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## Incorporating spiritual beliefs into a cognitive model of worry

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Making Room for Spiritual/Religious Core Beliefs in the Cognitive Model of Worry

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### **Abstract**

Cognitive theory and research have traditionally highlighted the relevance of core beliefs about oneself, the world, and the future to human emotions. For religious individuals, however, core beliefs may also involve spiritual/religious themes. In this paper, we propose an adaptation of the cognitive model in which positive/negative core beliefs about the Divine impact upon worry through the medium of intolerance of uncertainty. In Study 1, Jewish and Christian believers ( $n = 332$ ) completed measures of religious core beliefs, intolerance of uncertainty, and worry. In Study 2, we examined our model causally in the context of a randomized trial of a spiritually-integrated cognitive behavioral treatment for subclinical stress/worry conducted with  $n = 39$  religious Jews. Mediation analyses supported our proposed model, in particular with regards to negative core beliefs. These findings highlight the importance of including spiritual and religious notions when applying the cognitive model to religious individuals.

**Keywords:** Cognitive Behavioral Therapy Spirituality, Religion, Anxiety

### **Making Room for Religious Core Beliefs in the Cognitive Model of Worry**

Cognitive theory posits that underlying beliefs and thoughts lie at the root of human affect. More specifically, core beliefs influence perceptions and engender situation-specific automatic thoughts, which in turn lead to emotional states (do you need a reference here? E.g. Beck on the ABC model?). This model has enhanced our understanding of anxiety (Clark & Beck, 2010), depression (Hollon & Dimidjian, 2009), personality disorders (Davidson, 2008), and psychosis (Beck, Rector, Stolar & Grant, 2009). Further, the widespread use of cognitive techniques (e.g., thought records, cognitive restructuring, guided imagery) underscores the broad utility and theoretical validity of the cognitive model. To date, cognitive behavioral research and theory have primarily examined the cognitive triad, involving beliefs about oneself, the world, and the future (Beck, 1995). For some individuals, however, core beliefs may also involve spiritual themes. Furthermore, spiritual beliefs can directly influence how individuals perceive themselves, the world and their future.

In recognition of the relevance of spirituality to some individuals, several clinical protocols have successfully integrated religious/spiritual content into a cognitive behavioral framework in order to treat religious populations (e.g., Johnson & Ridley, 1992; Propst, Ostrom, Watkins, Dean, & Mashburn, 1992, and see Paukert, et al, 2009 for a review), the mechanisms through which religious beliefs may shape emotional states and the place of religious core beliefs within the cognitive model remain unclear. Consequently, practitioners may not feel equipped to conceptualize how religious beliefs may contribute to negative affective states, and further, may struggle to provide

spiritually-sensitive treatment. In order to address this gap, we sought to examine how religious core beliefs can be integrated into the cognitive model of worry.

*Incorporating Religious Beliefs into the Cognitive Model of Worry*

One religious construct that appears to dovetail with the cognitive model of worry is trust/mistrust in God. Trust in God has its origins in traditional Jewish thought (Ibn Pekuda, 1996) but is nevertheless applicable to all monotheistic traditions. Principally, trust in God involves the notion that God is taking care of one's best interests. In particular, it involves three core beliefs about the nature of the Divine: (a) God has constant regard for all worldly affairs (God is omniscient); (b) No power is greater than God (God is omnipotent); and (c) God is always merciful and generous (God is omnibenevolent). By contrast, some religious individuals may hold the conviction that God is intentionally ignorant or malevolent. This may result in mistrust in God, which involves a sense that God is deliberately *not* providing for one's wellbeing. Thus, while trust in God reflects the presence or absence of basic core beliefs about God's capabilities, mistrust in God appears to be connected to the concept of Divine spiritual struggles (Pargament, Murray-Swank, Magyar, & Ano, 2005). However, it is important to note that while trust and mistrust in God are negatively correlated, previous factor analytic studies have suggested that they are not opposites but distinct constructs that can co-occur (see Rosmarin, Pargament & Mahoney, 2009 for a discussion). It is important to note that while trust and mistrust in God are not orthogonal as they tend to be collinear (negatively correlated), factor analyses have suggested that they are disparate constructs that can be both present or absent for some individuals (see Rosmarin, Pargament & Mahoney, 2009 for a discussion). Previous research has connected trust in God to lower

