

Jewish Spirituality, Depression, and Health: an Empirical Test of a Conceptual Framework

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Abstract

Background Little is known about the links between spirituality and mental health among Jews.

Purpose This study assessed trust/mistrust in God and religious coping and examined their relationships to depressive symptoms and physical health. Religious affiliation and intrinsic religiousness were examined as moderating variables and religious coping was examined as a mediator.

Method Anonymous internet surveys were completed by 208 Jewish women and men of diverse denominations who resided primarily in the USA.

Results Trust in God and positive religious coping were associated with lower levels of depressive symptoms and mistrust in God and negative religious coping were associated with greater depressive symptoms. Intrinsic religiosity showed a small moderation effect for mistrust in God and negative religious coping in relation to depressive symptoms and for trust in God in relation to physical health. Further, positive religious coping fully mediated the link between trust in God and less depressive symptoms and

negative religious coping fully mediated the relationship between mistrust in God and greater depressive symptoms. **Conclusion** The data lend themselves to a possible integrative cognitive-coping model, in which latent core beliefs about the Divine activate coping strategies during times of distress, which in turn impact psychological health. The findings highlight the potential clinical significance of spirituality to mental health among Jews and provide a basis for future longitudinal, experimental, and treatment outcome research.

Keywords Religious coping · Trust in God · Jews · Depression · Health

Introduction

For a few decades, the role of religion and spirituality has received growing attention by the fields of clinical and health psychology. In a recent research review, Post and Wade [1] asserted that since it is now well established that religion and spirituality are linked to health, the question for clinicians is no longer *whether* to address this area of life, but, *when* and *how* to do so effectively. However, clinical competency in addressing patient spirituality is hampered by a lack of research examining mechanisms by which this domain is functionally tied to well-being, distress, and illness. Given the complexity of human spiritual life, research in this area must utilize a highly nuanced approach, taking into account specific cultural factors (e.g., religious affiliation), beliefs, practices, and motivations [2].

As the vast majority of research in this area has been conducted with Christian samples, there is a need to better understand relationships between spirituality and mental health among non-Christian populations in order to promote greater sensitivity to religiosity as a form of cultural

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diversity [3]. One understudied topic is Jewish spirituality. Jewish culture and doctrine have many differences from Christianity with regards to the respective emphasis placed on personal religious beliefs, faith, individuals' connection to God, doctrinal practices, and religious motivations [4, 5]. Furthermore, previous research has identified important differences between Orthodox and non-Orthodox Jews, with spirituality accounting for greater variance in mental health among the Orthodox [5, 6]. Further research into spirituality and mental/physical health within this specific population is therefore warranted.

Previous research among Christian samples has assessed *God image* within a relational framework of a person's experience of God ranging from self-focused to object-focused [7]. A promising area in the budding science of Jewish spirituality examines a cognitive parallel to *God image* involving religious core beliefs of trust/mistrust in God drawn from an eleventh century Jewish religious text [8]. Trust in God involves core beliefs that God is all-knowing, benevolent, and loving. Based on the perspectives of cognitive psychotherapy [9], the trust in God construct has been proposed to ameliorate negative appraisals of threat in daily life, increase ability to tolerate life's uncertainties, and lead to greater psychological and physical health. Conversely, mistrust in God involves core beliefs that God is weak, unaware, and malevolent. This construct may engender situation-specific cognitions that exacerbate cognitive biases and symptoms of anxiety and depression. Several studies have now established links between trust/mistrust in God and symptoms of affective disorders [10–12]. Further, one randomized controlled study found that changes in trust/mistrust over the course of a spiritually integrated treatment program produced marked decreases in anxiety and stress within a Jewish sample [13]. Most research on trust/mistrust in God has focused on anxiety symptoms. Therefore, there is room to expand this to depression and physical health. Additionally, one study found trust in God to be relevant to better mental health among Orthodox, but not non-Orthodox Jews [5], suggesting that intra-Jewish affiliation differences need further exploration.

Another important area for further study within a Jewish context is religious coping, which involves drawing on spiritual resources in the process of coping with life distress and perceived threat [14]. Religious coping can include facets that are positive (e.g., relying on support from God or engaging in spiritual activity) as well as negative (e.g., feeling punished or abandoned by God), which have been differentially related to mental and physical health among Christian populations [15–17]. The effects of such coping are well established even after controlling for non-religious coping methods [18].

