Religious Coping and Psychological Adjustment to Stress: A Meta-Analysis

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A growing body of literature suggests that people often turn to religion when coping with stressful events. However, studies on the efficacy of religious coping for people dealing with stressful situations have yielded mixed results. No published studies to date have attempted to quantitatively synthesize the research on religious coping and psychological adjustment to stress. The purpose of the current study was to synthesize the research on situation-specific religious coping methods and quantitatively determine their efficacy for people dealing with stressful situations. A meta-analysis of 49 relevant studies with a total of 105 effect sizes was conducted in order to quantitatively examine the relationship between religious coping and psychological adjustment to stress. Four types of relationships were investigated: positive religious coping with positive psychological adjustment, positive religious coping with negative psychological adjustment, negative religious coping with positive psychological adjustment, and negative religious coping with negative psychological adjustment. The results of the study generally supported the hypotheses that positive and negative forms of religious coping are related to positive and negative psychological adjustment to stress, respectively. Implications of the findings and their limitations are discussed. © 2004 Wiley Periodicals, Inc. J Clin Psychol 61: 461–480, 2005.

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Religion is a prominent force in many people's lives. In the United States, approximately 96% of adults express a belief in God (Princeton Religious Research Center, 1996) and

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72% identify religion as the single most important influence in their lives (Bergin & Jensen, 1990). In addition, the preponderance and success of numerous religious organizations throughout various communities illustrates the prevalence of religion in individual and social life. However, despite the obvious importance of religion for individuals and societies, psychologists and other social scientists as a whole have paid relatively little attention to religious phenomena within the empirical literature. Furthermore, when relationships between religion and mental health have been examined, religion has traditionally been investigated from a more general, dispositional perspective, using crude measures that often oversimplify the construct of religion and say little about how religion specifically operates in everyday life, particularly stressful situations.

Religion as a General, Dispositional Variable

Traditionally, studies examining relationships between religion and psychological adjustment to stress have oversimplified the construct of religion by using crude, often single-item, measures of religion and examining it from a more general, dispositional perspective. For example, McIntosh, Silver, and Wortman (1993) measured religious importance with a single item and examined its role among 124 parents coping with an infant's death from SIDS. Results of the study indicated that importance of religion was related to well-being three weeks after the child's death. Using a single item to measure strength of religious belief Ross (1990) examined the relationship between religion and psychological distress among 401 community respondents and found that those who had strong religious beliefs and those who had no religion had lower levels of distress compared to those who professed a weak belief or belonged to their religion out of indifference rather than commitment.

Other studies have examined organizational aspects of religion and psychological adjustment to stress. For example, greater frequency of church attendance has been associated with lower levels of depression in a sample of 96 male inmates over age 50 (Koenig, 1995) and a sample of 156 family members of accident victims and people who committed suicide (Sherkat & Reed, 1992). Flannelly and Inouye (2001) examined the relationship of religious affiliation (measured by a single item asking respondents whether or not they identified with any particular religious affiliation) to quality of life among 40 individuals with HIV and found that religious affiliation was positively associated with quality of life.

Although such studies reveal interesting relationships between religion and mental health and attest to the importance of religion for people managing stressful situations, such general religious dispositional variables (e.g., religiosity, frequency of church attendance, importance of religious belief, etc.) say little about the specific religious coping activities that people employ when dealing with life stressors. In order to better understand religion's role in the coping process and the specific functions which it serves, it is important to examine the dynamic ways in which people use their religion in specific situations. Pargament, Koenig, and Perez (2000) put it this way, "it is not enough to know that an individual prays, attends church, or watches religious television. Measures of religious coping should specify *how* the individual is making use of religion to understand and deal with stressors" (p. 521).

Religion as a Situation-Specific Variable

Recently, Pargament et al. (2000) developed and validated a comprehensive measure of 21 different types of situation-specific religious coping strategies that serve a variety of

functions: meaning, control, comfort/spirituality, intimacy/spirituality, and life transformation. These religious coping strategies have also been divided into positive and negative forms, allowing for more comprehensive investigations of religious coping and psychological adjustment to stress (Pargament, Smith, Koenig, & Perez, 1998; Pargament et al., 2000). Whereas positive religious coping strategies are typically related to more positive outcomes, negative religious coping strategies are generally related to more negative outcomes. This contention of mixed implications for religious coping and psychological adjustment has been supported by empirical research.

Many studies have found that religious coping is typically related to more positive outcomes to stressful events. For example, Pargament, et al. (1990) found that religious coping efforts involving the belief in a just and loving God, the experience of God as a supportive partner, involvement in religious rituals, and the search for spiritual and personal support were significantly related to better outcomes, such as recent mental health status and spiritual growth (also see Pargament, 1997 for a review). However, other studies have found religious coping to be related to more negative outcomes, such as greater distress while coping with the loss of a family member to homicide (Thompson & Vardaman, 1997) and more negative mood, lower self-esteem, and greater anxiety while coping with a major negative life event such as an illness or injury, death of a close friend or relative, or relationship problems (Pargament, Zinnbauer, Scott, Butler, Zerowin, & Stanik, 1998). Although the identification of situation-specific religious coping strategies has helped to clarify the functional role of religion in the coping process, implications of religious coping for people managing stressful situations are not entirely clear. Research on religious coping and psychological adjustment to stress has yielded mixed results.

