Spirituality, Religiosity, and Health: A Multi-Method Research Framework and Narrative Synthesis of Disease Prevention Pathways and Contemporary Challenges

Vargas-Uricoechea Hernando[1]; Devoz-Muñoz Julia[1]; Castellanos-Pinedo Alejandro[2].

[1]Metabolic Diseases Study Group, Department of Internal Medicine, Universidad del Cauca, Popayán-Colombia.

[2]Universidad del Sinú, Hospital San Jerónimo, Montería-Colombia.

DOI: https://doi.org/10.47772/IJRISS.2026.1017PSY0071

Received: 30 October 2026; Accepted: 04 November 2026; Published: 14 November 2026

ABSTRACT

This paper presents a multi-method research framework for investigating whether spirituality and religiosity function as disease prevention strategies, combining a documentation-based feasibility assessment, two rapid narrative syntheses of published evidence, and a detailed protocol for future qualitative analysis. We hypothesized that religious and spiritual engagement, particularly organizational forms such as service attendance, is associated with favorable health behaviors, reduced morbidity, and lower mortality through behavioral, psychosocial, and physiological pathways; this hypothesis is evaluated here against existing published evidence rather than through new primary data analysis. First, we assessed the feasibility of harmonizing religiosity and biomarker variables across three major longitudinal cohorts (Health and Retirement Study, National Health and Nutrition Examination Survey, UK Biobank) by reviewing each study's publicly available documentation; this review found that religious service attendance, private prayer, religious affiliation, and importance of religion are consistently documented alongside core cardiometabolic biomarkers, supporting the feasibility of a future harmonized statistical analysis that has not yet been conducted. Second, we conducted a rapid narrative synthesis (searched November 2026; not a formal systematic review or meta-analysis) of peer-reviewed studies comparing digital and in-person religious engagement during the COVID-19 pandemic; direct head-to-head comparisons proved rare, and the identified studies showed a mixed pattern, including reduced odds of self-harm ideation among UK adults with frequent online participation (odds ratio 0.24) and better self-rated health among US adults who discussed religious or spiritual matters frequently (odds ratio 1.65), alongside null associations for several other outcomes. Third, a narrative synthesis of cross-national evidence using a published analysis of World Values Survey data from 93 countries (N=121,770) found that religiosity-health associations vary substantially by country and are shaped by macro-level context such as human development and religious diversity, with statistically significant positive associations in only a minority of countries. Fourth, we present a detailed, reproducible protocol for a planned qualitative thematic analysis of online narratives of negative religious coping, including the coding framework, sampling strategy, and inter-rater reliability procedure; this component has not yet been executed. Taken together, the available evidence offers qualified support for organizational religiosity as a correlate of favorable health behaviors, but evidence for specific disease-prevention pathways remains limited, heterogeneous, and context-dependent. This work is intended to inform a subsequent phase of primary data analysis and to clarify, transparently, which conclusions are currently supported by existing evidence and which await further investigation.

INTRODUCTION

The global burden of non-communicable diseases continues to rise, with conditions such as ischemic heart disease, stroke, and diabetes accounting for a substantial proportion of disability-adjusted life-years worldwide [1]. Despite significant advances in biomedical prevention and treatment, conventional public health strategies have not fully stemmed this tide, prompting researchers to explore a broader set of protective factors that may

operate through behavioral, psychosocial, and even physiological pathways [2]. Among these, spirituality and religiosity have emerged as potentially important, yet often overlooked, determinants of population health [3].

A substantial body of evidence has documented associations between religious engagement and favorable health outcomes, including lower rates of depression, reduced cardiovascular mortality, and healthier lifestyle behaviors such as increased physical activity and reduced smoking [3] [4]. However, the mechanisms underlying these associations remain incompletely understood, and several critical gaps persist in the literature. First, much of the existing research relies on cross-sectional designs that cannot establish temporal precedence or causal direction [5]. Second, the rapid proliferation of digital religious engagement during the COVID-19 pandemic has raised questions about whether virtual participation confers the same health benefits as in-person attendance [6]. Third, the role of negative religious coping—spiritual struggles that may exacerbate rather than alleviate distress—has received comparatively little attention [7]. Fourth, cross-cultural validation of these relationships remains limited, as most studies have been conducted in predominantly Christian, Western populations [8].

The present research was designed to address these gaps through a multi-method investigation that synthesizes and extends the existing evidence base. Our central hypothesis was that religious and spiritual engagement, particularly organizational forms such as service attendance, is associated with favorable health behaviors, reduced morbidity, and lower mortality, and that these effects are mediated through behavioral, psychosocial, and physiological pathways. We further hypothesized that the protective effects of religiosity would vary by modality of engagement (digital versus physical), cultural context, and the presence or absence of negative religious coping. We examine this hypothesis here as a research framework: we assess the feasibility of testing it empirically and synthesize what existing published evidence already shows, rather than presenting newly executed primary-data analyses as original findings.

The significance of this research lies in its potential to inform public health interventions, clinical practice, and lifestyle medicine by clarifying the mechanisms through which religiosity and spirituality may confer protective health effects. By integrating harmonized longitudinal data from three major cohort studies—the Health and Retirement Study (HRS), the National Health and Nutrition Examination Survey (NHANES), and the UK Biobank—alongside cross-cultural data from the World Values Survey (WVS) and European Values Study (EVS), we provide a comprehensive assessment of these relationships across diverse populations and settings [9]. The inclusion of qualitative analysis of negative religious coping further enriches our understanding of the conditions under which religiosity may be harmful rather than protective.

The remainder of this paper is organized as follows: Section 2 reviews the relevant literature on spirituality, religiosity, and health, identifying key theoretical frameworks and empirical findings. Section 3 describes our research design and data sources, including the harmonization procedures for the quantitative datasets and the coding framework for the qualitative analysis. Section 4 presents the results of our multi-method analysis, covering the feasibility of data harmonization, the comparative effectiveness of digital versus physical religious engagement, and the cross-cultural patterns of religiosity and health. Section 5 interprets these findings in the context of existing knowledge and discusses their implications for public health practice and future research. Section 6 concludes with a summary of the main contributions and limitations of this work.

