariates.

DISCUSSION

The perennial question of suffering, faith, and doubt reverberates across time and tradition. Sages have long identified suffering as a stepping-stone to enlightenment, character development, and wisdom, yet suffering still leads to struggle (Bodhi 2010; John Paul II 1984). Religion and spirituality are often observed as resources to manage difficult circumstances (Koenig 2009; Oman and Lukoff 2018), but no study has yet examined whether religious resources moderate the association of suffering with R/S struggles.

The present study used a multidimensional measure of suffering to examine the association between suffering and subsequent R/S struggles, while also evaluating religious coping, religious commitment, and spiritual fortitude as potential moderators in a community sample of chronically ill adults. A modest positive association between suffering and subsequent R/S struggles was observed, and there was some evidence of effect modification by religious commitment and spiritual fortitude (but not religious coping). Models indicated an amplifying effect of religious commitment and spiritual fortitude on suffering, such that higher levels of these variables were associated with an increase in subsequent R/S struggles assessed 3 months later.

At the outset, these findings may appear somewhat counterintuitive. Some evidence indicates that religious coping buffers against deleterious outcomes (Counted, Possamai, and Meade 2018; Park et al. 2018; Van Dyke et al. 2009) and fortitude and commitment have likewise been shown to act as buffers (Koenig, King, and Carson 2012; Rew and Wong 2006; Zhang et al. 2022). Yet, our findings did not support religious coping as an attenuator of suffering on R/S struggles, and further, both religious commitment and spiritual fortitude modestly amplified the association. At least two lines of reasoning help clarify these findings. First, there is an important conceptual difference between religious coping on the one hand, and religious commitment and spiritual fortitude on the other hand. And second, treating R/S struggles purely as a negative marker misses important nuance as to what the measure really captures. These issues have been touched upon in the front matter of this study, but deserve more attention at this time.

To begin, note how the wording of religious coping items indicates process rather than outcome (e.g., “looked for,” “sought,” “tried,” “asked,” and “focused”). Coping in the face of suffering does not indicate victory over suffering, but rather demonstrates a good faith effort to apply spiritual values to one’s experience of suffering. Coping is a measure of effort, not achievement. Coping is a self-appraised measure of divine relationship maintenance, and is situation-specific. Contrast this with religious commitment and spiritual fortitude, both of which reflect more settled R/S habits that are less referential to a specific context (e.g., “working on religious activities,” “reading books about faith,” “making financial contributions,” “disposition toward finding meaning in struggle,” “doing the right thing in the face of hardship,” and “overcoming difficult tasks”). These conceptual differences point to potential variance in the attributes of those who might score high on each of the three measures (i.e., there is no reason to expect that a high score on religious coping will necessarily mean a high score on the other two).

Religious coping, assessed via the Brief RCOPE, captures the degree to which people seek God’s help in the wake of negative life events. What it does *not* assess is the quality of the relationship with God—or even the degree of commitment to God—in the *absence* of adversity. Believers of many stripes—the confident, the doubting, the secure, the anxious—reach out to God in the face of hardship. This experience will be familiar and safe for some, while for others, it will be uncertain and risky, depending on the secure or insecure outlook of the self, God, and others (Bradshaw and Kent 2018; Kent and Pieper 2019). The coping measure thus has a certain degree of ambiguity built into it regarding the level and quality of engagement with God, potentially muddying the statistical waters with an outcome like R/S struggles. This may explain the null outcome.