Although the majority of religious coping research has been conducted among Christians, two scales have been

developed specifically for use with Jewish children (Brief JCOPE-Children) [19] and adults (JCOPE) [20]. Similar to Christian populations, positive Jewish religious coping (e.g., speaking with one's rabbi, observing the Sabbath) has been associated with lower levels of anxiety and worry, whereas negative Jewish religious coping (e.g., questioning God's love) has been associated with greater emotional distress [20, 21]. In addition, one study has linked negative religious coping to greater health problems among Jews [21] and another has found positive religious coping to buffer against obesity [22]. We are unaware of any published research on religious coping and depression in a Jewish population. Given that depression may occur more commonly among Jews than in the general population [23] and that it is associated with health problems [24] and impaired social and occupational functioning [25], research on this topic is warranted.

Perhaps the most pressing priority for the study of Jewish spirituality and mental/physical health is the development of conceptual frameworks to explain observed relationships. To date, the relationship between trust/mistrust in God and religious coping has yet to be examined. While the cognitive model of emotion [9] emphasizes core beliefs underlying appraisals of life experiences and thereby dictate emotional responses, Lazarus and Folkman's [26] stress and coping model adds an emphasis on how individuals' appraisals result in *behavioral* coping responses that mediate outcomes. It is possible that these two theories interrelate such that core beliefs about God impact behavioral coping, which in turn impacts emotional functioning, or conversely that coping behaviors impact core beliefs. Previous research among a sample of adults in the USA (religious orientation not reported) undergoing the acute stressor of waiting for a loved one in surgery, indicated that attachment to God was predictive of religious coping, which, in turn, was predictive of adjustment to the stressor [27]. We expect a similar model among Jewish participants. Given that Jewish culture tends to value behaviors over beliefs [28], we postulate that trust/mistrust in God may relate to affective states indirectly among Jews, through the mechanism of facilitating religious coping behaviors. In this regard, trust/mistrust in God may simply be an avenue by which religious coping is initiated, and religious coping may account for links between trust/mistrust in God and mental/physical health outcomes. This conceptual framework may be particularly relevant to depression, a mental health concern that is particularly well supported by behavioral models [29].

The current study therefore sought to examine the potentially complex interplay of trust/mistrust in God and religious coping in predicting depressive symptoms and physical health problems in a Jewish community sample, and whether these relationships would be moderated by Orthodox versus non-Orthodox religious affiliation or by

intrinsic religiosity. Orthodox Judaism, also known as Observant, Traditional, or Torah Judaism, is characterized by adhering to the traditional interpretation and application of the laws and ethics of the Torah as interpreted in the Talmud. In the current study, Orthodox affiliations included Modern Orthodox, Yeshiva Orthodox, Hassidic, and Chabad Judaism. In contrast, non-Orthodox movements typically do not consider the traditional Jewish code of laws to be binding. For example, some non-Orthodox Jews adopt historical forms of Judaism to modern life without strict observance of traditional religious law and ritual, or allow for modifications in Jewish law when authorized by their rabbinate. In this study, non-Orthodox affiliations included Conservative, Reform, Reconstructionist, Sephardic, and Humanistic Judaism. Intrinsic religiosity [30] is a major conceptual paradigm in the empirical psychology of religion. Intrinsic religiosity refers to an orientation in which religion is an end in itself rather than a means to other ends. It is considered to be a mature form of religion in which religion is an essential and foundational component of life.

Based on theory and previous research, we hypothesized that trust in God and positive religious coping would relate to decreased depressive symptoms and better physical health, and that mistrust in God and negative religious coping would conversely be associated with increased depressive symptoms and declines in physical health. We further hypothesized that these effects would be moderated by religious characteristics in the sample including Jewish religious affiliation and intrinsic religiosity. Spiritual variables such as trust in God and religious coping may be more relevant to Orthodox Jews and those with high intrinsic religiosity and therefore might be more prominent in accounting for variance in their mental and physical health in comparison to non-Orthodox Jews and those with low intrinsic religiosity, respectively. Finally, we raise a possible conceptual framework of how trust/mistrust in God and religious coping might fit together in their relationship to mental and physical health outcomes. It is possible that core beliefs about trust/mistrust in God activate religious coping behaviors, which in turn influence levels of depressive symptoms and physical health. That is, we hypothesize that religious coping mediates links between trust/mistrust in God and levels of depressive symptoms and physical health among Jews.