LITERATURE REVIEW

The relationship between spirituality, religiosity, and health has been the subject of sustained scholarly inquiry for several decades, with research accelerating notably since the turn of the millennium. Koenig's comprehensive review of over 3,000 quantitative studies published between 1872 and 2010 established that religious involvement is consistently associated with better mental health outcomes, including lower rates of depression, reduced suicide risk, and greater psychological well-being [3]. This foundational work also documented robust inverse associations between religiosity and substance abuse, delinquency, and marital instability, suggesting that religious communities may serve as powerful social control mechanisms that discourage health-damaging behaviors. However, Koenig cautioned that the quality of evidence varies considerably across studies, with many relying on convenience samples, cross-sectional designs, and unvalidated measures of religiousness.

The mechanisms through which religiosity might influence physical health have been theorized along multiple pathways. Behavioral pathways include the promotion of healthier lifestyles, as religious teachings often discourage smoking, excessive alcohol consumption, and risky sexual practices while encouraging physical activity and dietary moderation [4]. A systematic review by Tan and colleagues found that higher levels of religiosity and spirituality were positively associated with fruit and vegetable intake, though the relationship with fat consumption was mixed and varied by denomination and degree of religious involvement [4]. Psychosocial pathways involve the provision of social support through religious communities, the cultivation of a sense of meaning and purpose, and the promotion of positive emotional states such as hope, optimism, and gratitude [3]. Physiological pathways, though less well-established, include potential effects on immune function, endocrine regulation, and cardiovascular reactivity, with some studies reporting lower levels of C-reactive protein and cortisol among frequent religious attenders [10].

Despite this accumulating evidence, several conceptual and methodological challenges have limited the field's progress. One persistent issue concerns the operationalization of religiosity and spirituality themselves. Zinnbauer and colleagues argued that contemporary researchers often polarize these constructs, contrasting organized religion with personal spirituality, substantive religion with functional spirituality, and negative religiousness with positive spirituality [5]. They advocated for an integrative approach that recognizes the multidimensional nature of religious and spiritual experience, encompassing cognitive, affective, behavioral, and social components. This perspective has important implications for measurement, as single-item indicators such as service attendance may capture only a narrow slice of the broader construct.

A second challenge relates to the generalizability of findings across cultural contexts. The vast majority of research on religion and health has been conducted in predominantly Christian, Western populations, raising questions about whether observed associations hold in other religious traditions and cultural settings [8]. Studies among sub-Saharan African migrant women with HIV/AIDS, for example, have highlighted the central role of prayer, meditation, and church attendance in coping with chronic illness, but also noted that spiritual struggles—such as questioning "why me?"—can be a source of distress [8]. Similarly, research on patients with cardiovascular disease has found that the association between religiosity and quality of life varies depending on the dimension of religiosity assessed and the domain of quality of life examined, with some studies reporting null or even negative associations [11].

The COVID-19 pandemic introduced a further complication by forcing many religious communities to shift from in-person to virtual gatherings. This natural experiment created an opportunity to examine whether the health benefits of religious attendance depend on physical co-presence or can be replicated through digital modalities. Preliminary evidence from pandemic-era studies in the United Kingdom, United States, Germany, Ireland, and South Korea suggests that in-person attendance is more strongly associated with favorable health outcomes than virtual attendance, with weekly in-person attendance linked to an odds ratio of 1.61 for better self-rated health while virtual attendance showed no significant association in fully adjusted models [12]. However, the evidence base remains small and heavily concentrated on mental health outcomes, with no studies directly examining biomarkers, metabolic syndrome, or cardiovascular disease.

Negative religious coping represents another underexplored dimension of the religion-health relationship. While most research has focused on the protective effects of religiosity, a growing body of literature suggests that spiritual struggles—including divine discontent, interpersonal religious conflict, intrapsychic doubt, and moral struggle—can be associated with poorer mental and physical health outcomes [7]. Among patients with HIV/AIDS, for example, higher levels of spirituality and religiosity predicted increased religious coping, which in turn influenced social support and depressed mood, but the direction of these effects depended on the specific coping strategies employed [13]. This complexity underscores the need for more nuanced theoretical models that can accommodate both positive and negative pathways linking religiosity to health.

The present research builds on these foundations by addressing several of the identified gaps. First, we employ harmonized longitudinal data from three major cohort studies—HRS, NHANES, and UK Biobank—to strengthen causal inference through repeated measures and temporal ordering. Second, we systematically compare digital versus physical religious engagement using pandemic-era data, extending the evidence base beyond mental health to include biomarkers and physical health outcomes. Third, we incorporate cross-cultural

data from the WVS and EVS to test the generalizability of observed associations across diverse religious and cultural contexts. Fourth, we include qualitative analysis of negative religious coping to capture the full spectrum of religious and spiritual experience, including its potentially harmful manifestations. By integrating these multiple methods and data sources, we aim to provide a more comprehensive and nuanced understanding of how spirituality and religiosity may function as disease prevention strategies, while also identifying the conditions under which these effects may be attenuated or reversed.

RESEARCH DESIGN AND DATA SOURCES

This investigation employed a multi-method design that integrated quantitative secondary data analysis with qualitative thematic analysis to examine the relationships between spirituality, religiosity, and health outcomes across diverse populations and contexts. The research design was structured around four complementary methodological components: a harmonized longitudinal analysis of three major cohort studies, a systematic review and meta-analysis framework comparing digital versus physical religious engagement, a cross-cultural analysis using multinational survey data, and a qualitative thematic analysis of negative religious coping narratives. Each component was designed to address specific gaps in the existing literature while contributing to an integrated understanding of the mechanisms through which religiosity may confer protective health effects.

It is important to specify precisely what each of these four components involved. The harmonized longitudinal analysis (3.1) was conducted as a documentation-based feasibility assessment, not as an extraction or statistical analysis of individual-level participant data; no individual-level data from HRS, NHANES, or UK Biobank were accessed for this paper. The systematic review (3.2) and the cross-cultural analysis (3.3) are presented here as rapid narrative syntheses of previously published, peer-reviewed evidence rather than as new primary meta-analyses or original statistical modeling of WVS/EVS microdata. The qualitative thematic analysis (3.4) is presented as a detailed, reproducible protocol that has not yet been applied to a sampled dataset. This framing follows directly from peer-review feedback on an earlier version of this manuscript, which found that language implying completed empirical analysis was not adequately supported by the methodological detail provided.

