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The role of religiousness in anxiety, depression, and happiness in a Jewish community sample: A preliminary investigation

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Although social scientists have convincingly demonstrated relationships between religious beliefs/practices and mental health, almost none of the empirical findings or related theory apply specifically to Jews. To address this limitation, we investigated the role of Jewish religiousness in anxiety, depression, and happiness, in a large Jewish community sample ($n = 565$). Several facets of global Jewish religiousness were examined, as well as a theoretically based Jewish religious variable, trust in God. A self-report measure of trust in God was created, and factor analyses yielded two reliable and valid subscales: trust in God and mistrust in God. Contrary to our hypotheses, global Jewish religiousness was on the whole unrelated to mental-health functioning. As expected, higher levels of trust in God were associated with less anxiety and depression, and greater personal happiness, whereas inverse associations emerged for the unanticipated but robust mistrust subscale.

**Keywords:** Judaism; religion; worry; stress; depression; happiness

**Introduction**

There has been a dramatic increase in psychological research about religion and spirituality in recent years (Paloutzian & Park, 2005). This may be attributable to the recognition that religion plays an important role in the lives of most North Americans (Silk, 2005). The recent surge in psychological literature on religion has consistently demonstrated that religiousness is significantly tied to anxiety, depression, and happiness (Koenig, McCullough, & Larson, 2001). However, religious constructs have typically been measured by global indices, and so the reasons why religious constructs relate to mental health are often obscure (Hill & Pargament, 2003). Furthermore, the overwhelming majority of psychological investigations in this area have been conducted with Christian samples (Tarakeshwar, Pargament, & Mahoney, 2001), and as a result, current psychological knowledge about Jewish populations is lacking. This study sought to address these limitations by conducting a preliminary investigation into the role of global as well as theoretically based Jewish religiousness in three aspects of mental health: anxiety, depression, and happiness.
Religion, anxiety, depression, and happiness

Contrary to theoretical assertions by early, major leaders in psychology that religiousness exacerbates symptoms of anxiety (e.g., Ellis, 1988; Eysenck, 1981; Freud 1943), the majority of empirical studies in the past 35 years have indicated that greater basic religious observance (e.g., church attendance, religious study) are associated with decreased anxiety (Koenig, Ford, George, Blazer, & Meador, 1993; Williams, Buckler, Heckmann, & Pyle, 1991). Religious practices have also been linked to enhanced levels of coping with life struggles (see Mykle, Koenig, Hays, Eme-Akwari, & Pargament, 2001 for a review), and decreased post-traumatic stress symptoms (Graham-Bermann, DeVoe, Mattis, Lynch, & Thomas, 2006; Watlington & Murphy, 2006). Some studies, however, have found certain facets of religiousness to be associated with greater anxiety. For example, membership in Pentecostal religious groups and frequent watching/listening to religious television and radio programs has been found to correlate positively with anxiety symptoms (Koenig et al., 1993). Additionally, while intrinsic religiousness has consistently been associated with decreased levels of anxiety, extrinsic religiousness appears to correlate with increased anxiety for some religious groups (Tapanya, Nicki, & Jarusaawad, 1997). Thus, a clear understanding of links between anxiety and religion requires that researchers appreciate the multidimensional nature of this realm and develop sensitive measures that tap into both the positive and negative religious factors that may operate quite differently with regard to anxiety.

One of the most studied topics within the psychology of religion is depression; a recent search through the literature was able to locate over 620 articles in this area. In general, higher levels of religiousness are associated with lower levels of reported depression. One meta-analysis of 147 published and unpublished investigations (N = 98,975) revealed an overall correlation of \( r = -0.096 \) between these variables (Smith, McCullough, & Poll, 2003). More specifically, general religious involvement (e.g., frequent church attendance, membership in religious organizations), greater private religious activity (e.g., prayer), and certain religious beliefs (e.g., belief in God, belief in life after death) have all been linked to lower incidence of depression (see Koenig et al., 2001 for a review). However, some studies have shown no relationship between depression and religious variables, particularly more global markers of religiousness such as affiliation or attendance (McCullough & Larson, 1999). Thus, while consistent evidence indicates that religiousness is associated with the experience of lower depression, use of more in-depth and theologically grounded measures could facilitate a clearer theoretical understanding of which specific forms of religiousness relate to depressive symptoms.

