



# Changes in Religiosity and Reliance on God During the COVID-19 Pandemic: A Protective Role Under Conditions of Financial Strain?

Laura Upenieks<sup>1</sup> · Christopher G. Ellison<sup>2</sup>

Received: 2 September 2022 / Accepted: 22 December 2022 / Published online: 2 January 2023  
© The Author(s) under exclusive license to Religious Research Association, Inc. 2023

## Abstract

**Background** The COVID-19 pandemic was one of the most devastating disasters of the twenty-first century and has exacted a steep health and economic toll. During times of suffering caused by the pandemic, religion/spirituality may prove to be a consistent and valuable coping resource.

**Purpose** We situate changes in religious importance and reliance on God as key aspects of religious life that may be important coping mechanisms in response to pandemic-related financial hardship, addressing a gap in the literature on religious coping during the pandemic and considering self-reported changes in religiosity.

**Methods** We use data from a nationally representative sample of Americans that was collected in 2021 (N = 1704) and employ a series of OLS Regression Models.

**Results** Our results suggest that relying more heavily on God was associated with lower psychological distress, and a stronger reliance on God buffered the deleterious consequences of financial strain on psychological distress. No such patterns were documented for religious importance.

**Conclusion and Implications** We discuss our findings within the broader religion and health literature as to whether secondary control via a divine power reduces or enhances individual agency and discuss religion/spirituality may be a consistent and valuable coping resource through adversity and suffering. Though it may be challenging to maintain, or increase, religious/spiritual beliefs in the face of adversity, that there were observed benefits to well-being for doing so could serve as insightful guidance for both religious leaders and R/S individuals.

**Keywords** Religion · God · COVID-19 · Psychological distress · Resilience

---

✉ Laura Upenieks  
laura\_upenieks@baylor.edu

<sup>1</sup> Department of Sociology, Baylor University, One Bear Place #97326, Waco, TX 76798, USA

<sup>2</sup> University of Texas at San Antonio, San Antonio, USA

## Introduction

The COVID-19 pandemic is one of the most devastating disasters of the twenty-first century and has ravaged the entire globe. COVID-19 not only carried a physical health threat to the public but has also been associated with negative outcomes of mental health (Majumdar et al. 2020; Mazza et al. 2020). As one example, 16–28% of screened individuals in the United States endorsed depressive and anxiety symptoms (Rajkumar 2020). An additional consequence of the pandemic was a precipitous contraction in economic activity and spending that resulted in a substantial economic downturn (Hardy and Logan 2020). Due to the pandemic, global markets, banks, and businesses were all facing crises not seen since the Great Depression in 1929. For example, countries have experienced severe economic loss, with an average reduction of national GDP of about 3% with some countries up to 15% (Fernandes 2020). The lingering effects of the pandemic will likely last several years, as multiple sources forecast increasing national and global deaths (Hamzah et al. 2020; Petropolous and Makridakis 2020) as well as rising mental health symptoms that will outlast the pandemic.

Unsurprisingly, unemployment and financial insecurity have been key concerns during the COVID-19 pandemic. As a striking illustration, approximately 20 million American adults—10 percent of all adults in the country—reported that their household sometimes or often did not have enough to eat in the last 7 days as of July 2021 (Kelley et al. 2022). Financial strain is one of the most salient and chronic stressors in people's lives that can undermine psychological well-being (Butterworth et al. 2009; Drentea and Reynolds 2015; Koltai et al. 2018; Young and Schieman 2012). It refers to the self-reported perception of having difficulties making ends meet—with indicators such as difficulties paying bills or the sufficient satisfaction of basic needs (Bierman 2014; Kahn and Pearlin 2006; Ross and Huber 1985). Struggling to make ends meet can undermine psychological well-being by weighing heavily on the mind and forming chronic distractions that tax the ability to compartmentalize stressors (Young and Schieman 2012). Given its prevalence as a chronic stressor, it is not surprising that a large body of research has linked financial strain to deleterious mental health outcomes (Drentea and Reynolds 2015; Koltai et al. 2018; Pearlin et al. 2005; Young and Schieman 2012), including reductions in mental well-being during the early months of the COVID-19 pandemic (Bierman, Upenieks, Glavin, and Schieman 2021a, b).

During times of suffering caused by the pandemic, religion/spirituality may prove to be a consistent and valuable coping resource. Indeed, many people experiencing hardship exhibit both psychological and spiritual resilience (Bonanno et al. 2007, 2010), defined as relatively stable, minimally disrupted levels of positive psychological and spiritual functioning (Bonanno 2004; Chen and Bonanno 2020). According to Pargament et al. (2005, p. 676), “when life appears out of control...beliefs and practices oriented to the sacred seem to have a special ability to provide ultimate meaning, order, and safety in a place of human questions, chaos, and fear.” Highly religious Americans experienced less distress in March

of 2020 than secular Americans, but also tended to hold attitudes that ran counter to policy recommendations for curbing the spread of the virus (Schnabel and Schieman 2021). As we will suggest, individuals' psychological reactions to periods of crisis depend on a combination of risk and protective factors that they have during the crisis (Bonanno et al. 2007, 2010).

Therefore, in this study, we situate religious importance and reliance on God as key aspects of religious/spiritual life that may be important mechanisms for mitigating the effects of financial strain roughly one year into the COVID-19 pandemic. In so doing, we address a gap in the literature on coping during the pandemic, which has only begun to consider the benefits of religious/spiritual coping (see Counted et al. 2020; Pirutinsky et al. 2020; Zhang et al. 2021 for notable exceptions). Importantly, we also consider whether individuals report becoming more reliant on God and grown stronger in religious faith during these uncertain times. This study therefore represents a unique opportunity to assess how financial strain—a common stressor during the time of the pandemic—is associated with psychological distress in a representative sample of Americans, and how drawing more fervently on God or one's faith might mitigate this relationship.

## Background

### Financial Hardship and Implications for Psychological Distress

Financial hardship is one of the most salient stressors in people's lives (Kahn and Pearlin 2006). It tends to exert a negative impact on mental health and well-being because it is “a condition that can condemn people to a grinding life of uncertainty and fear” (Pearlin 1999: 399). Financial strain has elsewhere been described as the “lived experience of socioeconomic inequality” by showing the day-to-day struggle to provide for the basic necessities due to a lack of financial resources (Bierman 2014: 917). During the pandemic, 43% of Americans claimed that they or someone in their household lost a job or income (Igielnik 2020).

Within the stress process model in sociology, financial hardship is considered a potent stressor that has negative impacts on psychological distress (Mirowsky and Ross 2003). In line with this, a wide swathe of empirical research has found that financial hardship has adverse consequences for mental health (Bierman 2014; Bradshaw and Ellison 2010; Chai et al. 2021; Wolfe et al. 2021). Financial hardship may be associated with greater psychological distress by depleting both social and psychological resources (Pearlin et al. 1981). For example, the failure to meet even the most basic of material needs (e.g., food, shelter, medical care) might make people feel that they have failed relative to others who can meet such needs. Given the human tendency to compare one's own material wealth to that of others (Singh-Manoux et al. 2003), those who are strained financially might perceive that they lag behind others in terms of the material quality of life, even above and beyond objective economic circumstances. In the cultural climate of the United States, where financial success is an important indicator of achievement, people with persistent financial problems might come to doubt their significance as people, undermining

resources such as self-esteem or the sense of personal control which would otherwise associate with more favorable mental health outcomes (Adler et al. 2000; Kahn and Pearlin 2006). We therefore expect, based on previous research, that:

**Hypothesis 1** Greater financial strain during the COVID-19 pandemic will be associated with greater psychological distress.

Despite the well-established relationship between financial strain and mental health, a core tenet of the stress process model is that individuals faced with stressful conditions tend to mobilize personal resources to cope with these stressors. Recent research on the COVID-19 pandemic has identified several stress buffers that mitigate the mental health consequences of financial strain, including state-level social policies (Donnelly and Farina 2021) and a supportive marriage (Jace and Makrides 2021). Religion/spirituality has also been identified by scholars as one of the most important resources for coping with adversity (Schieman et al. 2013). Indeed, scholars working within the stress process model have shown that individual religiosity buffers the deleterious association between financial strain and mental health. For example, in one of the earliest studies working within the stress process model to examine the stress-buffering role of religion, Bradshaw and Ellison (2010) demonstrated that religious attendance and belief in an afterlife mitigated the deleterious association between financial hardship and mental health. In a study of older adults, Krause and Hayward (2015) showed that the negative effects of financial strain on life satisfaction were weaker among those who place higher trust in God. Most recently, Upenieks et al. (2021) showed that the belief in divine control acts as a buffer against financial strain among American workers leading up to the 2007–2008 financial crisis.

Based on stress process theory, it is possible that those with strong religiosity/spirituality might feel they have the resources to deal with difficult challenges because they are appealing to a divine power greater than just their own (secular) resources. Traumatic events like the COVID-19 pandemic can often cause significant resource loss, including reduced social support (Bierman et al. 2021) and can disrupt one's worldview and sense of safety, security, and meaning (Park et al. 2017). In what follows, we situate two elements of religious life, *reliance on God* and *religious importance*, as potential coping resources for Americans undergoing financial strain during the COVID-19 pandemic. We first address the possibility that the pandemic may have caused perceived *changes in personal religiosity* prior to pre-pandemic levels by asking respondents to reflect on this possibility, and then move to address whether an increased reliance on religiosity may be helpful in quelling the consequences of economic hardship for psychological distress.

## Changes in Religiosity During the COVID-19 Pandemic

Scholars have acknowledged that some types of adversity cause people to fundamentally question how much they can trust their relationships, themselves, and the world around them (Ivey and Brooks-Harris 2005). When this basic trust is disrupted,

individuals can become disoriented, which may limit their typical ways of coping with stress. During the COVID-19 pandemic, for instance, social support may have been more difficult to garner because of lockdown measure, social distancing orders, and the upheaval that occurred in almost all facets of social life. A question that is deserving of attention, therefore, is whether economic change can predict religious change over a short period of time, and whether this has implications for stress coping processes that have a direct bearing on psychological distress. In these situations, dimensions of the sacred, such as relying on God, may take prominence in helping people cope with these hardships.

