Religion as a Predictor of Psychological Distress in Two Religious Communities

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Abstract. Although spirituality and religion play a role in the lives of many North Americans, the relationship of these variables to symptoms of affective disorders has not been rigorously studied. The authors, therefore, evaluated the extent to which religious factors predicted symptoms of distress in a large community sample of 354 individuals (120 Christian and 234 Jewish). Results indicated that religious denomination was a poor predictor of distress. However, general religiousness (e.g. importance of religion), religious practices (e.g. frequency of prayer), and positive religious core beliefs predicted lower levels of worry, trait anxiety, and depressive symptoms, whereas negative religious core beliefs predicted increased symptoms. These variables accounted for a small but significant portion of the variance in reported symptoms after controlling for covariates. These findings are taken to indicate that religion is an important factor to consider when evaluating and treating distress in religious individuals. Implications for clinical practice of empirically supported treatments with religious individuals are explored. *Key words: religion; spirituality; anxiety; depression.*

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For more than a century, many of the leaders in psychology and related disciplines have written and theorized regarding the relationship between religion and mental health (e.g. Ellis, 1983, 1992; Freud, 1920; James, 1902/1958). However, from an empirical point of view, the links among religion, anxiety, and depression are still largely unclear as a result of conceptual ambiguities and methodological weaknesses in the existing literature (Shreve-Neiger & Edelstein, 2004). As well, a recent PsycINFO search of 11 journals focusing on cognitive behavior therapy was able to locate only 14 empirical studies in this area, of which six related exclusively to obsessive–compulsive symptoms and risk factors, one was conducted with a sample of only three participants, and another did not use any measures

of religion. (Search term ''reliġ'' in *Behavioural and Cognitive Psychotherapy, Behaviour Research and Therapy, Behavior Therapy, Cognitive and Behavioral Practice, Cognitive Behaviour Therapy, British Journal of Cognitive Psychotherapy, Cognitive Therapy and Research, Journal of Behavior Therapy and Experimental Psychiatry, Journal of Cognitive and Behavioral Psychotherapies, Journal of Cognitive Psychotherapy*, and *Journal of Rational-Emotive and Cognitive Behavior Therapy.*) Because religion plays an important part in the lives of many North Americans (Spilka, Hood, Hunsberger, & Gorsuch, 2003), further study seems warranted in order to provide clinicians with an empirically-based perspective on the relationship of religion to psychological distress, because this might

have an influence on choice of treatments, including cognitive behavior therapy (Andersson & Asmundson, 2006).

How might religion be related to symptoms of distress? There is some evidence to suggest that incidence of anxiety and mood disorders differs between religious groups. For example, elevated levels of anxiety disorders have been found among Pentecostal and conservative Protestants compared with mainline Protestants and other religious groups (Koenig, Ford, George, Blazer, & Meador, 1993). As well, Levendusky and Belfer (1988) found that patients with agoraphobia and specific phobias were more likely than a matched sample of nonclinical controls to report Catholic affiliation. Other studies have indicated that Jewish males have higher rates of major depressive disorder than Christians (Levav, Kohn, Golding, & Weissman, 1997). Furthermore, there is evidence to suggest that Christians (Protestant and Catholic) report higher levels of specific religious fears than Jews (Abramowitz, Huppert, Cohen, Tolin, & Cahill, 2002). Thus, religious denomination could be related to psychological distress in various ways. However, to our knowledge, a comparison of anxiety and depressive symptoms between religious groups has not been examined in a religious community sample.