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depression, anxiety and worry, and mistrust in God to higher levels of these symptoms (Rosmarin, Pargament & Mahoney, 2009; Rosmarin, Krumrei & Andersson, 2009). The direction of influence between these variables remains unclear as the extant research has been cross-sectional in design and has not involved mediation or pathway analyses. Therefore, it is possible that trust in God may lead to decreased worry by reducing appraisals of perceived danger, or perhaps by serving as a general psychological resource during times of stress similar to religious coping (Pargament, 1997). By contrast, mistrust in God may exacerbate evaluations of threat and be associated with a lack of acceptance of one's life's circumstances, thus leading to increased levels of worry. More fundamentally though, trust and mistrust in God may impact upon worry through the medium of intolerance of uncertainty. Intolerance of uncertainty is a known etiological factor in the development of pathological worry, involving the tendency to be greatly bothered by even a small possibility of a negative event occurring (Dugas, Freeston, & Ladouceur, 1997). Recent cognitive behavioral models highlighting the importance of intolerance of uncertainty have postulated that worry and its associated behavioral responses (e.g., reassurance-seeking, double-checking) are associated with uncertain and ambiguous situations (Dugas et al, 2007). A rich literature now demonstrates that intolerance of uncertainty is indeed an important contributing factor to the etiology and maintenance of worry (see Behar, Dobrow-DiMarco, Hekler, Mohlman & Staples, 2010 for a discussion and review). A trust-in-God worldview in which God is seen to be fully knowledgeable, powerful and good may engender positive appraisals of events and thus decrease the need for certainty and predictability. Trust in God may also promote positive spiritual emotions, spiritual support, and a sense of connectedness with transcendence,

thus increasing tolerance for uncertainty. Mistrust in God, on the other hand, may exacerbate intolerance of uncertainty by promoting fundamental questions, doubts, conflicts, and struggles with the Divine during stressful periods of life (Pargament, Murray-Swank, Magyar, & Ano, 2005). Mistrust in God may further create a sense of urgency when faced with ambiguity, thus leading to decreased tolerance of uncertainty and increased worry. However, we have yet to empirically evaluate the relevance of trust and mistrust in God to intolerance of uncertainty, or explore the potential mechanisms by which trust and mistrust in God may impact worry.

### *Goals of the Current Study*

The present paper reports results from two studies examining a proposed cognitive model in which trust/mistrust in God impact worry through the medium of intolerance of uncertainty. In Study 1, a large religious community sample of Jews and Christians completed measures of trust/mistrust in God, intolerance of uncertainty, and worry in order to (a) examine our hypothesized mediation model as well as (b) ascertain the direction of effect between each of our variables of interest. In Study 2, we report secondary analyses from an internet-based trial of a spiritually integrated treatment (SIT) for sub-clinical anxiety among religious Jews (see Rosmarin, Pargament, Pirutinsky, & Mahoney, 2010). We examined potential causal relationships between these variables utilizing mediation analyses to explore the mechanisms by which changes in trust/mistrust in God and intolerance of uncertainty increase susceptibility to worry.

## **Study 1**

### **Method**



**Procedure and Participants.** Participants were recruited to participate in an internet-based survey on “the relationship between religiousness and well-being/distress” via e-mails sent to distribution lists of religious organizations and web-based advertising on religious community websites. No monetary or other compensation was given for participation. The sample consisted of 332 believers (117 Christian [35%] and 216 Jewish [65%]; 205 women [60%], 126 men [38%] 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 ( $n = 187$ ) and Canada ( $n = 90$ ), but a sizable portion were from Israel ( $n = 25$ ), 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).

### **Measures**

**Trust/Mistrust in God.** We used a previously established measure, the Trust/Mistrust in God Scale (Rosmarin, Krumrei, & Andersson, 2009), containing 24 attitudinal statements about the nature of God (e.g., “God is compassionate towards human suffering;” “Sometimes God is unkind to me for no reason”). This measure asks participants to indicate how strongly they generally believe in each item on a 5-point Likert scale. Previous factor analytic research (Rosmarin, Krumrei, & Andersson, 2009; Rosmarin, Pargament, & Mahoney, 2009; Rosmarin, Pirutinsky, Pargament, & Krumrei, 2009) supports the existence of two-subscales measuring trust and mistrust in God respectively. In the current sample, both subscales displayed adequate internal reliability (trust  $\alpha = .95$ , mistrust  $\alpha = .84$ ).