Past research has lent some support to this assertion. For instance, evidence from disaster studies following Hurricane Katrina and COVID-19 find that people draw on their religion/spirituality to cope (Aten et al. 2019; Davis et al. 2021), but only a few studies ask respondents to reflect on their religion and spirituality pre- and post-crisis (Davis et al. 2021). One construct associated with handling adversity well is post-traumatic growth. Many people are explicitly religious/spiritual, and several scholars have noted that religious coping could be turned to more fervently for those working through adversity (Pargament et al. 2006). According to Sandage et al. (2020), stress may be resolved by finding new ways of understanding and relating to the sacred.

Sandage and Shults (2007) draw on a helpful metaphor of a “crucible” to explain the process of spiritual growth and reliance in the context of adversity. In non-crisis times, people may remain in periods of spiritual dwelling, engaging with the sacred in ways that reinforce their current view of the world and reduce their anxiety. However, adversity may serve as a “heating up” process, as uncertainty and stress cause anxiety. Greater spiritual seeking during these times, though stressful in the moment, provide individuals with an opportunity to achieve greater maturity in their faith and lean on it more heavily to see them through difficult periods. *Increased religiosity*, then, could help individuals make sense of the pandemic, especially for those who experienced higher amounts of financial stress. Indeed, Shannonhouse et al. (2019) found that increases in positive religious coping mitigated the positive association between drought-related loss of energy resources (e.g., finances) and trauma symptoms in a sample from Botswana. Another study by Chen (2010) found that the economic distress caused by the Indonesian financial crisis was associated with an increase in religious intensity. Finally, a study by Molteni et al. (2021) found that people who suffered the most severe effects of the COVID-19 crisis reported higher religious belief during the pandemic, which could help shield people from higher psychological distress that usually accompanies such hardship. It is also possible, however, that people may experience spiritual decline over time, given the stress and difficulty in coping with the COVID-19 pandemic, and the potential for anger at God for allowing this crisis to happen.

A more likely scenario, however, according to past research, is that religion/spirituality could remain *constant* from pre-pandemic times (Luchetti et al. 2020; Wang et al. 2020). For instance, in a study of people with chronic illness, Davis et al. (2021) find that there was no meaningful change in religion/spirituality over the first three months of the pandemic in 2020. However, as Davis and colleagues note, people with chronic disease are already used to coping with highly

difficult circumstances, so this initial phase of the COVID-19 pandemic may not have strained their coping resources as much as it might for those not already conditioned to living with such challenges. This suggests that those who already “have religion” when disaster strikes may be better off than those who only find religion during adversity, as time is needed to become comfortable with the tenets of one’s faith and the stress coping practices that religious belief might lead to. This line of research aligns with Pargament (1997), who argue that most people will try to conserve their current understanding of the sacred in crisis times. A failure to do so may signal a period of spiritual struggle and angst. In the next section, however, we lay out a rationale which would suggest that a greater reliance on God and a more central importance being placed on religion can have a unique stress buffering role in the face of financial strain.

### Increased Religiosity as a Stress Buffer?

*Greater Reliance on God:* Stress process theory suggests that religion can serve as a personal resource that mitigates the harmful effects of stressful conditions on psychological distress (Schieman et al. 2013). As a first example of increased religiosity, the interventions of God in the material world on behalf of the believer may be construed as a type of religious support. The perception that one enjoys a personal relationship with God or a higher power and intervenes on behalf of humans, especially during difficult times, forms the crux of what scholars have called *the sense of divine control*. Briefly, the sense of divine control is the belief that “God controls the good and bad outcomes in their lives, that God has decided what their life shall be, and that their fate evolves according to God’s will or plan for them” (Schieman et al. 2006:529). Though negative conceptions of a divine power are certainly possible, a large majority of Americans tend to hold positive images of God as a benevolent and forgiving being (Froese and Bader 2010). Importantly, in the context of financial strain, such a perceived relationship with God may provide people with a sense of vicarious or secondary control that can facilitate positive reappraisal coping. DeAngelis and Ellison (2017) find that believers in divine control are more adept at finding meaning and moving forward from stressful experiences, reinterpreting their stress as part of a broader divine narrative. During troubled times, when much seems to be outside of individual control, believers can take comfort that a benevolent deity is in charge (Krause 2005; Schieman et al. 2005). This may help them preserve an eternal meaning system and order that could promote a positive disposition toward life (Jung 2015; Pargament and Hahn 1986).

Relying more heavily on God during the uncertainty of the pandemic, when people may be struggling with economic hardship, could function as a haven of safety that could restore peace and comfort to those struggling (Davis et al. 2019; Kirkpatrick 2005). Indeed, rather than trying to change economic stressors that appear to be immutable, God may be sought out for solace (Gottlieb 1997). For people experiencing the frustration of financial hardship during the pandemic, relying more heavily on an engaged or loving God could make it easier to detach from the endless pursuit of material and social rewards. It is possible that those

afflicted with financial hardship could reappraise their strife as unfolding in accordance with God's plan (Pargament et al. 2000), with the subsequent knowledge that they are not left alone to deal with these challenges. Many religious believers also carry on an ongoing conversation with God through prayer and experience God as an intimate member of their social network (Pollner 1989). Such practices may increase the sense of confidence that things are under divine control (Spilka et al. 2003) and that the current strain experienced will wane with time, helping people to place their stress within a more manageable perspective.

A greater reliance on God may also bolster the sense that one is capable of dealing with the economic stress borne during the pandemic because they are living under the watchful and protective eye of God (Probst and Strand 2010). Krause (2009) found that believers who thought they were working in partnership with God to solve financial problems experienced less depression over time. Trusting God through tumultuous economic times has also been shown to reduce worry and increase hope (Krause and Hayward 2015), which would be needed in this time of crisis. Notably, however, these studies did not test whether changes in reliance on God associate with psychological distress in the aftermath of the adversity, which is a question that this study explicitly addresses. One recent study found that increasing beliefs in divine control buffered the negative consequences of worsening financial strain on the eve of the financial crisis in 2007 on psychological distress, especially for the less educated (Upenieks et al. 2021). However, as noted previously, the COVID-19 pandemic was a worse economic recession and produced accompanying shocks to social life, making its impact on household finances and psychological distress likely greater than those attributed to the 2007–2008 financial crisis. The psychological benefits of relying more strongly on God may be an important and readily available compensatory mechanism (Jung and Ellison 2022) given the severing of social contacts and loneliness that occurred in response to the spread of the virus (Bierman et al. 2021). Altogether, a decision to rely more heavily on God during the pandemic may represent a decision to define oneself less in terms of financial or occupational success and instead center one's life on growing closer to God.

**Hypothesis 2** The association between financial strain and greater psychological distress will be weaker for those who rely more heavily on God during the COVID-19 pandemic.

*Religious Importance:* At a more general level, respondents increasing the importance they place on religion, detached from the specific beliefs of reliance on a divine power, might have also been a useful coping tool for mitigating the pernicious consequences of financial strain.

Norris and Inglehart (2011) argued that under conditions of existential insecurity, humans have a need for predictability and authority, which makes them more likely to place importance on their religious beliefs. This question has been quantitatively explored by Immerzeel and Tubergen (2013) and Ruiters and van Tubergen (2009) in their analyses of data from the European Social Survey and

World Values Survey, respectively. These authors both showed that there are individual associations between economic insecurity and the importance of religion in the period before the 2007–2008 global financial crisis. Though the evidence is much sparser for religious importance compared to that which focuses on reliance on God, it is possible that placing a more central importance on religion during the pandemic for those confronting financial strain could help individuals readjust their priorities. Van Tongeren et al. (2019) captured this idea, at least to some extent, in their concept of *spiritual fortitude*, where individuals draw upon spiritual resources as they face adversity. These authors define spiritual fortitude as a character strength that enables one to place more importance on religion even as difficult circumstances render this more difficult. Choosing to make religion more important, even detached from beliefs in the causal influence of God in one's life, could help individuals make sense of and derive meaning from the pandemic and the financial stress they face. A stronger sense of personal religiosity helping might help individuals place less emphasis on their material shortcomings and more on deepening and enriching their spiritual life. Therefore, our last study hypothesis is as follows:

**Hypothesis 3** The association between financial strain and greater psychological distress will be weaker for those who place higher importance on religiosity during the COVID-19 pandemic.

## Data and Methods

For this investigation, we use data from the 2021 *Crime, Health, and Politics Survey* (CHAPS). CHAPS is based on a national probability sample of 1,771 community-dwelling adults aged 18 and over living the United States. Respondents were sampled from the *National Opinion Research Center's (NORC) AmeriSpeak*<sup>®</sup> panel, which is representative of households from all 50 states and the District of Columbia.

Sampled respondents were invited to complete the online survey in English between May 10, 2021 and June 1, 2021. The data collection process yielded a survey completion rate of 30.7% and a weighted cumulative response rate of 4.4%. The weighted cumulative response rate is the overall survey response rate that accounts for survey outcomes in all response stages, including the panel recruitment rate, panel retention rate, and survey completion rate. It is weighted to account for the sample design and differential inclusion probabilities of sample members.

The multistage probability sample resulted in a margin of error of  $\pm 3.23\%$  and an average design effect of 1.92. The median self-administered web-based survey lasted approximately 25 min. All respondents were offered the cash equivalent of \$8.00 for completing the survey. The survey was reviewed and approved by the institutional review board at NORC and one other university review board. Informed consent was obtained from all participants. The primary purpose of CHAPS is to document the social causes and social consequences of various indicators of health and well-being in the United States during the coronavirus (COVID-19) pandemic.



Post-stratification weights were used in all subsequent analyses to reduce sampling error and non-response bias. After removing cases missing on study variables through the process of listwise deletion (as <5% of all cases were missing), we are left with a final analytic sample of 1,704 cases. All analyses were conducted with Stata 16.

### **Dependent Variable: Psychological Distress**

In the CHAPS data, psychological distress was assessed with a six-item scale taken from the K6 psychological distress scale (Kessler et al. 2002). Respondents were asked to report how often, in the last 30 days, they felt, (1) “nervous,” (2) “restless or fidgety,” (3) “that everything was an effort,” (4) “hopeless,” (5) “so sad that nothing could cheer you up,” and (6) “felt worthless.” Response options were coded where 1 = “Never,” 2 = “Rarely,” 3 = “Sometimes,” 4 = “Very often,” and 5 = “Always.” Responses to the six items were averaged to form a scale ( $\alpha = 0.93$ ), with higher scores indicative of greater psychological distress.