To date, only one published study attempted to quantitatively synthesize the findings on religion and mental health (Bergin, 1983). In this meta-analysis, which tabulated 30 effect sizes, 47% manifested positive relationships between religion and mental health, 23% indicated a negative relationship, and 30% revealed no relationship. The researcher concluded that religiosity was not necessarily associated with psychopathology, but was only slightly correlated with positive aspects of mental health. However, in this study, religiosity was examined from a more general, dispositional perspective, which presents various limitations for our understanding of situation-specific religious coping and psychological adjustment to stress. While addressing the ambiguity of the data from his meta-analysis Bergin (1983) said, "Better specification of concepts and methods of measuring religiosity are alleviating this problem, which suggests that ambiguous results reflect a multidimensional phenomenon that has mixed positive and negative aspects . . . using specificity promises clearer and more powerful results" (p. 170). In the present study, examining situation-specific positive and negative religious coping strategies addresses the multidimensionality of religion and promotes clearer results by specifying positive and negative forms of religious expression.

The Present Study

The purpose of the current study was to synthesize the research on situation-specific religious coping methods and to examine their efficacy for people dealing with stressful situations. To this end, a meta-analysis of the appropriate literature was conducted in order to quantitatively evaluate the relationships between situation-specific religious coping strategies and psychological adjustment to stress. Given the multifaceted nature of religious coping, it was hypothesized that positive and negative forms of religious coping (as identified by Pargament et al., 2000; Pargament, Smith, Koenig, & Perez, 1998) would be related to more positive and negative outcomes to stressful events, respectively.

Specifically, four hypotheses were investigated: (1) positive religious coping would be positively associated with positive psychological adjustment, (2) positive religious coping would be negatively associated with negative psychological adjustment, (3) negative religious coping would be negatively associated with positive psychological adjustment, (4) and negative religious coping would be positively associated with negative psychological adjustment.

Methods

Operational Definitions

Religious coping was conceptualized using Pargament's (1997) model and operationally defined as "the use of religious beliefs or behaviors to facilitate problem-solving to prevent or alleviate the negative emotional consequences of stressful life circumstances" (Koenig, Pargament, & Nielsen, 1998, p. 513). In an attempt to account for the multifaceted nature of religious coping, both positive and negative forms of religious coping were identified. The positive strategies included (1) religious purification/ forgiveness; (2) religious direction/conversion; (3) religious helping; (4) seeking support from clergy/ members; (5) collaborative religious coping; (6) religious focus; (7) active religious surrender; (8) benevolent religious reappraisal; (9) spiritual connection; and (10) marking religious boundaries. The negative strategies included (1) spiritual discontent; (2) demonic reappraisal; (3) passive religious deferral; (4) interpersonal religious discontent; (5) reappraisal of God's powers; (6) punishing God reappraisal; and (7) pleading for direct intercession (see Pargament et al., 2000 for definitions of these specific religious coping strategies; Pargament, Smith, et al., 1998).

Psychological adjustment was operationally defined as psychological outcomes to religiously oriented efforts employed to manage the negative impact of stressful situations. In order to accommodate the positive and negative dichotomy of religious coping and simplify the design of the study, psychological adjustment variables were separated into positive and negative outcomes. Positive outcomes included (1) acceptance; (2) emotional well-being; (3) general positive outcome; (4) happiness; (5) hope; (6) life satisfaction; (7) optimism; (8) personal adjustment; (9) personal growth; (10) positive affect; (11) purpose in life; (12) recent mental health; (13) resilience; (14) satisfaction; (15) self-esteem; (16) spiritual growth; (17) stress-related growth; and (18) quality of life. Negative outcomes included (1) anxiety; (2) burden; (3) callousness; (4) depression; (5) distress; (6) global distress; (7) guilt; (8) hopelessness; (9) hostility; (10) impairment; (11) mood disturbance; (12) negative affect; (13) negative mood; (14) perceived stress; (15) PTSD symptoms; (16) social dysfunction; (17) specific distress; (18) spiritual injury; (19) suicidality; and (20) trait anger.