Documentation-Based Feasibility Assessment of Harmonized Longitudinal Data

The first component of this research framework is a documentation-based feasibility assessment of harmonized longitudinal data from three large-scale cohort studies: the Health and Retirement Study (HRS), the National Health and Nutrition Examination Survey (NHANES), and the UK Biobank. These datasets were selected because they collectively provide comprehensive coverage of the United States and United Kingdom populations, include repeated measures over extended time periods, and contain both self-reported religiosity indicators and objectively measured biomarker outcomes. The HRS, initiated in 1992, is a nationally representative longitudinal study of Americans aged 50 and older, with biennial interviews covering health, economic, and psychosocial domains [14]. NHANES, conducted by the National Center for Health Statistics, employs a cross-sectional, multistage probability sampling design to assess the health and nutritional status of the civilian, non-institutionalized U.S. population, with data collected in two-year cycles [15]. The UK Biobank is a large-scale prospective cohort study that recruited approximately 500,000 participants aged 40–69 between 2006 and 2010, collecting extensive phenotypic and genotypic data with ongoing health record linkage [16].

A harmonized variable-mapping schema, based on each survey's publicly available codebooks and documentation, was developed to align variable coding across these three surveys, addressing the substantial differences in question wording, response categories, and measurement timing that characterize each dataset. The core religiosity variables identified in this documentation review included religious service attendance, private prayer frequency, religious affiliation, and self-rated importance of religion. These variables were selected because they represent the most consistently available indicators across all three surveys and have demonstrated associations with health outcomes in prior research [3]. For HRS, the documentation additionally describes a validated four-item religiosity and spirituality index and the separate beliefs, meaning, and values scale, making it the richest source for multidimensional religiousness and spirituality among the three datasets.

The biomarker outcomes comprised blood pressure, glycated hemoglobin (HbA1c), lipid profiles (total cholesterol, HDL cholesterol, LDL cholesterol, triglycerides), body mass index (BMI), C-reactive protein (CRP), and fasting glucose. These biomarkers were selected because they represent established risk factors for cardiovascular disease, diabetes, and metabolic syndrome, and are consistently available across the three surveys. Participant identifiers serving as covariates included age, sex, race and ethnicity, socioeconomic status (education, income, wealth), and survey wave or year.

The documentation review involved several steps. First, we mapped variable names and response categories across each survey's published codebooks to identify common constructs. For religious service attendance, for example, HRS asks "How often do you attend religious services?" with response options ranging from "more than once a week" to "not at all," while NHANES asks "How often do you attend church or religious services?" with similar but not identical response categories. We recoded these into a common metric representing frequency per year, with categories for never, less than monthly, monthly, weekly, and more than weekly. Second, we assessed the documented feasibility of extracting each variable across all three surveys, identifying constructs that were robustly available versus those with low or uncertain feasibility. The results of this feasibility assessment, summarized in Table 1, revealed that religious service attendance, private prayer, religious affiliation, and self-rated importance of religion are robustly available across all three surveys, while several theoretically important constructs—including digital religious practice, religious fasting and dietary restrictions, cortisol, and heart rate variability—have low or uncertain feasibility.

Table 1. Feasibility of harmonized extraction of religiosity and biomarker variables across HRS, NHANES, and UK Biobank.

Variable Category	Specific Variable	HRS	NHANES	UK Biobank	Feasibility
Religiosity	Religious service attendance	Yes	Yes	Yes	High
Religiosity	Private prayer frequency	Yes	Yes	Yes	High
Religiosity	Religious affiliation	Yes	Yes	Yes	High
Religiosity	Importance of religion	Yes	Yes	Yes	High
Religiosity	Digital religious practice	No	No	No	Low
Religiosity	Religious fasting/dietary restrictions	No	No	No	Low
Biomarker	Blood pressure	Yes	Yes	Yes	High
Biomarker	HbA1c	Yes	Yes	Yes	High
Biomarker	Lipid profile	Yes	Yes	Yes	High
Biomarker	BMI	Yes	Yes	Yes	High
Biomarker	C-reactive protein	Yes	Yes	Yes	High
Biomarker	Fasting glucose	Yes	Yes	Yes	High
Biomarker	Cortisol	No	No	No	Low
Biomarker	Heart rate variability	No	No	No	Low

Although individual-level data have not yet been extracted or analyzed, the planned statistical approach for the subsequent harmonized analysis is specified here to support reproducibility, consistent with reviewer requests for reproducible methodological detail. For continuous biomarker outcomes (e.g., HbA1c, blood pressure, BMI, CRP, lipids), we plan to fit multivariable linear regression models; for binary or categorical health outcomes, multivariable logistic regression. Within HRS, which provides repeated biennial measures, mixed-effects models with random intercepts (or generalized estimating equations) will be used to account for within-person correlation across waves. All models will adjust for age, sex, race and ethnicity, educational attainment, household income or wealth, and survey wave or year. Required sample sizes and statistical power will depend on the specific outcome and subgroup analyses ultimately selected and will be reported, alongside realized analytic sample sizes after exclusions, once this analysis is executed; because no individual-level extraction has yet occurred, no sample size can be reported at this stage.

Narrative Synthesis of Digital Versus Physical Religious Engagement (Rapid Review)

To address the gap in knowledge regarding digital versus physical religious engagement, we conducted a rapid narrative synthesis of peer-reviewed literature, rather than a formal systematic review or meta-analysis; we make this distinction explicit because a rapid synthesis of this kind does not involve the dual independent screening, prespecified eligibility piloting, or formal risk-of-bias assessment that a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)-compliant systematic review requires [17]. Searches were conducted on November 4, 2026, using general academic search engines rather than a full multi-database search of PubMed, PsycINFO, and Web of Science with a documented screening flow; this is a limitation of the present synthesis and is addressed further in Section 5. Search terms combined religious engagement terms (e.g., "religious service attendance," "online religious participation") with modality terms (e.g., "digital," "virtual," "in-person") and health or well-being outcome terms (e.g., "self-rated health," "psychological distress," "well-being"), restricted to studies published during or after 2020. Of the records reviewed, two peer-reviewed, English-language, quantitative studies were identified that directly reported effect sizes linking religious engagement modality, or a closely related construct, to health or well-being outcomes during the COVID-19 pandemic [23,25]; these are described narratively in Section 4.2, with study-level characteristics and effect estimates reported in Table 2. No study was identified that directly compared in-person and online attendance, using the same sample, on a common health outcome; most available studies instead compare some degree of online participation against no online participation, or examine frequency of religious engagement more broadly, a distinction maintained throughout Section 4.2 rather than conflated with a true in-person-versus-virtual comparison.

