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## Research report

## Does negative religious coping accompany, precede, or follow depression among Orthodox Jews?

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## ABSTRACT

**Background:** Cross sectional research suggests that negative religious coping (e.g., anger at God and religious disengagement) strongly correlates with depression and anxiety. However, causality is difficult to establish as negative coping can accompany, cause, or result from distress. Among Orthodox Jews, some studies have found correlations between negative religious coping and anxiety and depression, while others found that high levels of negative coping related with decreased distress. We therefore examined longitudinal relationships between negative coping and depressive symptoms among Orthodox Jews.

**Methods:** Participants (80 Orthodox Jews) completed the Jewish Religious Coping Scale and the Center for Epidemiologic Studies' Depression Scale at two times. Using Structural Equation Modeling, we compared four models describing possible causal patterns.

**Results:** Negative religious coping and depressive symptoms were linearly related. Furthermore, a model including negative coping as a predictor of future depression fit the data best and did not significantly differ from a saturated model.

**Limitations:** This research was limited by reliance on self-report measures, an internet sample, and examination of only negative religious coping.

**Conclusions:** Consistent with a "primary spiritual struggles" conceptualization, negative religious coping appears to precede and perhaps cause future depression among Orthodox Jews. Clinical interventions should target spiritual struggles, and more research integrating this construct into theory and practice is warranted.

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Religion is important to many Americans (Spilka et al., 2003), and the relationship between religion and mental health has generated considerable interest. The majority of this research has focused on positive domains, and suggests that religiousness and spirituality are associated with greater physical and mental health (Koenig et al., 2001; Smith et al., 2003), including reduced suicidality (Colucci and Martin, 2008). Religion, however, can also have negative effects,

particularly in the context of spiritual struggles. The term spiritual struggles encompasses several interrelated dimensions of tension including difficulty relating to the Divine, intrapersonal religious doubts, and interpersonal religious conflicts (Exline and Rose, 2005; Pargament et al., 2005). The current study focused on a widely studied aspect of spiritual struggles – negative religious coping. For many, a personal connection with God provides comfort, support, and hope in times of distress. For some, however, this connection can be troubled and distressing. In response to negative life events, individuals may get angry at God, question if God cares about them, and doubt if God can do anything (Pargament, 1997). Multiple meta-analyses have established that negative forms of religious coping correlate

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with increased psychological distress (Ano and Vasconcelles, 2005; Smith et al., 2003).

Pargament (2009) distinguished between primary spiritual struggles in which struggles lead to increased distress, secondary spiritual struggles in which distress leads to struggles (e.g., by decreasing engagement in religious activities, increasing guilt, activating negative beliefs about God, and promoting doubts), and complex spiritual struggles in which struggles are both a cause and an effect of distress. It is also possible that spiritual struggles simply accompany distress as a domain within which negative thoughts and feelings are experienced. With respect to primary struggles, a few longitudinal studies found that negative religious coping was associated with increased distress over time (e.g., Dew et al., 2010; Pargament et al., 2004), suggesting that negative religious coping can cause psychological distress. However, the vast majority of this research has been cross-sectional (Ano and Vasconcelles, 2005; Smith et al., 2003) and to our knowledge, models directly comparing various causal patterns have not been tested. Consequently, the direction of influence between negative religious coping and mental health remains ambiguous.

Specific to Orthodox Jews, research in community samples has found correlations between negative religious coping and self-reported anxiety and depression (Rosmarin et al., 2009a, b,c), and research in clinical samples has found correlations between clinician-rated religious struggles and GAF scores (Pirutinsky and Schechter, 2009). However, Rosmarin et al. (2009b) found that participants with high levels of spiritual struggles reported increased mental health, suggesting that struggles may be associated with post-traumatic growth among Orthodox Jews. Moreover, participants in previous longitudinal studies were almost exclusively Christian, and given Orthodox Judaism's profound integration of religion into everyday cognition, emotion, and behavior (see Pirutinsky, 2009), it is particularly difficult to generalize causal and temporal patterns from other groups.