### **Focal Independent Variables**

*Financial Strain:* Financial strain was gauged by the following three items, which were averaged into a scale. Respondents were asked, “How often does your household have trouble paying...”: (a) for monthly needed health care, (b) monthly bills, and (c) for food.” Responses were coded according to the following scheme: 1 = “Never,” 2 = “Rarely,” 3 = “Occasionally,” 4 = “Frequently,” and 5 = “All the time” ( $\alpha = 0.88$ ), and higher scores on this scale represent greater financial strain.

To assess *changes in religiosity* during the COVID-19 pandemic, two specific questions in CHAPS asked respondents whether religion had become more important. This is a similar approach to that taken by Jacobi et al. (2022), who also measured changes in religiosity retrospectively between October and December of 2020. First, to measure *changes in reliance on God*, all respondents were asked: “During the coronavirus pandemic, have you needed the strength and guidance of God or another higher power in your life more often, less often, or about the same frequency as before the pandemic?” Since only 62 respondents (3.53%) of our sample reported needing the strength and guidance of God less often during the pandemic, we created a binary variable such that 1 = “needed the strength and guidance of God more often during the pandemic,” and 0 = “needed the strength and guidance of God about the same or less than before the pandemic.”

In a similar fashion, respondents were also asked whether *religion has become more or less important* in their lives during the course of the pandemic. Respondents were asked, “Has the importance of religion in your life changed during the coronavirus pandemic? Has it become more important, less important, or stayed about the

same as before the pandemic?” As with reliance on God, less than 5% of the sample reported that religion had become less important during the pandemic. Therefore, we again created a binary variable, where 1 = “religion has become more important” and 0 = “religion is about or less important than before the pandemic”.<sup>1</sup>

## Covariates

Several demographic covariates were also included as controls in our analysis. Psychological distress is likely to be confounded with various sociodemographic predictors, such as age, gender, education, and socioeconomic status. Models therefore included a four-category measure of age: 18–29 years of age (reference group), 30–44 years, 45–49 years, and 60 years and older.<sup>2</sup> Race was measured by a four-category variable as well, where White, non-Hispanic served as the reference group, compared to Black, non-Hispanic, Hispanic, and Other Race. Female was coded as 1. Marital status compared those who were married to those who reported being widowed, divorced, separated, never married, or living with a cohabiting partner. Educational attainment was a five-category variable, coded where 1 = Less than high school [reference group], 2 = High school graduate or equivalent, 3 = Vocational/tech school/some college/associate degree, 4 = Bachelor’s degree, and 5 = Post grad study/professional degree. Household income was coded as a four-category variable, comparing those with an income of \$30,000 or less with those earning \$30,000–\$60,000, \$60,000–\$100,000, and \$100,000 or more. We also include a binary variable indicating whether a respondent had been unemployed because of the COVID-19 pandemic as a measure of potential indicator of economic hardship to ensure that any relationship between financial strain and psychological distress is not confounded by levels of income or employment status during the pandemic (see also Bierman et al. 2021a, b for a similar approach).<sup>3</sup> We also adjusted for the number of children the respondent had (top-coded at 4 children due to sparseness) as well as the respondents’ region of residence (South [reference group], Midwest, Northeast, and West). Finally, we also adjusted for a measure of religious affiliation of respondents following using the standard AmeriSpeak religious affiliation question as we contrast Evangelical Protestants with Mainline Protestants, Catholics, Other Christians, Other religion, and No religion.

<sup>1</sup> Changes in religious importance and changes in reliance on God are only moderately correlated ( $r = .45$ ). Factor analysis shows that the two items do not load well onto one factor (Eigenvalue = 0.60). Religious importance and the importance of God are generally treated as separate indicators of religiosity (e.g., see Shulgin et al. 2019; Upenieks and Orfanidis 2021 for examples). For these reasons, we treat these two religious dimensions as separate indicators in our analyses.

<sup>2</sup> Results are also consistent if age is measured in a continuous fashion. A categorical measure of age was ultimately chosen because previous research on this topic has found discrepancies in mental health outcomes during the pandemic as a function of age category. Indeed, older adults 60–69 and 70+ reported lower depression and anxiety compared to respondents aged 30–39 and less than 30 (Bruine de Bruin 2021).

<sup>3</sup> Financial strain and unemployment are only weakly correlated ( $r = .28$ ), which suggests that financial strain and unemployment are not reducible to the other.

Given that the pandemic was highly politicized (Perry et al. 2021; Whitehead and Perry 2020), additional analyses also included political party identification (from “Strong Democrat” to “Strong Republican”), political ideology (from “very liberal” to “very conservative”), and a three-item Christian nationalism scale. Results remained unchanged with the inclusion of these variables, and they were ultimately dropped from the models for the sake of parsimony.

## Plan of Analysis

We conducted a series of Ordinary Least Squares (OLS) regression models with robust standard errors. Psychological distress is treated in a linear fashion since it is not overdispersed (mean = 2.29, SD = 0.94). Our analyses then proceed in a series of six models. Model 1 examined the association between financial strain and psychological distress, independent of all covariates. Models 2 and 4 introduce changes in reliance on God and changes in religious importance separately to examine the magnitude to which each was associated with SSS. Model 4 included both changes in reliance on God and changes in religious importance, which served to test how the associations between psychological distress and these two measures changed when their independent contribution to psychological distress was considered. Finally, the last two models considered how changes in relying on God (Model 5) and changes in religious importance (Model 6) modified the association between financial strain and psychological distress by testing a two-way interaction term.

## Results

Table 1 displays descriptive statistics for all study variables. We highlight a few notable ones before proceeding to test our hypotheses. The sample mean of psychological distress was 2.29 (SD = 0.93) on a 5-point scale, illustrating that most of our nationally representative sample of Americans was experiencing some psychological distress approximately one year from the onset of the pandemic. We also observed that financial strain was fairly high among respondents in our sample (average = 1.66 on a 5-point scale), but that there was a fair amount of variability in the level of difficulty in paying bills, affording food, and having enough money for basic health care (SD = 0.91). To break this down further by each element in the financial strain scale (not shown in Table 1), 21.87% of our sample had at least occasional difficulty paying household bills, 18.55% had trouble affording basic medical care, and 14.83% of our analytic sample struggled to pay for food.

Finally, we also observed a fair amount of religious change on both dimensions considered in the current study. Indeed, nearly 30% of the sample (28.90%) reported that they had relied on God more during the pandemic, compared to 71.10 who relied on God the same or less as before the pandemic. What is more, 17.76% of the sample reported that religion had become more important in their lives over the course of the COVID-19 pandemic, while for 82.24% of the sample, their religious importance had remained the same or declined during the pandemic. It is notable

**Table 1** Unweighted Descriptive Statistics, *CHAPS* (N = 1704)

	Mean/%	S.D	Minimum	Maximum
<b>Dependent variable</b>				
Psychological Distress	2.29	0.93	1	5
<b>Focal independent variables</b>				
Financial Strain	1.66	0.91	1	5
<i>Changes in religiosity</i>				
<i>Relied more on God</i>				
Relied on God more during the pandemic	28.90			
Relied on God the same or less as before the pandemic	71.10			
<i>Religious Importance</i>				
Religion became more important during the pandemic	17.76			
Religion had the same or less importance during the pandemic	82.24			
<b>Control variables</b>				
<i>Age</i>				
18–29 years	13.83			
30–44 years	29.08			
45–59 years	22.59			
60 years or older	34.50			
<i>Race</i>				
White, non-Hispanic	67.31			
Black, non-Hispanic	10.67			
Hispanic	16.49			
Other Race	5.53			
<i>Gender</i>				
Male	46.88			
Female	53.12			
<i>Educational attainment</i>				
Less than high school	3.27			
HS graduate or equivalent	17.45			
Vocational/tech school/some college/associate degree	43.53			
Bachelor's degree	21.40			
Post grad study/professional degree	14.34			
<i>Household income</i>				
\$30,000 or less	22.25			
\$30,000–\$60,000	28.57			
\$60,000 to under \$100,000	27.16			
\$100,000 or more	22.02			
Unemployed due to COVID-19	19.54			
Financial Strain	1.66	0.91	1	5
<i>Marital status</i>				
Married	54.21			
Widowed	4.12			
Divorced	10.56			

**Table 1** (continued)

	Mean/%	S.D	Minimum	Maximum
Separated	3.90			
Never married	21.40			
Living with partner	5.82			
Number of Children	1.64	1.29	0	4
<i>Region</i>				
Northeast	14.46			
Midwest	27.61			
South	33.43			
West	24.51			
<i>Religious affiliation</i>				
Evangelical protestant	22.76			
Mainline protestant	14.29			
Catholic	18.52			
Other christian	14.91			
Other	4.52			
No religion	24.90			

Standard deviations are omitted for categorical variables

that even among those who reported no formal religious affiliation, almost 10% reported relying on God more during the pandemic, and nearly 7% reported that religion became more important in their lives during the pandemic.

Descriptively, we find that financial strain did appear to be associated with changes in religiosity in a cross-tabulation analysis (not shown). For instance, 36.30% of those who were above the sample mean of financial strain reported relying more on God during the pandemic, compared with only 25% of those who were below the sample mean of financial strain (this difference was significant at the  $p < 0.01$  alpha level). A similar pattern is observed for changes in religious importance, as 21% of those who were above the sample mean of financial strain reported that religion had become more important in their lives, compared with only 15% for those who reported less than the sample mean of financial strain (difference significant at the  $p < 0.05$  alpha level).

### Multivariable Regression Results

We now turn to a test of our three hypotheses, the results of which can be found in Table 2. We tested a total of six models, paying particular attention to the multiplicative interaction term between financial strain and changes in religiosity.