Narrative Synthesis of Cross-National Religiosity-Health Evidence

The cross-cultural component of this research framework is a narrative synthesis of previously published research using the World Values Survey (WVS) and European Values Study (EVS), two large-scale, multinational survey programs that have collected data on values, beliefs, and attitudes across more than 100 countries over seven waves since 1981 [18]. These datasets were not re-analyzed for this paper; rather, we synthesize findings from published studies that have already constructed religiosity indicators from WVS/EVS data and examined their association with health outcomes, most notably a large cross-national study by Zimmer and colleagues using WVS data from 93 countries (N=121,770) [24], described in detail in Section 4.3. The core religiosity indicators available across WVS and EVS waves include religious service attendance, importance of religion, importance of God, belief in God, and religious self-identification; these indicators are consistently documented in the WVS/EVS codebooks and have been used in prior published cross-cultural research [19,24].

Published research using these indicators has aggregated individual responses into country-level religiosity indices and merged them with objective, country-level health indicators, such as those published by the World Health Organization's Global Health Observatory for smoking prevalence, physical inactivity, alcohol consumption, and cardiovascular mortality [20]. The most directly relevant example is Zimmer and colleagues' multilevel analysis of WVS data, which merged individual religiosity measures with country-level macro-structural variables, including the Human Development Index and indices of religious diversity and state restriction of religious practice, rather than the specific WHO behavioral indicators named above [24]. This illustrates both the feasibility of this type of merged, multilevel analysis and the specific choice of country-level covariates that shapes its conclusions; a harmonized analysis using the WHO behavioral indicators named above has not, to our knowledge, been published, and would represent a natural extension of this literature that we have not undertaken as part of the present synthesis.

Proposed Protocol for Qualitative Thematic Analysis (Not Yet Executed)

analysis of online narratives of negative religious coping and spiritual struggle; this analysis has not yet been executed, and no narratives have yet been sampled or coded. We specify the protocol here, as requested in peer review, so that its execution is fully reproducible by the present authors or by others. Data will be sourced from publicly available online forums and discussion boards where individuals share experiences of religious doubt, spiritual crisis, and struggles with faith; a purposive, maximum-variation sampling strategy will be used to

capture narratives across multiple platforms and religious traditions, with a target sample of approximately 40 to 60 narratives, to be finalized once thematic saturation is assessed during coding. The coding framework will capture six coping dimensions identified in the literature on religious and spiritual struggles: divine discontent (anger or disappointment with God), interpersonal religious struggle (conflict with religious leaders or community members), intrapsychic doubt (internal questioning of beliefs), moral struggle (conflict between religious teachings and personal values), demonic struggle (fear of evil forces or spiritual attack), and ultimate meaning struggle (questioning the purpose or meaning of life) [7]. Each narrative will be coded for the presence and intensity of these coping dimensions, alongside reported health outcomes (e.g., depression, anxiety, physical symptoms) and contextual factors (e.g., life events, social support, religious background). Coding will be conducted independently by two trained coders, with inter-rater reliability assessed using Cohen's kappa on a minimum of 20% of the sample, applying a target threshold of 0.80 or higher. Discrepancies will be resolved through discussion and consensus, and the final kappa value, together with illustrative quotations supporting each coding category, will be reported in full once this analysis is executed; we anticipate reporting these results in a subsequent publication or revision, pending resource availability for the coding process.

RESULTS OF MULTI-METHOD ANALYSIS

This section synthesizes what each component of the research framework described in Section 3 currently supports: the feasibility (not yet the results) of a future harmonized longitudinal analysis, a narrative synthesis of existing published evidence on digital versus physical religious engagement, and a narrative synthesis of existing published cross-national evidence on religiosity and health. The qualitative component described in Section 3.4 has not yet been executed and therefore has no results to report in this section.

Feasibility of a Future Harmonized Analysis (Documentation Review)

Our documentation-based review of the Health and Retirement Study (HRS), National Health and Nutrition Examination Survey (NHANES), and UK Biobank indicates that a core set of religiosity and biomarker variables is highly feasible for a future harmonized longitudinal analysis, while several theoretically important constructs face significant data limitations; individual-level data have not yet been extracted or statistically analyzed for this paper. The most robustly available religiosity indicators across all three surveys are religious service attendance, private prayer frequency, religious affiliation, and the self-rated importance of religion. These four variables are consistently documented as present in each dataset's codebook, with comparable response categories that could be recoded into a common metric representing frequency per year or categorical levels of engagement once extraction is undertaken. The HRS dataset additionally provides a validated four-item religiosity and spirituality index and a separate beliefs, meaning, and values scale, making it the richest source for multidimensional religiousness and spirituality among the three surveys [14]. For biomarker outcomes, blood pressure, glycated hemoglobin (HbA1c), lipid profiles (total cholesterol, HDL cholesterol, LDL cholesterol, triglycerides), body mass index (BMI), fasting glucose, and C-reactive protein are consistently documented as available across these datasets, supporting their planned use as primary outcomes in a future longitudinal analysis of religiosity and physical health.

Several constructs were identified as having low or uncertain feasibility for harmonized extraction. Digital religious practice, such as online worship attendance or virtual prayer groups, is not captured in any of the three surveys, reflecting the fact that these data collection efforts were designed prior to the widespread adoption of digital religious engagement during the COVID-19 pandemic. Religious fasting and dietary restrictions, which may be relevant for understanding behavioral pathways linking religiosity to metabolic health, are also absent from the core survey instruments. Among biomarker outcomes, cortisol and heart rate variability—both of which have been theorized as physiological mediators of the religion-health relationship—are not available in HRS, NHANES, or UK Biobank, limiting the ability to test mechanistic hypotheses involving stress physiology and autonomic function. These feasibility constraints, summarized in Table 1, highlight important gaps in the existing data infrastructure that future research should address through targeted data collection efforts.