Method

Participants

Participants consisted of 208 Jewish individuals of diverse denominations, including Modern Orthodox (33 %), Yeshiva Orthodox (22 %), Conservative (15 %), Reform (14 %),

Hassidic (2 %), Reconstructionist (2 %), Sephardic (2 %), Chabad (1 %), Humanistic (1 %), and other forms of Judaism (8 %). They were primarily Caucasian (93 %) and majority female (74.5 %). They spanned a wide age range (19 to 79 years, $M=42$, $SD=12$). Most resided in the U.S. (83 %), with some in Canada (7 %), Israel (6 %), and other countries (4 %). Their income in U.S. dollars was: 13 % less than \$25,000; 20 % between \$25,001 and 50,000; 18 % between \$50,001 and 75,000; 13 % between \$75,001 and 100,000; 15 % between \$100,001 and 130,000; and 21 % more than \$130,001.

Procedure

Participants were recruited through emails sent to distribution lists of Jewish organizations. Previous research in religious communities suggests that stigma is a barrier to research participation [6]; therefore, an anonymous web survey was utilized for data collection. All participants provided informed consent prior to participation.

Measures

Trust and Mistrust in God To measure trust and mistrust in God, we used the six-item Brief Trust/Mistrust in God Scale [31]. It includes items such as “God cares about my deepest concerns” and “God hates me.” Participants rated the extent to which they believed these statements using a five-point Likert scale (anchors ranging from “Not at All” to “Very Much”). The scale has previously demonstrated high reliability and validity [12]. Internal consistency in the current study was adequate for the trust in God subscale ($\alpha=0.89$) and the mistrust in God subscale ($\alpha=0.82$).

Religious Coping We utilized the 16-item Jewish Religious Coping Scale (JCOPE), which has previously demonstrated reliability and validity [20]. Participants rated how frequently they generally engaged in religious methods of coping on a five-point scale. Items included, “I try to see how God may be trying to teach me something,” “I question my religious beliefs, faith and practices,” and “I look for a stronger connection with God.” Internal consistency among the current sample was high (positive religious coping, $\alpha=0.91$; negative religious coping, $\alpha=0.82$).

Depressive Symptoms Depressive symptoms were assessed using a short form of the Center for Epidemiologic Studies Depression Scale (CES-D) [32]. This scale contains 10 items and has been validated extensively as a measure of depressive symptoms [33]. Scores range from 0 to 30, and scores of 10 or above indicate clinically significant levels of depression. Internal consistency in the current sample was high ($\alpha=0.89$).

Physical Health Physical health was measured using the Physical Component Summary score of the Short Form Health Survey (SF-12) [34, 35]. This 12-item self-report scale is derived from the 36-item Short Form Health Survey (SF-36). It measures physical functioning and bodily pain. The scale has demonstrated excellent test–retest reliability and construct validity, and correlates highly with SF-36 scores [34, 35]. Scores range from 0 to 100, with higher scores indicating better health and functioning.

Intrinsic Religiosity Intrinsic religiosity was measured using the three items that appear as the intrinsic religiosity subscale of the Duke Religion Index [36] and are also present in the Religious Orientation Scale [30] and the Hoge Intrinsic Religion Scale [37]. These items read “My religious beliefs are what really lie behind my whole approach to life,” “In my life, I experience the presence of the Divine (i.e., God),” and “I try hard to carry my religion over in to all other dealings in life.” The items were rated on a five-point scale ranging from “Definitely not true” to “Definitely true.” This scale has demonstrated adequate internal consistency ($\alpha=0.78$), test–retest reliability ($ICC=.91$), and correlation with similar measures [38]. Internal reliability in the current sample was high ($\alpha=0.87$).

Demographics Demographic characteristics were assessed among the sample. This included whether or not participants identified as being Jewish, Jewish affiliation, gender, age, ethnicity, country of residence, and household income.

Analyses

Preliminary analyses were conducted to determine initial correlations between study variables and to identify relevant demographic covariates. We then utilized hierarchical linear regressions to identify main effects of trust/mistrust in God on mental/physical health controlling for relevant demographic factors. Next, we examined whether the effect of trust/mistrust in God and religious coping on depressive symptoms and physical health were moderated by religious affiliation (Orthodoxy) and intrinsic religiosity. Finally, we used bootstrapping analyses to test whether religious coping mediated observed effects of trust/mistrust in God on outcomes.