Model 1 of Table 2 seeks to determine the baseline association between financial strain and psychological distress, net of demographic covariates (but without any religiosity variables included). As can be seen there, higher levels of financial strain

**Table 2** Coefficients from OLS regression models predicting psychological distress by financial strain and religious change, *CHAPS* (N = 1704)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Financial strain	0.38*** (0.02)	0.37*** (0.02)	0.39*** (0.02)	0.37*** (0.02)	0.40*** (1.26–1.70)	0.38*** (0.05)
<i>Reliance on god</i>						
Relied on God more <sup>a</sup>		-0.27*** (0.05)		-0.28*** (0.05)	-0.42*** (0.09)	-0.28*** (0.05)
<i>Religious importance</i>						
Religion became more important <sup>b</sup>			-0.11* (0.05)	-0.03 (0.06)	-0.03 (0.06)	0.05 (0.11)
<b>Interaction terms</b>						
<i>Financial strain</i> *						
...Relied on god more <sup>a</sup>					-0.08* (0.04)	-0.01 (0.05)
...Religion became more important <sup>b</sup>						
<b>Control variables</b>						
<b>Age</b>						
30–44 years <sup>c</sup>	-0.12 (0.07)	-0.11 (0.07)	-0.10 (0.07)	-0.10 (0.07)	-0.10 (0.07)	-0.10 (0.07)
45–59 years <sup>c</sup>	-0.32*** (0.08)	-0.31*** (0.07)	-0.31*** (0.08)	-0.31*** (0.07)	-0.31*** (0.07)	-0.31*** (0.08)
60 years or older <sup>c</sup>	-0.46*** (0.08)	-0.45*** (0.08)	-0.44*** (0.08)	-0.44*** (0.08)	-0.44*** (0.08)	-0.44*** (0.08)
<b>Race</b>						
Black, non-Hispanic <sup>d</sup>	-0.30*** (0.07)	-0.34*** (0.07)	-0.30*** (0.07)	-0.32*** (0.07)	-0.33*** (0.07)	-0.32*** (0.07)
Hispanic <sup>d</sup>	-0.03 (0.06)	-0.05 (0.06)	-0.05 (0.06)	-0.05 (0.06)	-0.05 (0.06)	-0.05 (0.06)
Other Race <sup>d</sup>	-0.07 (0.09)	-0.10 (0.09)	-0.09 (0.09)	-0.10 (0.09)	-0.10 (0.09)	-0.10 (0.09)
<b>Gender</b>						
Female <sup>e</sup>	0.18*** (0.04)	0.15*** (0.04)	0.18*** (0.04)	0.15*** (0.04)	0.14*** (0.04)	0.15*** (0.04)
<b>Educational attainment</b>						
HS graduate or equivalent <sup>f</sup>	0.15 (0.12)	0.15 (0.12)	0.11 (0.12)	0.12 (0.12)	0.12 (0.12)	0.12 (0.12)
Vocational/tech school/some college/ associates degree <sup>f</sup>	0.15 (0.11)	0.14 (0.11)	0.11 (0.11)	0.10 (0.11)	0.11 (0.11)	0.10 (0.11)

Table 2 (continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Bachelor's degree <sup>f</sup>	0.23 (0.12)	0.22 (0.12)	0.19 (0.12)	0.18 (0.12)	0.19 (0.12)	0.18 (0.12)
Post grad study/professional degree <sup>f</sup>	0.12 (0.12)	0.11 (0.12)	0.07 (0.12)	0.07 (0.12)	0.08 (0.12)	0.07 (0.12)
<i>Household income</i>						
\$30,000–\$60,000 <sup>g</sup>	-0.11 (0.06)	-0.12 (0.07)	-0.10 (0.06)	-0.11 (0.06)	-0.12 (0.07)	-0.11 (0.06)
\$60,000 to under \$100,000 <sup>g</sup>	-0.09 (0.06)	-0.08 (0.06)	-0.08 (0.06)	-0.08 (0.06)	-0.08 (0.06)	-0.08 (0.06)
\$100,000 or more <sup>g</sup>	-0.02 (0.07)	-0.02 (0.07)	-0.01 (0.07)	-0.02 (0.07)	-0.01 (0.07)	-0.01 (0.07)
Unemployed due to COVID-19	0.05 (0.05)	0.05 (0.05)	0.04 (0.05)	0.04 (0.05)	0.05 (0.05)	0.04 (0.05)
<i>Marital status</i>						
Widowed <sup>h</sup>	0.16 (0.10)	0.17 (0.10)	0.17 (0.10)	0.17 (0.11)	0.17 (0.10)	0.17 (0.10)
Divorced <sup>h</sup>	0.16* (0.06)	0.16* (0.07)	0.16* (0.07)	0.16* (0.07)	0.16* (0.07)	0.16* (0.07)
Separated <sup>h</sup>	0.03 (0.10)	0.05 (0.10)	0.03 (0.10)	0.05 (0.10)	0.05 (0.10)	0.05 (0.10)
Never married <sup>h</sup>	0.14* (0.06)	0.15* (0.06)	0.15* (0.06)	0.15* (0.06)	0.15* (0.06)	0.15* (0.06)
Living with partner <sup>h</sup>	0.12 (0.09)	0.13 (0.09)	0.12 (0.09)	0.13 (0.09)	0.13 (0.09)	0.13 (0.09)
Number of Children	0.05 (0.05)	0.05 (0.05)	0.06 (0.05)	0.06 (0.05)	0.05 (0.05)	0.05 (0.05)
<i>Region</i>						
Midwest	-0.02 (0.06)	-0.01 (0.06)	-0.01 (0.06)	-0.02 (0.06)	-0.01 (0.06)	-0.01 (0.06)
South	-0.03 (0.06)	-0.03 (0.06)	-0.04 (0.06)	-0.03 (0.06)	-0.03 (0.06)	-0.03 (0.06)
West	-0.05 (0.07)	-0.05 (0.07)	-0.04 (0.06)	-0.05 (0.07)	-0.04 (0.07)	-0.04 (0.07)
<i>Religious affiliation</i>						
Mainline Protestant <sup>i</sup>	0.02 (0.07)	0.07 (0.07)	0.03 (0.07)	0.06 (0.07)	0.06 (0.07)	0.05 (0.07)
Catholic <sup>i</sup>	0.01 (0.06)	0.04 (0.06)	0.01 (0.06)	0.03 (0.06)	0.04 (0.06)	0.03 (0.06)
Other Christian <sup>i</sup>	0.11 (0.07)	0.16* (0.07)	0.12 (0.07)	0.15* (0.07)	0.15* (0.07)	0.15* (0.07)
Other Religion <sup>i</sup>	0.15 (0.10)	0.21* (0.10)	0.17 (0.10)	0.20* (0.10)	0.21* (0.11)	0.21* (0.10)
No religion <sup>i</sup>	0.20*** (0.06)	0.31*** (0.06)	0.22*** (0.06)	0.29*** (0.06)	0.29*** (0.15)	0.29*** (0.06)

**Table 2** (continued)

Robust standard errors in parentheses. \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$

<sup>a</sup>Compared to Relied on God the same or less during the pandemic

<sup>b</sup>Compared to Religion had the same or less importance during the pandemic

<sup>c</sup>Compared to 18–29 years

<sup>d</sup>Compared to White, non-Hispanic

<sup>e</sup>Compared to Male

<sup>f</sup>Compared to Less than high school

<sup>g</sup>Compared to \$30,000 or less

<sup>h</sup>Compared to Married

<sup>i</sup>Compared to Northeast

<sup>j</sup>Compared to Conservative Protestant



are associated with greater psychological distress nearly one year after the onset of the COVID-19 pandemic ( $b=0.38, p<0.001$ ).<sup>4, 5</sup> In terms of effect size, this represents 0.40 of a standard deviation in psychological distress scores. This finding is consistent with Hypothesis 1 and is not surprising given the extent of financial hardship as the pandemic progressed and the known associations between financial strain and greater psychological distress already established in the literature.

Model 2 introduces reliance on God to the fold. Here, we see that financial strain maintains its strong and positive association with greater psychological distress ( $b=0.37, p<0.001$ ). Those who relied on God more during the pandemic reported lower psychological distress ( $b=-0.27, p<0.001$ ) relative to their counterparts who relied on God the same or less as before the pandemic. This corresponds to just less than 1/3<sup>rd</sup> of a standard deviation in psychological distress scores. Model 3 repeats a similar analysis, this time taking only change in religious importance as our religious indicator. We see here that those who reported that religion had become more important during the pandemic also reported lower psychological distress scores ( $b=-0.11, p<0.05$ ), but this effect was much smaller than that observed for reliance on God (representing just over 0.10 of a standard deviation in psychological distress scores). Finally, Model 4 considers both changes in reliance on God and changes in religious importance simultaneously. When this is done, we see that only reliance on God is now associated with lower psychological distress.

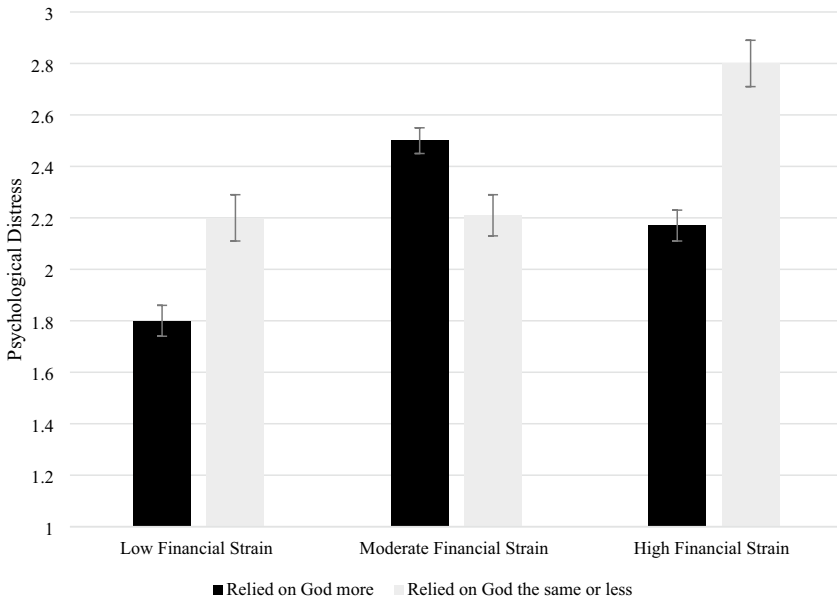
( $b=-0.28, p<0.001$ ), suggesting that it bears a stronger association with psychological distress compared to religious importance.