Accordingly, the current research explored the longitudinal relationship between negative religious coping and depressive symptoms among Orthodox Jews, comparing four possible causal models. Specifically, if negative religious coping is simply a domain in which distress is expressed, we would expect that that negative coping and depression would be correlated within each time period and auto-correlated across times (e.g., Time 1 depression with Time 2 depression). Once these concurrent and auto-correlations are controlled for, however, we would expect that negative coping at Time 1 would not significantly predict depression at Time 2, and depression at Time 1 would not significantly predict negative coping at Time 2 (Model 1). Alternatively, if depression causes increased negative coping, we would expect that above the influence of concurrent and auto-correlations, depression at Time 1 would significantly predict increased negative coping at Time 2 (Model 2 – Secondary Struggles). If negative coping causes depression, we would expect that negative coping at Time 1 would significantly predict increased depression at Time 2 (Model 3 – Primary Struggles). Finally, if negative coping is both a cause and result of depression, we would expect both paths to be significant (Model 4 – Complex Struggles).

## 1. Method

This study involves secondary analyses of the control group of a randomized control trial of a spiritually integrated treatment for sub-clinical anxiety among religious Jews. Complete study procedures and primary analyses are reported in Rosmarin et al. (2010). A brief description follows.

### 1.1. Procedure and participants

Jewish individuals age 18 or older were recruited via Jewish mental health organizations, community organizations, and web sites to participate in a brief, internet-based treatment study for “worry and stress”. Participants were randomized without stratification to receive a spiritually integrated treatment, progressive muscle relaxation, or no treatment. Participants completed on-line measures at pre-treatment (T1) and post-treatment (T2) two weeks later. Given that stigma is a barrier to treatment generally (Corrigan, 2004), and particularly among religious Jews (Pirutinsky et al., 2010), procedures were conducted on-line to ensure anonymity.

Analyses in the present study were conducted with 80 Orthodox Jewish individuals randomized to the no treatment group. Participants ranged in age from 20 to 77 years ( $M=40.35$ ;  $SD=12.99$ ) and 81% ( $n=65$ ) were female. Most participants (84%;  $n=48$ ) reported having a college degree, and the majority were American (60%;  $n=$ ), with additional participants from Canada (5%;  $n=4$ ), Israel (25%;  $n=20$ ), Europe (7.6%;  $n=6$ ), and Australia (2.6%;  $n=2$ ). Self-reported religious affiliation in the sample varied with 8.8% Hassidic ( $n=7$ ), 46.3% Yeshiva Orthodox ( $n=37$ ), and 45% Modern Orthodox ( $n=36$ ; see Pirutinsky, 2009).

## 2. Measures

### 2.1. Negative religious coping

We utilized the 4-item negative subscale of the Jewish Religious Coping Scale (JCOPE), which has previously demonstrated reliability and validity (Rosmarin et al., 2009c). Participants rated how frequently they generally engaged in religious methods of coping with stressful problems on a 5-point Likert-type scale. Items included, “I got mad at G-d”, “I questioned whether G-d could really do anything”, “I wondered if G-d cares about me”, and “I questioned my religious beliefs, faith and practices.” Internal consistency was adequate (Time 1  $\alpha=0.75$ ; Time 2  $\alpha=0.70$ ).

### 2.2. Depressive symptoms

We used the Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977), a widely-utilized and cross-culturally valid 20-item scale, to measure depressive symptoms. Participants were asked to rate how frequently they experienced symptoms over the past week on a 4-point Likert-type scale. Internal consistency was adequate (Time 1  $\alpha=0.76$ ; Time 2  $\alpha=0.61$ ).

