Religion and Well-Being: What Is the Magnitude and the Practical Significance of the Relationship?

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The idea that religion is important for people's well-being is widespread in social sciences. Current empirical evidence supporting this idea is largely based on research focusing on statistical significance. In this study, the strengths of associations between religious indicators and subjective and psychological well-being were investigated. In the first study, data from the European Value Study and the World Value Survey involving 645.249 participants and 115 countries were used. In the second study, data were taken from three longitudinal investigations: the Wisconsin Longitudinal Study, the Survey of Health, Ageing, and Retirement in Europe, and the Midlife in the United States. Multilevel analyses revealed that the explained variance of the effects of religious predictors at Level 1 and Level 2 on subjective well-being (i.e., life satisfaction and happiness) was very small or negligible (Study 1). The effect size estimates of the prospective associations between religious predictors and later psychological and subjective well-being were very small or negligible (Study 2). Taken together, the results of the current investigation suggest that the direct effect of religion on well-being does not seem to have practical relevance. Although religion plays an essential role in the lives of many individuals, the results of the present study call into question the practical significance and utility of using religion per se for the prediction of well-being.

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Many studies reported a statistically significant relationship between religion and well-being. The authors interpreted these findings in a way that religion is substantively associated with psychological well-being (e.g., Diener et al., 2011; Ellison, 1991; Geerling & Diener, 2020; Koenig & Larson, 2001; Stavrova et al., 2013; Ugur & Aydın, 2022). Diener et al. (2011) postulated the religion paradox, which involves the contradictory findings that while religious people have higher subjective well-being, many people living in countries where religious freedom is high tend to be leaving organized religion. Drawing on social norms theories, Stavrova et al. (2013) found that religiosity is more related to well-being if it is considered normative in a given society. In a similar vein, Gebauer et al. (2017) formulated the religiosity as social value hypothesis which states that religiosity possesses much social value, especially in religious cultures. In addition, Ugur and Aydın (2022) demonstrated that compared to other people, religiously involved/interested people are happier in all contexts, especially in higher religious contexts.

There is evidence from previous meta-analyses that the strength of the relationship between self-reported religion and mental health symptoms or distress is very small to moderate (Forouhari et al., 2019; Garssen et al., 2021; Hodapp & Zwingmann, 2019; Salsman et al., 2015; Smith et al., 2003; Yonker et al., 2012). However, in the literature on the relationship between self-reported psychological

well-being and religion, the focus of many studies was on statistical significance rather than effect size (e.g., Diener et al., 2011; Ellison, 1991; Geerling & Diener, 2020; Koenig & Larson, 2001; Stavrova et al., 2013; Ugur & Aydın, 2022). Koenig and Larson (2001) contend that the magnitude of the association between psychological well-being and religion equals or exceeds that between well-being and other psychosocial variables like social support or income. However, this conclusion was based on vote counting (i.e., comparing the number of studies showing a positive association with the number of a negative association or no association) which is a limited method for synthesizing evidence (e.g., Cohn & Becker, 2003). In addition, this conclusion was not supported by Geerling and Diener (2020) in their study on the strengths of associations between subjective well-being and various psychosocial predictors including religion. They found a small-to-medium effect size in the relationship between life satisfaction and self-reported religiosity (i.e., the mean of items evaluating whether participants attended church regularly and whether religion is important to them). However, religiosity encompasses different dimensions such as religious affiliation or identity that were not examined in their analyses. Therefore, a more fine-grained analysis is needed to understand the magnitude of the relationship between religion and well-being.

To address current gaps in knowledge, the first aim of the present study was to investigate the magnitude of the relationship between different aspects of religion (e.g., affiliation, attendance, importance) and well-being using data from many countries around the world and to quantify the effect size of such a relationship. In this investigation, analyses were conducted taking into account the potential effect of living in a normatively religious country. Moreover, based on social norms theories as well as on the social value hypothesis (Gebauer et al., 2017; Stavrova et al., 2013;

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Ugur & Aydın, 2022), the effect of religion on subjective well-being is expected to vary across countries. To allow for such variation, a random slope for religion can be added to the model. A significant variation attributable to religion via random slope variation (e.g., Hoffman & Walters, 2022; Marsh et al., 2008; Rights & Sterba, 2019, 2020) can justify the investigation of a cross-level interaction term between the Level-1 predictor and the aggregated Level-2 predictor. The first aim was addressed in Study 1.