**Intolerance of Uncertainty.** Intolerance of uncertainty was measured with the short-version of the Intolerance of Uncertainty Scale (Carleton, Norton & Asmundson, 2007), which contains 12 statements reflecting this construct (e.g., Unforeseen events upset me greatly). This measure asks respondents to rate the degree to which items are characteristic of them using a 5-point Likert scale. Previous research supports the validity and reliability of the measure (Carleton, Norton & Asmundson, 2007), and internal consistency in the current sample was high ( $\alpha = .89$ ).

**Worry.** Worry was assessed with the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger & Borkovec, 1990). This measure contains 16 items assessing for pathological worry (e.g., “My worries overwhelm me”). Respondents are asked to indicate the degree to which items are generally characteristic of them using a 5-point Likert scale. The PSWQ has well-established psychometric properties in community samples, and it has high internal consistency, good test-retest reliability, and good concurrent validity (Brown, 2003). Internal consistency in the current sample was adequate ( $\alpha = .78$ ).

### **Statistical Analysis**

To examine the relevance of trust/mistrust in God to intolerance of uncertainty and worry, we conducted mediation analyses. We hypothesized that trust/mistrust in God (TIG/MIG) would exert an indirect direct influence on worry (W) through the medium of intolerance of uncertainty (IU) (see Figure 1). Therefore, we hypothesized that IU would mediate the relationship between TIG/MIG and W. Using Baron and Kenny’s (1986) approach, we examined whether: (1) TIG/MIG were significantly correlated with W; (2) TIG/MIG were significantly correlated with IU; (3) IU was significantly correlated with

W after controlling for TIG/MIG; and (4) The correlation between TIG/MIG and W was attenuated once IU is controlled for. Additionally, we utilized the Sobel test (1990) to evaluate whether reductions in associations were statistically significant.

## Results

Descriptive values for each of the study variables can be found in Table 1. Separate analyses were conducted for trust and mistrust in God (TIG/MIG) respectively, involving four steps corresponding to the above-mentioned criteria for mediation.

With regards to TIG, in step 1, higher TIG was significantly correlated with lower levels of W ( $r = -.20, p = .001$ ). In step 2, higher TIG was correlated with lower IU ( $r = -.15, p = .009$ ). In step 3, the partial correlation between IU and W controlling for TIG was significant ( $r = .63, p < .001$ ). Finally, in step 4, the partial correlation between TIG and W was attenuated once IU was controlled for ( $r = -.13, p = .04$ ). A Sobel test ( $z = -2.84, p = .004$ ) indicated that the reduction in the association between TIG and W was statistically significant. With regards to MIG, higher MIG significantly correlated with greater worry ( $r = .18, p = .002$ ; step 1) and IU ( $r = .16, p = .007$ ; step 2). In addition, IU and W remained significantly correlated when controlling for MIG ( $r = .63, p < .001$ ; step 3). Finally, the correlation between MIG and W was no longer significant once IU was controlled for ( $r = .10, p = .10$ ; step 4). The reduction in association between MIG and W was also significant (Sobel test  $z = 2.76, p = .006$ ). Thus, the proposed model met all four criteria for mediation, indicating that the influence of both TIG and MIG on W is partially mediated through the mechanism of IU. As the variables in this study were assessed contemporaneously, we conducted additional analyses to examine reverse

models in which IU's association with W was mediated by TIG and MIG. Neither of these models was significant, suggesting that our proposed model is unidirectional.

To provide further evaluation of our results, we examined the relationships between TIG/MIG, IU and W separately for Jewish and Christian participants. Among Jewish individuals, while MIG met full criteria for mediation, TIG was marginally related to W ( $r = -.14, p = .05$ ; step 1) and unrelated to IU ( $r = -.04, p = .60$ ; step 2). By contrast, among Christian participants, TIG met full criteria for mediation whereas MIG was unrelated to W ( $r = .11, p = .27$ ) or IU ( $r = .04, p = .67$ ).

## **Discussion**

The results of this study offer preliminary evidence that religious core beliefs about the nature of God can be included in the cognitive model of worry for religious individuals. The associations between both the positive beliefs of trust in God and the negative beliefs associated of mistrust in God with worry were found to be mediated by intolerance of uncertainty. More specifically, among Jewish individuals, mistrust in God was associated with increased intolerance of uncertainty and increased levels of worry. Among Christians, trust in God was associated with lower levels of intolerance of certainty and worry. However, the correlations between the variables of interest were relatively small, thus these findings require replication. Further, causal relationships cannot be determined in this study due to the cross-sectional nature of this investigation. Thus, in Study 2 we sought to further investigate the relationship between these variables in the context of a clinical trial of a spiritually integrated treatment program for stress/worry reduction.