The harmonization process also revealed substantial differences in the measurement timing and frequency of religiosity variables across surveys. HRS collects religiosity data at every biennial wave, providing repeated measures that can be used to examine within-person changes over time and to strengthen causal inference

through lagged analyses. NHANES, by contrast, includes religiosity questions only in selected survey cycles, with the most recent administration occurring in the 2007–2008 and 2009–2010 cycles, limiting the ability to examine temporal trends or to link religiosity to health outcomes measured in later cycles. UK Biobank collected religiosity data only at the baseline assessment (2006–2010), with no follow-up measures, precluding any longitudinal analysis of change in religious engagement. These differences in measurement design have important implications for the types of research questions that can be addressed with each dataset. HRS is best suited for examining the dynamic relationship between religiosity and health over the life course, NHANES can support cross-sectional and short-term prospective analyses within specific time windows, and UK Biobank is limited to baseline associations with subsequent health outcomes ascertained through record linkage.

Despite these limitations, the documentation-based review successfully identified a common set of variables that can support meaningful cross-survey comparisons and pooled analyses. The availability of core religiosity indicators and biomarker outcomes across all three surveys provides a foundation for replication and meta-analysis, while the unique strengths of each dataset—HRS's longitudinal depth, NHANES's population representativeness and objective health measures, and UK Biobank's large sample size and genetic data—can be leveraged to address complementary research questions. The feasibility assessment thus serves as a practical guide for researchers seeking to use these data sources, identifying both the opportunities and the constraints that shape the scope of possible analyses.

Narrative Synthesis of Digital Versus Physical Religious Engagement

Building on the feasibility assessment in Section 4.1, our rapid narrative synthesis (Section 3.2) identified a small evidence base directly examining how modality of religious engagement relates to health and well-being during the COVID-19 pandemic. The pandemic led many religious communities to transition rapidly from in-person to virtual or hybrid gatherings [12], creating an opportunity to examine whether religious engagement shows similar associations with health when mediated through digital platforms. However, as noted in Section 3.2, we identified no study that directly compared in-person and online attendance within the same sample on a common health outcome; the available quantitative evidence instead compares some degree of online or virtual participation against no participation, or examines frequency of religious engagement more broadly, with most studies employing cross-sectional or short-term longitudinal designs.

Table 2 summarizes the two quantitative studies identified in this synthesis. In a prospective cohort of 8,951 UK adults followed during the initial 2020 lockdown, online religious participation of at least once per week, compared with no online participation, was associated with lower odds of subsequent thoughts of self-harm (odds ratio 0.24, 95% CI 0.09–0.62); participation less than weekly was associated with higher life satisfaction and happiness, though these associations were less robust after correction for multiple testing, and little evidence was found for most other outcomes, including depressive symptoms and anxiety [23]. In a nationally representative US sample surveyed in 2021 (N=1,711), frequency of discussing religious or spiritual matters—rather than attendance modality per se—was associated with self-rated health: compared with never discussing religion, discussing it several times a week or more was associated with higher odds of better self-rated health (odds ratio 1.65, $p<.01$), and among respondents reporting high levels of religious or spiritual struggle, more frequent discussion was associated with lower psychological distress [25]. Neither study used the cohorts or religiosity variables described in Section 3.1, and neither reports a direct in-person-versus-virtual comparison; they are included here as the closest available quantitative evidence on modality and intensity of religious engagement during the pandemic period emphasized in the original research question.

Table 2. Studies identified in the rapid narrative synthesis of religious engagement modality/intensity and health or well-being outcomes during the COVID-19 pandemic.

Study	Design / Sample	Comparison	Outcome	Effect estimate	Notes
Shiba et al. 2023 [23]	Prospective cohort, UCL COVID-19 Social Study, UK adults, n=8,951	Online religious participation ≥1/week vs. none	Thoughts of self-harm (week 20)	OR 0.24 (95% CI 0.09–0.62)	Online participation <1/week also linked to higher life satisfaction and happiness (less robust after correction);

					little evidence for most other outcomes
Upenieks 2022 [25]	Cross-sectional, nationally representative US sample, n=1,711	Frequency of discussing religious/spiritual matters (several times/week+ vs. never)	Self-rated health	OR 1.65 (p<.01)	Among respondents with high religious/spiritual struggle, frequent discussion also linked to lower psychological distress

Interpreting this limited evidence base requires caution. Because no identified study made a direct in-person-versus-virtual comparison, we cannot conclude from this synthesis that in-person attendance outperforms virtual attendance; rather, the available evidence suggests that some form of active religious engagement—whether in-person attendance, online participation, or simply discussing religious or spiritual matters—is associated with more favorable outcomes on some but not all indicators, with associations that are modest in size and inconsistent across outcomes. This is a materially more cautious conclusion than asserting that in-person attendance has been shown to outperform virtual attendance by a specific, replicated margin, and we revise our interpretation accordingly in Section 5. If a social or relational mechanism does underlie these associations—for example, the physical co-presence, shared ritual, and spontaneous social interaction that are harder to replicate virtually—this remains a hypothesis to be tested with studies that directly compare modalities, rather than a documented finding of the present synthesis.

Notably, neither of the two studies identified in this synthesis addressed biomarkers, metabolic syndrome, diabetes, or cardiovascular disease as outcomes in the comparison of digital versus physical religious engagement. This represents a critical gap in the evidence base, as the hypothesized physiological pathways linking religiosity to health—including effects on immune function, endocrine regulation, and cardiovascular reactivity—may depend on the physical and social context of in-person participation. The absence of biomarker data in pandemic-era studies likely reflects the logistical challenges of collecting biological samples during periods of social distancing and lockdown, as well as the relatively short time horizon of most studies, which may not have been sufficient for changes in religious engagement to manifest in measurable physiological changes. Future research should prioritize the collection of biomarker data in studies comparing digital and physical religious engagement, particularly for outcomes such as C-reactive protein, blood pressure, and glycemic control that have been linked to religiosity in prior observational studies [10].

These tentative patterns, if corroborated by studies that directly compare engagement modalities, would be consistent with theoretical accounts emphasizing the social support, community belonging, and shared ritual experiences that characterize physical religious gatherings [21]. However, because the available evidence identified in this synthesis does not include a direct in-person-versus-virtual comparison on a common outcome, this interpretation should be treated as a hypothesis for future research rather than a documented finding. Religious communities may, in principle, be particularly effective in providing social support because they offer regular, structured opportunities for social interaction, shared values and beliefs that facilitate bonding, and a sense of belonging to a larger community that extends beyond individual relationships; testing whether this mechanism specifically explains any modality-related differences in health outcomes is an important direction for future research.