The great majority of the research on religion and psychological well-being has been performed with cross-sectional data (see Garssen et al., 2021; Yaden et al., 2022; Yonker et al., 2012). The great use of cross-sectional data provides little evidence because the argument crucially depends on the temporal ordering of subjective experiences and practices. Compared to cross-sectional studies, longitudinal studies are needed to better understand the nature of the temporal relationship between religion and psychological well-being. According to Rahmadi et al. (2017, p. 3815), "Longitudinal data make it possible to capture change within subjects over time and thus gives some advantage to causal modeling in terms of providing more knowledge to establish causal relationships." Although longitudinal research investigating the relationship between religion and psychological well-being among the general population partially helps fill this gap, there was inconsistency in research findings and there remains a question concerning the magnitude of statistically significant effects and their practical importance. For instance, Pawlikowski et al. (2019) found that self-reported religious service attendance is longitudinally associated with life satisfaction and happiness. However, the sample size was large (i.e., 6,400 participants) and the magnitude of the effect was not determined, and an effect size could not be computed. Using panel data from a three-generation study of Mexican American elderly respondents, Levin et al. (1996) found a cross-sectional association between religious attendance and life satisfaction, but there were no longitudinal effects of baseline religious attendance on subsequent life satisfaction. Similar results were obtained in a subsequent longitudinal study involving African Americans: Longitudinal religious effects on well-being were significant bivariately but did disappear after controlling for the effects of baseline well-being (Levin & Taylor, 1998). Garssen et al. (2021) conducted a meta-analysis of the published research to determine the longitudinal effect of religion or spirituality on mental health. In this meta-analysis, the effect of religion on well-being was assessed in five studies, while that of life satisfaction in six studies. Results revealed that an overall score of religion and spirituality was related to life satisfaction ($r = .10$) but not to well-being. However, it was not possible to disentangle the effect of each form of religion and spirituality on well-being. Finally, this meta-analysis did not provide any information about the specific effects of different dimensions of religiosity on psychological and subjective well-being. More recently, a meta-analysis of the published literature revealed that religion/spirituality was positively associated with life satisfaction, with a small effect size (Yaden et al., 2022). However, life satisfaction is only one component of subjective well-being, and more information is needed about the relationship between religion/spirituality and different constructs of well-being (e.g., subjective well-being, psychological well-being, social well-being). Moreover, in the meta-analysis of Yaden et al. (2022), evidence for publication bias[1] was demonstrated. Publication bias is a serious problem in meta-analyses because the published literature on the relationship between religion and well-being may differ in its results from the results of all the research that has been done in this area. The inclusion of gray and unpublished literature is an obvious attempt to minimize publication bias.

To address these research gaps, a second aim of the present study was to investigate the relationship between different aspects of self-reported religion and well-being using data from three prospective, longitudinal studies. The second aim was addressed in Study 2.

In Studies 1 and 2, control variables were not added because there is no solid theoretical basis for assuming that certain control variables might account for the effect of religion.

Study 1

Procedure

Sample and Data Collection Procedures

Data for this study were obtained from the European Value Study (EVS, 2021) and the World Value Survey (WVS; Haerpfer et al., 2021). The EVS and WVS are two large-scale and repeated cross-sectional survey research programs. The Integrated Values Surveys (IVS) data set 1981–2021 was used, which was constructed by merging the EVS and WVS data sets (Haerpfer et al., 2021). The IVS 1981–2021 includes data from (a) seven waves from 1981 to 2021; (b) 645.249 participants; and (c) 115 countries/territories. Both the WVS and the EVS consist of nationally representative surveys.

Instrument

In the present study, five aspects of religiosity were investigated as predictor variables: religious affiliation (self-reported membership in a religious community, denomination, or religion), importance of religion, religious participation (frequency of attendance at religious services), religious identity, and strength of belief in God. Life satisfaction and happiness were measured as outcome variables. The wording of the measures and the number of items and response alternatives can be found in the Supplemental Material. Descriptive statistics are reported in Supplemental Table 1.

Statistical Analysis

Mplus V.8.8 and the R package "r2mlm" (Shaw et al., 2020) were used for analysis. To deal with the missing data, full information maximum likelihood estimation for missing data was employed. A Bayesian estimation of multilevel analysis (also known as mixed models) was used to take into account the complexity of the data structure (participant- and country level). In a Bayesian analysis, to investigate whether an estimate is null in the population, a common test is whether the 95% credible interval for the parameter of interest includes zero. To investigate whether the country-level context has an additional effect on the individual, contextual effects were investigated. Contextual effects occur when the aggregate of a

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[1] According to Marks-Anglin and Chen (2020, p. 725), publication bias is "defined as the selective publishing of research based on the nature and direction of findings, occurs when studies with significant or favorable results are more likely to be published than those with nonsignificant or unfavorable findings."

person-level variable (e.g., religious affiliation) is related to the outcome (e.g., subjective well-being) even after controlling for the effect of the same variable at the individual level. To control for sampling error in the aggregation of a Level-1 variable to form a Level-2 construct, the predictors at Level 1 and Level 2 were latent mean centered (Asparouhov & Muthén, 2019). The decomposition of R-squared values into their respective levels was conducted using the integrative framework for multilevel models proposed by Rights and Sterba (2019, 2020). Specifically, three R-squared values were computed: (a) the increment in total variance explained by Level-1 predictor or cross-level interaction via fixed effect $(\Delta R_t^{2(f_1)})$; (b) the increment in total variance explained by Level-2 predictor via fixed effect $(\Delta R_t^{2(f_2)})$; and (c) the increment in total variance explained by Level-1 predictor via random effect $(\Delta R_t^{2(v)})$. Following the guidelines proposed by Cohen (1992), small, medium, and large effects correspond to $\Delta R^2 = .02, .13,$ and $.26$, respectively. In

addition, according to the guidelines of Ferguson (2009), $\Delta R^2 = .04$ is the recommended minimum effect size representing a "practically" significant effect.

Results and Discussion

Table 1 displays the results from the multilevel analysis. First, the total cluster variance explained by each Level-1 predictor via its fixed effects was considered. Compared to an initially null model, the Level-1 predictors explained an estimated 0.5% or less of the total variance. Although the effects of Level-1 religious affiliation, importance of religion, religious participation, religious identity, and strength of belief in God on both life satisfaction and happiness were statistically significant, the magnitude of these effects could be considered very small or negligible according to the guidelines proposed by Cohen (1992).