It is also possible that general religiousness (e.g. belief in God, degree of religiousness, importance of religion) and religious practices (e.g. frequency of prayer or religious service attendance) could relate to symptoms of anxiety and depression. There is evidence to suggest that among Christians, religiousness is related to thought–action fusion, an important metacognitive factor in the development of obsessive–compulsive disorder (Siev & Cohen, 2007) as well as actual obsessive cognitions (Rassin & Koster, 2003). Given that many religions emphasize God-given convictions, religiousness may be associated with decreased tolerance of ambiguity and uncertainty (Ellis, 1983). Furthermore, prayer and other rituals may function as avoidance or safety behaviors to cope with unpleasant emotions and cognitions. For example, psychological distress resulting from pain may be associated with an increased frequency of prayer (Andersson, 2008). General religiousness may have a salutary impact on human emotions as well. By virtue of the fact that positive emotions such as hope, gratitude, awe, and reverence are central to religious teachings and experiences (Emmons, 2005), general religiousness may be associated with decreased symptoms of distress. Religious observances may also help to foster a sense of cultural identity and belonging and thus decrease loneliness, an important moderator of depressive symptoms (Chang, Sanna, Chang, & Bodem, 2008). It is worth noting that one large meta-analysis showed a weak but negative association between religiousness and depression, indicating that higher levels of religiousness are associated with somewhat lower levels of depressive symptoms overall (Smith, McCullough, & Poll, 2003).

Given the divergent impact that various aspects of religion may have on anxiety and depression, it has been proposed that religion is neither adaptive nor maladaptive in of itself; rather, certain facets of religion can be beneficial while others may exacerbate symptoms of distress (Ellis, 2000). For example, core beliefs in an all-knowing, benevolent, and loving God may decrease negative appraisals of threat and danger just as positive core beliefs about oneself, others, and the world can reduce negative automatic thoughts and emotions (Beck, 1995). By contrast, belief in a weak, unaware, malevolent, angry, vengeful, or hateful God may exacerbate negative evaluations of threat and lead to greater symptoms of anxiety and depression (McConnell, Pargament, Ellison, & Flannelly, 2006). Because religion has such widespread significance to members of our society, it is necessary to identify functional and maladaptive aspects of religion and provide a clinically useful analysis of how various religious constructs differentially predict mental health and illness. Moreover, examining more nuanced aspects of religion may help to resolve the ambiguities in the extant literature as to what it is about religion that relates to distress (Hill & Pargament, 2003).

The present study, therefore, examined religious factors as predictors of symptoms of distress in a large community sample of Jews and Christians. Specifically, we explored links between general religiousness, common religious practices, and distress symptoms. We also examined links between positive and negative core religious beliefs and distress.

Based on previous findings (e.g. Smith et al., 2003), we expected that general religiousness and religious practices would be associated with modestly lower levels of reported distress overall. It was further expected that positive and negative core religious beliefs would differentially predict symptoms; specifically, positive beliefs would be associated with decreased levels of distress, whereas negative beliefs would predict increased distress. In addition, we examined whether six Jewish (Hassidic, Yeshiva Orthodox, Modern Orthodox, Conservative, Reform, and Other Affiliated Jews) and four Christian (Catholic, Evangelical Protestant, Mainline Protestant, and Mormon) religious subgroups within the sample differed in self-reported symptoms.

Method

Participants

The sample consisted of 354 individuals (120 Christian [33.9%] and 234 Jewish [66.1%]; 217 women [61.3%], 135 men [38.1%] and two participants who did not report gender), with a mean age of 36.2 years (*SD*=14.1). The majority of participants were from the United States (*n*=197) and Canada (*n*=100), but a sizable portion were from Israel (*n*=27), Europe (*n*=15), and elsewhere (*n*=15) (e.g. South America, South Africa, and Australia). All participants indicated that they were fluent in English (the language in which the study questionnaire was written). Current use of psychotropic medication or psychotherapy to treat anxiety and depression was reported by 17.2% of the sample.

Measures

Demographics. Four items assessed participant age, gender, current use of psychotherapy or psychotropic medication to treat anxiety or depression, and religious group affiliation.

Distress. Three self-report measures of distress were used: (a) Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990), a 16-item measure of pathological trait worry, with established psychometric properties (Hazlett-Stevens, Ullman, & Craske, 2004); (b) the 20-item trait version of the State-Trait Anxiety Inventory (STAI-T; Spielberger, Gorsuch, & Lushene, 1970), which has demonstrated

validity in community and clinical settings (Gros, Antony, Simms, & McCabe, 2007); and (c) the Center for Epidemiologic Studies–Depression Scale (CES-D; Radloff, 1977), a 20-item self-report scale that has been validated extensively in community settings (Hann, Winter, & Jacobsen, 1999).