Results

Bivariate Associations Between Study Variables

Table 1 displays zero-order correlations of relationships between demographic variables, Jewish religious affiliation (Orthodox versus non-Orthodox), intrinsic religiosity,

trust/mistrust in God, positive/negative religious coping, depressive symptoms, and physical health. Gender and age were both linked to main study variables and were therefore controlled in subsequent analyses. Both Orthodox affiliation and intrinsic religiosity were related to many of the study variables, allowing for the possibility that they might moderate the effects of trust/mistrust in God and religious coping on mental/physical health outcomes. The observed correlations also supported the prerequisites for our proposed model of a relationship between trust/mistrust in God and mental/physical health being mediated by religious coping, with the exception of positive religious coping and physical health, which were not significantly correlated with one another.

Main Effects of Trust/Mistrust in God and Religious Coping

Based on significant correlations, a series of hierarchical regression analyses was conducted to investigate whether trust in God, mistrust in God, and negative religious coping were each predictive of levels of depressive symptoms and physical health, and whether positive religious coping was predictive of levels of depressive symptoms. A regression analysis of positive religious coping predicting physical health was not conducted given that these variables were not significantly correlated with one another. As hypothesized, greater trust in God predicted lower levels of depressive symptoms and greater mistrust in God predicted higher levels of depressive symptoms. Similarly, higher levels of positive religious coping predicted lower levels of depressive symptoms whereas negative religious coping predicted higher levels of depressive symptoms. These findings are displayed in Table 2. Contrary to expectations, neither trust/mistrust in God nor negative religious coping significantly predicted physical health.

Religious Characteristics as Moderators

To examine whether Orthodoxy and intrinsic religiosity moderated the effects of trust/mistrust in God and religious coping in predicting depressive symptoms and physical health, we utilized the procedures outlined by Aiken and West [39]. To eliminate any multicollinearity effects, all continuous variables were centered into deviation form ($M=0$) before testing the interaction term. The binary variable of Orthodox affiliation was dummy coded to facilitate analyses.

Orthodox Affiliation We hypothesized that trust/mistrust in God and religious coping would be more strongly linked to physical/mental health among Orthodox Jews than non-orthodox Jews in line with previous research. However, our analyses failed to replicate these findings; Orthodox affiliation did not moderate any effects within the sample.

Table 1 Correlations and descriptive statistics of the scales (N=208)

Scale	1	2	3	4	5	6	7	8	9	10
1. Gender (female=0, male=1)	–									
2. Age	0.1	–								
3. Affiliation (non-Orthodox=0; Orthodox=1)	0.11	-0.28**	–							
4. Intrinsic Religiousness	-0.09	-0.03	0.40**	–						
5. Trust in God	0.00	-0.21**	0.50**	0.72**	–					
6. Mistrust in God	0.00	0.21**	-0.19**	-0.50**	-0.59**	–				
7. Positive religious coping	-0.06	-0.05	0.31**	0.75**	0.66**	-0.48**	–			
8. Negative religious coping	-0.11	0.11	-0.22**	-0.42**	-0.54**	0.63**	-0.33**	–		
9. Depressive symptoms	-0.05	0.12	-0.02	-0.24**	-0.22**	0.37**	-0.26**	0.38**	–	
10. Physical health	0.22**	-0.21**	0.22**	-0.04	0.14*	-0.16*	-0.01	-0.16*	-0.23**	–
Number of items	1	1	1	3	3	3	12	4	10	12
Possible range	NA	NA	NA	3–15	3–15	3–15	12–60	4–20	10–40	NA
Range	NA	19–79	NA	3–15	3–15	3–15	18–60	4–0	10–39	23–58
Mean	NA	41.71	NA	12.27	11.83	4.54	45.02	8.59	18.38	46.46
SD	NA	15.09	NA	2.93	3.01	2.26	8.85	3.47	6.55	5.82
Chronbach's alpha	NA	NA	NA	0.87	0.89	0.82	0.91	0.82	0.89	0.68

* $p < 0.05$; ** $p < 0.01$

Intrinsic Religiosity We also anticipated that trust/mistrust in God and religious coping would be more strongly linked to physical/mental health among Jews with high levels of intrinsic religiosity. Three significant interactions were observed, and in each case post hoc probing was conducted by testing the significance of separate regression lines for individuals high (1 SD above mean) versus low (1 SD below the mean) on intrinsic religiosity. First, despite non-significant

main effects, a significant interaction was observed for intrinsic religiosity moderating the relationship between trust in God and physical health (see Table 3, panel A). In the high intrinsic religiosity group, the slope of the predicted line was: physical health = .95 (trust in God) + 44.85, $t(203) = 4.20$, $p < 0.001$, indicating that trust in God was related to greater physical health. In the low intrinsic religiosity group, the slope for the regression line was: physical health = 0.41