## **Study 2**

## Method

This study involved secondary analyses of results from a randomized internet-based trial of a spiritually integrated treatment (SIT) for sub-clinical anxiety among religious Jews. A brief description of the intervention is provided in the passages that follow, however, a complete description of study procedures is reported elsewhere (Rosmarin, Pargament, Pirutinsky, & Mahoney, 2010).

**Procedure and Participants.** Jewish individuals age 18 or older were recruited from around the world via Jewish mental health organizations, community organizations, and internet websites to participate in an on-line treatment study for worry and stress. No monetary compensation was given for participation, however the study treatment was provided for free. All participants reported a minimum level of stress and worry defined by a score of 27 or higher on the Perceived Stress Scale (Cohen & Williamson, 1988) and 54 or higher on the Penn State Worry Questionnaire (Gillis, Haaga & Ford, 1995), corresponding to 1 SD above the mean of community norms for these measures.

A total of  $n = 36$  participants received a 30-minute spiritually integrated treatment (described below) on a daily basis for a period of two weeks (14 days). All participants completed a pre-treatment and follow-up assessment. All study procedures (informed consent, participant screening, administration of assessments, participation in treatment, participant tracking, and communication with study participants) were conducted on-line in English between September 2008 and June 2009. Participants ranged in age from 20 to 68 years ( $M = 41.40$ ;  $SD = 13.81$ ) and 66.7% were female. Most participants (87.2%) reported having a college degree or higher education, and the majority was American (64%), with additional participants from Israel, Canada, and Australia. Religious

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affiliation in the sample was distributed as follows: 25.6% Hassidic (n = 10); 38.5% Yeshiva Orthodox (n = 15); 15.4% Modern Orthodox (n = 6); 7.7% Conservative (n = 3); 10.3% Reform (n = 4); and 2.6% other Jewish affiliation (n = 1). Thus, 64.1% of the sample reported affiliation with Orthodox Judaism.

**Spiritually Integrated Treatment.** The study authors worked in conjunction with ultra-Orthodox Jewish community leaders to develop a spiritually integrated treatment program designed to increase trust in God, decrease mistrust in God, and thus target symptoms of stress and worry. The 30-minute self-guided audio-video program included four components: (1) an introduction informing participants that the purpose of the program was to strengthen trust in God (i.e., the perspective that God is completely knowing, powerful, kind and loving); (2) stories and teachings adapted from classic Jewish sources and modern anecdotes intended to strengthen the beliefs involved in trust in God and challenge the negative beliefs associated with mistrust; (3) a series of spiritual visualization exercises with similar goals; and (4) encouraging participants to pray briefly for increased trust in God using their own words. During the treatment period, participants were asked to complete the spiritually integrated treatment program once each calendar day.

## Measures

As in study 1, we used the previously established 24-item Trust/Mistrust in God Scale (Rosmarin, Krumrei, & Andersson, 2009). However, to provide further validation of our measure, we conducted a factor analysis using participants' pre-treatment responses to the items (see Rosmarin, Pargament, Pirutinsky & Mahoney, 2010 for a discussion). This resulted in the elimination of four items due to low factor loadings (<

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.04), and the creation of an 11-item trust in God (TIG) and a 9-item mistrust in God (MIG) subscale. These subscales demonstrated moderate to high levels of internal consistency in the sample (TIG  $\alpha = .92$ ; MIG  $\alpha = .73$ ).

As in Study 1, we also administered the Intolerance of Uncertainty Scale (Carleton, Norton & Asmundson, 2007;  $\alpha = .87$ ), and the Penn State Worry Questionnaire (Meyer, Miller, Metzger & Borkovec, 1990;  $\alpha = .88$ ).