Search Strategy

Table 1 describes the search strategy and criteria for inclusion for the articles incorporated in this meta-analysis. A computer search of the PsycINFO database from 1967 to present was conducted using the keywords: religion, religiosity, religious coping, stress, and psychological adjustment. In addition, the ancestry approach was employed by obtaining references from Appendix D, "Summary of Research on the Relationship between Religious Coping Methods and Outcomes of Negative Events," of Pargament's (1997) volume, *The Psychology of Religion and Coping: Theory, Research, and Practice* (pp. 439–457). This literature search strategy generated a total of 141 potentially relevant articles,

Table 1
Criteria for Inclusion of Studies Into Meta-Analysis

Criteria for Inclusion	Number of Studies in Analyses
Original search	141
Published articles	104
Situation-specific religious coping	71
Psychological adjustment (outcome)	57
Bivariate correlations reported	49

which was systematically reduced when articles did not meet criteria for inclusion. Raters agreed upon 97% of the articles to be included in the analyses.

Criteria for Inclusion

The research synthesized in this meta-analysis involved quantitative studies that examined the relationship between religious coping and psychological adjustment to stress. The first criterion for being included in this analysis was that studies must have been published in professional journals in order to promote theoretical and methodological quality via professional peer review. From the total 141 potentially relevant articles identified, 37 studies were rejected because they were doctoral dissertations, paper presentations at professional conferences, or unpublished manuscripts. This exclusion of unpublished articles reduced the total to 104 potentially relevant studies.

In an attempt to remain consistent with the operational definitions specified in this study, only articles that investigated situation-specific religious coping methods were included in this review. This relatively parsimonious criterion for inclusion made it possible to examine the functional aspects of religion with greater specificity by distinguishing situation-specific religious coping strategies (e.g., positive and negative forms of religious coping) from more general, dispositional variables (e.g., religiosity, religious affiliation, religious orientation, frequency of church attendance, etc.). According to this second criterion, only 71 of the remaining articles met the requirements for inclusion; 33 studies were eliminated from the former total of 104 because they only investigated general, dispositional religious variables.[1]

The third requirement for inclusion into the analyses was that studies must have examined some form of psychological adjustment as an outcome to religious coping with stress. Therefore, 14 studies that exclusively investigated physical health or physiological adjustment (e.g., blood pressure, heart rate, mortality, etc.) as an outcome variable were excluded from the remaining 71 articles. This exclusion reduced the total to 57 potentially relevant studies.

Finally, only studies that reported bivariate correlations between situation-specific religious coping methods and psychological adjustment outcomes were included in the analyses. This final criterion for inclusion resulted in the rejection of eight articles that did not include bivariate correlation coefficients because they exclusively performed other statistical procedures, such as hierarchical multiple regression analyses, path

[1]In order to promote consistency, all situation-specific religious coping activities reported could be theoretically subsumed under at least one subscale of Pargament et al.'s (2000) RCOPE measure.

analyses, or multiple analysis of variance. This exclusion resulted in a final total of 49 relevant studies.[2] Table 2 presents all of the studies included in the meta-analysis and identifies the measures used for the positive and negative religious coping and psychological adjustment variables in each study.

Procedure

After the identification of the 49 relevant studies, articles were coded to allow for data entry and analysis. Demographic variables were coded, including total sample size, number of males and females, average age, education, and religious affiliation. Table 3 lists the demographic information for the studies included in this meta-analysis. Next, religious coping and psychological adjustment variables were dichotomized into positive and negative domains using the criteria from the aforementioned operational definitions. Two psychology graduate students familiar with the literature on religious coping and psychological adjustment conducted this procedure after participating in a one-hour training session conducted by the primary author. The training session involved a review of the studies included in this meta-analysis and clarified the criteria for dichotomizing the religious coping and psychological adjustment variables.

Effect size estimates were obtained by averaging the Pearson product moment correlation coefficients across the positive and negative domains of both religious coping and psychological adjustment variables, yielding a total of 105 effect sizes from the four relationships examined across all 49 studies. Specifically, 29 effect size estimates were generated from 29 studies reporting effect sizes for the relationship between positive religious coping and positive psychological adjustment. The second relationship examined, positive religious coping and negative psychological adjustment, generated 38 effect size estimates. Sixteen effect size estimates were obtained from 16 different studies reporting effect sizes for the relationship between negative religious coping and positive psychological adjustment. Finally, 22 studies reported effect sizes between negative religious coping and negative psychological adjustment, yielding 22 effect size estimates for the final relationship examined in this meta-analysis.

The correlation coefficient effect size estimates were then converted to a common metric in the statistical software package, MetaWin (Version 2.0), using Fisher's z transformation, represented as $Z_r = \frac{1}{2} \log_e(1+r/1-r)$. Fisher's z transformation allows effect sizes (r's) from different populations to be combined and compared by converting them to a common metric, Z_r, that is distributed nearly normally (see Rosenthal, 1991). In the current study, this conversion yielded effect sizes for four different types of relationships: (1) positive religious coping with positive psychological adjustment; (2) positive religious coping with negative psychological adjustment; (3) negative religious coping with positive psychological adjustment; and (4) negative religious coping with negative psychological adjustment. Table 4 lists the individual effect size estimates calculated from each study with their corresponding Fisher's z transformations.