Table 1
Model Parameters From Multilevel Models Predicting Life Satisfaction and Happiness (IVS Study)

Predictors	Life satisfaction			Happiness		
	b (SD)	95% CI	(ΔR_t^2)	b (SD)	95% CI	(ΔR_t^2)
Religious affiliation[a]						
Fixed component of the slope of the Level-1 predictor	0.03 (0.00)	[0.02, 0.03]	$(\Delta R_t^{2(f_1)}) = .001$	0.02 (0.00)	[0.02, 0.02]	$(\Delta R_t^{2(f_1)}) = .000$
Fixed slope for the Level-2 predictor	−0.17 (0.09)	[−0.38, 0.17]	$(\Delta R_t^{2(f_2)}) = .005$	0.12 (0.13)	[−0.11, 0.37]	$(\Delta R_t^{2(f_2)}) = .001$
Random component for the slope for the Level-1 predictor			$(\Delta R_t^{2(v)}) = .001$			$(\Delta R_t^{2(v)}) = .001$
Cross-level interaction	0.21 (0.11)	[0.00, 0.39]	$(\Delta R_t^{2(f_1)}) = .000$	0.21 (0.11)	[0.01, 0.41]	$(\Delta R_t^{2(f_1)}) = .002$
Importance of religion						
Fixed component of the slope of the Level-1 predictor	0.12 (0.00)	[0.11, 0.12]	$(\Delta R_t^{2(f_1)}) = .002$	0.06 (0.00)	[0.06, 0.06]	$(\Delta R_t^{2(f_1)}) = .003$
Fixed slope for the Level-2 predictor	−0.26 (0.09)	[−0.44, −0.09]	$(\Delta R_t^{2(f_2)}) = .007$	0.09 (0.09)	[−0.10, 0.26]	$(\Delta R_t^{2(f_2)}) = .001$
Random component for the slope for the Level-1 predictor			$(\Delta R_t^{2(v)}) = .002$			$(\Delta R_t^{2(v)}) = .004$
Cross-level interaction	0.57 (0.08)	[0.41, 0.68]	$(\Delta R_t^{2(f_1)}) = .001$	0.59 (0.07)	[0.44, 0.71]	$(\Delta R_t^{2(f_1)}) = .004$
Religious participation						
Fixed component of the slope of the Level-1 predictor	0.05 (0.00)	[0.05, 0.05]	$(\Delta R_t^{2(f_1)}) = .002$	0.05 (0.00)	[0.05, 0.05]	$(\Delta R_t^{2(f_1)}) = .002$
Fixed slope for the Level-2 predictor	−0.26 (0.09)	[−0.40, −0.07]	$(\Delta R_t^{2(f_2)}) = .007$	0.03 (0.09)	[−0.15, 0.21]	$(\Delta R_t^{2(f_2)}) = .000$
Random component for the slope for the Level-1 predictor			$(\Delta R_t^{2(v)}) = .004$			$(\Delta R_t^{2(v)}) = .002$
Cross-level interaction	−0.02 (0.10)	[−0.23, 0.17]	$(\Delta R_t^{2(f_1)}) = .000$	0.16 (0.10)	[−0.05, 0.36]	$(\Delta R_t^{2(f_1)}) = .000$
Religious identity[b]						
Fixed component of the slope of the Level-1 predictor	0.05 (0.00)	[0.05, 0.05]	$(\Delta R_t^{2(f_1)}) = .002$	0.05 (0.00)	[0.04, 0.05	$(\Delta R_t^{2(f_1)}) = .002$
Fixed slope for the Level-2 predictor	−0.29 (0.08)	[−0.42, −0.14]	$(\Delta R_t^{2(f_2)}) = .011$	−0.11 (0.08)	[−0.29, 0.04]	$(\Delta R_t^{2(f_2)}) = .001$
Random component for the slope for the Level-1 predictor			$(\Delta R_t^{2(v)}) = .002$			$(\Delta R_t^{2(v)}) = .006$
Cross-level interaction	0.26 (0.11)	[0.05, 0.47]	$(\Delta R_t^{2(f_1)}) = .003$	0.22 (0.11)	[−0.01, 0.42]	$(\Delta R_t^{2(f_1)}) = .000$
Strength of belief in God						
Fixed component of the slope of the Level-1 predictor	0.08 (0.00)	[0.07, 0.08]	$(\Delta R_t^{2(f_1)}) = .005$	0.05 (0.00)	[0.05, 0.05]	$(\Delta R_t^{2(f_1)}) = .002$
Fixed slope for the Level-2 predictor	−0.20 (0.10)	[−0.40, 0.01]	$(\Delta R_t^{2(f_2)}) = .005$	0.03 (0.09)	[−0.13, 0.20]	$(\Delta R_t^{2(f_2)}) = .000$
Random component for the slope for the Level-1 predictor			$(\Delta R_t^{2(v)}) = .007$			$(\Delta R_t^{2(v)}) = .012$
Cross-level interaction	0.35 (0.10)	[0.14, 0.53]	$(\Delta R_t^{2(f_1)}) = .006$	0.16 (0.09)	[−0.01, 0.31]	$(\Delta R_t^{2(f_1)}) = .000$

Note. b = standardized estimates; IVS = Integrated Values Surveys; CI = credible interval. (ΔR_t^2) = increment in total variance compared to the previous model (the first model was compared to the "random intercept only" model or null model). $\Delta R_t^{2(f_1)}$ = increment in total variance explained by Level-1 predictor or cross-level interaction via fixed effect. $\Delta R_t^{2(f_2)}$ = increment in total variance explained by Level-2 predictor via fixed effect. $\Delta R_t^{2(v)}$ = increment in total variance explained by Level-1 predictor via random effect.
[a] religious affiliation is a dummy variable coded 0 if the respondent does not have a religious affiliation and 1 if the respondent does have a religious affiliation of any kind. [b] religious identity is a dummy variable coded 0 if the respondent is not a religious person or is an atheist and 1 if the respondent describe herself or himself as a religious person.