Models 5 and 6 of Table 2 serves as tests of Hypothesis 2 and 3, which posited the stress buffering roles of relying more on God and placing more importance on religion. We see in Model 5 the presence of a significant, negative interaction term between greater financial strain and relying more on God in predicting psychological distress lower ( $b=-0.08, p<0.05$ ). Figure 1 shows a plot of this interaction term using the margins command in Stata. We show average psychological distress scores at three levels of financial strain: low financial strain (1 SD below the sample mean), moderate strain (sample mean) and high financial strain (1 SD above the sample mean) for our two categories: (a) relied on God more during the pandemic, and (b) relied on God the same or less during the pandemic.

Drawing attention to the third set of bars in Fig. 1, we see that the relationship between high financial strain and psychological distress is *weaker* (i.e., attenuated) for those who reported relying on God more during the pandemic. This is consistent

<sup>4</sup> Though being unemployed as a result of the pandemic did not have an association with psychological distress when it was included with financial strain, supplemental analyses show that unemployment, without financial strain controlled, was associated with greater psychological distress ( $b=0.27, p<.001$ ), as we might expect.

<sup>5</sup> Supplemental analyses also removed the categorical measure of personal income from the models and results remained the same. Income, unemployment, and financial strain are weakly correlated ( $r=-.14$  between income and unemployed,  $r=.28$  between financial strain and unemployed, and  $r=-.33$  for income and financial strain). We also reviewed the variance inflation factor for all models, and in no case did it exceed 2.50, the cut-off suggested in the literature for when multicollinearity could be a concern (see Allison 1999).



**Note.** Estimates are derived from Model 5 of Table 2. All other covariates are held at their respective means. 95% confidence intervals are shown.

**Fig. 1** Financial Strain and Psychological Distress: The Buffering Role of Greater Reliance on God (CHAPS Project, N = 1704)

with the propositions of Hypothesis 2. Indeed, those experiencing the highest levels of financial strain yet relied more on God during the pandemic reported an average of 2.17 on the psychological distress scale, compared to 2.80 for those in this high financial strain category who relied on God the same or less during the pandemic. Notably, differences in psychological distress were not observed for those experiencing low levels of financial strain by change in reliance on God. At moderate levels of financial strain, it appears that greater reliance on God is associated with higher psychological distress compared to those who relied on God the same or less during the pandemic.

Finally, Model 6 introduces an interaction term between financial strain and changes in religious importance in predicting psychological distress. This interaction term failed to achieve statistical significance ( $b = -0.01$ ,  $p > 0.05$ ). Therefore, Hypothesis 3 is not supported.

## Discussion

The current COVID-19 pandemic is a significant stressor across multiple domains of social life, eliciting physical health risk, financial turmoil, social isolation, and the uncertainty of and disruption of daily routines, all of which are taking a toll on population mental health (Gruber et al. 2020). In particular, the economic downturn

associated with the COVID-19 pandemic was an abrupt and devastating macro-economic contraction, leading to population-level shifts in the risk of exposure to economic hardship and damaging mental health consequences (Bierman et al. 2021a, b). Still, informed by the tenets of the stress process model, we know that there is heterogeneity of human responses to these devastations, and that persons often demonstrate resilience because of their use of coping resources (Bonanno and Mancini 2012). Using data from a nationally representative sample of Americans, the current study sought to assess how drawing more strongly on religion and spirituality during the pandemic compared to pre-pandemic times might be a stress buffer that attenuates the negative consequences for psychological distress of high financial strain.

Several contributions can be derived from the current study. First, this study replicates the findings of past research which document that financial strain during the pandemic was associated with greater psychological distress (Bierman et al. 2021a, b; Hertz-Palmor et al. 2021). This is not surprising, as the COVID-19 pandemic brought on one of the worst recessions witnessed in recent decades and was much more devastating than the Great Recession of 2007–2008, which itself exacted a fairly hefty toll on population well-being (Burgard and Kalousova 2015). It is also important to note that this strong association observed between financial strain and psychological distress was observed approximately one year after the onset of the COVID-19 pandemic in the early months of 2021 when the CHAPS data were collected. It will be important for future research to track whether the magnitude of this association strengthens or weakens as time since the onset of the pandemic progresses; it is likely that, as was the case after the 2007–2008 financial crisis, that the upheaval caused by the COVID-19 pandemic will leaving lasting effects on psychological distress for years to come.

Second, the current study highlights the role that *religious change*, particularly an increased reliance on God, plays in the stress process model. Integrating insight from the sociology of religion and the stress process model, especially during the COVID-19 pandemic, may provide a greater knowledge of how religion helps people with the most stressful of conditions (Scheiman et al. 2013). We note first that relying more heavily on God in the first year of the COVID-19 pandemic was associated with lower psychological distress. This is an important advance on the current literature for two reasons. First, existing research on the stress-buffering function of religion typically focuses on religious belief at one point in time, thus negating the possibility that a crisis may be the impetus for relying more heavily on God and one's religious beliefs as circumstances become harder to personally control. We found that increased reliance on God is a resource that can protect individuals from the deleterious effects of financial hardship. Second, past research has found that trust in God (Krause and Hayward 2015) and beliefs in the afterlife (Bradshaw and Ellison 2010) were found to buffer against the deleterious consequences of financial strain for mental well-being. Our study adds a new concept, reliance on God, to the fold. This particular measure, squarely a form of religious cognition, could lead persons of faith to reframe financial stress as a "blessing in disguise" (Foley 1988) or as an opportunity for both personal and spiritual growth.

What might account for why an enhanced reliance on God for those experiencing high financial hardship is protective against greater psychological distress?

Individuals who are strained financially might feel a sense of relative deprivation or material value, which may lead them to doubt their significance as individuals (Young and Schieman 2012). Even in the wake of widespread economic decline, the fabric of American culture is intimately tied to material success and the accumulation of wealth. This is what makes financial strain—the inability to afford the basic necessities of life—a form of chronic stress that can be incredibly taxing (e.g., Kahn and Pearlin 2006), as it leads individuals to make negative reflective appraisals and unfavorable social comparisons that may undermine well-being. In the context of high financial strain, ceding control to God as a vicarious form of control may allow believers to take comfort that a kind, loving deity will see them through the crisis and that they are not alone in their struggles (Krause 2005; Schieman et al. 2005). A decision to rely more heavily on God might remind individuals that irrespective of their material shortcomings, they are still worthy in the eyes of God (Jung 2015). This finding aligns with past research which shows that placing more control in the hands of God under conditions of material hardship can buffer against the mental toll this stressor would normally take (Krause 2009; Upenieks et al. 2021) but situates the finding within the heightened economic hardship experienced during the COVID-19 pandemic.

Our finding that increasing one's reliance on God for those experiencing the highest levels of financial strain also contributes to a broader debate within the sociology of religion about whether secondary control via a divine power reduces or enhances individual agency. Some scholars advocate that a reliance on God means relinquishing a sense of internal control (Jackson and Coursey 1998). On one hand, if God is believed to be highly influential and relevant to all life outcomes (Schieman 2008), this may negate a sense of personal control to confront the hardship at hand and take active steps to resolve it (Liu and Froese 2020). On the other hand, greater reliance on God may strengthen a person's sense of control because it may be associated with a much-needed loving and caring relationship, where God acts as a haven of safety to navigate the treacherous waters of hardship. Moreover, the effects of coming to rely more strongly on God may also be predicated on how the individual views God—specifically, beliefs in a reliable and predictable God have been shown to be associated with better mental health (Landau et al. 2018). At least within the context of the current pandemic, increasing reliance on God was associated with lower psychological distress for Americans confronting financial strain. This echoes the Marxian argument (1852/1983) that religiosity and coming to more heavily rely on a divine power might be most beneficial to those lacking in social resources or who are facing existential insecurity. However, we do not specifically know that relying more on God is also accompanied with a reduced sense of individual agency. It is likely that confronting the challenges of the pandemic requires a reliance on God as well as individually taking steps to cope with hardship, found in the notion of *collaborative control* (Krause 2005; Pargament et al. 2000), which suggests God to be an active partner working together with humans to overcome the problems of daily life.

We also make brief mention that increasing one's reliance on God was associated with greater psychological distress among respondents experiencing moderate financial strain (sample mean levels). Moderate financial strain may have been somewhat

commonplace during the pandemic. Indeed, only approximately one-third (34.70%) of our sample experienced above average levels on the financial strain index. For those experiencing some financial strain but without the more severe hardship, it could be that an increased reliance on God might have undermined a sense of personal agency. While fully relinquishing oneself to God during the pandemic may have been a helpful coping mechanism for Americans experiencing severe financial strife, those with more moderate levels of economic hardship could possibly have benefitted from taking personal action to improve their situations (e.g., finding remote work, reducing expenses due to restaurant and shop closures). Though we could not test this in our data, a greater reliance on God at a lower severity of stressor might promote a more passive form of religious coping (Pargament et al. 1998), whereby individuals engage God as a crutch to avoid taking responsibility for and dealing with their problems.

It is also worthy of mention that only an increased reliance on God, and not increases in religious importance, had a stress buffering role under conditions of financial strain. There are a few reasons why we might have observed these discrepant findings. First, compared to the nearly 30% of our sample who came to rely more on God during the pandemic, this number was nearly halved for those who stated religion had become more important in their lives over the past year (17%). Given this general pattern of sustained religious importance in the majority of our sample, this suggests that a substantial portion of adult Americans might not feel the need to make religiosity (or the institution of religion) more central in their lives during the pandemic. What seemed to carry more weight as a stress buffer, however, was relying more on a *specific divine entity* in one's life. Increasing a general sense of religious importance might have been more difficult, especially with many aspects of public religious life (e.g., worship services, gatherings in faith communities) severely disrupted in the months marking 2020 and 2021. Ultimately, rather than the belief in the general importance of religion, it was the notion that God was actively involved in one's life and placing more reliance in Him that could have helped people detach from the material rewards emphasized by American culture and find a sense of self-worth, solace and comfort in the hands of a loving deity during struggle. This process may help believers maintain a sense of gratitude and hope that the future will bring brighter days. Altogether, by bringing change in religiosity during the pandemic to the foreground, the current study rounds out our understanding of how religion mitigates the effects of financial hardship on psychological distress.