Table 2 Spiritual variables as predictors of depressive symptoms (N=208)

	Unstand. B	SE	Stand. B	R	R ² change	F change
Step 1				0.14	0.02	1.92
Gender	-0.89	1.04	-0.06			
Age	0.06	0.03	0.13			
Panel A: trust in God						
Step 2				0.21	0.04	8.67**
Trust in God	-0.45**	0.15	-0.21**			
Panel B: mistrust in God						
Step 2				0.38	0.13	29.37***
Mistrust in God	1.04***	0.19	0.36***			
Panel C: positive religious coping						
Step 2				0.29	0.07	14.87***
Positive religious coping	-0.19***	0.05	-0.26***			
Panel D: negative religious coping						
Step 2				0.40	0.14	33.77***
Negative religious coping	0.72***	0.12	0.38***			

* $p < 0.05$; ** $p < 0.01$;
*** $p < 0.001$

Table 3 Intrinsic religiosity as a moderator of links between religious variables and physical/mental health ($N=208$)

	Unstand. B	SE	Stand. B	<i>R</i>	<i>F</i> change	<i>f</i> ²
Step 1				0.31	11.05***	0.11
Gender	0.32***	0.09	0.24***			
Age	-0.01**	0.00	-0.23***			
Panel A: physical health						
Step 2				0.35	3.13*	0.03
Trust in God	0.05*	0.02	0.25*			
Intrinsic religiosity	-0.04	0.02	-0.19			
Step 3				0.38	3.60*	0.02
Trust in God × intrinsic religiosity	0.01*	0.00	0.16			
Panel B: depressive symptoms						
Step 2				0.40	15.47***	0.15
Mistrust in God	0.90***	0.22	0.31***			
Intrinsic religiosity	-0.21	0.17	-0.09			
Step 3				0.41	3.95*	0.02
Mistrust in God × intrinsic religiosity	-0.12*	0.06	-0.15*			
Panel C: depressive symptoms						
Step 2				0.41	18.31***	0.18
Negative religious coping	0.63***	0.14	0.33***			
Intrinsic religiosity	-0.24	0.16	-0.11			
Step 3				0.43	4.83*	0.02
Negative religious coping × intrinsic religiosity	-0.08*	0.04	-0.15			

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

(trust in God)+46.90, $t(203)=1.93$, $p=0.055$ (*ns*), indicating that trust in God was unrelated to physical health. Similarly, the relationship between mistrust in God and depressive symptoms differed significantly between those with high versus low levels of intrinsic religiosity (see Table 3, panel B). The slope for the high intrinsic religiousness group was: depressive symptoms=0.42 (mistrust in God)+17.66, $t(203)=1.23$, $p=0.22$ (*ns*), indicating that mistrust in God was unrelated to depressive symptoms in this group. The slope for the low intrinsic religiousness group was: depressive symptoms=1.14 (mistrust in God)+18.27, $t(203)=4.85$, $p < 0.001$, indicating that depressive symptoms are greater at high levels of mistrust in God in this group. Finally, there was a significant interaction between negative religious coping and intrinsic religiosity in predicting depressive symptoms (see Table 3, panel C). The slope for the high intrinsic religiousness group was: depressive symptoms=0.32 (negative religious coping)+17.48, $t(203)=1.69$, $p=0.09$ (*ns*), indicating no relationship between negative religious coping and depressive symptoms. The slope for the low intrinsic religiousness group was: depressive symptoms=0.81 (negative religious coping)+18.57, $t(203)=5.36$, $p < 0.001$, indicating that depressive symptoms are greater at high levels of negative religious coping for those with low intrinsic religiousness.

Religious Coping as a Mediator

On the basis of significant main effects, bootstrapping analyses were conducted to assess whether positive and negative religious coping mediated the relationships between trust/mistrust in God and depressive symptoms (see Figs. 1 and 2). Positive and negative religious coping were simultaneously entered in the analyses to reveal the relative size of each mediator's contribution while controlling the effect of the other mediator. We made use of 1,000 bootstrap samples [40] to test mediation with 95 % confidence intervals that correct for biases in the sampling distribution. Results indicated that positive religious coping fully mediated links between trust in God and depressive symptoms, whereas negative religious coping fully mediated links between mistrust in God and depressive symptoms. Because mediation models can be significant as a result of the variables in the model being highly correlated with one another, we further evaluated these findings by testing a reverse mediation model in which trust/mistrust in God were proposed to mediate links between positive/negative religious coping and the outcome measures. This alternative model was not statistically significant, lending greater support to the proposed mediation model.