The impact of the latent aggregation of Level-1 predictors to form Level-2 constructs was examined. The effects of Level-2 religious affiliation, importance of religion, religious participation, religious identity, and strength of belief in God on happiness were statistically significant. Also, the effects of Level-2 religious affiliation and strength of belief in God on life satisfaction were statistically significant. The effects of Level-2 importance of religion, religious participation, and religious identity on life satisfaction were statistically significant. However, the magnitude of these effects could be considered very small or negligible according to the guidelines proposed by Cohen (1992). It is interesting to note that the sign of the effect of Level-2 importance of religion, religious participation, and religious identity on life satisfaction was negative. Therefore, Level-1 and Level-2 effects were of opposite sign. This pattern of findings can be interpreted in terms of the "big-fish-little-pond-effect" (BFLPE; e.g., Marsh et al., 2008). According to BFLPE theoretical models, the evaluation of personal characteristics is based on social comparison and normative processes. In the present study, participants in more religious countries reported lower life satisfaction than similarly religious participants in less religious countries. However, the BFLPE effect is not the only possible explanation. The findings of the present study support the idea that states and nations with a higher proportion of atheists or secular people report higher levels of well-being (Zuckerman, 2009). It is possible to hypothesize that more religious countries are less wealthy, and this third-variable effect may explain the negative relationships between religion and life satisfaction at the country level. Future studies are needed to disentangle these effects.

A random slope for religion was added to the model based on the predictions of social norms theories as well as on the social value hypothesis (Gebauer et al., 2017; Stavrova et al., 2013; Ugur & Aydın, 2022). In this model, a random effect for religion allows an estimation of the estimated across-country variance in the slope of religion. This added random slope accounts for very small or negligible portions of explained variance according to the guidelines proposed by Cohen (1992).

Finally, the impact of a cross-level interaction involving the latent aggregation of the same Level-1 predictor to form a Level-2 construct was investigated. Results revealed statistically significant cross-level interactions predicting (a) life satisfaction and involving religious affiliation and religious participation; (b) happiness and involving religious identity and religious participation. The cross-level interactions involving strength of belief in God, religious identity, and importance of religion and predicting life satisfaction were statistically significant. Also, the cross-level interactions involving strength of belief in God, religious affiliation, and importance of religion and predicting happiness were statistically significant. However, the portion of explained variance accounted for these effects could be considered very small or negligible according to the guidelines proposed by Cohen (1992).

Taken together, the findings indicate that religion at Level 1 and Level 2 does not meaningfully predict subjective well-being. Although the findings revealed several statistically significant associations between religion and well-being, the magnitude of the relationship was very small or negligible. In addition, there was no practically significant effect for any of the religious predictors considered in this research. It should be noted that bivariate statistical analyses were conducted without controlling for confounders or covariates.

Study 2

Procedure

Sample and Data Collection Procedures

Data were taken from three longitudinal studies: the Wisconsin Longitudinal Study (WLS), the Survey of Health, Ageing, and Retirement in Europe (SHARE), and the Midlife in the United States (MIDUS). The WLS (Herd et al., 2014) is a longitudinal study including a random sample of 10,317 men and women who graduated from Wisconsin high schools and a randomly selected sibling of these graduates, ($n = 7,928$). The data from the WLS Wave 4 (1993/1994) and Wave 6 (2010–2011) included measures of psychological well-being and religious affiliation and participation. In the present study, data from 6,097 participants who provided their responses to religious and well-being measures at both Waves 4 and 6 are included. In Waves 4 and 6, the age of respondents was roughly 54 and 72, respectively.

The SHARE (Börsch-Supan et al., 2013) is a panel study of people aged 50 or older and their family members from 28 European countries and Israel. There are differences in sampling resources between countries and sample frames (mostly population registers) are selected taking into account the best available frame resources in each country to achieve full probability sampling. The present study utilized data from the SHARE Wave 2 (2006–2007; Börsch-Supan, 2022a), Wave 4 (2011–2012; Börsch-Supan, 2022b), and Wave 7 (2017–2018; Börsch-Supan, 2022c), which included measures of religious participation, frequency of religious participation, frequency of praying, life satisfaction, and happiness. A total of 18,530 and 31,796 participants provided their responses to these questions at both Waves 2 and 4 and at both Waves 4 and 7, respectively. These two samples were analyzed separately (W2 variables predicting W4 and W4 variables predicting W7).

The MIDUS is a national longitudinal study of health and well-being (Radler, 2014). The main data collection methods were phone interviews and self-administered questionnaires. Data were analyzed for the 4,030 participants in the United States who provided information regarding well-being and religion in MIDUS 1 (1995–1996) and MIDUS 2 (2004–2005).

Instrument

The specifications of the measures are provided in the Supplemental Material.

The WLS Wave 4 and Wave 6 include the scale of psychological well-being developed by Ryff (1989). The WLS Wave 4 includes two measures of religion: religious affiliation (recoded as 0 = *absence of religious affiliation* and 1 = *religious affiliation of any kind*) and religious participation. Descriptive statistics are reported in Supplemental Table 2.

In SHARE, life satisfaction and happiness were assessed. Moreover, in SHARE, religious measures include (a) religious participation (coded: 0 = *no* and 1 = *yes*); (b) frequency of participation; and (c) frequency of praying. It should be noted that the frequency of participation was measured among those participants who answered affirmatively to the question regarding religious participation. Descriptive statistics are reported in Supplemental Table 3.