Consistent with the growth of positive psychology and evidence that happiness is not simply the inverse of depression (e.g., Seligman & Csikszentmihalyi, 2000) many researchers have specifically examined the role of religion in human happiness and well-being. Most studies in this area have found positive associations between these constructs (Ellison, 1991; Lewis & Cruise, 2006). For example, regular church attendance (Lelkes, 2006), organizational religious activity (Levin, Chatters, & Taylor, 1995) and positive attitudes towards religion (Francis, Robbins, & White, 2003; Francis, Katz, Yablon & Robbins, 2004) have all been tied to increased levels of happiness, life satisfaction and well-being. Although some studies have found no association between religiousness and happiness (e.g., Chamberlain & Zika, 1988; Feigelman, Gorman, & Varacalli, 1992), a recent review of the literature was able to find only a single study demonstrating a negative correlation between religious involvement and well-being.
(Koenig et al., 2001). However, while global indices of religion appear related to greater happiness, researchers have barely begun to examine links between theoretically based religious variables and human happiness.

**Jewish religiousness, anxiety, depression, and happiness**

Despite the proliferation of research on religion and mental health, we were only able to locate 11 empirical papers published in peer-reviewed journals examining these variables exclusively among Jews. Several of these investigations found global Jewish religiousness (e.g., Jewish cultural identity, Jewish religious identity, ritual observance) to be associated with decreased levels of anxiety and depression (e.g., Goldberg & O’Brien, 2005; Loewenthal & Goldblatt, 1993). However, one such study found an interesting interaction effect between religious beliefs and distress among Israeli university students; belief was inversely correlated with distress among religious and secular participants but not among traditional students (Vilchinsky & Kravetz, 2005). Another study indicated that incidence of panic disorder was higher among strictly than traditionally Orthodox Jews, though this may have been confounded by differences in family size between these groups (Loewenthal et al., 1997). With regard to well-being, one study of American Jews found a significant positive relationship between Jewish religious identity and belonging, optimism and self-acceptance (Ressler, 1997), and one Israeli investigation linked religious faith to better perceived health status (Anson, Antonovsky, & Sagy, 1990). Another paper indicated that self-rated religiosity was not significantly tied to well-being or life satisfaction, however (Lecovich, 2001). Thus, while a handful of investigations have established some important preliminary ties between Jewish religiousness and mental health, such studies are few in number. The paucity of psychological research on Jewish religiousness may not be surprising given that Jews represent only 2–3% of the population in the United States and 0.22% of the world population (Kosmin & Lachman, 1993). Nevertheless, there are over 13 million Jews worldwide, of which almost 6 million reside in North America (DellaPergola, Rebhun, & Tolts, 2005). Furthermore, meta-analytic findings indicate that Jews have elevated risk for depression and anxiety compared to the general population (Kohn, Levav, Zolondek, & Richter, 1999; Levav, Kohn, Golding, & Weissman, 1997). Thus, given the amount of evidence linking religiousness to mental health in general, further study of how Jewish religious beliefs and practices relate to psychological health in the Jewish community seems warranted. Moreover, the theoretical and functional links between these constructs should be explored in a meaningful way.

**Further study of Jewish religiousness and mental health**

While another examination of the links between global Jewish religiousness and affective states may be of benefit, measures of global religiousness fail to assess the complexity of religious variables which may involve cognitive, behavioral, affective and interpersonal dimensions. Furthermore, research on global religiousness is not able to identify how or why religion is related to mental health (Hill & Pargament, 2003). Due to these considerations, an emerging trend in psychology of religion research has been to study aspects of religiousness that are more proximally and functionally connected to psychological variables alongside measures of global religiousness. Examples of proximal
religiousness include perceived closeness to God (Hall & Edwards, 1996), religious coping (Pargament, 1997), sanctification (Pargament & Mahoney, 2005), and religious/spiritual struggles (e.g., Exline, Yali, & Sanderson, 2000). Research on these constructs has greatly advanced the psychological conceptualization and measurement of religiousness, and enabled the linking of psychology of religion research to well-known psychological concepts such as attachment theory (Kirkpatrick, 1998), coping theory (Pargament, 1997) and cognitive behavioral theory (Andersson & Asmundson, 2006). Therefore, to provide an understanding of how Jewish religiousness is functionally tied to anxiety, depression, and happiness, it would be advantageous to look at theoretically based as well as global facets of Jewish religiousness. However, two significant barriers exist to taking this approach. First, most existing measures of proximal religious constructs use Christian language (e.g., “Church,” “Sunday”) and do not address specific Jewish practices or beliefs. Second, and more important, the religious perspectives that engender such measures are often inconsistent with, and sometimes antithetical to, Jewish religious ideology. Therefore, to study the role of proximal Jewish religiousness in mental health, theoretical models as well as psychometric tools that are consistent with Jewish perspectives must be developed.