After obtaining Z_r's for all relevant studies, summary analyses were conducted in MetaWin (Version 2.0) and cumulative effect sizes were obtained for the four types of relationships specified, yielding a total of four cumulative effect sizes. Additionally, a Q_T statistic was calculated in order to examine the total heterogeneity of the effect sizes from

[2] Six of the articles included in the meta-analysis (Cohen, 2002; Exline, Yali, & Sanderson, 2000; Fiala, Bjorck, & Gorsuch, 2002; Maton 1989; Pargament, Smith, Koenig, & Perez, 1998; Watson, Morris, Hood, & Folbrecht, 1990) involved multiple studies using different measures with different samples. For the purpose of this meta-analysis, the studies were treated as individual studies within their respective references. (See Table 2 for clarification.)

the sample. Finally, Rosenthal's (1979) (as cited in, Rosenberg, Adams, & Gurevitch, 2000) fail-safe tests were calculated in order to determine the number of nonsignificant, unpublished studies that need to be added to a summary analysis in order to change the results from significant to nonsignificant. These fail-safe tests have the capability of providing some reassurance that the file-drawer problem was not an issue in the current study.

Results

The total number of participants across all 49 studies included in this meta-analysis was 13,512. Of 47 studies (n = 13,107) reporting demographic information on gender, 40% (n = 5,270) were male and 60% (n = 7,837) were female. The mean age for a sample of 43 studies (n = 12,607) reporting this information was 42.01 years, with a range of 17–97 years. Of 27 studies (n = 6,186) reporting information on education levels, 12% (n = 713) of the sample had a high-school education, 74% (n = 4,563) had at least some college education, and 14% (n = 910) were unspecified. Thirty-five studies (n = 8,115) reported information on religious affiliation, of which 57% (n = 4,638) were Protestant, 28% (n = 2,304) were Catholic, 13% (n = 1,027) declared other religious affiliations such as Judaism, Islam, Buddhism, etc., and 2% (n = 146) were unspecified. In regards to ethnicity, the majority of the participants across 35 studies (n =11,001) was White/European-American (65%, n = 7,186), 13% (n = 1,451) were Black/African-American, 14% (n = 1,475) declared other ethnicities, such as Hispanic, Asian, Native-American/American-Indian, Middle-Eastern, etc., and 8% (n = 889) were unspecified.

Table 5 contains the results for the summary analyses performed for each hypothesis examined in this meta-analysis. For the first relationship examined, positive religious coping and positive psychological adjustment, 29 converted effect sizes (Z_r's) were combined to yield a cumulative effect size of .33, indicating that a moderate positive relationship exists between positive religious coping and positive psychological adjustment. The 95% confidence interval for the obtained cumulative effect size was .30–.35. The results from this analysis also indicated that there was significant heterogeneity of variance among the effect sizes from this sample (Q_T = 358.77, $p < .01$). Finally, the results of Rosenthal's fail-safe test revealed that 10,039.5 contradictory results from other studies would have to be added to this analysis in order to disconfirm the obtained significant association between positive religious coping and positive psychological adjustment.

For the second relationship examined, 38 converted effect sizes (Z_r's) were combined and yielded a cumulative effect size of −.12, indicating that a modest inverse relationship exists between positive religious coping and negative psychological adjustment. The cumulative effect size for this relationship had a 95% confidence interval of −.14–−.10. The 38 effect sizes combined in this analysis displayed total heterogeneity of variance (Q_T = 285.02, $p < .01$) and 1,059 (Rosenthal's fail-safe test) contradictory results from other studies would be needed to disconfirm the significant inverse relationship obtained between positive religious coping and negative psychological adjustment.

For the third relationship examined, negative religious coping with positive psychological adjustment, 16 effect sizes were combined to yield a cumulative effect size of .02, indicating that no significant relationship exists between negative religious coping and positive psychological adjustment because the confidence interval contains zero (95% C.I. = −.02–.05). Accordingly, since the results for this analysis failed to reach significance, Rosenthal's fail-safe test revealed that no studies would have to be added to the analyses in order to disconfirm the results. Furthermore, the effect sizes from this sample displayed significant heterogeneity of variance (Q_T = 68.79, $p < .01$).

Table 2
Studies Included in Meta-Analysis With Religious Coping and Psychological Variables