**Table 1**  
Zero-order Pearson correlations between all study variables.

	Time 1		Time 2	
	Depression	Negative coping	Depression	Negative coping
Time 1				
Depression	–			
Negative coping	.38*	–		
Time 2				
Depression	.62*	.44*	–	
Negative coping	.41*	.90*	.49*	–
M	24.89	8.67	23.46	8.06
SD	7.99	3.76	9.12	3.58
Range	10–48	4–19	9–60	4–19

\*  $p < 0.001$ .

2.3. Statistical analysis

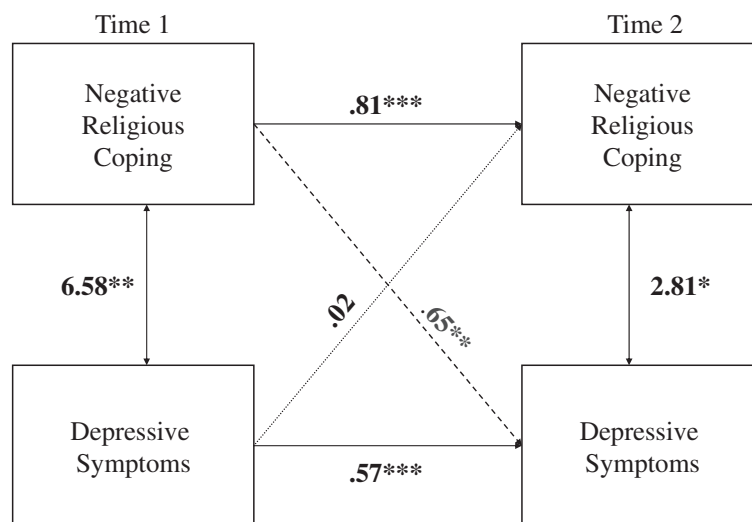
Models were assessed using the Structural Equation Modeling package in R (Fox, 2006). Coefficients were estimated using two-stage least squares, and as recommended by Kline (2005), a non-significant Chi-square, Root Mean Square Error of Approximation (RMSEA) below .1, and Comparative Fit Index (CFI) and Non-Normed Fit Indices (NNFI) above .95 indicated adequate model fit. Models were also directly compared with baseline and saturated models using a Chi-square test.

3. Results

Descriptive statistics and zero-order correlations for study variables are presented in Table 1. To assess whether the impact of negative coping on depression differed at higher levels of spiritual struggles, we used regression to examine if the relationship between negative religious coping and depressive was constant (linear) across all levels. Results revealed that

negative religious coping significantly related to depression at Time 1 ( $R^2 = 0.15$ ,  $F(1, 78) = 13.49$ ,  $p < 0.001$ ) and Time 2 ( $R^2 = 0.24$ ,  $F(1, 78) = 24.64$ ,  $p < 0.001$ ). Examination of residual plots suggested that the relationship was linear and did not differ at higher or lower levels of negative religious coping. Accordingly, the addition of a quadratic term did not significantly increase the variance explained at Time 1 ( $R^2 = 0.02$ ,  $F(1, 77) = 1.83$ ,  $p = 0.18$ ) or Time 2 ( $R^2 = 0.02$ ,  $F(1, 77) = 2.18$ ,  $p = 0.14$ ), suggesting that the relationship between negative religious coping and depressive symptoms was linear. Given the large number of females in the sample, we ran an additional regression examining gender effects and found no interaction (Time 1:  $\Delta R^2 = 0.002$ ,  $F(1, 76) = 0.25$ ,  $p = 0.62$ ; Time 2:  $\Delta R^2 = 0.004$ ,  $F(1, 76) = 0.39$ ,  $p = 0.54$ ).