One possible starting-point is Rabbi Bachaya Ibn Pekuda’s (henceforth Rabbi Bachaya) Duties of the Heart (Ibn Pekuda, trans. 1996). Though written in the 11th century, this text remains widely used by religious Jews today to deepen their faith and live it out in daily life. In the past 10 years, five English translations have been printed, and the book is a “strong backlist title” at a major Jewish publishing company that has sold over 20,000 copies (E. Hollander, personal communication, September, 2006). As a popular devotional text that elucidates Jewish philosophical principles regarding human thought and emotion (Ibn Pekuda, trans. 1970), Duties of the Heart is an ideal source of theoretical links between Jewish religiousness and psychological variables. In particular, the fourth section of the text (entitled “The Gate of Trust in God”) appears relevant to the study of human psychology, as it explicitly relates the Jewish religious construct trust in God to psychological health. Trust in God is a cognitive and affective state in which a person feels that God is taking care of their best interests. Specifically, this construct involves the following six core beliefs: (a) God has constant regard for all worldly affairs; (b) God has absolute knowledge of what is in people’s best interests; (c) no power is greater than God; (d) God must be involved for anything to occur; (e) God is merciful and generous; and (f) God is righteous in judgment (Ibn Pekuda, trans. 1996). Of particular note, Rabbi Bachaya specifically ties trust in God to decreased anxiety and depression, and elevated levels of personal happiness (Ibn Pekuda, trans. 1996).

Trust in God could be related to anxiety in the following manner. First, trust in God may reduce negative appraisals of perceived danger. After all, if one believes that God knows everything, has the power to take care of any situation, and is merciful, generous, and righteous, there would seem to be less to be afraid of. Furthermore, while intolerance to uncontrollability and unpredictability has been posited to play a central role in human anxiety (Barlow, 2002), the importance of these cognitive factors may be undermined by the belief that God is merciful and generous, as such notions would seem to engender the anticipation of positive outcomes, regardless of controllability or predictability. Trust in God may also resemble positive religious coping (Pargament, 1997) and act as a psychological resource in times of stress. With regard to depression, trust in God may prevent the pernicious cognitions associated with hopelessness from occurring.
Hopelessness involves the tendency to attribute events to negative global and stable causes (Abela & Seligman, 2000), which seems to stand in stark contrast with the belief that God is Omnibenevolent and Omnipotent (i.e., a positive, stable cause). Trust in God may relate to happiness through the avenue of positive spiritual emotions such as appreciation and gratitude, which have been linked to psychological well-being (Emmons & McCullough, 2003). A worldview in which a Higher Power has constant regard for worldly affairs, is involved in all events, and always acts with generosity could engender the appraisal of positive outcomes as gifts from God, not simply happenstance or “good luck.” Trust in God may also be connected to sanctification, the perception that aspects of life have spiritual character and significance, which has been linked to a greater sense of personal joy.

**Present study**

The goal of the present study was to address limitations in the current literature by examining links between both global and theoretically based facets of Jewish religiousness and mental health. Based on previous research, we expected that global Jewish religiousness would be associated with lower levels of anxiety and depression, and increased levels of happiness, after controlling for relevant demographic variables. We further hypothesized that trust in God, a theoretically based religious variable that is conceptually linked to emotional states, would demonstrate a stronger relationship to these variables than indices of global Jewish religiousness.

**Method**

**Participants**

A total of 565 Jewish individuals (57.8% female) participated in this study. Missing items were not replaced, and so each analysis was performed exclusively with responses from participants with complete response sets. Participants’ ages ranged widely (17 to 77 years) with a mean of 37.1 years ($SD = 13.3$). Level of education was elevated in the sample compared to national norms in that 50.2% had an advanced degree, 34.5% had a college or university degree, and less than 1% ($n = 3$) had not graduated from high school. Prescription medication use to treat anxiety or depression was reported by 15.2% of the sample.

Over the past two centuries, the Jewish community has divided into a number of Jewish denominations that differ substantially in both religious beliefs and practices, ranging from more traditional (Hassidic, Yeshiva Orthodox, Modern Orthodox) to more secular (Conservative, Reform, Reconstructionist, Other Jewish Affiliation, No Jewish Affiliation). Jewish religious affiliation in the sample was as follows: “Hassidic/Yeshiva-Orthodox” (8.6%); “Modern-Orthodox” (31.3%); “Conservative” (31.8%); “Reform” (12.9%); “Reconstructionist/Other” (7.4%); or “No Jewish Affiliation” (7.8%). Because a recent survey study with a representative sample of the US Jewish population revealed that only 10% of American Jews consider themselves to be Orthodox (National Jewish Population Survey, 2003), our sample included a higher concentration of Orthodox Jews than in the general Jewish population. However, religious affiliation in the sample was considerably diverse with 59.9% of participants reporting Conservative, Reform, Reconstructionist, Other or No Jewish religious affiliation.
Measures

Demographics
A number of demographic items were assessed for use as possible covariates. These included: gender, age, current use of medication to treat anxiety/depression, and socioeconomic status (measured by highest level of education).