### Limitations and Future Directions

Despite the novel contributions of assessing the buffering role of religiosity before and during the pandemic, readers should bear several limitations in mind. First, it must be acknowledged that the claim of causal ordering between stress (e.g., financial strain) and psychological distress is often susceptible to a selection effect where individuals with greater psychological distress are exposed to more stressful conditions, perhaps due to their reduced ability to cope with stress immediately after its onset. With the cross-sectional data employed in the current study, however, the

findings of this study are subject to reverse causation. In addition, although we retrospectively assessed perceived changes in two dimensions of religiosity since the beginning of the COVID-19 pandemic, it is possible that participants' perceptions of change could be influenced by their current levels of psychological distress. Longitudinal studies are thus needed to acquire more robust evidence linking changes in religiosity with psychological distress in the midst of economic hardship during the pandemic.

Second, it is also important to note that the conceptualization and measurement of religion in this study, especially when it comes to reliance on God, is based largely on the Judeo-Christian tradition. This was due to necessity, since the sample was randomly drawn from the population of the United States, which is predominantly Christian. Nevertheless, this framework of *religious change* as a stress coping mechanism set forth in the current study could be profitably employed in more religiously diverse samples in countries beyond the United States. Recent work has consistently found a cumulative effect of religion, where stable religiosity over long periods of the life course associates with the most optimal health outcomes (Upenieks and Schafer 2020; Upenieks and Thomas 2021), so the assessment of religious change as we emerge from this period of crisis will be crucial to consider moving forward.

Third, we encourage future research, particularly those with data on other dimensions of religious change, to expand the scope of the religious measures used in the current study. One particularly interesting dimension to consider moving forward is religious attendance. Churches and worship centers experienced disruption in 2020 and 2021 due to the social distancing protocols surrounding the pandemic, which might have limited the extent to which this type of behavior could have been "increased." Still, as churches throughout the country have opening to full capacity across the country, this will be an important dimension to assess moving forward that people might draw on to deal with pandemic-related hardships. For example, religious clergy are often a source of support for families who are experiencing financial strain (Beit-Hallahmi 2015), but they may not have been as readily available during the pandemic. Moreover, as part of the "dark side of religion" it is possible that some dimensions of religiosity might worsen the association between financial strain and psychological distress (e.g., religious/divine struggles, negative religious coping) (see Upenieks et al. 2021). All told, the study of religious change in the aftermath of the pandemic should be a topic of considerable interest to scholars of religion and health.

Finally, we would be remiss to note that the hardships and mental health costs of the pandemic were not random. Unsurprisingly, individuals that were most economically, mentally, and physically vulnerable were most likely to be exposed to these hardships and psychological costs (Bierman et al. 2021a, b). The economic contraction that occurred alongside the pandemic also took the largest toll on those who were least prepared to deal with these challenges. Though beyond the scope of the current study, it would be profitable for future research to pursue whether religious/spiritual coping methods, especially increasing religiosity, might be a more efficacious strategy for marginalized groups. For instance, recent research has found that racial/ethnic minorities report higher religious importance and increased religious importance during the early months of the pandemic

(Davis et al. 2021). Such a finding is consistent with the fact that African Americans in particular are apt to draw on religion/spirituality to cope, both generally (Chapman and Steger 2010; Chatters et al. 2008) and in the context of the COVID-19 pandemic (Gecewicz 2020).

## Conclusion and Implications

We found that coming to rely on God more under conditions of financial strain, though sometimes hypothesized to undermine personal agency to solve problems, associates with lower psychological distress. Though it may be challenging to maintain, or increase, religious/spiritual beliefs in the face of adversity, that there were observed benefits to well-being for doing so could serve as insightful guidance for both religious leaders and R/S individuals. Family members, friends, and religious leaders can invite and make space for people to discuss religious and spiritual matters, especially one's relationship with God, with particular attention paid to help believers combat any spiritual struggles or doubts that might prevent them from drawing more strongly on their faith (e.g., Counted et al. 2020).

It is also important to highlight that it was the more private dimension of religiosity—relying on God for strength and guidance in the midst of financial strain—that was associated with lower psychological distress. The COVID-19 pandemic necessitated restrictions on religious service and activities, so it was essential to examine the extent to which the pandemic brought about changes in religious beliefs, such as reliance on God, that might impact mental health. With the challenges of maintaining cohesive religious communities during this public health crisis (VanderWeele 2020), we show that one's personal relationship with God was paramount for buffering the effects of financial stress during the pandemic. This suggests that even where public religious gatherings are not possible, there is much to be gained from drawing on a secondary source when life appears to spiral out of control.

With its dangerous and severe implications for psychological distress, more research is clearly needed that explores effective coping strategies to maintain the emotional well-being of the public in current times and pressing onward from the COVID-19 pandemic. In a world ridden by disaster and crisis, that present steep challenges to individuals' coping capacities, this study has shown that religion/spirituality may prove to be a consistent and valuable coping resource through adversity and suffering.

**Data Availability** Data will not be deposited as it is restricted.

## Declarations

**Conflict of interest** The authors declare no conflicts of interest.

## References

- Adler, Nancy E., Elissa S. Epel, Grace Castellazzo, and Jeannette R. Ickovics. 2000. Relationship of Subjective and Objective Social Status with Psychological and Physiological Functioning: Preliminary Data in Healthy, White Women. *Health Psychology* 19 (6): 586–592.
- Allison, Paul. D. 1999. *Multiple Regression: A Primer*. Thousand Oaks, CA: Pine Forge.
- Aten, Jamie D., Wendy R. Smith, Edward B. Davis, Daryl R. Van Tongeren, Joshua N. Hook, Don E. Davis, and Laura Shannonhouse. 2019. The Psychological Study of Religion and Spirituality in a Disaster Context: A Systematic Review. *Psychological Trauma: Theory, Research, Practice, and Policy* 11 (6): 597–613.
- Beit-Hallahmi, Benjamin. 2015. Resisting the Match between Religion and “Spirituality.” *Religion, Brain and Behavior* 5 (2): 118–123.
- Bierman, Alex. 2014. Reconsidering the Relationship Between Age and Financial Strain among Older Adults. *Society and Mental Health* 4 (3): 197–214.
- Bierman, Alex, Laura Upenieks, Paul Glavin, and Scott Schieman. 2021b. Accumulation of Economic Hardship and Health During the COVID-19 Pandemic: Social Causation or Selection? *Social Science and Medicine* 275: 113774.
- Bierman, Alex, Laura Upenieks, and Scott Schieman. 2021a. "Socially Distant? Social Network Confidants, Loneliness, and Health during the COVID-19 Pandemic." *Social Currents* 23294965211011591.
- Bonanno, George A. 2004. Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events? *American Psychologist* 59 (1): 20–28.
- Bonanno, George A., and Anthony D. Mancini. 2012. Beyond Resilience and PTSD: Mapping the Heterogeneity of Responses to Potential Trauma. *Psychological Trauma: Theory, Research, Practice, and Policy* 4 (1): 74–83.
- Bonanno, George A., Sandro Galea, Angela Bucciarelli, and David Vlahov. 2007. What Predicts Psychological Resilience After Disaster? The Role of Demographics, Resources, and Life Stress. *Journal of Consulting and Clinical Psychology* 75 (5): 671–682.
- Bonanno, George A., Chris R. Brewin, Krzysztof Kaniasty, and Annette M. La Greca. 2010. Weighing the Costs of Disaster: Consequences, Risks, and Resilience in Individuals, Families, and Communities. *Psychological Science in the Public Interest* 11 (1): 1–49.
- Boyraz, Güler., and Dominique N. Legros. 2020. Coronavirus Disease (COVID-19) and Traumatic Stress: Probable Risk Factors and Correlates of Posttraumatic Stress Disorder. *Journal of Loss and Trauma* 25 (6–7): 503–522.
- Bradshaw, Matt, and Christopher G. Ellison. 2010. Financial Hardship and Psychological Distress: Exploring the Buffering Effects of Religion. *Social Science & Medicine* 71 (1): 196–204.
- Bruine de Bruin, Wändi. 2021. Age Differences in COVID-19 Risk Perceptions and Mental Health: Evidence from a National US Survey Conducted in March 2020. *The Journals of Gerontology: Series B* 76 (2): e24–29.
- Burgard, Sarah A., and Lucie Kalousova. 2015. Effects of the Great Recession: Health and well-being. *Annual Review of Sociology* 41: 181–201.
- Butterworth, Peter, Bryan Rodgers, and Tim D. Windsor. 2009. Financial Hardship, Socio-Economic Position and Depression: Results from the PATH Through Life Survey. *Social Science and Medicine* 69 (2): 229–237.
- Chai, Lei, Scott Schieman, and Alex Bierman. 2021. Financial Strain and Psychological Distress: Do Strains in the Work-Family Interface Mediate the Effects? *Society and Mental Health* 11 (2): 168–182.
- Chapman, L. Kevin., and Michael F. Steger. 2010. Race and Religion: Differential Prediction of Anxiety Symptoms by Religious Coping in African American and European American Young Adults. *Depression and Anxiety* 27 (3): 316–322.
- Chatters, Linda M., Robert Joseph Taylor, James S. Jackson, and Karen D. Lincoln. 2008. Religious Coping among African Americans, Caribbean Blacks and Non-Hispanic Whites. *Journal of Community Psychology* 36 (3): 371–386.
- Chen, Daniel L. 2010. Club Goods and Group Identity: Evidence from Islamic Resurgence During the Indonesian Financial Crisis. *Journal of Political Economy* 118 (2): 300–354.