General religiousness. A five-item measure of general religiousness was created using the following questions: (a) Do you believe in God? (*yes, no*); (b) How religious do you consider yourself to be? (*very, moderately, slightly, not at all*); (c) How spiritual do you consider yourself to be? (*very, moderately, slightly, not at all*); (d) How important is being Christian/Jewish to you? (*very, somewhat, not very, not at all*); and (e) How do you feel about being Christian/Jewish? (*very positively, somewhat positively, indifferently, somewhat negatively, very negatively*). This scale demonstrated an adequate level of internal reliability in the sample (α=.69).

Religious practices. Participants responded to four items measuring religious practices. Three items—How often do you speak to God or pray? How often do you attend religious services? How often do you read religious literature or attend a religious sermon or lecture?—included the following range of responses: *several times a day, once a day, a few times a week, once a week, a few times a month, once a month, a few times a year, once a year or less, never*). The fourth item—How has your level of religious activity changed compared with 5 years ago?—included the following responses: *increased substantially, increased somewhat, stayed the same, decreased somewhat, decreased substantially*. This measure demonstrated a high level of internal reliability in the sample (α=.82).

Positive and negative religious core beliefs (trust and mistrust in God). Trust in God is a religious construct involving the belief that God is taking care of one's best interests (Ibn Pakuda, c. 1081/1996). Specifically, trust in God involves the following three core beliefs about the Divine: (a) God is omniscient (i.e. has constant regard for all worldly affairs); (b) God is omnipotent (i.e. is the ultimate power in the universe); and (c) God is omnibenevolent (i.e. is merciful, generous, and righteous). By contrast, mistrust in God involves the beliefs that God is not omniscient, omnipotent, and omnibenevolent (Rosmarin,

Pargament, & Mahoney, in press). To assess for both positive and negative core religious beliefs, measures were developed to assess trust in God (11 items) and mistrust in God (13 items). To ensure that scale items and instructions were consistent with the religious values of Jews and Christians, we consulted three Jewish and three Christian authorities (professionals in a religious organization, such a church or synagogue, or graduates of an advanced degree in the religion). All suggestions for revision were incorporated.

Participants' responses to the trust and mistrust in God items were screened, and 64 univariate outliers were identified (scores > 3 SD on a given item); these responses were deleted in accordance with the guidelines of Kline (2005). The 24 trust and mistrust in God items were then subjected to a principal-components factor analysis with direct oblimin (oblique) rotation. Four factors with eigenvalues greater than 1.0 emerged; however, an examination of the scree plot evidenced three factors based on a parallel analysis using a computer-generated permutation of the dataset (O'Connor, 2000). All trust in God items loaded on the first factor, whereas mistrust in God items were divided between the two remaining factors. The two mistrust in God factors related to negative beliefs about God's omniscience and omnibenevolence (e.g. "God ignores me"; "God hates me") and negative beliefs about God's omnipotence (e.g. "God is not in total control"), respectively. To provide for a more parsimonious and clinically relevant evaluation of the relevance of positive and negative religious factors in the present study, the two mistrust in God factors were combined into a single subscale. Both subscales demonstrated adequate reliability (trust in God $\alpha=.96$; mistrust in God $\alpha=.77$). A copy of this measure can be found in the Appendix.

Procedure

Data were collected from August 2007 through April 2008 using an online survey. Previous research suggests that online administration of questionnaires generally results in excellent psychometric properties, although norms might differ slightly from paper-and-pencil administration (Buchanan, 2003). A snowball sampling procedure was used. Information about the study was posted on community websites, and invitations to participate in the study were sent to Jews and Christians via e-mail. As well, participants were asked to inform their friends and associates about the study in order to aid in recruitment. No monetary or other compensation was given for participation. The study was approved by the Human Subjects Review Board at Bowling Green State University.