The evidence reviewed here also highlights the importance of considering modality of engagement in future research on religion and health. As digital religious participation becomes increasingly common even after the pandemic, researchers will need to develop measures that capture the full range of religious engagement modalities, including hybrid forms that combine in-person and virtual participation, and, critically, studies that directly compare these modalities within the same sample. The feasibility assessment in Section 4.1 indicates that digital religious practice is not documented in any of the three major cohort studies examined, representing a significant gap in the existing data infrastructure. Future waves of HRS, NHANES, and UK Biobank should consider adding questions about digital religious engagement to enable longitudinal analyses of how modality of participation relates to religiosity and health outcomes.

Narrative Synthesis of Cross-National Religiosity-Health Evidence

The narrative synthesis of cross-national evidence (Section 3.3) centers on Zimmer and colleagues' multilevel analysis of World Values Survey data from 93 countries (N=121,770), using a self-assessed overall-health measure [24]. Rather than reporting a newly estimated factor model, we summarize this study's published findings: country-specific regressions examined the religiosity-health association separately in each country, and multilevel models with cross-level interactions assessed whether country-level context moderates this association. The results show enormous cross-national variation: statistically significant positive associations between religiosity measures and self-assessed health were found in only three of the 93 countries studied (Georgia, South Africa, and the United States), and significant negative associations in only two (Slovenia and Tunisia) [24]. This heterogeneity is itself an important, well-supported finding—indicating that religiosity-health associations documented in Western, Christian-majority contexts do not straightforwardly generalize—and is a markedly more cautious conclusion than asserting that core religiosity indicators are "robustly supported" across contexts without qualification.

Macro-level variables helped explain some of this divergence in Zimmer et al.'s analysis. Greater participation in religious activity was more strongly related to better health in countries characterized as religiously diverse; the importance of God and reflecting on life's meaning were more likely associated with better health in countries with lower Human Development Index scores; and religiosity was less likely to be related to good health in communist and former-communist countries of Asia and Eastern Europe [24]. These macro-level moderators were the Human Development Index, religious diversity, restrictiveness of religious practice, and communist/post-communist status—not the World Health Organization behavioral indicators (smoking, physical inactivity, alcohol consumption, cardiovascular mortality) described in Section 3.3. A harmonized analysis directly linking WVS/EVS religiosity indicators to those specific WHO indicators has not, to our knowledge, been published, and remains a concrete opportunity for future cross-national research rather than a result reported here.

Several constructs in the original research design were identified as not standard core WVS or EVS variables and may be absent from many waves, limiting their utility for cross-cultural analysis. Digital religious practice, such as online worship attendance or virtual prayer groups, is not captured in any wave of either survey, reflecting the fact that these data collection efforts were designed prior to the widespread adoption of digital religious engagement during the COVID-19 pandemic. Religious fasting and dietary restrictions, which may be particularly relevant for understanding behavioral pathways linking religiosity to metabolic health in religious traditions such as Islam, Orthodox Christianity, and Judaism, are also not standard core variables. Negative religious coping, including spiritual struggles such as divine discontent, interpersonal religious conflict, and intrapsychic doubt, is not systematically assessed in the WVS or EVS, limiting the ability to examine the potentially harmful dimensions of religiosity in cross-cultural perspective. Direct biomarkers, such as blood pressure, HbA1c, or C-reactive protein, are not collected in these surveys, which rely entirely on self-reported health outcomes. Diet quality, while assessed in some waves through questions about food consumption patterns, is not a standard core variable and varies considerably in its operationalization across waves and countries.

The feasibility assessment thus identifies a clear set of opportunities and constraints for cross-cultural research on religiosity and health using the WVS and EVS. The core religiosity indicators—service attendance, importance of religion, importance of God, belief in God, religious self-identification, and prayer or meditation—are robustly available and can support meaningful cross-national comparisons. These indicators can be used to construct individual-level and country-level measures of religiosity that can be linked to a range of health outcomes available in the WVS and EVS, including self-rated health, life satisfaction, psychological well-being, and health behaviors such as smoking and alcohol consumption. However, researchers should be aware of the limitations imposed by the absence of digital religious practice, religious fasting and dietary restrictions, negative religious coping, direct biomarkers, and consistent diet quality measures. These gaps constrain the types of research questions that can be addressed and highlight the need for complementary data sources that can provide more detailed information on specific religious practices, coping mechanisms, and physiological outcomes.

The cross-cultural analysis also revealed important variation in the availability and wording of religiosity indicators across WVS and EVS waves. For example, prayer or meditation is included as a separate question in some waves but is combined with other religious practices in others, requiring careful attention to question wording when constructing harmonized measures across waves. Similarly, the response categories for religious service attendance vary slightly across waves, with some using a seven-point scale ranging from "more than once a week" to "never, practically never" and others using a four-point scale. These differences necessitate recoding into a common metric, typically representing frequency per year or categorical levels of engagement, to enable cross-wave comparisons. The harmonization procedures developed for this analysis provide a template for future research, documenting the specific recoding decisions and their rationale to facilitate replication and extension.

The implications of these findings for the broader research framework are twofold. First, Zimmer et al.'s finding of substantial cross-national heterogeneity (above) indicates that any future harmonized analysis of HRS, NHANES, and UK Biobank (Section 3.1) should not assume that associations between religiosity and health observed in the United States and United Kingdom will generalize to other cultural or political contexts; cross-cultural replication, rather than extrapolation, should be an explicit goal of that future analysis. Second, the identification of constructs that are not well captured in existing cross-cultural surveys highlights the need for targeted data collection efforts that can fill these gaps. Future waves of the WVS and EVS should consider adding questions about digital religious practice, religious fasting and dietary restrictions, and negative religious coping to enable more comprehensive cross-cultural analyses. Similarly, the inclusion of objective health measures, such as blood pressure or anthropometric measurements, in at least a subsample of respondents would greatly enhance the ability to examine physiological pathways linking religiosity to health outcomes across diverse cultural contexts.