In MIDUS, two dimensions of subjective well-being—life satisfaction (Prenda & Lachman, 2001) and positive affect (Mroczek & Kolarz, 1998)—and two dimensions of psychological well-being—eudemonic well-being (Ryff, 1989) and social well-being (Keyes, 1998)—were assessed in Waves 1 and 2. In MIDUS, nine measures of religion were included in the present study: (1) religious affiliation (recoded as 0 = *absence of religious affiliation* and 1 = *religious affiliation of any kind*); (2) religion importance; (3) religious participation (services); (4) religious participation (meeting); (5) religious identity; (6) spiritual identity; (7) and identification with the religious group; (8) seeking comfort through religion; and (9) religious decision making. Descriptive statistics are reported in Supplemental Table 4.

Statistical Analysis

STATA V.17 was used for analysis. Analysis of covariance was used to adjust for initial (baseline) levels of well-being. The percentage of respondents who are partial respondents falls below 10%, and according to the guidelines of Newman (2014), pairwise deletion was used. Therefore, in the analyses, sample sizes may fluctuate due to missing values. Partial epsilon squared $(\hat{\varepsilon}_p^2)$ was chosen as a measure of standardized effect size. Following the guidelines proposed by Cohen (1992), small, medium, and large effects correspond to .01, .06, and .14, respectively. In addition, based on the guidelines of Ferguson (2009), $(\hat{\varepsilon}_p^2) = .04$ is the recommended minimum effect size representing a "practically" significant effect.

Results and Discussion

WLS Study

Table 2 presents the findings regarding the prospective associations between Wave 4 religious predictors and Wave 6 psychological well-being and its dimensions from the WLS. Except for personal growth, religious participation was found as a statistically significant predictor of psychological well-being and its dimensions. Religious affiliation was a statistically significant predictor of autonomy and positive relationships.

SHARE Study

Table 3 shows the results concerning the prospective associations between religious predictions and subjective well-being at Waves 2, 4, and 7 of SHARE. The effect of religious participation on subjective well-being was statistically significant. Except for the prediction of W7 life satisfaction, the frequency of religious participation was not a statistically significant predictor of subjective well-being. Excluding the prediction of W7 life satisfaction, the frequency of praying was a statistically significant predictor of subjective well-being.

MIDUS Study

Tables 4 and 5 display the prospective associations between Wave 1 religious predictors and Wave 2 subjective and psychological well-being (MIDUS study). Religion importance, religious identity, spiritual identity, and identification with religious group were statistically significant predictors of subjective well-being. Religious decision making was a statistically significant predictor of positive affect but not of life satisfaction. Religious affiliation and

Table 2

Prospective Associations Between Wave 4 Predictors and Wave 6 Psychological Well-Being and Its Dimensions (Wisconsin Longitudinal Study)

Predictors	df	MS	F	p	$(\hat{\varepsilon}_p^2)$
Total well-being					
Religious affiliation[a]	1, 5,943	265.01	0.49	.485	−.000
Religious participation	1, 5,989	3375.70	6.19	.013	.001
Autonomy					
Religious affiliation[a]	1, 6,071	251.66	5.91	.015	.001
Religious participation	1, 6,071	302.29	7.06	.008	.001
Mastery					
Religious affiliation[a]	1, 6,080	29.90	0.64	.424	−.000
Religious participation	1, 6,080	209.66	4.48	.034	.001
Personal growth					
Religious affiliation[a]	1, 6,078	4.86	0.10	.747	−.000
Religious participation	1, 6,077	90.81	1.95	.163	.000
Positive relationships					
Religious affiliation[a]	1, 6,068	424.75	7.91	.005	.001
Religious participation	1, 6,067	1145.81	21.07	<.001	.003
Purpose in life					
Religious affiliation[a]	1, 6,065	21.39	0.32	.569	−.000
Religious participation	1, 6,064	872.87	13.22	<.001	.002
Self-acceptance					
Religious affiliation[a]	1, 6,078	25.46	0.52	.470	−.000
Religious participation	1, 6,077	301.01	6.13	.013	.001

Note. MS = mean square. Results were adjusted for initial (baseline) levels of the outcome.
[a] Religious affiliation is a dummy variable coded 0 if the respondent does not have a religious affiliation and 1 if the respondent does have a religious affiliation of any kind. $n = 6,097$.

seeking comfort through religion were not statistically significant predictors of social well-being, whereas religious affiliation, religion importance, religious participation (services), seeking comfort through religion, and religious decision making were not statistically significant predictors of psychological well-being.

Taken together, the results indicate that different aspects of religion are prospectively associated with subjective and psychological well-being. However, if we look at the effect sizes, the picture is different. The effect sizes were far below the threshold of what is considered a small effect size and particularly, a "practically" significant effect. The relationship between spiritual identity and social well-being showed the largest effect size, .005. It is interesting to note that the relationships predicting social well-being exhibited on average higher effect sizes, whereas the effect size of the relationships predicting life satisfaction was on average the smallest, followed by those predicting eudemonic well-being.

One limitation of the WLS and SHARE studies is that young adults were not included. Therefore, the findings reported in these studies are not generalizable to younger people. However, the age of participants from the MIDUS study was between 25 and 74. Another limitation is that the three studies included people living in western countries, and therefore, the results are not generalizable to people living in other parts of the world. One strength of the present study is that a variety of measures of religion and well-being were employed.