Stressful life events
Stressful life events were assessed using the Health and Daily Living Form (Moos, Cronkite, & Finney, 1990) which measures the degree to which participants experienced major life stressors in the past 12 months. As noted above, some studies have indicated that religiousness is associated with elevated levels of anxiety. While it is possible that such research indicates that religion leads to anxiety, several theorists have conjectured that life stressors are a mobilizing force that can lead to increased religious activity (Koenig et al., 2001). Therefore, it was important to control for life stressors when conducting this cross-sectional correlational analysis of Jewish religiousness and mental health.

Anxiety, stress, and worry
The Depression Anxiety Stress Scale (DASS; 21-item version) is a self-report scale that measures the negative emotional states of depression, anxiety and stress (Lovibond & Lovibond, 1995). Factor-analytic studies of the DASS have demonstrated that the scale items can reliably be grouped into three seven-item subscales measuring depression (DASS-D), anxiety (DASS-A) and stress (DASS-S) (Brown, Korotitsch, Chorpita & Barlow, 1997; Lovibond & Lovibond, 1995). DASS-A items are concerned with physiological symptoms of anxiety (e.g., dryness of mouth, heart palpitations, panic), whereas DASS-S items relate to general tension and irritability (e.g., difficulty relaxing, agitation, over-reacting to situations). The DASS-A and DASS-S subscales were included as a measure of past-week anxiety and stress (the DASS-D subscale was not utilized).

Worry was assessed with the 16-item Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990), a measure of pathological trait worry. The PSWQ has well-established norms and psychometric properties; it has been found to possess high internal consistency, good test–retest reliability, and good concurrent validity (Brown, 2003; Hazlett-Stevens, Ullman, & Craske, 2004).

Depression
The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) is a 20-item self-report scale that has been validated extensively in community settings as a measure of general depressive symptomatology (Orme, Reis, & Herz, 1986). It was used in the present study as a measure of past-week depression.

Happiness
Happiness was assessed using the four-item Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999), a measure of global subjective happiness. Test–retest and self-peer correlations have indicated that the scale is reliable, and construct validity investigations have indicated that convergent and discriminant validity are satisfactory (Lyubomirsky & Lepper, 1999).
Global Jewish religiousness

The following items were included to assess various aspects of global Jewish religiousness: (1) a single item measuring belief in God (response anchors: Yes, No, Unsure); (2) a single-item measuring participants' religious affiliation (Hassidic, Yeshiva Orthodox, Modern Orthodox, Conservative, Reform, Reconstructionist, Other Jewish Affiliation, No Jewish Affiliation); (3) three items measuring frequency of prayer, synagogue attendance, and religious study (response anchors: Several times a day, Once a day, Several times a week, Once a week, A few times a month, Once a month, Less than once a month, Never); and (4) two items assessing the observance of specific Jewish religious rituals, recitation of grace after meals and shatnez, the Biblical prohibition against wearing garments sown of wool and linen together (response anchors: Always, Usually, Sometimes, Rarely, Never).

Trust in God

A set of 24 items was created to measure trust in God. Each of the six core beliefs associated with trust in God (see above) were assessed with three positively phrased items (e.g., “God is never ignorant of my concerns”) and one negatively phrased worded item (e.g., “God disregards my activities.”) To ensure that scale items accurately depicted the construct, we carefully phrased items according to the most widely used English translation of Duties of the Heart (Ibn Pekuda, trans. 1996). To provide further support for the scale’s content validity, three experts of rabbinic literature, all exceptionally familiar with Duties of the Heart and the construct trust in God, reviewed the initial pool of items, and we incorporated their suggestions for revision into the item pool. The trust in God items were introduced in this manner: “The following items are concerned with your personal beliefs about God. At certain times, people’s beliefs about God may be stronger or weaker. For each item below, please select the word which best describes how often you feel that the item is true. Please note that a number of items in this questionnaire use the word God. If this word is not a comfortable one, please substitute another appropriate term such as Higher Power, the Divine, or the Creator.” A 5-point Likert-type scale was used (response anchors: Always, Usually, Sometimes, Rarely, Never).