Study	Reference	Positive Religious Coping	Negative Religious Coping	Positive Psych. Adjustment	Negative Psych. Adjustment
1	Abernethy, Chang, Seidlitz, Evinger, & Duberstein (2002)	Unique Measure (SC)	–	–	Depression (Observer Rated)
2	Ai, Peterson, & Huang (2003)	Brief RCOPE (+RC Subscale)	Brief RCOPE (−RC Subscale)	Optimism, Hope	–
3	Alferi, Culver, Carver, Arena, & Antoni (1999)	COPE (SSCM, SC)	–	–	Distress
4	Bickel, Ciarrocchi, Sheers, Estadt, Powell, & Pargament (1998)	Religious Problem Solving Scale (CRC)	Religious Problem Solving Scale (PRD)	–	Depression
5	Bjorck, Cuthbertson, Thruman, & Lee (2001)	Unique Measure (CRC, SC)	–	–	Depression, Anxiety
6	Bush, Rye, Brant, Emery, Pargament, & Riessinger (1999)	+RC Subscale	–	Spiritual Growth	–
7	Case & McMinn (2001)	Brief RCOPE (+RC Subscale)	Brief RCOPE (−RC Subscale)	–	Distress, Impairment
8	Cohen (2002)	Unique Measure (SSCM, SC, CRC)	–	Happiness	–
9	Cohen (2002)	Unique Measure (SSCM, SC, CRC)	–	Life Satisfaction	–
10	Cohen (2002)	Unique Measure (SSCM, SC, CRC)	–	Happiness, Life Satisfaction	–
11	Exline, Yali, & Lobel (1999)	–	Unique Measure (SD)	–	Anxiety, Trait Anger, Depression
12	Exline et al. (2000)	Unique Measure (SC)	Unique Measure (SD, PGR, IRD)	–	Depression
13	Exline et al. (2000)	Unique Measure (SC)	Unique Measure (SD, PGR, IRD)	–	Depression, Suicidality
14	Fiala et al. (2002)	Unique Measure (SSCM, SC, CRC)	–	Life Satisfaction	Depression
15	Fiala et al. (2002)	Unique Measure (SSCM, SC, CRC)	–	Life Satisfaction	Depression
16	Fitchett, Rybarczyk, DeMarco, & Nicholas (1999)	Brief RCOPE (+RC Subscale)	Brief RCOPE (−RC Subscale)	Acceptance, Life Satisfaction	Spiritual Injury, Depression
17	Ironson et al. (2002)	Unique Measure (SC, CRC, RH)	–	–	Perceived Stress, Hopelessness, Anxiety, Depression
18	Kaiser (1991)	Religious Problem Solving Scale (CRC)	Religious Problem Solving Scale (PRD)	–	Guilt
19	Kim & Seidlitz (2002)	COPE-S (SC)	–	Positive Affect	Negative Affect
20	Koenig, Pargament, & Nielsen (1998)	Positive Religious Coping (12 Subscales)	Negative Religious Coping (9 Subscales)	Quality of Life, Spiritual Growth, Stress Related Growth	Depression
21	Littrell & Beck (1999)	COPE (SC)	–	Mastery, Self-Esteem, Optimism, Resilience	Depression
22	Loewenthal, MacLeod, Goldblatt, Lubitsh, & Valentine (2000)	Unique Measure (ARS, SC)	–	Positive Affect	Distress
23	Maltby & Day (2003)	Brief RCOPE (+RC Subscale)	–	–	Depression, Anxiety, Social Dysfunction
24	Maton (1989)	Unique Measure (SC)	–	Self-Esteem	Depression
25	Maton (1989)	Unique Measure (SC)	–	Personal Adjust. Social Adjust.	–
26	Mickley, Pargament, Brant, & Hipp (1998)	+ Religious Reappraisals (BRR)	Religious Appraisals (DR, PGR, RGP, SD)	General Outcome, Spiritual Growth, Purpose in Life	Depression, Anxiety