INTERPRETATION OF FINDINGS AND IMPLICATIONS

The findings synthesized in this research framework carry theoretical and practical implications for understanding how spirituality and religiosity may relate to disease prevention, while also illustrating the limits of what existing published evidence currently supports. From a theoretical standpoint, the handful of pandemic-era studies identified in Section 4.2 offer preliminary, not yet corroborated, support for the idea that active religious engagement—whatever its specific modality—is associated with more favorable outcomes on some indicators. Because no identified study directly compared in-person and virtual attendance within the same sample, we do not interpret this evidence as establishing the centrality of social integration mechanisms, though this remains a plausible hypothesis consistent with theories of collective effervescence and social integration [22]. Future theoretical development should move beyond simple main-effect models of religiosity and health toward more nuanced frameworks that specify the conditions under which different modalities of religious engagement confer health benefits and the mechanisms through which they operate—frameworks that can only be properly tested once studies directly comparing engagement modalities are available.

The practical implications of these findings should be stated cautiously, given the limited and indirect nature of the available comparative evidence. If the tentative pattern identified in Section 4.2 is corroborated by future research with direct modality comparisons, it would suggest that efforts to strengthen religious communities as settings for health promotion—whether in person, online, or hybrid—merit further investigation, particularly among populations with high levels of religious engagement [14]. Clinicians working with religiously engaged patients may reasonably inquire about the nature and frequency of their religious or spiritual engagement, consistent with the associations reported by Upenieks [25], without assuming that any one modality has been shown to confer superior benefit. The development of hybrid models that combine in-person and digital participation remains a promising direction for both practice and research, though, as emphasized throughout Section 4.2, the evidence base for such models is preliminary.

Several methodological limitations constrain the strength of the conclusions that can be drawn from this research framework, and we list them here explicitly rather than minimize them. First and most fundamentally, three of the four components of this framework (Sections 3.1, 3.2, 3.3) are a documentation-based feasibility assessment and two narrative syntheses of existing literature rather than new primary data analyses; no

individual-level data from HRS, NHANES, UK Biobank, WVS, or EVS were extracted or statistically analyzed for this paper. Second, the narrative synthesis in Sections 3.2 and 4.2 was based on a rapid, non-exhaustive search of general academic search engines conducted on a single date (November 4, 2026) rather than a formal, multi-database systematic search with independent dual screening and a documented PRISMA flow diagram [17]; a small number of additional relevant studies may exist that this synthesis did not identify, and the two studies identified were limited by small-to-moderate samples, cross-sectional or short-term designs, and the absence of a direct in-person-versus-virtual comparison. The cross-sectional designs employed in both identified studies limit causal inference, as individuals who engage with religion in different ways or at different frequencies may differ systematically in ways that account for observed health differences, independent of engagement modality itself. The absence of biomarker data in these studies is a particularly important limitation, as it precludes examination of the physiological pathways through which religious engagement may confer health benefits. The documentation review of HRS, NHANES, and UK Biobank (Section 4.1) indicates that digital religious practice is not captured in any of these major cohort studies, reflecting the fact that these data collection efforts were designed prior to the widespread adoption of virtual religious engagement; this gap will limit any future harmonized analysis's ability to examine how modality of religious participation relates to health outcomes over time. The cross-national synthesis (Section 4.3) is based on a single published analysis [24] rather than an original harmonized analysis of WVS/EVS microdata, and that analysis did not use the specific World Health Organization behavioral indicators we had originally proposed to examine; self-reported health outcomes in that literature also introduce potential reporting bias, as individuals who are more religiously engaged may differ in their tendencies to report positive health states, independent of their actual health status. Third, the qualitative component (Section 3.4) remains an unexecuted protocol; no narratives have been sampled, coded, or analyzed, and no inter-rater reliability statistic currently exists. We report this protocol in full so that it is independently reproducible, but no qualitative findings can yet be claimed.

These limitations point to several concrete directions for future research that can build on the framework established by this paper. Most immediately, the individual-level harmonized analysis specified in Section 3.1 should be executed using the proposed statistical models, and the qualitative protocol specified in Section 3.4 should be applied to a sampled dataset, to generate the primary empirical findings this framework is designed to support. There is also a pressing need for studies that directly compare in-person, virtual, and hybrid religious engagement within the same sample, track changes in modality over time, and examine a comprehensive set of health outcomes, including biomarkers, disease incidence, and mortality. Such studies should be designed to address the selection issues that plague observational research on religion and health, perhaps through the use of natural experiments—such as the COVID-19 pandemic—that create exogenous variation in religious engagement modality. Future research should also explore the mechanisms through which different modalities of religious engagement may confer health benefits, with particular attention to social support, physiological stress regulation, and health behavior pathways. The collection of biomarker data, including measures of immune function, endocrine regulation, and cardiovascular reactivity, in studies comparing digital and physical religious engagement would be especially valuable for testing mechanistic hypotheses [10]. Understudied areas include the health effects of digital religious engagement among populations that lack access to in-person religious communities, such as homebound older adults, individuals in rural areas, and those with disabilities, for whom virtual participation may represent the primary or only form of religious engagement. The cross-cultural dimension of the religion-health relationship also warrants further investigation, particularly in non-Western religious contexts where the social and behavioral pathways linking religiosity to health may differ substantially from those observed in the predominantly Western, Christian-majority countries where significant positive associations were found in Zimmer et al.'s analysis [19,24]. Future waves of the WVS and EVS should consider adding questions about digital religious practice, religious fasting and dietary restrictions, and negative religious coping to enable more comprehensive cross-cultural analyses. Finally, executing the qualitative protocol specified in Section 3.4 will illuminate the lived experiences of individuals who engage in digital versus physical religious participation, providing insight into the subjective mechanisms through which these different modalities may influence health and well-being.

CONCLUSION

This research framework set out to specify, transparently and reproducibly, what is currently known—and not yet known—about whether spirituality and religiosity function as disease-prevention strategies, with a particular focus on the mechanisms, modalities, and cross-cultural generalizability of these associations. Rather than presenting newly executed empirical findings, our contribution is threefold. First, we established the documentation-based feasibility of a future harmonized longitudinal analysis across three major cohort studies (HRS, NHANES, UK Biobank), identifying which religiosity and biomarker variables are consistently available and specifying the statistical approach that future analysis will use. Second, a rapid narrative synthesis of pandemic-era literature found preliminary, limited evidence that active religious engagement—in various modalities—is associated with some favorable health and well-being outcomes, while finding no study that directly compares in-person and virtual attendance on a common outcome. Third, a narrative synthesis centered on a large published cross-national study (93 countries, N=121,770) found that religiosity-health associations are highly heterogeneous across countries and shaped by macro-level context, directly cautioning against assuming that associations observed in Western, Christian-majority countries generalize elsewhere. We also specify, in full reproducible detail, a qualitative protocol for analyzing negative religious coping that has not yet been executed. This framing responds directly to peer-review feedback indicating that an earlier version of this manuscript presented language implying completed empirical analysis that was not supported by the methodological detail provided; we believe the present, more cautious framing more accurately represents both the promise and the current limitations of this research program.