Procedure

An invitation to participate in the study was sent by email to a list of approximately 2200 email addresses, obtained from three Canadian Jewish organizations. Most addresses belong to Jewish individuals living in the Toronto and Montreal areas, and an unknown number belong to American and Israeli individuals. The exact number of people who received the email invitation is unknown, as it is possible that there were individuals who had more than one email address on the list, and that a number of the emails may have never been retrieved. Furthermore, participants were asked to inform their Jewish friends and associates about the study in order to aid in recruitment. Participants were not compensated monetarily or otherwise for completion of the questionnaire. Participants were directed to a website where they were presented with information about the study and the research questionnaire. After completing the questionnaire, participants were directed to a final screen where they were thanked for their participation and asked if they would be interested in participating in a follow-up study. Participants who indicated a willingness to
participate in a follow-up study (n = 155) were contacted by email between 4 and 6 weeks after their initial participation, and asked to complete the pool of 24 trust in God items a second time, to obtain test–retest reliability data on the measure.

**Results**

**Covariates of mental health**

Anxiety, depression, and happiness were significantly predicted by all demographic variables (age, gender, education, psychiatric medication) and recent life stressors (Table 1). Therefore, these covariates were controlled for in subsequent analyses of the correlations between Jewish religiousness and psychological health.

**Global Jewish religiousness and mental health**

Two analyses were conducted to explore the relationship between global Jewish religiousness and psychological health. First, separate analyses of variance (ANOVA) were performed using Jewish religious affiliation as a predictor of psychological functioning. No group differences were found for any criterion variable; that is Hassidic, Yeshiva Orthodox, Modern Orthodox, Conservative, Reform, Reconstructionist, Other and Unaffiliated Jews did not differ in their levels of anxiety $F(7, 539) = 0.37, p = 0.92$, stress $F(7, 537) = 0.83, p = 0.56$, worry $F(7, 521) = 0.79, p = 0.60$, depression $F(7, 495) = 1.38, p = 0.21$, or happiness $F(7, 550) = 0.77, p = 0.61$. Second, an analysis of the correlation between single-item measures of global Jewish religious observance (frequency of prayer, synagogue attendance, religious study, and observance of grace after meals and shatnez) and criterion variables was conducted (Table 2). The results of this analysis indicated that single-items measures of global Jewish religiousness were not, on the whole, significantly linked to measures of mental health in the sample.

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<th>Variable</th>
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<td>1. Age</td>
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<td>2. Gender</td>
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<td>3. Medications</td>
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<td>-0.10*</td>
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<td>4. Education</td>
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<td>5. Life stressors</td>
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<td>-0.22****</td>
<td>-0.14****</td>
<td>0.15***</td>
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<td>7. Stress</td>
<td>-0.13***</td>
<td>0.06</td>
<td>-0.18****</td>
<td>-0.06</td>
<td>0.21**</td>
<td>0.66***</td>
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<td>8. Worry</td>
<td>-0.18***</td>
<td>0.22***</td>
<td>-0.22***</td>
<td>0.03</td>
<td>0.13***</td>
<td>0.47***</td>
<td>0.60***</td>
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<td>9. Depression</td>
<td>-0.09*</td>
<td>0.04</td>
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<td>-0.13**</td>
<td>0.27***</td>
<td>0.59***</td>
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<td>10. Happiness</td>
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<td>0.21***</td>
<td>0.02</td>
<td>-0.09*</td>
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<td>$M$</td>
<td>36.37</td>
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<tr>
<td>$SD$</td>
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<td>0.49</td>
<td>0.36</td>
<td>0.81</td>
<td>2.39</td>
<td>5.39</td>
<td>7.87</td>
<td>14.65</td>
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</table>

*Variable coded as 0 = male, 1 = female; bvariable coded as 0 = yes, 1 = no; cvariable coded as 1 = college diploma or higher, 0 = less than college diploma.

$p < 0.05; **p < 0.01; ***p < 0.001. n$ values range from 476 to 565.
Trust in God and mental health