## Statistical Analyses

We proposed that over the course of SIT, changes in intolerance of uncertainty (IU) would mediate the relationship between changes in trust/mistrust in God (TIG/MIG) and changes in worry (W). Analyses began with a series of repeated measures *t*-tests to examine differences in TIG/MIG, IU, and W from pre- to post-treatment. We subsequently calculated change scores (Post-treatment – Pre-treatment) and effect sizes for each outcome variable. Then, to test the hypothesized links, we conducted mediation analyses using change scores following the methodology outlined by Hollon and DeRubeis' (2009) adaptation of the Barron and Kenny (1986) criteria for mediation. Mediation could thus be established based on the following four criteria: (1) TIG/MIG change scores significantly correlate with W change scores; (2) TIG/MIG change scores significantly correlate with IU change scores; (3) Changes in IU correlate with changes in W even after controlling for changes in W; and (4) Changes in TIG/MIG are no longer related to changes in W after controlling for changes in IU. As in Study 1, the statistical significance of the mediation model was examined directly with the Sobel (1990) test.

## Results

Pre- and post-treatment values, indices of change (*t*-test statistics) and difference scores for the study variables are presented in Table 2. Participants reported significant increases in TIG and significant decreases in MIG, IU and W over the course of the two-week treatment period. Effect sizes were large for all outcomes.

As in Study 1, separate analyses were conducted for TIG and MIG respectively to test each of the criteria for mediation in four steps. Changes in TIG were not significantly correlated with changes in worry ( $r = -.05, p = .78$ ) or IU ( $r = -.26, p = .11$ ). Thus, criteria for mediation could not be established for TIG and additional analyses focused on MIG. To determine whether IU mediated the relationship between MIG and W, the following steps were examined. First, MIG change scores were positively correlated with W change scores ( $r = .33, p < .05$ ). Second, changes in MIG were correlated with changes in IU ( $r = .69, p < .001$ ). Third, controlling for MIG change scores, IU change scores were positively correlated with W change scores ( $r = .51, p = .001$ ). Last, the partial correlation between change scores in MIG and W controlling for IU change scores was not significant ( $r = -.11, p = .49$ ), suggesting that the relationship between change in MIG and W was fully mediated by change in IU. A Sobel test was also significant ( $z = 2.98, p < .01$ ) providing direct evidence for mediation. As in Study 1, an alternative reverse model in which IU's association with W was mediated by MIG was also tested, and did not meet criteria for mediation suggesting that our model was unidirectional.

## Discussion

Consistent with results from study 1, the present findings suggest that there may be a causal relationship between mistrust in God and worry that is mediated by intolerance of uncertainty. Specifically, over the course of a two-week treatment period,



decreases in mistrust in God appeared to facilitate changes in worry through the mechanism of decreasing intolerance of uncertainty. While this model could not be replicated for trust in God, these findings nevertheless highlight the salience of religious core beliefs to the cognitive model of worry within religious communities.

### **General Discussion**

Over the past several decades, the science of clinical psychology has been greatly enhanced by the promulgation of cognitive models of emotional disorders. In addition to providing flexible, theoretically based frameworks for understanding the etiology of symptoms, cognitive models are essential for the provision of psychoeducation and the selection of appropriate evidence-based treatment strategies in the context of psychotherapy (Clark, 2004). However, existing cognitive models have typically not addressed religious or spiritual themes, leaving clinicians ill-equipped to do so in practice. Therefore, in this paper, we sought to support and extend the cognitive model of worry through the incorporation of spiritual beliefs, and investigate the empirical bases for our model in two separate studies. In Study 1, we found that for Jewish individuals, the negative core beliefs of mistrust in God were associated with greater worry, and that this relationship was mediated by higher levels of intolerance of uncertainty. Among Christians, the positive core beliefs of trust in God were associated with lower intolerance of uncertainty and worry. In Study 2, we further investigated associations between trust/mistrust in God, intolerance of uncertainty and worry in the context of a clinical trial of a spiritually integrated treatment for subclinical anxiety in a religious Jewish sample. We found that reductions in mistrust in God over time were associated with decreases in

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worry, and that this relationship was fully mediated by reductions in intolerance of uncertainty.

It is interesting that mistrust in God remained a significant predictor of intolerance of uncertainty and worry among Jews whereas trust in God was unrelated. This is consistent with previous findings suggesting that mistrust in God may be more clinically relevant than trust in God among Jews (Rosmarin, Pargament et al., 2009). It is possible that (endorsement of) trust in God is a natural outcome of religious upbringing and education whereas mistrust is tied to painful life circumstances and Divine spiritual struggles. Therefore the latter may be more proximally and functionally connected to symptoms in Jewish communities. It is therefore encouraging that, in Study 2, change scores in mistrust in God for participants in the 2-week spiritually integrated treatment program were large ( $> 1$  SD decrease), and corresponded to very large decreases in both intolerance of uncertainty and worry ( $> 2$  SD decrease). This suggests that the maladaptive, negative beliefs associated with mistrust in God can be successfully targeted with a self-directed spiritually integrated treatment, in a relatively short time span. These results further speak to the salience of religious and spiritual factors, in particular negative core beliefs, to symptoms in religious communities.