One potential concern with the investigation of longitudinal predictors of well-being is whether its stability might be not so great as to prevent any investigation of the causes of change. Consistent with evidence from longitudinal studies demonstrating that well-being changes across waves (e.g., Yap et al., 2014), in the

Table 3
Longitudinal Predictors of Life Satisfaction and Happiness (SHARE Study)

Predictors	df	MS	F	p	$(\hat{\varepsilon}_p^2)$
W4 variables predicting W7 life satisfaction					
Religious participation[a]	1, 31,794	24.57	8.85	.003	.000
Frequency of religious participation	1, 4,474	13.35	5.19	.023	.001
Frequency of praying	1, 19,912	0.12	0.04	.842	−.000
W2 variables predicting W4 life satisfaction					
Religious participation[a]	1, 18,527	46.02	20.63	<.001	.001
Frequency of religious participation	1, 1935	0.94	0.52	.469	−.000
Frequency of praying	1, 16,689	8.61	3.91	.048	.000
W4 variables predicting W7 happiness					
Religious participation[a]	1, 31,794	20.44	37.73	<.001	.001
Frequency of religious participation	3, 4,472	0.74	1.59	.190	.000
Frequency of praying	1, 19,912	5.05	8.93	.003	.000
W2 variables predicting W4 happiness					
Religious participation[a]	1, 18,527	11.82	23.4	<.001	.001
Frequency of religious participation	1, 1935	0.61	1.5	.221	.000
Frequency of praying	1, 16,689	2.90	5.71	.017	.000

Note. MS = mean square. Results were adjusted for initial (baseline) levels of the outcome. SHARE = Survey of Health, Ageing, and Retirement in Europe; W = wave.
[a] Religious participation was coded: 0 = *no*, 1 = *yes*.

present study, there is sufficient variability to examine the causes of change. For instance, using data from SHARE, the proportion of variance explained by life satisfaction at Waves 2 and 4 on subsequent life satisfaction was 18% and 16%, respectively.

General Discussion

Many researchers pursue the claim that religion promotes well-being (e.g., Diener et al., 2011; Ellison, 1991; Geerling & Diener, 2020; Koenig & Larson, 2001; Stavrova et al., 2013; Ugur & Aydın, 2022). Hood et al. (2018) concluded that "In most instances, faith buttresses people's sense of control and self-esteem, offers meanings that oppose anxiety, provides hope, sanctions socially facilitating behavior, enhances personal well-being, and promotes social integration" (p. 499). However, it remains a question as to whether the strength of causal language matches the strength of the causal inference. The idea that religion promotes well-being seems to be supported by a large body of literature using in most, albeit not

Table 4
Prospective Associations Between Wave 1 Predictors and Wave 2 Subjective Well-Being (MIDUS Study)

Predictors	df	MS	F	p	$(\hat{\varepsilon}_p^2)$
Life satisfaction					
Religious affiliation[a]	1, 3,865	3.39	3.16	.075	.001
Religion importance	1, 3,884	6.32	5.91	.015	.001
Religious participation (services)	1, 3,853	1.05	0.98	.321	−.000
Religious participation (meeting)	1, 3,827	1.94	1.80	.180	.000
Religious identity	1, 3,894	11.70	10.89	.001	.002
Spiritual identity	1, 3,871	4.88	4.60	.032	.001
Identification with religious group	1, 3,892	5.64	5.25	.022	.001
Seeking comfort through religion	1, 3,892	2.61	2.42	.120	.000
Religious decision making	1, 3,894	2.09	1.93	.165	.000
Positive affect					
Religious affiliation[a]	1, 3,842	0.66	1.86	.173	.000
Religion importance	1, 3,861	4.19	11.68	.001	.003
Religious participation (services)	1, 3,829	0.45	1.27	.260	.000
Religious participation (meeting)	1, 3,803	0.28	0.77	.380	−.000
Religious identity	1, 3,871	5.83	16.29	<.001	.004
Spiritual identity	1, 3,848	4.60	12.84	<.001	.003
Identification with religious group	1, 3,869	2.97	8.29	.004	.002
Seeking comfort through religion	1, 3,869	0.47	1.30	.254	.000
Religious decision making	1, 3,871	1.48	4.13	.042	.001

Note. MS = mean square. Results were adjusted for initial (baseline) levels of the outcome. MIDUS = Midlife in the United States.
[a] Religious affiliation is a dummy variable coded 0 if the respondent does not have a religious affiliation and 1 if the respondent does have a religious affiliation of any kind.

Table 5

Prospective Associations Between Wave 1 Predictors and Wave 2 Psychological Well-Being (MIDUS Study)

Predictors	df	MS	F	p	$(\hat{\varepsilon}_p^2)$
Social well-being					
Religious affiliation[a]	1, 3,813	246.15	2.53	.111	.000
Religion importance	1, 3,833	748.01	7.71	.006	.002
Religious participation (services)	1, 3,806	439.32	4.54	.033	.001
Religious participation (meeting)	1, 3,779	1298.83	13.41	<.001	.003
Religious identity	1, 3,844	1191.48	12.29	.001	.003
Spiritual identity	1, 3,821	1871.57	19.35	<.001	.005
Identification with religious group	1, 3,842	1105.84	11.38	.001	.003
Seeking comfort through religion	1, 3,843	323.75	3.33	.068	.001
Religious decision making	1, 3,845	1398.29	14.40	<.001	.004
Well-being					
Religious affiliation[a]	1, 3,849	76.94	0.59	.443	−.000
Religion importance	1, 3,868	472.20	3.59	.058	.001
Religious participation (services)	1, 3,837	337.26	2.58	.109	.000
Religious participation (meeting)	1, 3,811	966.09	7.36	.007	.002
Religious identity	1, 3,878	951.74	7.25	.007	.002
Spiritual identity	1, 3,856	2093.54	16.06	<.001	.004
Identification with religious group	1, 3,876	914.23	6.97	.008	.002
Seeking comfort through religion	1, 3,876	64.35	0.49	.485	−.000
Religious decision making	1, 3,879	441.78	3.36	.067	.001