27	Miltiades & Pruchno (2002)	Unique Measure (SC)	–	Satisfaction	Burden
28	Nooney & Woodrum (2002)	Brief RCOPE (BRR, CRC, SC)	–	–	Depression
29	Pargament, Cole, Vandecreek, Beavich, Brant, & Perez (1999)	Collaborative Religious Coping	Pleading for Direct Intercession	General Outcome, Spiritual Growth	Depression, Anxiety
30	Pargament et al. (1990)	RC Activities (SC, RH, SSCM, RF)	RC Activities (SD, PDI)	General Outcome, Recent Mental Health, Spiritual Growth	–
31	Pargament, Kennell, Hathaway, Grevengoed, Newman, & Jones (1988)	Religious Problem Solving Scale (CRC)	Religious Problem Solving Scale (PRD)	Self-Esteem	–
32	Pargament et al. (2000)	RCOPE (+RC Subscale)	RCOPE (−RC Subscale)	Recent Mental Health, Stress Related Growth, Spiritual Growth	Specific Distress
33	Pargament, Smith, et al. (1998)	Brief RCOPE (+RC Subscale)	Brief RCOPE (−RC Subscale)	Stress Related Growth, Spiritual Growth	PTSD Symptoms, Callousness
34	Pargament, Smith, et al. (1998)	Brief RCOPE (+RC Subscale)	Brief RCOPE (−RC Subscale)	Stress Related Growth, Spiritual Growth	Specific Distress, Global Distress
35	Pargament, Smith, et al. (1998)	Brief RCOPE (+RC Subscale)	Brief RCOPE (−RC Subscale)	Stress Related Growth, Spiritual Growth, Quality of Life	Depression
36	Pargament, Zinnbauer, et al. (1998)	–	Negative Religious Coping (11 Subscales)	General Outcome, Spiritual Growth	Negative Mood
37	Park & Cohen (1993)	RC Activities (SC, SSCM, RH, RF)	RC Activities (SD, PDI)	Personal Growth	Depression, Distress
38	Peterman, Fitchett, Brady, Hernandez, & Cella (2002)	Unique Measure (SC)	–	Emotional Well-Being	Depression, Anxiety, Mood Disturbance
39	Roesch & Ano (2003)	RC Activities (SC, RH, SSCM, RF)	RC Activities (SD, PDI)	Spiritual Growth	Depression
40	Schaefer & Gorsuch (1991)	Religious Problem Solving Scale (CRC)	Religious Problem Solving Scale (PRD)	–	Anxiety
41	Shah, Snow, & Kunik (2001)	RC Activities (SC, SSCM, RH, RF)	RC Activities (SD, PDI)	–	Depression, Burden
42	Smith, Pargament, Brant, & Oliver (2000)	RC Activities (SC, SSCM, RH, RF)	RC Activities (SD, PDI)	Recent Mental Health, Spiritual Growth	–
43	Tarakeshwar & Pargament (2001)	Brief RCOPE (+ RC Subscale)	Brief RCOPE (− RC Subscale)	Spiritual Growth, Stress-Related Growth	Depression, Anxiety
44	Thompson & Vardaman (1997)	RC Activities (SC, SSCM, RH, RF)	RC Activities (SD, PDI)	–	PTSD Symptoms Distress
45	Underwood & Teresi (2002)	Unique Measure (SC, CRC, RH)	–	Quality of Life, Optimism	Depression, Anxiety, Perceived Stress, Hostility
46	Watson et al. (1990)	Unique Measure (ARS, CRC)	–	–	Distress
47	Watson et al. (1990)	Unique Measure (ARS, CRC)	–	–	Depression
48	Woods, Antoni, Ironson, & Kling (1999)	COPE (SC, CRC)	–	–	Depression
49	Woods et al. (1999)	COPE (SC, CRC)	–	–	Depression, Anxiety

Note. The items in parentheses represent the religious coping subscale from Pargament et al. (2000) that the measure employed in each study could be theoretically subsumed under. ARS = Active Religious Surrender; BRR = Benevolent Religious Reappraisal; CRC = Collaborative Religious Coping; DR = Demonic Reappraisal; IRD = Interpersonal Religious Discontent; PDI = Pleading for Direct Intercession; PGR = Punishing God Reappraisal; PRD = Passive Religious Deferral; RH = Religious Helping; RF = Religious Focus; SC = Spiritual Connection; SD = Spiritual Discontent; SSCM = Seeking Support from Clergy or Members.

Table 3
Demographic Information for Studies Included in Meta-Analysis

		Gender (*n*)		Age (*n*)		Education (*n*)		Religious Affiliation (*n*)			Ethnicity (*n*)		
Study	*N*	Male	Female	Mean	Range	High School	College	Protestant	Catholic	Other	White	Black	Other
1	156	35	121	63.88	26–85	–	–	–	–	–	150	4	2
2	138	75	63	35.10	17–79	54	27	0	8	128	0	0	136
3	49	0	49	56.37	35–78	–	–	12	37	0	0	0	49
4	245	115	130	53.3	–	–	–	245	0	0	–	–	–
5	228	125	103	24.51	–	–	–	–	–	–	86	0	142
6	61	12	49	47	22–72	11	44	43	9	9	48	11	2
7	400	202	198	52	30–79	0	400	–	–	–	379	4	17
8	2,279	934	1,345	47.90	–	–	–	1,524	705	50	1,823	–	–
9	309	82	227	33.33	–	–	–	120	94	95	–	–	–
10	163	41	122	–	17–23	–	163	96	67	0	–	–	–
11	200	60	140	19.70	–	0	200	49	91	60	102	32	66
12	200	60	140	20	–	0	200	46	94	60	102	32	66
13	54	11	43	40	–	–	–	8	39	7	22	10	22
14	249	87	162	49.26	22–90	42	207	249	0	0	189	35	25
15	93	36	57	50.06	28–89	11	82	93	0	0	70	8	15
16	114	38	76	65.2	29–86	–	–	48	49	17	77	30	7
17	279	209	70	39.08	–	173	106	53	103	123	85	95	99
18	121	52	69	22.45	17–47	0	121	79	25	17	–	–	–
19	113	73	40	20	19–33	0	113	35	15	63	–	–	–
20	577	300	277	68.4	55–97	–	–	–	–	–	358	219	0
21	91	91	0	38.00	19–59	–	–	–	–	–	0	91	0