To explore the temporal pattern of relationships between negative religious coping and depressive symptoms, we compared a series of models using SEM (Fig. 1). Analysis of Model 1 indicated that negative religious coping and depressive symptoms were significantly correlated within each time-period and that negative religious coping and depressive symptoms auto-correlated across times. However, this model fit the data poorly ( $\chi^2 = 16.00$ ,  $p < 0.05$ ; RMSEA = 0.15; CFI = 0.94; NNFI = 0.86). To reflect the possibility that depressive symptoms may precede and perhaps cause negative religious coping, Model 2 included a path from depressive symptoms at Time 1 to negative coping at Time 2. Analysis of this model indicated that depressive symptoms at Time 1 did not significantly predict negative coping at Time 2. Furthermore, adding this path did not significantly increase model fit ( $\chi^2 = 0.23$ ,  $p = 0.89$ ), which remained inadequate ( $\chi^2 = 16.00$ ,  $p < 0.01$ ; RMSEA = 0.15; CFI = 0.94; NNFI = 0.86). For Model 3, we removed the path from depression at Time 1 to coping at Time 2, and added a path from negative coping at Time 1 to depression at Time 2, reflecting the possibility that negative coping may precede and perhaps cause depression. Results indicated that this path was significant. Assessment of model fit



Note: Model 1 solid lines, Model 2 solid and dotted lines, Model 3 solid and dashed lines, Model 4 all lines \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Fig. 1. SEM: negative religious coping and depressive symptoms.

indicated that Model 3 had significantly better fit than the baseline Model 1 ( $\chi^2 = 9.33, p < 0.01$ ) and displayed adequate model fit overall ( $\chi^2 = 7.00, p = 0.14$ ; RMSEA = 0.08; CFI = 0.98; NNFI = 0.96). Moreover, Model 3 did not significantly differ from Model 4, which included all paths ( $\chi^2 = 0.12, p = 0.94$ ). Thus, a model including negative religious coping as a predictor of future depressive symptoms most parsimoniously described the relationship between these constructs, suggesting that negative religious coping precedes and perhaps causes depressive symptoms among Orthodox Jews.

#### 4. Discussion

Previous research, primarily among Christians, suggests that spiritual struggles correlate with increased psychological distress (Ano and Vasconcelles, 2005; Smith et al., 2003). Given the predominance of cross-sectional designs, however, causality has been difficult to establish. Moreover, among Orthodox Jews some research has indicated that high levels of spiritual struggles are perhaps related with psychological growth. Thus, the current research explored the temporal pattern of relationships between negative religious coping and depressive symptoms among Orthodox Jews. Results suggested that all levels of negative religious coping related equally with increased depressive symptoms. Moreover, consistent with a “primary spiritual struggles” conceptualization (Pargament, 2009), a model including negative religious coping as a predictor of future depressive symptoms fit best, suggesting that negative religious coping can be causal in depression among Orthodox Jews. Consequently, clinical interventions should perhaps target spiritual struggles within this population. This, however, presents particular challenges, since religious individuals are hesitant to bring spiritual and religious concerns to professionals (e.g., Pirutinsky et al., 2009), and clinicians, who receive little training in addressing spiritual concerns (Walker et al., 2004), are reticent to explore them (Smidt et al., 2010). One possible reason for this gap is the lack of research integrating spiritual struggles into current theory and treatment, which is an important direction for future research (e.g., Rosmarin et al., in press).

The current research was limited by use of a brief measure of spiritual struggles, which may not have fully assessed this complex construct, and reliance on an internet sample, which may have excluded the most traditional Orthodox (Barzilai-Nahon and Barzilai, 2005). However, internet use by the ultra-Orthodox is increasing (Hack, 2007). In addition, the role of stressful events in precipitating spiritual struggles and depressive symptoms, as well as the relevance of personality and emotional style remains unclear. Furthermore, our findings were specific to Orthodox Jews; however, extensive cross-sectional research supports the widespread relevance of spiritual struggles. Thus, our results demonstrate the need for further research using broader measures and samples to examine the causal and temporal relationships between spiritual struggles and mental health within diverse religious groups.

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#### Conflict of interest

All authors declare that they have no conflicts of interest.

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