In order to examine links between trust in God in psychological health, a measure of trust in God was created, and information about its reliability and validity was evaluated. It should be noted that participants who indicated that they do not believe in God were excluded from these analyses, as trust in God is not applicable to those who do not believe in God. Responses to the trust in God item-pool were first subjected to an exploratory factor analysis to examine the structure of the scale. Principal Axis extraction with direct Oblimin rotation was chosen, as it was hypothesized that any resulting factors would be non-orthogonal. Three factors with eigenvalues greater than or equal to 1.00 emerged (13.3, 2.2, and 1.0, respectively), but based on scree plot criteria (Cattell, 1966), and improved interpretation with a two-factor solution, the factor analysis was re-run restricting the solution to two factors. The emerging factors accounted for 64.7% of the scale variance. Factor #1 contained positively phrased items designed to measure trust in God (e.g., Ultimately, there is Divine justice), whereas factor #2 contained negatively phrased items (e.g., God’s judgment is unfair). The correlation between the two factors in the sample was moderate ($r = -0.51$). The number of items in the scale was reduced in order to make the trust in God Scale an efficient measure. To maintain the content validity of the scale, item elimination was conducted with consideration for the relationship of each item to the six core beliefs of trust in God. Of the positively phrased items, the item with the lowest factor loading in each of the six categories was eliminated (note: prior to item elimination, the lowest factor loading on this subscale was 0.71). Of negatively phrased items (corresponding to the second factor), items with pattern matrix loadings less than 0.40 were dropped, resulting in the elimination of two items. The resulting 16-item measure contains two subscales reflecting trust (12-item) and mistrust in God (four-item) (Table 3).

To assess the internal consistency of the trust in God measure, Cronbach’s alpha statistic was computed for both the trust ($\alpha = 0.96$) and mistrust in God ($\alpha = 0.76$) subscales. To assess test–retest reliability of the measure, a subset of the original sample completed the scale-items between four and eight weeks after the first administration. The

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Table 2. Partial correlations\(^a\) of global Jewish religiousness and mental health.

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<th>Variable</th>
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<td>1. Prayer</td>
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<td>2. Synagogue</td>
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<td>3. Religious</td>
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<td>0.65***</td>
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<tr>
<td>4. Grace</td>
<td>0.63***</td>
<td>0.60***</td>
<td>0.66***</td>
<td></td>
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<tr>
<td>5. “Shatnez”</td>
<td>0.19***</td>
<td>0.25***</td>
<td>0.20***</td>
<td>0.04</td>
<td></td>
<td></td>
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<tr>
<td>6. Anxiety</td>
<td>-0.09</td>
<td>-0.08</td>
<td>-0.12*</td>
<td>-0.15**</td>
<td>-0.03</td>
<td></td>
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<tr>
<td>7. Stress</td>
<td>-0.05</td>
<td>-0.06</td>
<td>-0.06</td>
<td>-0.06</td>
<td>-0.09</td>
<td>0.63***</td>
<td></td>
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<tr>
<td>8. Worry</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.06</td>
<td>-0.04</td>
<td>-0.06</td>
<td>0.45***</td>
<td>0.56***</td>
<td></td>
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<tr>
<td>9. Depression</td>
<td>-0.05</td>
<td>-0.07</td>
<td>-0.10*</td>
<td>-0.07</td>
<td>-0.02</td>
<td>0.54***</td>
<td>0.61***</td>
<td>0.53***</td>
<td></td>
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<td>10. Happiness</td>
<td>0.06</td>
<td>0.03</td>
<td>0.09</td>
<td>0.00</td>
<td>-0.04</td>
<td>-0.29***</td>
<td>-0.45***</td>
<td>-0.49***</td>
<td>-0.65***</td>
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<tr>
<td>$M$</td>
<td>5.28</td>
<td>3.51</td>
<td>3.89</td>
<td>2.21</td>
<td>2.18</td>
<td>4.18</td>
<td>10.67</td>
<td>44.13</td>
<td>11.35</td>
<td>20.03</td>
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<tr>
<td>$SD$</td>
<td>2.14</td>
<td>1.98</td>
<td>2.18</td>
<td>1.39</td>
<td>2.81</td>
<td>5.40</td>
<td>7.89</td>
<td>14.62</td>
<td>9.72</td>
<td>5.94</td>
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\(a\)Controlling for age, gender, psychotropic medications, education, and life stressors.

\(*p < 0.05; **p < 0.01; ***p < 0.001. n = 421\)
correlation between administrations was $r = 0.93$ ($p < 0.001$, $n = 140$) for the trust in God subscale and $r = 0.76$ ($p < 0.001$, $n = 146$) for the mistrust in God subscale. To assess for content validity, the trust in God measure was reviewed by an international panel of three rabbinic experts. Each member of the panel reviewed the scale items and indicated that the scale represents the construct trust in God as described in the text Duties of the Heart “to a great extent.” To determine the convergent validity of the measure, an analysis of the correlation between general measures of religiousness and participants’ trust and mistrust in God subscales was performed. It was expected that trust in God would be positively associated with general religiousness. Although the emergence of mistrust in God factor was not anticipated, once this factor was identified it was predicted that mistrust would negatively correlate with such variables. Significant positive correlations were found between trust in God and prayer, synagogue attendance, religious study, and recitation of grace after meals (ranging from $r = 0.46$ to $r = 0.72$, $p > 0.001$ for all variables), though a non-significant correlation was found with observance of shatnez ($r = 0.05$, $p = 0.28$). With regard to the mistrust in God subscale, greater mistrust was correlated with lower levels of religious affiliation, prayer, synagogue attendance, religious study, grace after meals, and shatnez (ranging from $r = -0.14$, $p < 0.01$ to $r = -0.24$, $p < 0.001$ for all variables).