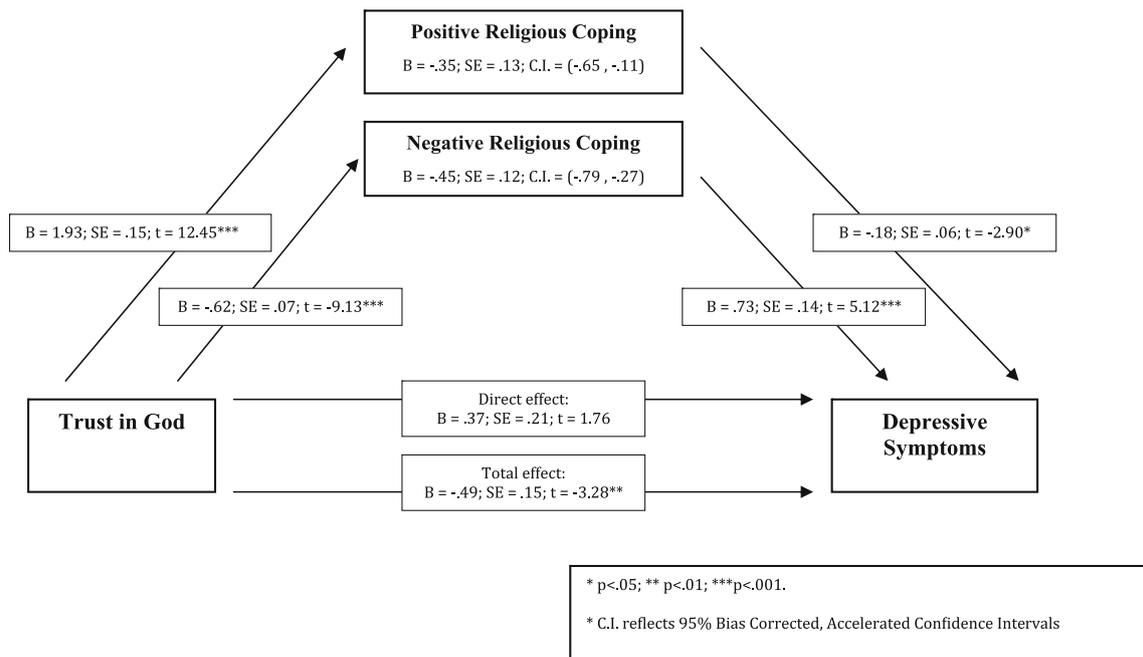


Fig. 1 Religious coping as mediator of links between trust in God and depressive symptoms ($N=208$)

Discussion

This study sought to further develop the growing body of literature on Jewish spirituality and mental/physical health. We focused on two previously identified predictors of well-being in a Jewish context—trust/mistrust in God and religious

coping—and examined their relationships to depressive symptoms and physical health. We further assessed potential moderating effects of religious affiliation and intrinsic religiousness on these variables. In addition, we tested a conceptual framework for synthesizing interrelationships among these variables. Our hypotheses were partially supported.