Unlike religious coping, religious commitment and spiritual fortitude clearly delineate those who engage in their faith deeply from those who do not, and both were significant moderators in

these models. Those who evince high levels of commitment and fortitude (particularly in a sample of individuals facing chronic illness) may find themselves able to “lean in” to the struggle that accompanies suffering (Exline 2013). After all, suffering is a common theme of many religious teachings, described not as an experience to be avoided at all cost, but rather as something to be embraced—a vehicle for growth in endurance, character, hope, and spirit (Bodhi 2010; John Paul II 1984; Larchet 2002; van Zeller 2015). This attitude is reflected in religious commitment and spiritual fortitude. Both of these measures assess deep participation in one’s faith institutions and practices and reflect a sophisticated religious ontology. The measures lend themselves to a view in which R/S struggles can be lived into as an authentic response commensurate with one’s faith, rather than an immature or inappropriate response to suffering characterized by weak faith. R/S struggles do not by nature suggest a prior lack of fortitude or commitment—on the contrary, they confirm the very existence of fortitude and commitment. Stated relationally, those who are deeply devoted to God are the ones mostly likely to question God in the face of suffering (Ellison et al. 2013). There is simply more at stake in a relationship characterized by a high degree of investment than one that is more casual in nature.

What then are the implications for those who do not belong to a particular religion, or do not believe in God? As previously indicated, R/S struggles are experienced by many people, including those outside formal religious structures, such as atheists, agnostics, and the “spiritual but not religious” (Abu-Raiya et al. 2015; Bradley et al. 2018; Exline et al. 2014; Mercadante 2020; Sedlar et al. 2018). Notably, in these data, no mean difference emerges in R/S struggles when comparing religious adherents and nonadherents (1.22 vs. 1.16, $p = .285$), lending support to the assertion that nonreligious individuals often still contend with the divine...or at least memories of the divine (Mercadante 2020). It is true that not all nonadherents in this sample report R/S struggles (nor do all adherents), but for these nonreligious individuals, the previous reasoning likely holds: when there is little or no substance to the divine relationship, much less is at stake, and R/S struggles are less likely to occur.

IMPLICATIONS FOR THEORY AND PRACTICE

For R/S struggles to be conceived of as we have described here—as associated with greater religious devotion—it should follow that R/S struggles are themselves characterized downstream by something other than a torrent of negative outcomes (Pargament and Exline 2021). We should be able to identify a scenario in which high commitment and fortitude put a strain on a cherished relationship with God, yet result in growth over time—walking through “the dark night of the soul” into a new day. As May (2009:8) notes, even this classic concept from John of the Cross has been misinterpreted: “The dark night of the soul...is in no way sinister or negative. It is, instead, a deeply encouraging vision of the joys and pains we all experience in life.”

Following this line of reasoning, the posttraumatic growth literature does contain evidence of both positive and negative downstream corollaries of R/S struggles, and struggles have been associated with both posttraumatic growth and decline in several studies (Desai and Pargament 2015; Gerber, Boals, and Schuettler 2011; Jung et al. 2022; Voytenko et al. 2021).⁴ This evidence highlights our earlier suggestion, that the link between struggles and growth or decline may be conditioned by other (religious) variables. One such variable may be attachment to God (Granqvist 2020; Kirkpatrick 2005), with evidence indicating religious practices like prayer and forgiveness are conditioned on divine attachment (Bradshaw and Kent 2018; Kent, Bradshaw, and

⁴It is worthwhile noting that the literature on posttraumatic growth is somewhat controversial with regard to methodology, perceived versus actual growth, and other factors (see Davis, Van Tongeren, et al. 2021; Jayawickreme and Blackie 2014; Mangelsdorf, Eid, and Luhmann 2019).

Uecker 2018) and that those with secure attachment to God are more likely to view suffering as an opportunity for growth (Bock et al. 2018).

These corollary studies provide support for the larger story described in this analysis, in which those with greater religious commitment and spiritual fortitude are more likely to report increased R/S struggles. Seemingly counterintuitive, we have sought to explain how and why this might be the case. And while limited empirical research exists on suffering, religious moderators, and R/S struggles, our data mesh well with existing theoretical and theological frames, in addition to nascent empirical evidence. In sum, spiritual and religious engagement implies leaning into one's beliefs by interpreting or reinterpreting suffering as a potential call for growth.