Note. MS = mean square. Results were adjusted for initial (baseline) levels of the outcome. MIDUS = Midlife in the United States.
[a] Religious affiliation is a dummy variable coded 0 if the respondent does not have a religious affiliation and 1 if the respondent does have a religious affiliation of any kind.

all, cases statistical significance as the criterion and a cross-sectional design (e.g., Diener et al., 2011; Ellison, 1991; Koenig & Larson, 2001; Stavrova et al., 2013; Ugur & Aydın, 2022). The use of cross-sectional data makes it difficult to determine the direction of causality and the role of third-variable explanations in the relationship between religion and psychological well-being. Specifically, it is difficult to know whether (a) religion influences psychological well-being; (b) well-being determines religious affiliation and participation; or (c) the relationship between religion and psychological well-being is the spurious result of third variables such as membership in a community, purpose and meaning in life, social support, meditation and other group activities, prosocial behaviors, and positive health behaviors.

In Study 1, the magnitude of the relationship between self-reported religion and well-being was investigated using a large sample of people living in 115 countries/regions worldwide and using data covering a 41-year period. Moreover, in Study 2, the temporal relationship between religion and psychological and subjective well-being was examined. Although several statistically significant associations between some constructs of religiosity/spirituality and well-being were found, the results showed that these predictors are not powerful enough to make a nontrivial contribution to well-being. This does not mean that the role of religious affiliation, beliefs, and practices is unimportant from a psychological point of view. In this respect, four points need to be emphasized.

First, in the present study, the relationship between mental health symptoms, distress, and religion was not examined. More information about the relationship between religion/spirituality and mental health symptoms can be found in previous meta-analyses that have provided evidence that the strength of the relationship is very small to moderate (Forouhari et al., 2019; Hodapp & Zwingmann, 2019;

Salsman et al., 2015; Smith et al., 2003; Yonker et al., 2012). The findings of these meta-analyses can be used to complement the results of this study concerning the related but distinct constructs of well-being and mental illness (Keyes, 2005). However, it should be noted that a cross-sectional design was used in the great majority of the studies included in these meta-analyses, and a distinction between findings obtained in cross-sectional and longitudinal designs was not made. In a recent meta-analysis of longitudinal studies, Garssen et al. (2021) found that an overall index of religion and spirituality was related to distress (dichotomous, $r = .09$, $p = .000$; continuous, $r = .07$, $p = .01$). These effect sizes can be considered small or very small according to the benchmarks proposed by Cohen (1988). Distress could be defined as a negative stress response or a negative emotional state. There is theory and evidence suggesting that the relationship of well-being to distress is complex and that well-being could not be equated with the absence of distress (e.g., Ruini et al., 2003). In addition, Garssen et al. (2021) recommended that future research should focus on the effect on outcomes that are theoretically closer to religion such as spiritual well-being or posttraumatic growth (Prati & Pietrantoni, 2009).

Second, the possible benefits attributed to religion can be obtained in other ways and are not uniquely derived from religion alone. For instance, Galen and Kloet (2011) posit that well-being may be a function of a confident worldview rather than religious beliefs themselves. In their study, they found that people with low certainty (unsure and agnostics) report lower well-being relative to those with higher belief certainty (both confidently religious and atheists). Another study found that people with the clearest (or strongest) beliefs about God (whether referring to the existence or nonexistence of God) have greater psychological benefits than people with relatively unclear beliefs about God (Kitchens & Phillips Iii, 2021).

Therefore, religious affiliation, beliefs, and practices may not be the only way to develop a worldview that provides meaning, sense of purpose, and direction in life. Another set of potential mediators of the relationship between religion and mental health involves community membership, integration into a social network, and social support (e.g., Song et al., 2011). However, the well-known effects of community membership, integration into a social network, and social support can be generated in a multitude of ways that include but are not limited to religiosity (Joiner et al., 2002). The idea that atheists and nonreligious people are less likely to experience well-being may be the result of negative stereotypes and unsupported assumptions (Zuckerman, 2009).

Third, religion has been found to have both positive and negative effects (Ano & Vasconcelles, 2005; Harrison et al., 2001; Pargament et al., 1998), and they may cancel each other out. Consequently, religion can be considered a double-edged sword. A growing body of research examined different aspects of the so-called dark side of religion (e.g., Ellison & Lee, 2010; Exline, 2013; Krause, 2015). There is abundant evidence to suggest that negative religious coping is negatively associated with well-being (e.g., Counted et al., 2022; Hebert et al., 2009; Krok, 2015; Pargament et al., 2001; Park et al., 2018). Perhaps, it is time to abandon the idea that religion per se has a positive and substantial impact on well-being. The distinction between positive and negative religious coping (Ano & Vasconcelles, 2005; Counted et al., 2022; Harrison et al., 2001; Pargament et al., 1998) appears to be more useful and fruitful in this respect. It would be beneficial to generate (and test) hypotheses regarding which specific construct of religiosity/spirituality has which magnitude of effect on which well-being outcome rather than assume that religiosity, in general, plays a significant role in promoting well-being.

The findings of the present study as well as most of the literature on the relationship between religion and subjective well-being are based on self-reported data. For instance, in a recent large meta-analysis of religion/spirituality and life satisfaction (Yaden et al., 2022), the primary studies used surveys. Thus, I cannot rule out that using different research methods (e.g., observation) would have led to different results. Therefore, the conclusions are limited to studies using surveys as the research method.