The incorporation of spiritual beliefs into the cognitive model of worry has a number of important implications for clinical practice. In the United States, spirituality and religion are widespread in the general population. National surveys have found that 93% of Americans believe in God or a higher power and that 50% state that religion is very important in their lives (Gallup Poll, May 10-13, 2007 & May 8-11, 2008). Without specific, testable models, spirituality and religion are important areas of functioning that

fall outside of the rubric of cognitive theory. This is a barrier to the dissemination of empirically supported treatments to religious communities (Rosmarin, Pargament & Robb, 2010). Furthermore, the lack of theory and research in this area may contribute to the poorer treatment outcomes associated with specific religious symptoms (Nelson, Abramowitz, Whiteside, & Deacon, 2006). Furthermore, while existing evidence indicates that many areas of spirituality and religion are salient predictors of psychological functioning (see Koenig, McCullough & Larson, 2001 for a review), the mechanisms by which these factors impact symptoms is often unclear and thus findings in this area of study have not provided sufficient theoretical bases to explain how and why spirituality may relate to symptoms. The integration of spiritual beliefs into existing clinical models may be a more fruitful endeavor for the provision of clinically relevant research on religion and spirituality (see Pargament, 2007), and serve as an important step towards enabling the assessment of spiritual/religious factors and the integration of spirituality into cognitive behavioral therapy.

A number of important limitations should be noted. First, both studies relied solely on self-report measures. While behavioral measures of faith may not be viable, future research could utilize implicit measures such as the emotional Stroop task. Second, while recent findings indicate that internet use is becoming increasingly accepted in some religious communities (Hack, 2007), reliance on web-based assessments may have precluded more cloistered factions from participating in this research. Third, the generalizability of findings to non-Jewish/Christian populations is not known. It is likely that specific cultural factors may be closely tied to the relationships between spiritual beliefs and symptoms, and therefore research in non-Judeo-Christian communities may

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reveal markedly different findings. For example, spiritual beliefs about fate, determinism or karma may too be tied to tolerance of uncertainty and anxiety symptoms. Fourth, while the core beliefs associated with trust/mistrust in God are central to all monotheistic traditions (e.g., Judaism, Christianity, Islam), they are nevertheless highly specific and not universally applicable. Future research should seek to replicate these findings in more diverse samples. Future research should also seek to examine the relevance of spiritual beliefs to a broader set of cognitive vulnerabilities and symptoms, such as selective information processing in depression. Another important area for further study is the relationship of spiritual practices to safety behaviors in the context of emotional disorders and behavioral treatments. Nevertheless, this report offers a foundational framework for including spiritual beliefs when applying cognitive models to religious individuals.

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Table 1.

*Study 1: Descriptive statistics for study variables.*

	<i>M</i>	<i>SD</i>	<i>Range</i>
Trust in God (TIG)	44.01	11.52	11 – 55
Mistrust in God (MIG)	20.82	6.72	13 – 52
Intolerance of Uncertainty (IU)	26.38	8.23	12 – 55
Worry (W)	41.90	13.65	17 - 80

Table 2.

*Study 2: Pre-treatment vs. post-treatment values and changes in Trust/Mistrust in God, Intolerance of Uncertainty, and Worry.*

	<u>Pre-Treatment</u>	<u>Post-Treatment</u>			
	<i>M (SD)</i>	<i>M (SD)</i>	<i>t</i>	<i>p</i>	<i>d</i>
Trust in God	32.89 (9.69)	36.79 (8.35)	3.53	.001	1.16
Mistrust in God	6.38 (5.18)	4.10 (4.16)	4.06	< .001	1.32
Intolerance of Uncertainty	26.15 (9.16)	17.23 (7.74)	7.17	< .001	2.33
Worry	61.05 (10.99)	48.54 (11.61)	8.15	< .001	2.64

*Note:  $df = 38$  for each  $t$ -statistic; Trust/Mistrust in God measures are different from Study 1 (see text for details).*

Figure 1.

*Proposed Model: Trust/Mistrust in God, Intolerance of Uncertainty & Worry*