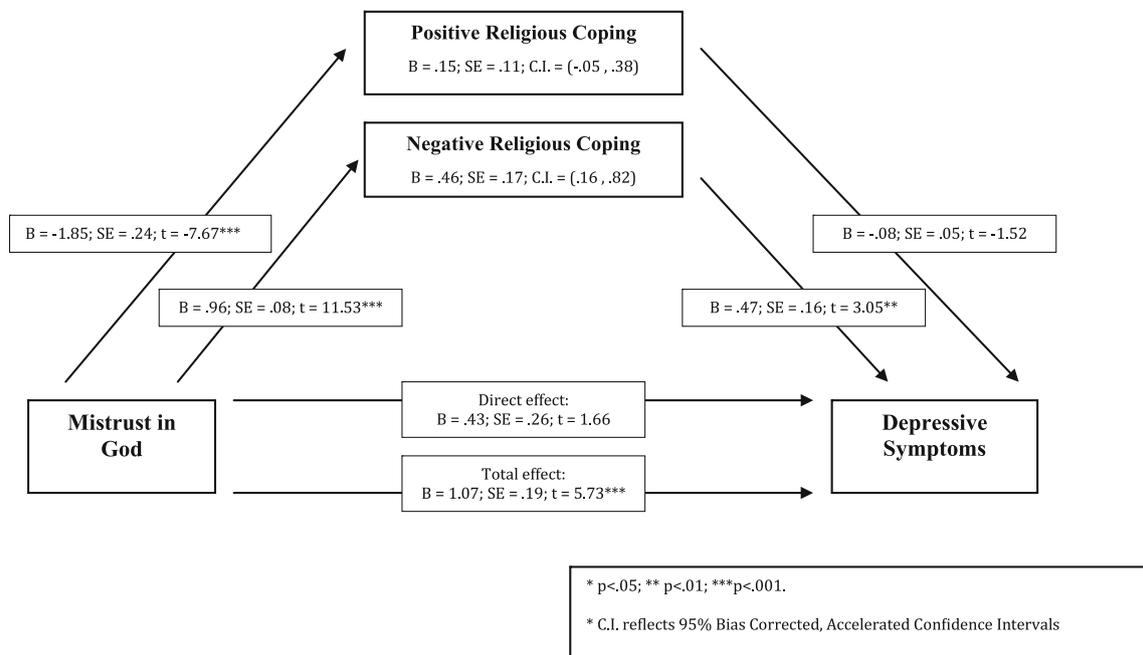


Fig. 2 Religious coping as mediator of links between mistrust in god and depressive symptoms ($N=208$)

Main Effects

The most notable findings relate to the association between the religious predictors and depressive symptoms. Both mistrust in God and negative religious coping were associated with greater depressive symptoms ($r=0.37$, $p<0.01$ and $r=0.38$, $p<0.01$, respectively) and both trust in God and positive religious coping were associated with lower levels of depressive symptoms ($r=-0.22$, $p<0.01$ and $r=-0.26$, $p<0.01$, respectively). Hierarchical regression analyses indicated that these religious predictors accounted for 4–14 % of the variance in depressive symptoms after controlling relevant demographic factors. This highlights the potential clinical significance of spirituality to mental health among Jews. Clinicians should be aware of potential links between religious variables (such as trust/mistrust in God and religious coping) and depressive symptoms when working with Jewish clients. Given the cross-sectional nature of this data, there is no indication of causality or directionality. Therefore, clinicians working with Jewish clients who display depressive symptoms may wish to explore the presence of mistrust in God or negative religious coping. It is possible that these religious struggles could play a role in eliciting or intensifying symptoms of depression. By the same token, the experience of depressive symptoms could lead Jews to experience mistrust in God or engage in negative religious coping methods. In this case, clinicians may wish to monitor whether these religious variables relate to the client's clinical concerns. In some instances, it may be beneficial to refer clients to supplemental consultation or care within their religious community. Finally, it is equally plausible that individual characteristics or experiences of the client relate both to strained religious characteristics as well as depressive symptoms. Clinicians should be aware of this possibility and explore potential contributing factors within the client's life. Clearly, sound clinical judgment is required when considering the potential links between religious characteristics and depressive symptoms among Jewish clients. Future longitudinal research is needed to evaluate the directionality of these variables.

Moderating Variables

Previous research has found that Jewish Orthodoxy moderated the relationship between negative religious coping and levels of well-being [21]. Based on previous research and theory [4], we expected that the observed effects of trust/mistrust in God and religious coping would be greater for Orthodox than non-Orthodox Jews. Surprisingly, trust/mistrust in God and religious coping appeared to be equally relevant to outcome measures between these two groups in the present study. Therefore, this topic warrants further analysis and replication. Perhaps this discrepancy is due to

the cultural shift of religious affiliation becoming disconnected from the content and strength of a person's religious commitment. For example, while 84 % of Americans identify with a religion [41], only 12 % report that religion is the most important thing in their life [42]. This theory is tentatively supported by our finding that, unlike Orthodoxy, intrinsic religiosity as a moderator reached statistical significance. This suggests that the nature of personal religiosity may be a more meaningful variable of study among Jews than religious affiliation.

Post hoc probing of the moderation analyses revealed that a relationship between trust in God and physical health was significant only for individuals with high intrinsic religiosity and not significant for individuals with low intrinsic religiosity. In contrast, only those with low intrinsic religiosity revealed a significant relationship when it came to both mistrust in God and negative religious coping with depressive symptoms, while these links were non-significant for those with high intrinsic religiosity. These three instances in which intrinsic religiosity reached significance as a moderator each had an effect size of $f^2=0.02$. This is a small effect according to the conventional definition of Cohen [43], who labeled effects of 0.02, 0.15, and 0.35 as *small*, *medium*, and *large*, respectively. Nevertheless, Cohen [43] and Cohen, Cohen, West, and Aiken [44] have noted that small effect sizes can have substantial practical and theoretical importance. Furthermore, Aguinis, Beaty, Boik, and Pierce [45] found that the average effect size in tests of moderation across 261 analyses was only 0.009. On this basis, some researches have suggested that a more realistic standard for effect sizes might be 0.005, 0.01, and 0.025 for *small*, *medium*, and *large*, respectively [46].