The magnitude of the effect sizes found in the present study is different from that of two recent meta-analyses on the effect of religion or spirituality on mental health and life satisfaction (Garssen et al., 2021; Yaden et al., 2022). Among the several reasons that may lie behind the observed differences, four considerations deserve special attention. First, Garssen et al. (2021) focused on both positive and negative aspects of mental health, while the present study focused on subjective and psychological well-being. Second, the findings of Garssen et al. (2021) and Yaden et al. (2022) are likely to be overestimates of the true effects because of publication bias that discourages the publication of null results and favors the publication of studies reporting larger effects. Third, Garssen et al. (2021) excluded negative aspects of religion from their analysis. Fourth, the vast majority of the studies included in the meta-analysis of Yaden et al. (2022) applied self-report and cross-sectional designs that limit inferences concerning the direction of causality. Moreover, evidence of publication bias was found in this meta-analysis, suggesting a tendency for significant findings to be published and nonsignificant results to be omitted in a publication. In addition, self-report and cross-sectional studies are vulnerable to the inflation of correlations due to common method variance.

Despite the differences in the magnitude of the effect size estimates, the results of the present study and that of Garssen et al. (2021) converged in questioning the practical significance of the evidence regarding the relationship between religion and well-being.

In the present study, the guidelines of Cohen (1988) for interpreting effects and the guide for clinicians and researchers of Ferguson (2009) on the magnitude of the effect which is necessary to establish practical significance were used. It should be noted that any strict cutoff is somewhat arbitrary and should not be applied rigidly. Although Cohen's guidelines were based mainly upon a qualitative impression, the cutoff value for a small effect size did receive empirical support (Gignac & Szodorai, 2016). Moreover, in the present research, many effect sizes were near zero, despite the statistically significant associations. This pattern of findings is probably because of the high power of studies using large samples. Research on the relationship between religion and well-being too often relies on statistical significance. This may result in statistically significant effects that are trivial. It is worth noting that an overreliance on effect sizes can lead to the erroneous conclusion that an effect is unimportant. To avoid this overreliance, effect sizes should be considered in context. To establish an empirical context for religion effect sizes, it is possible to compare such effects with those of other well-established sociodemographic predictors of well-being such as income. There is evidence that income results in a large effect size for life satisfaction and small-to-medium effect sizes for positive affect (Geerling & Diener, 2020). Considering life satisfaction, the income effect size was approximately 150% larger than that (converted to Cohen's d) for religious importance or religious participation (Study 1). In addition, the magnitude of the relationship between income and happiness (Easterlin, 2001) appears approximately 130% larger than that (converted to Pearson's correlation r) for religious identity or religious participation (Study 1). In the absence of any other information, the effect of religion alone (without considering any other condition) on well-being does not seem to have practical significance.

A strength of the present study was the inclusion of people from different cultural and social backgrounds and of different generations. For instance, the IVS data set includes responses from participants belonging to 115 countries/territories and covers the time period from 1981 to 2021. Another strength of this study was the use of a variety of measures to assess different facets of well-being and religion. A limitation of the present study was that data were obtained using interviews and questionnaires. These subjective measurements may be limited by methodological issues. For instance, the collection of data may be subject to recall bias, single-responder bias, social desirability bias, and common methods bias.

Conclusion

In their famous article, Diener et al. (2011) presented a paradox raised by the question: "If religion makes people happy, why are so many dropping out?" The findings of the present study suggest that the question makes an unwarranted assumption, namely, that because an association between religion and happiness is statistically significant this effect is, by definition, nontrivial. The findings of the present study suggest that people leaving religion may not notice the difference or, alternatively, did find other means to achieve such possible benefits. From a theoretical point of view, the present study challenges theoretical models underpinning a meaningful effect of

religion on well-being. The relationship between religion and well-being is more complex than previously suggested, and a simple causal model may not be appropriate. Future research would benefit from redirecting attention from religion per se to the conditions that enable or inhibit a positive or negative relationship between religion and well-being. According to person–environment interaction models and theories of person–environment fit (Kristof-Brown, 2020), the investigation of the interaction between personal and environmental characteristics might be more successful for understanding the role of religion than a "one-size fit all" approach. A more in-depth and fine-grained picture of the effect of religion on well-being will have theoretical and practical values.

It is well known that religion plays an essential role in the lives of many individuals. However, the fact that religion is an important part of many people's life does not necessarily indicate that religion has a direct and meaningful impact on well-being. The relationship between religion and well-being is elusive. Consider, for instance, the notion of religious and spiritual struggle:

> However, thinking about God does not necessarily bring only comfort and consolation. When people think that negative events in their lives are unfair or beyond their control (Kushner 1981), they can blame God for them and feel confused, distrust, or anger toward their God (Exline et al. 2011). Some people feel hurt by other believers, for example, those with different beliefs or when they witness hypocrisy by clergy (Krause et al. 2000). There are also individuals who try to live in accordance with their religious beliefs but who cannot live up to the rules imposed by that religion and, as a result, feel guilty and are afraid that God will not forgive their failings. Such experiences generate strains and are a source of internal struggle. (Yonker et al., 2012, p. 1073)

Therefore, the notion of religious and spiritual struggle supports the idea that religion might, at least sometimes for some people, be negatively or nonsignificantly associated with well-being. Therefore, the experiences, meaning, and practices associated with religion and spirituality may be positively or negatively associated with well-being or show no association at all. All pathways should not be neglected and an accurate evaluation of the magnitude of the effects of religion is vital. The findings of the present study are practically useful to practitioners in both assessment and intervention. The findings suggest that religion per se might not have a direct and important role in well-being, but an in-depth understanding of the experiences, meaning, and practices associated with religion and spirituality may be important in this respect.

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