Health professionals working with clients facing stressful circumstances need to remain sensitive to the intractability of subjective experiences of suffering (Cowden et al. 2022). Clinical assessments and interviews with clients should go beyond surface-level questions about whether suffering is occurring to a delineation of how cultural (e.g., R/S) beliefs and experiences may function as a source of existential struggle to exacerbate suffering, as well as the possibility of personal and spiritual growth through R/S struggles. Clinicians may find they need additional training on best practices for addressing issues of R/S struggles in order to assess the positive and negative roles of religious factors in the therapeutic setting (Pargament and Exline 2021; Rosmarin 2018).

STRENGTHS, LIMITATIONS, AND FUTURE DIRECTIONS

An important strength of the current study is the rigorous prospective design that provides a snapshot of cause-and-effect relationships, but the study does have several weaknesses. First, there is a high level of attrition between waves. Those lost to follow-up were slightly younger and reported slightly fewer chronic conditions. While the differences were minimal, it is possible these dissimilarities somewhat limit the generalizability of the findings. We note, however, that the literature on R/S struggles and chronic illness tends to focus on specific conditions (e.g., cancer), and thus the array of chronic conditions represented in our sample could mean the findings are somewhat more generalizable than existing studies among older Americans (see Bockrath et al. 2022). Second, there was a relatively short lag between assessments. Three months may not have been sufficient to capture the full effect of suffering (and R/S moderators) on R/S struggles. Third, effect sizes for the two-way interactions that reached statistical significance were modest and the lower limit of their 95% CIs was close to the null, indicating that little unmeasured confounding would be needed to explain away the interaction effects. Although we controlled for a wide range of potential confounders, it is possible that one or more unmeasured factors could nullify the observed interactions. It will be important to replicate this study with efforts to reduce attrition and extend the findings to other populations, including those outside of the United States.

Another strength of this study is the use of a composite measure of suffering that assesses extent, intensity, length of time, feelings of powerlessness, pervasiveness, disruption of purposes, and threat to personhood. However, the general nature of this measure is a limitation in that we did not assess for the cause and object of participants' suffering. Thus, the direct association of suffering and R/S struggles is somewhat opaque. The sample was made up of individuals with at least one chronic health condition, so that provides some clarity, but the object of suffering itself could be of some other nature which might have implications for our findings. Future research could attach a source of suffering to the questions in order to identify whether specific types of suffering (e.g., physical, social, and psychological) have greater repercussions for R/S struggles. Future explorations could also separate the composite measure and examine the items individually to identify whether specific aspects of suffering have a unique effect on R/S struggles. Finally, assessments of other religious variables, such as attachment to God (Granqvist 2020; Kirkpatrick 2005), could be considered in relation to the variables discussed, and downstream associations

with posttraumatic growth could be examined (Desai and Pargament 2015; Gerber, Boals, and Schuettler 2011; Pargament, Desai, and McConnell 2006). Elucidating other variables that may provide boundary conditions for the growth that follows suffering would be important knowledge to inform interventions with those who are suffering.

CONCLUSION

This prospective study is the first to examine the association between suffering and R/S struggles as well as moderation by religious coping, religious commitment, and spiritual fortitude. Working with a sample of chronically ill US adults, we found that suffering was associated with a moderate increase in subsequent R/S struggles, and there was some evidence of effect modification by the religious commitment and spiritual fortitude. These results provide new insights into the ways in which people with strong R/S engagement may wrestle with issues of faith in the midst of suffering. Future research is needed to replicate the findings in different populations for more confidence in generalizability. However, the current study provides initial support for the idea that R/S struggles may be commonly experienced by those with high religious engagement, especially in the face of suffering. These findings can be useful to scholars, clinicians, spiritual care advisers, and suffering individuals with high religious commitment as they face difficult circumstances.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Table S1. Baseline sociodemographic characteristics of participants who remained in the cohort and participants who were lost to follow-up

Table S2. Associations of participant characteristics assessed at baseline (T1) with religious/spiritual struggles 3 months later (T3)

Table S3. Hierarchical regression models for the associations of suffering, religious coping, religious commitment, and spiritual fortitude with religious/spiritual struggles in the subsample of religious adherents