To err on the side of caution, we consider the moderation effects in the current study as small. With this in mind, we tentatively interpret the finding that higher levels of intrinsic religiosity enhanced the magnitude of relationships between trust in God and physical health. Thus, even though no main effects were observed for religious predictors accounting for physical health, the moderation analyses revealed significant links between trust in God and physical health for those in the sample who were high in intrinsic religiosity. It is likely that for those with greater intrinsic investment in religion, trust in God is more centrally relevant to life and therefore provides protective health effects. This does not seem true for those with low levels of intrinsic religiosity, whose positive beliefs about the Divine may not have enough personal meaning and significance to extend an effect on physical health.

Interestingly, not all moderation effects were in anticipated directions. We found that *lower* levels of intrinsic religiosity strengthened relationships between mistrust in God and negative religious coping with depressive symptoms. This may be explained by the notion that those with high levels of intrinsic

religiosity are able to accommodate these forms of spiritual struggle within a robust religious framework, whereas those with lower levels of intrinsic religiosity may lack the general spiritual resources to make sense of mistrust in God and negative religious coping, therefore resulting in greater depressive symptoms. It is further possible that these negative forms of spirituality may be a catalyst for growth among individuals high in intrinsic religiosity, as research has indicated that variables such as negative religious coping can be linked to greater personal and spiritual growth among Christian samples, depending on the way in which they are resolved [47]. In contrast, these negative forms of spirituality may be precursor to religious despair and withdrawal among the less religious, who may not be able to successfully overcome mistrust in God and negative religious coping. To this end, it should be noted that one previous study found that Orthodox Jews showed an *increase* in well-being at the highest levels of spiritual struggle, whereas non-Orthodox Jews showed a consistent decrease in functioning across higher levels of struggle [21]. While we failed to find an Orthodoxy moderation effect in this study as noted above, these findings are consistent in that relationships between negative spiritual variables and outcomes were stronger at *lower* levels of religious involvement. This result warrants further analysis and replication.

A Test of Mediation

One of our efforts in conducting this study was to assess interrelationships between trust/mistrust in God, Jewish religious coping, and mental/physical health. Mediation requires collinearity, as the mediator must be correlated with the predictor to be successful. In the current study trust in God was moderately correlated with positive religious coping ($r=0.66$, $p<0.01$) and mistrust in God was moderately correlated with negative religious coping ($r=0.63$, $p<0.01$). With the use of a bootstrapping method, significant mediation results emerged, in that positive religious coping fully mediated links between trust in God and less depressive symptoms and negative religious coping fully mediated relationships between mistrust in God and greater depressive symptoms. A reverse model in which trust/mistrust in God was proposed to mediate links between religious coping and depressive symptoms was not significant, lending greater support to the primary model.

These results offer initial support for an integrative cognitive-coping model, in which latent core beliefs about the Divine might be activated as coping strategies during times of distress, which in turn impact psychological health. Further research is required to substantiate these findings and offer greater confidants in a specific conceptual model. Furthermore, the current data are specific to a Jewish context. A fascinating body of literature by Adam Cohen and colleagues has suggested that Jewish culture values

behaviors and conduct more highly than beliefs and attitudes [28, 48]. While both beliefs (e.g., trust/mistrust in God) and behaviors (e.g., religious coping responses) were each associated with depressive symptoms in this study, our results raise the possibility that the impact of beliefs on emotional functioning may be indirect among Jews, occurring through behavioral responses. This intriguing findings are worthy of additional investigation and comparative analysis in Jewish versus non-Jewish populations.

Limitations and Directions for Future Research

The present study has a number of limitations that must be noted. First, the methods relied solely on self-report measures administered within a non-clinical population. Second, the sample that was drawn primarily from the USA had a high average income and may therefore not be representative of a world-wide population of Jews. In addition, although internet use has recently become more increasingly accepted throughout the spectrum of Orthodoxy in the Jewish community [49], sole reliance on web-based assessments may limit generalizability to more cloistered factions of Judaism. Nevertheless, this study supports and extends our knowledge of how spirituality might be relevant to the understudied Jewish community. We hope this provides a broader basis for future longitudinal, experimental, and treatment outcome research among Jews.

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