- Chen, Shuquan, and George A. Bonanno. 2020. Psychological Adjustment During the Global Outbreak of COVID-19: A Resilience Perspective. *Psychological Trauma: Theory, Research, Practice, and Policy* 12 (S1): S51–54.
- Counted, Victor, Megan A. Neff, Laura E. Captari, and Richard G. Cowden. 2020. Transcending Place Attachment Disruptions During a Public Health Crisis: Spiritual Struggles, Resilience, and Transformation. *Journal of Psychology and Christianity* 39 (4): 276–287.
- Davis, Edward B., Cynthia N. Kimball, Jamie D. Aten, Benjamin Andrews, Daryl R. Van Tongeren, Joshua N. Hook, Don E. Davis, Pehr Granqvist, and Crystal L. Park. 2019. Religious Meaning Making and Attachment in a Disaster Context: A Longitudinal Qualitative Study of Flood Survivors. *The Journal of Positive Psychology* 14 (5): 659–671.
- Davis, Edward B., Stacey E. McElroy-Heltzel, Austin W. Lemke, Richard G. Cowden, Tyler J. VanderWeele, Everett L. Worthington Jr, and Kevin J. Glowiak. 2021. Psychological and Spiritual Outcomes During the COVID-19 Pandemic: A Prospective Longitudinal Study of Adults with Chronic Disease. *Health Psychology* 40 (6): 347–356.
- DeAngelis, Reed T., and Christopher G. Ellison. 2017. Kept in His Care: The Role of Perceived Divine Control in Positive Reappraisal Coping. *Religions* 8 (8): 133.
- Donnelly, Rachel, and Mateo P. Farina. 2021. How Do State Policies Shape Experiences of Household Income Shocks and Mental Health During the COVID-19 Pandemic? *Social Science & Medicine* 269: 113557.
- Dreentea, Patricia, and John R. Reynolds. 2015. Where Does Debt Fit in the Stress Process Model? *Society and Mental Health* 5 (1): 16–32.
- Fernandes, Nuno. 2020. "Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy." Available at SSRN 3557504.
- Foley, Daniel Patrick. 1988. Eleven interpretations of personal suffering. *Journal of Religion and Health* 27 (4):321–328.
- Froese, Paul, and Christopher Bader. 2010. *America's Four Gods: What We Say about God—and What That Says About Us*. New York: Oxford University Press.
- Gecewicz, Claire. 2020, April 30. Few Americans Say Their House of Worship is Open, but a Quarter Say Their Faith has Grown Amid Pandemic. Pew Research Center. <https://pewrsr.ch/3eZZw8V>.
- Gottlieb, Benjamin H. 1997. "Conceptual Models and Measurement Issues in the Study of Coping with Chronic Stress. In *Coping with Chronic Stress*, ed. B.H. Gottlieb, 3–40. New York: Plenum.
- Gruber, June, Mitchell J. Prinstein, Lee Anna Clark, Jonathan Rottenberg, Jonathan S. Abramowitz, Anne Marie Albano, and Amelia Aldao. 2020. Mental Health and Clinical Psychological Science in the time of COVID-19: Challenges, Opportunities, and a Call to Action. *American Psychologist* 76 (3): 409–426.
- Hamzah, F. Binti, C. Lau, Hafeez Nazri, Dominic Vincent Ligot, Guanhua Lee, Cheng Liang Tan, M. K. B. M. Shaib, Ummi Hasanah Binti Zaidon, Adina Binti Abdullah, and Ming Hong Chung. "CoronaTracker: Worldwide COVID-19 Outbreak Data Analysis and Prediction." *Bull World Health Organ* 1(32): [https://cdn.spotle.ai/projects/296083/10079/20\\_255695.pdf](https://cdn.spotle.ai/projects/296083/10079/20_255695.pdf).
- Hardy, Bradley L., and Trevon D. Logan. 2020. "Racial Economic Inequality Amid the COVID-19 Crisis." *The Hamilton Project* [https://www.brookings.edu/wp-content/uploads/2020/08/EA\\_HardyLogan\\_LO\\_8.12.pdf](https://www.brookings.edu/wp-content/uploads/2020/08/EA_HardyLogan_LO_8.12.pdf).
- Hertz-Palmor, Nimrod, Tyler M. Moore, Doron Gothelf, Grace E. DiDomenico, Idit Dekel, David M. Greenberg, and Lily A. Brown. 2021. Association Among Income Loss, Financial Strain and Depressive Symptoms during COVID-19: Evidence from Two Longitudinal Studies. *Journal of Affective Disorders* 29: 1–8.
- Idler, Ellen L., Marc A. Musick, Christopher G. Ellison, Linda K. George, Neal Krause, Marcia G. Ory, Kenneth I. Pargament, Lynda H. Powell, Lynn G. Underwood, and David R. Williams. 2003. Measuring Multiple Dimensions of Religion and Spirituality for Health Research: Conceptual Background and Findings from the 1998 General Social Survey. *Research on Aging* 25 (4): 327–365.
- Igielnik, Ruth. 2020, May 15. Majority of Americans who Lost a Job or Wages due to COVID-19 Concerned States will Reopen Too Quickly. *Pew Research Center*. <https://www.pewresearch.org/factank/2020/05/15/majority-of-americans-who-lost-a-job-or-wages-due-to-covid-19-concernedstates-will-reopen-too-quickly/>
- Immerzeel, Tim, and Frank Van Tubergen. 2013. Religion as Reassurance? Testing the Insecurity Theory in 26 European Countries. *European Sociological Review* 29 (2): 359–372.

- Ivey, Allen E., and Jeff E. Brooks-Harris. 2005. "Integrative Psychotherapy with Culturally Diverse Clients." Pp. 321029 in J. C. Norcross & M. R. Goldfried (Eds.), *Handbook of Psychotherapy Integration* (2nd ed., pp. 321–339). New York: Oxford University Press.
- Jace, Clara E., and Christos A. Makridis. 2021. Does Marriage Protect Mental Health? Evidence from the COVID-19 Pandemic. *Social Science Quarterly* 102 (6): 2499–2515.
- Jackson, Laurence E., and Robert D. Coursey. 1998. The Relationship of God Control and Internal Locus of Control to Intrinsic Religious Motivation, Coping and Purpose in Life. *Journal for the Scientific Study of Religion* 27 (3): 399–410.
- Jacobi, Christopher Justin, Richard G. Cowden, and Brandon Vaidyanathan. 2022. Associations of Changes in Religiosity with Flourishing During the COVID-19 Pandemic: A Study of Faith Communities in the United States. *Frontiers in Psychology* 13: 805785–805785.
- Jung, Jong Hyun. 2015. Sense of Divine Involvement and Sense of Meaning in Life: Religious Tradition as a Contingency. *Journal for the Scientific Study of Religion* 54 (1): 119–133.
- Jung, Jong Hyun, and Christopher G. Ellison. 2022. Discovering Grace at the Table? Prayers at Mealtime, Marital Status, and Life Satisfaction in Later Life. *Research on Aging* 44 (1): 44–53.
- Kahn, Joan R., and Leonard I. Pearlin. 2006. Financial Strain Over the Life Course and Health among Older Adults. *Journal of Health and Social Behavior* 47 (1): 17–31.
- Kelley, Heather H., Yoon Lee, Ashley LeBaron-Black, David C. Dollahite, Spencer James, Loren D. Marks, and Tyler Hall. 2022. Change in Financial Stress and Relational Wellbeing During COVID-19: Exacerbating and Alleviating Influences. *Journal of Family and Economic Issues*. <https://doi.org/10.1007/s10834-022-09822-7>.
- Kessler, Ronald C., Gavin Andrews, Lisa J. Colpe, Eva Hiripi, Daniel K. Mroczek, S-LT Normand, Ellen E. Walters, and Alan M. Zaslavsky. 2002. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine* 32 (6): 959–976.
- Kirkpatrick, Lee A. 2005. *Attachment, Evolution, and the Psychology of Religion*. New York: Guilford Press.
- Koltai, Jonathan, Alex Bierman, and Scott Schieman. 2018. Financial Circumstances, Mastery, and Mental Health: Taking Unobserved Time-Stable Influences into Account. *Social Science & Medicine* 202: 108–116.
- Krause, Neal. 1991. Stress and Isolation from Close Ties in Later Life. *Journal of Gerontology* 46 (4): S183–S194.
- Krause, Neal. 2005. God-Mediated Control and Psychological Well-Being in Late Life. *Research on Aging* 27 (2): 136–164.
- Krause, Neal. 2009. Meaning in Life and Mortality. *Journals of Gerontology Series b: Psychological Sciences and Social Sciences* 64 (4): 517–527.
- Krause, Neal, and R. David Hayward. 2015. Assessing Whether Trust in God Offsets the Effects of Financial Strain on Health and Well-Being. *The International Journal for the Psychology of Religion* 25 (4): 307–322.
- Krause, Neal, Kenneth I. Pargament, and Gail Ironson. 2018. In the Shadow of Death: Religious Hope as a Moderator of the Effects of Age on Death Anxiety. *The Journals of Gerontology: Series B* 73 (4): 696–703.
- Landau, Mark J., Jamel Khenfer, Lucas A. Keefer, Trevor J. Swanson, and Aaron C. Kay. 2018. When and Why Does Belief in a Controlling God Strengthen Goal Commitment? *Journal of Experimental Social Psychology* 75: 71–82.
- Liu, Yingling, and Paul Froese. 2020. Faith and Agency: The Relationships Between Sense of Control, Socioeconomic Status, and Beliefs about God. *Journal for the Scientific Study of Religion* 59 (2): 311–326.
- Luchetti, Martina, Ji Hyun Lee, Damaris Aschwanden, Amanda Sesker, Jason E. Strickhouser, Antonio Terracciano, and Angelina R. Sutin. 2020. The Trajectory of Loneliness in Response to COVID-19. *American Psychologist* 75 (7): 897–908.
- Majumdar, Piya, Ankita Biswas, and Subhashis Sahu. 2020. COVID-19 Pandemic and Lockdown: Cause of Sleep Disruption, Depression, Somatic Pain, and Increased Screen Exposure of Office Workers and Students of India. *Chronobiology International* 37 (8): 1191–1200.
- Marx, Karl. [1852] 1983. "From the Eighteenth Brumaire of Louis Bonaparte." *The Portable Karl Marx*, edited by E. Kamenka. New York: Penguin
- Mazza, Cristina, Eleonora Ricci, Silvia Biondi, Marco Colasanti, Stefano Ferracuti, Christian Napoli, and Paolo Roma. 2020. A Nationwide Survey of Psychological Distress among Italian People