Results

Preliminary analyses: religious group differences

We conducted preliminary analyses to examine whether religious groups within the sample differed in demographic and religious variables and levels of distress. Religious group means, standard deviations, and test statistics are presented in Table 1. Religious groups differed in terms of age, $F(9, 334)=3.02$, $p < .01$. Post hoc Tukey analyses indicated that Catholics were younger than the Modern Orthodox ($p < .05$), Conservative ($p < .01$), Reform ($p < .05$), and Other Jews ($p < .001$) as well as Evangelical Christians ($p < .05$). Religious groups also differed in terms of gender composition, $\chi^2(9, N=351)=21.86$, $p < .01$. However, a post hoc test revealed that this difference was only due to an elevated number of Evangelical Christian women ($z=2.3$, $p < .01$). There were no significant differences between religious groups in terms of current psychotherapy or psychotropic medication use, $\chi^2(9, N=350)=12.28$, ns. Religious groups also differed in levels of general religiousness, $F(9, 330)=9.03$, $p < .001$, religious practices, $F(9, 341)=17.99$, $p < .001$, positive religious core beliefs, $F(9, 308)=22.44$, $p < .001$, and negative core beliefs, $F(9, 313)=11.24$, $p < .001$.

The group differences in age and gender presented a potential confound in examining religious group differences in distress, because age was negatively associated with PSWQ scores (see Table 2) and women demonstrated higher PSWQ scores than men in the sample as a whole, $t(242)=5.89$, $p > .01$. As such, these factors were controlled for using a one-way analysis of covariance. There were no significant differences between religious groups in STAI-T scores, $F(9, 301)=1.30$, ns, or CES-D scores, $F(9, 303)=1.80$, ns. Group differences in PSWQ scores were significant

Table 1. *Preliminary analyses: religious subgroup differences*

Variable	HSJ (n=13)	YOJ (n=37)	MOJ (n=91)	CSJ (n=50)	RFJ (n=12)	OAJ (n=30)	CTH (n=13)	MPR (n=24)	EPR (n=73)	MOR (n=10)
Age										
M	$36.2_{a,b}$	$36.9_{a,b}$	38.0_a	36.2_a	47.3_a	34.6_a	21.1_b	$31.3_{a,b}$	36.7_a	$35.9_{a,b}$
SD	14.0	11.6	13.1	14.4	14.4	14.2	2.7	12.9	16.5	12.1
Female (%)*	$30.8\%_a$	$54.1\%_a$	$52.2\%_a$	$62.0\%_a$	$58.3\%_a$	$60.0\%_a$	$50.0\%_a$	$75.0\%_a$	$78.1\%_b$	$80.1\%_a$
Current tx (%)*	$23.1\%_a$	$10.8\%_a$	$15.6\%_a$	$32.0\%_a$	$8.3\%_a$	$20.7\%_a$	$7.7\%_a$	$17.4\%_a$	$12.3\%_a$	$20.0\%_a$
General religiousness										
M	$12.8_{b,c,d}$	13.3_b	$12.2_{b,c}$	$10.8_{a,d}$	$11.0_{a,c,d}$	10.1_a	$11.0_{a,c,d}$	$12.3_{b,c,d}$	$12.5_{b,c}$	$12.9_{b,c,d}$
SD	1.4	1.1	1.7	1.7	1.5	3.4	1.4	1.8	2.0	2.0
Religious practices										
M	$21.8_{a,b}$	21.8_a	$19.5_{a,b,c}$	13.2_d	$13.6_{d,e}$	12.9_d	$14.9_{c,d,e}$	$17.2_{b,c,d,e}$	21.8_a	$19.3_{a,e}$
SD	4.9	3.6	4.4	6.5	5.4	7.9	4.4	6.0	3.7	5.5
Positive religious core beliefs										
M	$46.9_{b,c,d}$	$50.7_{b,d}$	43.2_c	30.9_a	24.4_a	30.9_a	$43.2_{b,c,d}$	$46.7_{b,c,d}$	$50.9_{b,d}$	$47.5_{b,c,d}$
SD	9.2	7.1	11.0	11.5	10.6	15.9	8.2	8.7	5.1	9.8
Negative religious core beliefs										
M	$18.9_{a,b}$	15.1_a	19.3_b	26.9_c	27.7_c	$23.1_{b,c}$	$22.4_{b,c}$	$22.7_{b,c}$	$20.5_{b,d}$	$22.7_{b,c,d}$
SD	6.5	3.3	7.4	6.6	6.5	6.9	6.1	7.6	4.3	4.7
Penn State Worry Questionnaire**										
M	42.5_a	37.1_a	42.2_a	46.4_a	45.0_a	41.4_a	48.4_a	47.1_a	38.7_a	39.7_a
SD	16.2	13.2	12.4	13.9	15.9	12.6	10.1	18.5	13.3	9.7
State-Trait Anxiety Inventory–Trait**										
M	41.7_a	35.0_a	38.6_a	40.6_a	40.0_a	39.2_a	37.2_a	37.8_a	36.6_a	37.7_a
SD	9.7	7.9	10.0	10.5	9.2	9.3	7.8	9.9	8.5	10.7
Center for Epidemiological Studies–Depression Scale**										
M	15.9_a	7.1_a	11.6_a	14.7_a	8.6_a	11.3_a	15.0_a	12.9_a	11.7_a	14.3_a
SD	10.6	7.6	9.8	11.4	7.0	8.0	9.0	9.0	9.1	12.6