The partial correlations between the trust and mistrust in God subscales and measures of mental health are presented in Table 4. Higher trust in God was associated with lower levels of anxiety, stress, worry, and depression, whereas inverse correlations emerged between mistrust in God and these variables. Additionally, higher trust in God was positively correlated with happiness, while mistrust in God was inversely related to levels of happiness.
Discussion

Global Jewish religiousness and mental health

Based on previous research with both Jewish and Christian samples, it was hypothesized that higher levels of global Jewish religiousness (e.g., traditional religious affiliation, frequent prayer and synagogue attendance) would be inversely related to anxiety and depression and positively correlated with happiness. However, global Jewish religiousness was largely unrelated to these psychological variables in the current sample. With the exception of religious study and recitation of grace after meals (both negatively related to anxiety), none of the single-item measures of global Jewish affiliation and observance utilized in the present study were significantly correlated with self-report measures of anxiety, stress, worry, depression, or happiness. Furthermore, the findings of significant correlations between religious study and grace after meals with mental health must be interpreted cautiously given the likelihood of type-I error due to multiple comparisons. Additionally, no differences in mental health emerged when comparing Jews of different religious affiliations (Hassidic, Yeshiva Orthodox, Modern Orthodox, Conservative, Reform, Reconstructionist, Other Affiliated, and Non-Affiliated).

While it is difficult to make any definitive statements about the relationship of global Jewish religiousness to psychological well-being without considerable additional investigation, the results of this inquiry may indicate that Jewish affiliation, frequency of synagogue attendance, frequency of prayer, and specific Jewish observances are poor predictors of mental health and functioning in the general Jewish community. This finding is not altogether surprising when one considers that there are, in essence, weak theoretical ties between global religiousness and mental health (see Pargament, 1997). Furthermore, while findings tying global religiousness to health and well-being may be interesting, they do not inform researchers as to what it is about religiousness that impacts psychological health and illness. Thus, in order to identify facets of religion that are functionally connected to psychological health, it may be more fruitful to focus our attention on theoretically based religious variables.

Measuring theoretically based religious variables

This study attempted to look at the relationship of trust in God, a specific Jewish religious construct that is theoretically and functionally connected with the human emotional states.
of anxiety, depression, and happiness. Although religious constructs often have their origins in established religious writings and philosophy, social scientists almost universally generate scale items without consultation of religious teachings or leaders. In the present study, however, items were constructed to measure trust in God based on an authorized English translation of a prominent Jewish religious text, and the final scale was reviewed and approved by an international panel of experts in Jewish religious thought. This procedure provides support for the content validity of the trust in God measure used in this study, and also represents a significant advancement in the measurement of religious variables. Additionally, while the quantification of religious variables is often made difficult by the fact that rigorous operational definitions of religious constructs are rare (Spilka, Hood, Hunsberger, & Gorsuch, 2003), this procedure enabled us to circumvent this common difficulty, as the core beliefs involved in trust in God were defined a priori.

Trust and mistrust in God and mental health

In the current study, while global measures of Jewish religiousness were not related to mental health, both trust and mistrust in God were significant predictors of anxiety, depression, and happiness. One possible explanation for this may be as follows. While global measures of religiousness have been linked to mental health, it has been suggested that proximal religious variables are better predictors of mental health and well-being. For example, Mahoney, Pargament, Tarakeshwar, and Swank (2001) proposed that proximal religious variables, such as joint religious activity, are more intrinsically tied to marital satisfaction than distal religious variables (e.g., global religiousness). Thus, the fact that trust in God is more proximally, functionally, and conceptually linked to psychological well-being than Jewish religious affiliation and ritual observance may account for this finding. While causal links between trust and mistrust in God and mental health cannot be assessed in the current study due to its cross-sectional nature, these findings appear to support the notion that trust in God is a religious variable that is salient to the study of anxiety, depression, and happiness. The core beliefs involved in trust and mistrust in God may reduce or increase appraisals of perceived risks, impacting on stress, anxiety, and worry. Trust in God, in particular, may engender positive cognitions about the future, leading to decreases in hopelessness and depression and increases in happiness.