22	126	48	78	39.1	–	–	–	68	0	58	–	–	–
23	360	187	173	38.87	21–47	–	138	–	–	–	235	125	0
24	81	19	62	46.3	–	–	–	–	–	–	80	–	1
25	68	–	–	–	–	0	68	–	–	–	–	–	–
26	92	20	72	56.6	25–84	28	28	45	27	20	–	–	–
27	142	0	142	64.18	50–84	–	–	94	38	10	71	71	0
28	337	–	–	–	–	–	–	–	–	–	–	–	–
29	150	45	105	43	18–75	–	77	98	–	–	130	–	–
30	586	200	386	46	–	–	222	–	–	–	562	–	–
31	197	85	112	46	–	–	–	197	0	0	–	–	–
32	540	168	372	19	18–38	0	540	221	243	76	502	–	–
33	296	110	186	59.30	–	–	260	293	–	–	287	–	–
34	540	168	372	19	18–38	0	540	221	243	76	496	–	–
35	413	214	199	68.40	55–97	297	–	–	–	–	256	–	–
36	245	75	170	35	18–81	16	229	86	133	26	221	–	–
37	96	26	70	19.56	–	0	96	52	44	0	–	–	–
38	1,617	760	857	54.60	18–90	–	–	–	–	–	396	503	718
39	117	50	67	34.74	–	–	–	98	10	9	51	4	62
40	161	47	98	–	–	0	161	72	–	–	–	–	–
41	48	13	35	64.80	41–87	–	–	32	7	9	45	1	2
42	131	50	81	–	–	–	–	98	33	0	125	–	–
43	45	2	43	–	–	–	–	17	12	16	41	2	2
44	150	21	129	49.60	23–74	–	–	146	2	2	–	135	–
45	233	0	233	46.76	–	–	–	42	123	68	139	–	–
46	280	138	142	22.10	–	0	280	–	–	–	–	–	–
47	203	80	123	20.70	–	0	203	–	–	–	–	–	–
48	106	106	0	35.40	–	73	33	30	51	25	58	6	42
49	33	0	33	31.70	–	8	25	28	2	3	0	33	0

Table 4
Individual Effect Sizes Calculated With Corresponding Fisher's Z Transformations

Study	Effect 1	Z_r1	Effect 2	Z_r2	Effect 3	Z_r3	Effect 4	Z_r4
1	–	–	−.06	−.06	–	–	–	–
2	.20	.20	–	–	−.17	−.17	–	–
3	–	–	−.18	−.18	–	–	–	–
4	–	–	−.15	−.15	–	–	.03	.03
5	–	–	−.01	−.01	–	–	–	–
6	.78	1.05	–	–	–	–	–	–
7	–	–	.10	.10	–	–	.32	.33
8	.09	.09	–	–	–	–	–	–
9	.28	.29	–	–	–	–	–	–
10	.57	.65	–	–	–	–	–	–
11	–	–	–	–	–	–	.26	.27
12	–	–	−.08	−.08	–	–	.38	.40
13	–	–	−.09	−.09	–	–	.39	.41
14	.36	.38	−.29	−.30	–	–	–	–
15	.30	.31	−.25	−.26	–	–	–	–
16	.08	.08	−.11	−.11	−.08	−.08	.39	.41
17	–	–	−.31	−.32	–	–	–	–
18	–	–	.46	.50	–	–	.43	.46
19	.09	.09	−.06	−.06	–	–	–	–
20	.33	.34	−.02	−.02	.00	.00	.15	.15
21	.23	.23	.00	.00	–	–	–	–
22	.24	.24	−.07	−.07	–	–	–	–
23	–	–	−.41	−.44	–	–	–	–
24	.15	.15	−.23	−.23	–	–	–	–
25	.17	.17	–	–	–	–	–	–
26	.24	.24	−.01	−.01	−.05	−.05	.16	.16
27	.25	.26	−.02	−.02	–	–	–	–
28	–	–	−.20	−.20	–	–	–	–
29	.63	.74	.36	.38	.44	.47	.49	.54
30	.30	.31	–	–	−.08	−.08	.00	.00
31	.27	.28	–	–	−.35	−.37	–	–
32	.44	.47	−.08	−.08	.13	.13	.07	.07
33	.59	.68	.16	.16	.15	.15	.38	.40
34	.55	.62	−.02	−.02	.10	.10	.16	.16
35	.42	.45	−.04	−.04	−.02	−.02	.31	.32
36	–	–	–	–	−.16	−.16	.33	.34
37	.25	.26	.00	.00	.00	.00	.49	.54
38	.35	.37	−.27	−.28	–	–	–	–
39	.67	.81	−.09	−.09	.19	.19	.43	.46
40	–	–	−.32	−.33	–	–	−.37	−.39
41	–	–	−.10	−.10	–	–	.27	.28
42	.33	.34	–	–	.14	.14	–	–
43	.63	.74	−.01	−.01	−.13	−.13	.21	.21
44	–	–	−.02	−.02	–	–	.36	.38
45	.30	.31	−.24	−.24	–	–	–	–
46	–	–	.07	.07	–	–	–	–
47	–	–	−.27	−.28	–	–	–	–
48	–	–	−.31	−.32	–	–	–	–
49	–	–	−.51	−.56	–	–	–	–

Note. Effect 1 = positive religious coping and positive psychological adjustment; Effect 2 = positive religious coping and negative psychological adjustment; Effect 3 = negative religious coping and positive psychological adjustment; Effect 4 = negative religious coping and negative psychological adjustment; Z_r = Fisher's *Z* transformation.