- during the COVID-19 Pandemic: Immediate Psychological Responses and Associated Factors. *International Journal of Environmental Research and Public Health* 17 (9): 3165.
- Mirowsky, John, and Catherine E. Ross. 2003. *Social Causes of Psychological Distress*. New York: Transaction Publishers.
- Molteni, Francesco, Riccardo Ladini, Ferruccio Biolcati, Antonio M. Chiesi, Giulia Maria Dotti Sani, Simona Guglielmi, Marco Maraffi, Andrea Pedrazzani, Paolo Segatti, and Cristiano Vezoni. 2021. Searching for Comfort in Religion: Insecurity and Religious Behaviour During the COVID-19 Pandemic in Italy. *European Societies* 23 (sup1): S704–S720.
- Norris, Pippa, and Ronald Inglehart. 2011. *Sacred and Secular: Religion and Politics Worldwide*. Cambridge: Cambridge University Press.
- Pargament, K.I. 1997. *The Psychology of Religion and Coping: Theory, Research and Practice*. London: Guilford Press.
- Pargament, Kenneth I., and June Hahn. 1986. God and the Just World: Causal and Coping Attributions to God in Health Situations. *Journal for the Scientific Study of Religion* 25 (2): 193–207.
- Pargament, Kenneth I., Harold G. Koenig, and Lisa M. Perez. 2000. The Many Methods of Religious Coping: Development and Initial Validation of the RCOPE. *Journal of Clinical Psychology* 56 (4): 519–543.
- Pargament, Kenneth I., Gina M. Magyar-Russell, and Nichole A. Murray-Swank. 2005. The Sacred and the Search for Significance: Religion as a Unique Process. *Journal of Social Issues* 61 (4): 665–687.
- Park, Crystal L., Kevin S. Masters, John M. Salsman, Amy Wachholtz, Andrea D. Clements, Elena Salmoirago-Blotcher, Kelly Trevino, and Danielle M. Wischenka. 2017. Advancing our Understanding of Religion and Spirituality in the Context of Behavioral Medicine. *Journal of Behavioral Medicine* 40 (1): 39–51.
- Pearlin, Leonard I., Morton A. Lieberman, Elizabeth G. Menaghan, and Joseph T. Mullan. 1981. The Stress Process. *Journal of Health and Social Behavior* 22: 337–356.
- Pearlin, Leonard I., Scott Schieman, Elena M. Fazio, and Steven C. Meersman. 2005. Stress, Health, and the Life Course: Some Conceptual Perspectives. *Journal of Health and Social Behavior* 46: 205–219.
- Pearlin, Leonard I. 1999. "The Stress Process Revisited: Reflections on Concepts and Their Interrelationships." pp. 395–415 in *Handbook of the Sociology of Mental Health*, edited by C. S. Aneshensel and J. C. Phelan. New York: Kluwer Academic/Plenum.
- Perry, Samuel L., Andrew L. Whitehead, and Joshua B. Grubbs. 2021. Save the Economy, Liberty, and Yourself: Christian Nationalism and Americans' Views on Government COVID-19 Restrictions.". *Sociology of Religion* 82 (4): 426–446.
- Petropoulos, Fotios, and Spyros Makridakis. 2020. Forecasting the Novel Coronavirus COVID-19. *PLoS ONE* 15 (3): e0231236.
- Pirutinsky, Steven, Aaron D. Cherniak, and David H. Rosmarin. 2020. COVID-19, Mental Health, and Religious Coping Among American Orthodox Jews. *Journal of Religion and Health* 59 (5): 2288–2301.
- Pollner, Melvin. 1989. Divine relations, social relations, and well-being. *Journal of Health and Social Behavior* 30 (1):92–104.
- Probst, Tahira M., and Paul Strand. 2010. Perceiving and Responding to Job Insecurity: A Workplace Spirituality Perspective. *Journal of Management, Spirituality and Religion* 7 (2): 135–156.
- Rajkumar, Ravi Philip. 2020. COVID-19 and Mental Health: A Review of the Existing Literature. *Asian Journal of Psychiatry* 52: 102066.
- Ross, Catherine E., and Joan Huber. 1985. Hardship and Depression. *Journal of Health and Social Behavior* 26 (4): 312–327.
- Ruiter, Stijn, and Frank Van Tubergen. 2009. Religious Attendance in Cross-National Perspective: A Multilevel Analysis of 60 Countries. *American Journal of Sociology* 115 (3): 863–895.
- Sandage, Steven J., and F. LeRon Shults. 2007. Relational Spirituality and Transformation: A Relational Integration Model. *Journal of Psychology and Christianity* 26 (3): 261–269.
- Sandage, Steven J., Peter J. Jankowski, David R. Paine, Julie J. Exline, Elizabeth G. Ruffing, David Rupert, George S. Stavros, and Miriam Bronstein. 2020. Testing a Relational Spirituality Model of Psychotherapy Clients' Preferences and Functioning. *Journal of Spirituality in Mental Health*. <https://doi.org/10.1080/19349637.2020.1791781>.
- Schieman, Scott. 2008. The Religious Role and the Sense of Personal Control. *Sociology of Religion* 69 (3): 273–296.

- Schieman, Scott, Tetyana Pudrovska, and Melissa A. Milkie. 2005. The Sense of Divine Control and the Self-Concept: A Study of Race Differences in Late Life. *Research on Aging* 27 (2): 165–196.
- Schieman, Scott, Tetyana Pudrovska, Leonard I. Pearlin, and Christopher G. Ellison. 2006. The Sense of Divine Control and Psychological Distress: Variations across Race and Socioeconomic Status. *Journal for the Scientific Study of Religion* 45 (4): 529–549.
- Schieman, Scott, Alex Bierman, and Christopher G. Ellison. 2013. "Religion and Mental Health." pp. 457–78 in *Handbook of the Sociology of Mental Health*, edited by C. S. Aneshensel, J. C., Phelan, and A. Bierman. Dordrecht: Springer Netherlands.
- Schnabel, Landon, and Scott Schieman. 2021. Religion Protected Mental Health but Constrained Crisis Response During Crucial Early Days of the COVID-19 Pandemic. *Journal for the Scientific Study of Religion*. <https://doi.org/10.1111/jssr.12720>.
- Shanafelt, Tait, Jonathan Ripp, and Mickey Trockel. 2020. Understanding and Addressing Sources of Anxiety among Health Care Professionals during the COVID-19 Pandemic. *JAMA* 323 (21): 2133–2134.
- Shannonhouse, Laura R., Jacquelyn A. Bialo, Aaron R. Majuta, Melissa R. Zeligman, Don E. Davis, Stacey E. McElroy-Heltzel, Jamie D. Aten, Edward B. Davis, Daryl R. Van Tongeren, and Joshua N. Hook. 2019. Conserving Resources During Chronic Disaster: Impacts of Religious and Meaning-Focused Coping on Botswana Drought Survivors. *Psychological Trauma: Theory, Research, Practice, and Policy* 11 (2): 137–146.
- Shulgin, Sergey, Julia Zinkina, and Andrey Korotayev. 2019. Religiosity and Aging: Age and Cohort Effects and their Implications for the Future of Religious Values in High-Income OECD Countries. *Journal for the Scientific Study of Religion* 58 (3): 591–603.
- Singh-Manoux, Archana, Nancy E. Adler, and Michael G. Marmot. 2003. Subjective Social Status: Its Determinants and Its Association with Measures of Ill-Health in the Whitehall II Study. *Social Science & Medicine* 56 (6): 1321–1333.
- Spilka, Bernard, Ralph W. Hood, Bruce Hunsberger, and Richard Gorsuch. 2003. *The Psychology of Religion: An Empirical Approach*. New York: Guilford Press.
- Tongeren, Van, R. Daryl, Jamie D. Aten, Stacey McElroy, Don E. Davis, Laura Shannonhouse, Edward B. Davis, and Joshua N. Hook. 2019. Development and Validation of a Measure of Spiritual Fortitude. *Psychological Trauma: Theory, Research, Practice, and Policy* 11 (6): 588–596.
- Upenieks, Laura, and Christos Orfanidis. 2021. Social Trust, Religiosity, and Self-Rated Health in the Context of National Religious Pluralism. *Journal of Religion and Health*. <https://doi.org/10.1007/s10943-021-01380-w>.
- Upenieks, Laura, and Markus H. Schafer. 2020. Religious Attendance and Physical Health in Later Life: A Life Course Approach. *Journal of Health and Social Behavior* 61 (4): 486–502.
- Upenieks, Laura, and Patricia A. Thomas. 2021. Gaining Faith, Losing Faith: How Education Shapes the Relationship between Religious Transitions and Later Depression. *Journal of Health and Social Behavior* 62 (4): 582–598.
- Upenieks, Laura, Scott Schieman, and Alex Bierman. 2022. Jitters on the Eve of the Great Recession: Is the Belief in Divine Control a Protective Resource??. *Sociology of Religion*. <https://doi.org/10.1093/socrel/srab018>.
- VanderWeele, Tyler J. 2020. Love of Neighbor During a Pandemic: Navigating the Competing Goods of Religious Gatherings and Physical Health. *Journal of Religion and Health* 59 (5): 2196–2202.
- Wang, Cuiyan, Riyu Pan, Xiaoyang Wan, Yilin Tan, Xu. Linkang, Cyrus S. Ho, and C.. Ho.. Roger. 2020. Immediate Psychological Responses and Associated Factors During the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China. *International Journal of Environmental Research and Public Health* 17 (5): 1729.
- Whitehead, Andrew L., and Samuel L. Perry. 2020. How Culture Wars Delay Herd Immunity: Christian Nationalism and Anti-Vaccine Attitudes. *Socius* 6: 2378023120977727.
- Wolfe, J.D., E.H. Baker, J. Uddin, and S. Kirkland. 2022. Varieties of Financial Stressors and Midlife Health Problems, 1996–2016. *The Journals of Gerontology: Series B* 77 (1): 149–159.
- Young, Marisa, and Scott Schieman. 2012. When Hard Times Take a Toll: The Distressing Consequences of Economic Hardship and Life Events Within the Family-Work Interface. *Journal of Health and Social Behavior* 53 (1): 84–98.

Zhang, Hansong, Joshua N. Hook, Adam S. Hodge, Steven P. Coomes, Cameron W. Davis, Daryl R. Van Tongeren, Don E. Davis, and Jamie D. Aten. 2021. Religious and Spiritual Struggles and Coping amidst the COVID-19 Pandemic: A Qualitative Study. *Spirituality in Clinical Practice*. <https://doi.org/10.1037/scp0000272>.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.