Note. *Within rows, numbers that share a common subscript do not differ significantly at* $p < .05$; *HSJ=Hassidic; YOJ= Yeshiva Orthodox; MOJ=Modern Orthodox; CSJ=Conservative; RFJ=Reform; OTH=other; CTH=Catholic; MPR=Mainline Protestant; EPR=Evangelical Protestant; MOR=Mormon; Current tx=current use of psychotherapy or psychotropic medication for anxiety or depression.*
*Significance of group differences determined using chi-square test. **Significance of group differences determined using analysis of covariance, controlling for age and gender.*

Table 2. *Correlations, means, standard deviations, and alphas of study variables*

Variable	1	2	3	4	5	6	7	8	9	10
1. Age	—									
2. Gender	.00	—								
3. Treatment	.04	.19**	—							
4. General religiousness	.09	.09	−.04	—						
5. Religious practices	.16**	−.05	−.17**	.70**	—					
6. Positive beliefs	−.07	.06	−.17**	.68**	.66**	—				
7. Negative beliefs	−.04	−.03	.14*	−.50**	−.48**	−.57**	—			
8. PSWQ	−.21**	.10	.23**	−.19**	−.25**	−.17**	.19**	—		
9. STAI-T	−.11	.00	.31**	−.18**	−.17**	−.21**	.15**	.69**	—	
10. CES-D	−.09	.03	.37**	−.24**	−.21**	−.20**	.26**	.57**	.84**	—
M	36.2	.62	.17	12.0	18.3	42.9	21.1	42.0	38.3	12.0
SD	14.2	.49	.38	2.1	6.2	12.6	7.0	13.6	9.6	9.8
Range	18–79	0–1	0–1	1–14	0–26	11–55	13–52	16–80	20–74	0–50
α	—	—	—	.69	.82	.96	.77	.94	.92	.92

Note. *Sample sizes range from 289 to 351 (cases excluded pairwise). Gender coded as 0=*male, *1=*female. *Treatment coded as 0=*no, *1=*yes. *PSWQ=Penn State Worry Questionnaire; STAI-T=State-Trait Anxiety Inventory–Trait; CES-D=Center for Epidemiological Studies–Depression Scale.*
*p < .05. **p < .01.

for the overall model, $F(9, 293) = 2.12$, $p < .05$; however, post hoc tests failed to detect the presence of differences in worry after Bonferroni correction. Thus, levels of distress were statistically equivalent for all 10 religious groups. To examine group differences in clinical levels of symptomatology, cutoff scores of 60 for the PSWQ (Fortune, Richards, Griffiths, & Main, 2005), 53 for the STAI (2 *SD*s above the mean for community norms reported by Spielberger et al., 1970), and 16 for the CES-D (Nezu, Ronan, Meadows, & McClure, 2000) were used. A Pearson chi-square test failed to detect any significant differences between the proportion of individuals in each group surpassing cutoff scores on the PSWQ, $\chi^2(9, N = 312) = 11.28$, *ns*, STAI, $\chi^2(9, N = 321) = 7.30$, *ns*, or CESD, $\chi^2(9, N = 321) = 7.50$, *ns*, suggesting that clinical levels of distress were independent of religious group affiliation in the sample.