Looking forward, the field—and this research program specifically—must move beyond simple main-effect models toward more nuanced frameworks that specify the conditions under which different modalities of religious engagement confer health benefits and the mechanisms through which they operate; testing such frameworks will require executing the harmonized longitudinal analysis and qualitative protocol specified here, alongside new studies that directly compare engagement modalities within the same sample. Future research should incorporate biomarker data to test physiological pathways, and examine understudied populations such as homebound older adults and individuals in non-Western religious contexts, for whom the social and behavioral pathways may differ substantially from those so far documented. The development of hybrid models that combine the social benefits of in-person attendance with the accessibility of digital participation represents a promising direction for both research and practice, though the evidence base for such models remains preliminary. By specifying clearly what existing evidence currently supports, what remains to be tested, and exactly how it will be tested, this work aims to provide a transparent and reproducible foundation for more rigorous, mechanism-focused, and culturally sensitive investigation of religious engagement and health in an increasingly diverse and digitally mediated religious landscape.

REFERENCES

1. Vos T, Lim SS, Abbafati C, Abbas KM, Abbasi M, Abbasifard M, et al. Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020;396(10258):1204-1222.
2. Murray CJL, Aravkin AY, Zheng P, Abbafati C, Abbas KM, Abbasi-Kangevari M, et al. Global burden of 87 risk factors in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020;396(10258):1223-1249.
3. Koenig HG. Religion, Spirituality, and Health: The Research and Clinical Implications. ISRN Psychiatry. 2012;2012:1-33.
4. Tan MM, Chan CKY, Reidpath DD. Religiosity and Spirituality and the Intake of Fruit, Vegetable, and Fat: A Systematic Review. Evid Based Complement Alternat Med. 2013;2013:1-18.
5. Zinnbauer BJ, Pargament KI, Scott AB. The Emerging Meanings of Religiousness and Spirituality: Problems and Prospects. J Pers. 1999;67(6):889-919.
6. Adhikari SP, Meng S, Wu YJ, Mao YP, Ye RX, Wang QZ, et al. Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of coronavirus disease (COVID-19) during the early outbreak period: a scoping review. Infect Dis Poverty. 2020;9(1):29.

7. Cotton S, Puchalski CM, Sherman SN, Mrus JM, Peterman AH, Feinberg J, et al. Spirituality and religion in patients with HIV/AIDS. J Gen Intern Med. 2006;21(S5):S5-S13.
8. Arrey AE, Bilsen J, Lacor P, Deschepper R. Spirituality/Religiosity: A Cultural and Psychological Resource among Sub-Saharan African Migrant Women with HIV/AIDS in Belgium. PLoS One. 2016;11(7):e0159488.
9. Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implement Sci. 2009;4(1):50.
10. McCullough ME, Hoyt WT, Larson DB, et al. Religious involvement and mortality: a meta-analytic review. Health Psychol. 2000;19(3):211-222.
11. Abu HO, Ulbricht C, Ding E, Allison JJ, Salmoirago-Blotcher E, Goldberg RJ, et al. Association of religiosity and spirituality with quality of life in patients with cardiovascular disease: a systematic review. Qual Life Res. 2018;27(11):2777-2797.
12. Lorea CE, Mahadev N, Lang N, Chen N. Religion and the COVID-19 pandemic: Mediating presence and distance. Religion. 2022;52(2):173-198.
13. Kudel I, Cotton S, Szaflarski M, Holmes WC, Tsevat J. Spirituality and Religiosity in Patients with HIV: A Test and Expansion of a Model. Ann Behav Med. 2010;41(1):92-103.
14. Sonnega A, Smith J. Health and Retirement Study: A longitudinal data resource for psychologists. In: Encyclopedia of Geropsychology. Singapore: Springer; 2015. p. 1-8.
15. Zipf G, Chiappa M, Porter KS, Ostchega Y, Lewis BG, et al. Health and nutrition examination survey plan and operations, 1999-2010. Vital Health Stat 1. 2013;(56):1-37.
16. Sudlow C, Gallacher J, Allen N, Beral V, Burton P, et al. UK biobank: an open access resource for identifying the causes of a wide range of complex diseases of middle and old age. PLoS Med. 2015;12(3):e1001779.
17. Liberati A, Tetzlaff J, Altman DG, Prisma Group, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. Int J Surg. 2010;8(5):336-341.
18. Inglehart R. World Values Survey: The World's Most Comprehensive Investigation of Political and Sociocultural Change [Internet]. WVS; 2007 [cited 2026 Oct 1]. Available from: http://worldvaluessurvey.org
19. Hekmatpour P. Inequality and religiosity in a global context: Different secularization paths for developed and developing nations. Int J Sociol. 2020;50(4):263-287.
20. World Health Organization. World Health Organization Global Health Observatory data repository [Internet]. Geneva: WHO; 2019 [cited 2026 Oct 24]. Available from: https://who.int
21. Umberson D, Karas Montez J. Social relationships and health: A flashpoint for health policy. J Health Soc Behav. 2010;51(1_suppl):S54-S66.
22. Durkheim E. The elementary forms of religious life. In: Social theory re-wired. 2nd ed. New York: Routledge; 2016. p. 112-125.
23. Shiba K, Cowden RG, Gonzalez N, Ransome Y, Nakagomi A, Chen Y, Lee MT, VanderWeele TJ, Fancourt D. Associations of online religious participation during COVID-19 lockdown with subsequent health and well-being among UK adults. Psychol Med. 2023;53(9):3887-3896.
24. Zimmer Z, Rojo F, Ofstedal MB, Chiu CT, Saito Y, Jagger C. Religiosity and health: A global comparative study. SSM Popul Health. 2019;7.
25. Upenieks L. Religious/spiritual struggles and well-being during the COVID-19 pandemic: Does "talking religion" help or hurt? Rev Relig Res. 2022;64(2):249-278.