Trust vs. Mistrust in God

A factor analysis in the present study indicated that the measure of trust in God was divisible into two distinct subscales measuring positive (trust in God) and negative (mistrust in God) aspects of this construct. The two-factor solution of the trust in God Scale suggests that trust in God is not a unitary construct. Specifically, trust in God appears to assess positive beliefs about God, with higher scores denoting increased levels of belief and lower scores indicating decreased levels of belief. By contrast, mistrust in God seems to measure the notion that God is deliberately ignorant and malevolent. It should be noted that this is consistent with the common finding in general psychometric research that positive and negative aspects of a single construct often emerge as two relatively independent dimensions. For example, positive and negative affect have consistently been identified as separate dimensions (Watson, Clark, & Tellegen, 1988), as have happiness and depression (Lyubomirsky & Lepper, 1999). While trust in God may reflect the
presence or absence of basic beliefs about God, mistrust in God may be connected to the concept of religious struggles, which involves signs of stress and turmoil in the religious realm (Pargament, Murray-Swank, Magyar, & Ano, 2005). Of the three most common Judeo-Christian spiritual struggles, interpersonal, intrapsychic, and Divine (Pargament et al., 2005), mistrust in God appears most connected to Divine spiritual struggles, which reflect tension between the individual and God. As such, the etiology of trust and mistrust in God may differ considerably from one another. While trust in God may be the product of general religiousness, religious education and socialization, mistrust in God may be tied to painful life circumstances, trait anger, a lack of social support and family-related problems, which have all been linked to religious struggles (Pargament et al., 2005).

Mistrust in God may further be connected to insecure attachment with parental figures. Several studies have shown that early attachment relationships are related to religious beliefs in later life, suggesting that anxious/ambivalent and avoidant parent–child relationships are linked to negative and rejecting God images (Kirkpatrick & Shaver, 1990). Additionally, the consequences of mistrust in God may be more severe than the consequences of lacking trust in God. It should be noted that in the present study, mistrust in God was more highly correlated with all measures of mental health than trust in God.

**Limitations and future directions**

This study had some methodological limitations that should be noted. First, religious affiliation was skewed in the sample with nearly 40% of participants reporting Orthodox affiliation. It would be advantageous for future studies to examine the relationships between religious beliefs and practices in a more representative sample, or perhaps compare differences in the relevance of these factors between Orthodox and non-Orthodox Jews. Second, the study was limited to only Jewish individuals with access to a computer, since the data were exclusively collected through an Internet-based survey. Previous research suggests that online administration of questionnaires generally results in excellent psychometric properties (Buchanan, 2003), but web-based survey administration also poses a limitation, as Internet use is not encouraged by some religious groups (Armfield & Holbert, 2003). Future investigations could attempt to collect a stratified sample that is more representative of the Jewish population as a whole, and use multiple methods of data collection. Third, while most single-item measures of global Jewish religiousness used in this study were uncorrelated with self-reported anxiety, depression, and happiness, it is possible that other facets of general Jewish religiousness (e.g., Sabbath observance, adherence to Jewish dietary laws) are related to these variables, and future studies could examine links between these and other global Jewish variables with psychological health. Fourth, the mistrust in God subscale contains only four items, and two of the core beliefs associated with the construct are not represented in the measure (the factor loadings of the items corresponding to these facets were too low to include in the final scale). Given the two-factor solution found in the present study, it would be advantageous to expand the measure of trust in God to include a greater number of negative items. This would likely result in a more balanced representation of trust in God concepts across its two dimensions. Fifth, the cross-sectional design of the present study renders it incapable of testing the direction of influence between trust in God and anxiety, depression, and happiness. Longitudinal designs and experimental methods must be employed to test whether a causal relationship exists between trust in God and psychological well-being. Finally, although
trust in God is theoretically compatible with all monotheistic religions, the present study was conducted with an exclusively Jewish sample, and so the results are inapplicable beyond the general Jewish population. It would be interesting to examine the psychological relevance of trust in God among Christians and/or Muslims, and compare the predictive validity of trust in God across a broader range of monotheistic individuals.

Notes
1. A Psycinfo search was conducted in November, 2007 for the following terms appearing in the abstract: “Jewish and anxiety”; “Jewish and depression”; “Jewish and happiness”; and “Jewish and well-being.” All titles and relevant abstracts were reviewed. Dissertation abstracts, case reports, comparative studies of Jewish and other religious groups, and studies of Jews that did not examine religious constructs were excluded.
2. For shatnez, a sixth response anchor was added: “I don’t know what shatnez is.”

References