General religiousness, religious practices, and positive and negative religious core beliefs as predictors of anxiety and depression

Correlations, means, standard deviations, and internal consistencies for all study measures are presented in Table 2. General religiousness, religious practices, and positive core beliefs were modestly tied to lower reported levels of distress ($rs = -.17$ to $-.25$, $p < .01$), whereas negative core beliefs modestly predicted higher levels of distress ($rs = .15$–.26, $p < .01$). To examine whether religious factors predicted distress after controlling for significant covariates, we conducted a series of hierarchical regression analyses. In all analyses, age and current treatment were entered as controls into Model 1 because they significantly predicted one or more measures of distress. To avoid problems associated with multicollinearity, four separate regressions were conducted using general religiousness (Model 2a), religious practices (Model 2b), positive religious core beliefs (Model 2c), and negative core beliefs (Model 2d) as predictors. Results of these analyses are presented in Table 3. All four religious factors emerged as significant predictors of distress, accounting for a small but significant amount of additional variance (1–4%). Specifically, general religiousness, religious practices, and positive

religious core beliefs predicted lower levels of distress, whereas negative beliefs predicted increased distress.

Discussion

The purpose of this study was to examine the relationship between various religious factors and distress in two religious communities. Over the past 20 years, there has been a marked increase in psychological research on spirituality and religion (Paloutzian & Park, 2005). However, the clinical literature in general, and academic journals with a cognitive behavioral orientation in particular, have largely disregarded these variables. Increasing research in this area could have several implications for the provision of empirically supported treatments to spiritually and religiously inclined individuals. A thorough assessment of cognitive, affective, and behavioral dimensions is integral to the practice of cognitive behavior therapy, and assessing for religious factors alongside other contextual and cultural variables may be a necessary part of professional clinical practice in some cases (Johnson & Nielsen, 1998). Furthermore, addressing religiousness in treatment may help to establish an interpersonal context that is conducive to behavior change when working with religious individuals (Lasure & Mikulas, 1996). Addressing religious factors could also lead to better psychotherapy outcomes with religious populations (Propst, Ostrom, Watkins, Dean, & Mashburn, 1992), although there is evidence to suggest that this may not add to treatment efficacy (McCullough, 1999). Clinical research on the relevance of religious factors may also serve a key function in the dissemination of empirically supported treatments to clinicians serving religious populations. Therefore, by identifying links between some religious factors and symptoms of distress at the community level, this study provides an important step toward bridging the gap between religion and the practice of cognitive behavior therapy.

The results of this investigation indicated that religious denomination was a poor predictor of distress in religious communities, whereas levels of general religiousness and religious practices were somewhat predictive of lower levels of distress overall. These

Table 3. *Religious predictors of distress after controlling for significant covariates*

Predictor	Variable	PSWQ	STAI-T	CES-D
Model 1				
Age	β	−.19***	−.11*	−.10*
	t	−3.8	−2.2	−2.0
Treatment	β	.22***	.30***	.34***
	t	4.4	6.0	7.1
R^2 (Model 1)		.09***	.10***	.13***
Model 2a				
General religiousness	β	−.15**	−.15**	−.21***
	t	−2.9	−2.9	−4.1
ΔR^2 (Model 2a)		.02***	.02**	.04***
Model 2b				
Religious practices	β	−.18***	−.10[a]	−.13**
	t	−3.5	−1.9	−2.6
ΔR^2 (Model 2b)		.03***	.01[a]	.02**
Model 2c				
Positive belief	β	−.14**	−.16**	−.15**
	t	−2.7	−3.1	−2.9
ΔR^2 (Model 2c)		.02**	.02**	.02**
Model 2d				
Negative belief	β	.15**	.10*	.20***
	t	3.0	2.0	4.1
ΔR^2 (Model 2d)		.02**	.01*	.04***

Note. *Missing values replaced with mean values (to maintain consistency in Model 1 β values throughout all analyses). β represents standardized beta values; Positive belief=positive core beliefs (trust in God); Negative belief=negative core beliefs (mistrust in God); Treatment=current use of psychotherapy or psychotropic medication for anxiety and/or depression (coded as 0=no, 1=yes); Gender coded as 0=male, 1=female; PSWQ=Penn State Worry Questionnaire; STAI-T=State-Trait Anxiety Inventory–Trait; CES-D=Center for Epidemiological Studies–Depression Scale.*
[a]$p < .06$. *$p < .05$. **$p < .01$. ***$p < .001$.

findings suggest that the common practice of collecting information about religious denominational affiliation in clinical interviews may be insufficient to provide a clinically useful assessment of religious factors. Furthermore, although ritual practices may manifest in the form of scrupulosity in clinical populations, the results of this study suggest that general religiousness and religious practices serve a somewhat protective function against distress in Jewish and Christian religious communities overall. This speaks to the importance of ensuring that cognitive behavior therapy is practiced in a manner that respects, and perhaps even incorporates, patient religiousness, which may require adapting treatments (Huppert, Siev, & Kushner, 2007). Finally, positive and negative religious core beliefs differentially predicted distress in the sample; positive beliefs were associated with decreased levels of distress, whereas negative beliefs predicted higher levels of distress. Although it is unclear whether religious beliefs are a correlate, a cause, a consequence, or perhaps simply an indicator of mental health, this result highlights the importance of assessing for both positive and negative religious factors in treatment. It has been proposed that it is sometimes necessary to directly assess for the nature of supernatural and religious beliefs in cognitive therapy (Robb, 2002). To help facilitate this, we have included a copy of the trust/mistrust in God measure in the Appendix, and full psychometric information is available from David H. Rosmarin upon request.

This study is limited by the use of a cross-sectional design and a nonclinical sample. Furthermore, the use of self-recruitment and snowball sampling made for a nonrepresentative sample and uneven distribution of participants across religious groups. Web-based survey administration also poses a limitation

because Internet use is not encouraged by some religious groups (Armfield & Holbert, 2003). It is hoped that future research will address these limitations through longitudinal and experimental investigations with both community and clinical populations. Despite these limitations, this study provides an empirical perspective on the clinical relevance of some religious factors in predicting distress among religious individuals.

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Appendix: Trust/Mistrust in God Scale

Instructions: The following statements are concerned with your beliefs about God (Higher Power, the Divine, or the Creator). Sometimes people's beliefs about God may be stronger and sometimes they may be weaker. Please indicate how strongly you have believed in each statement over the past month. If you have not been thinking about these statements over the past month in particular, please indicate how strongly you generally believe in each one.

Response anchors: not at all, a little, somewhat, a lot, very much

1. God attends to my needs.
2. God watches over me.
3. God ignores me.
4. God doesn't take notice of my activities.
5. God knows what my needs are.
6. God knows what's harmful for me.
7. God is ignorant of my needs.
8. God does not know what's best for me.
9. God is in complete control.
10. There are other powers at work in the world aside from God.
11. Sometimes things happen by chance.
12. God is not in total control.
13. Nothing can happen without God's assistance.
14. I can't be successful without God's help.
15. I don't need God.
16. Bad things happen despite God's will.
17. God loves me immensely.
18. God cares about my deepest concerns.
19. God doesn't care about me.
20. God hates me.
21. No matter how bad things may seem, God's kindness to me never ceases.
22. God is generous to me even when I don't deserve it.
23. God is unkind to me for no reason.
24. God treats me unfairly.

Note. *Trust in God items: 1, 2, 5, 6, 9, 13, 14, 17, 18, 21, and 22. Mistrust in God items: 3, 4, 7, 8, 10, 11, 12, 15, 16, 19, 20, 23, and 24. This measure was revised for the current project based on a previous version, which was validated within a Jewish community sample (Rosmarin, Pargament, & Mahoney, in press).*