Table 5
Summary Statistics for Religious Coping and Psychological Adjustment

	Number of Studies	Cumulative Effect Size	Confidence Interval (95%)	Q_T Statistic	Fail-safe Test
Positive religious coping with positive adjustment	29	.33*	.30–.35	358.77* ($p < .01$)	10,039.5
Positive religious coping with negative adjustment	38	−.12*	−.14–.10	285.02* ($p < .01$)	1,059.1
Negative religious coping with positive adjustment	16	.02	−.02–.05	101.39* ($p < .01$)	0.00
Negative religious coping with negative adjustment	22	.22*	.19–.24	188.35* ($p < .01$)	2,190.4

Note. * illustrates significant findings.

The final analysis revealed that, although modest, a significant positive relationship exists between negative religious coping and negative psychological adjustment (cumulative effect size from 22 Z_r's = .22, 95% C.I. = .19–.24). The 22 effect sizes in this sample displayed significant heterogeneity of variance ($Q_T = 188.35$, $p < .01$) and Rosenthal's fail-safe test indicated that 2,190.4 contradictory results from other studies would have to be added to this analysis in order to disconfirm the significant positive association obtained between negative religious coping and negative psychological adjustment.

Discussion

The purpose of this study was to synthesize the literature and examine the relationship between situation-specific religious coping strategies and psychological adjustment for people dealing with stressful life situations. To that end, a meta-analysis of 49 relevant studies was conducted in order to quantitatively examine the relationship between religious coping and psychological adjustment to stress. In general, the results of this study indicated that religious coping strategies are significantly associated with psychological adjustment to stress.

More specifically, the results of this meta-analysis supported the first hypothesis, indicating that a moderate positive relationship exists between positive religious coping strategies and positive outcomes to stressful events. That is, individuals who used religious coping strategies such as benevolent religious reappraisals, collaborative religious coping, seeking spiritual support, etc. typically experienced more stress-related growth, spiritual growth, positive affect, and had higher self-esteem, etc. One possible explanation for this finding may be that positive religious coping methods serve a variety of adaptive functions. Although causal inferences between religious coping and adjustment cannot be derived from the current study because of its cross-sectional design, previous studies using longitudinal designs have helped to clarify the temporal linkages between religious coping and adjustment. For example, Tix and Frazier (1998) examined the effects of religious coping among patients and their significant others coping with the stress of kidney transplant surgery. In their study, they used a longitudinal design and measured psychological adjustment at three and 12 months post-transplantation. Hierarchical regres-

sion analyses showed that religious coping was generally associated with better psychological adjustment both concurrently and over time at three and 12 months follow-up for both patients and significant others. Furthermore, religious coping added a unique component to the prediction of psychological adjustment and could not be explained by other possible mediating factors, such as cognitive restructuring, social support, and perceived control. Thus, positive religious coping served some adaptive functions and led to some relatively long-term improvements in mental health among patients and their significant others.

The second hypothesis that positive religious coping strategies are inversely related to negative psychological adjustment was supported by the results of this meta-analysis. That is, individuals who used positive religious coping strategies experienced less depression, anxiety, distress, etc. This finding lends further support to the notion that positive religious coping strategies may serve some adaptive functions. Again, causal inferences between religious coping and adjustment cannot be derived from the current study because of its cross-sectional design. However, this finding is consistent with another study that has helped to demonstrate the temporal precedence of religious coping over psychological adjustment by using a longitudinal design. Working with a sample of college students, Pargament et al. (1994) examined the relationship between religious coping with the Gulf War and adjustment both concurrently and at three weeks follow-up. After controlling for Time 1 distress and other relevant demographic and predictor variables, hierarchical regression analyses indicated that positive religious coping strategies at Time 1 predicted decreases in distress at Time 2. As a result, the researchers concluded that "the relationship of religious coping to distress is not simply a result of retrospective bias" and that religious coping has significant implications for distress levels over time (p. 357). Thus, in light of previous research employing longitudinal designs, the results of the current study suggest that positive religious coping may serve some adaptive functions.

The results of this meta-analysis did not support the third hypothesis that negative religious coping is inversely related to positive psychological adjustment. In other words, people who felt punished by God, attributed their situation to the work of the devil, etc., did not necessarily report lower self-esteem, less purpose in life, lower spiritual growth, etc. One explanation for this finding is that, although negative religious coping may be harmful, it does not necessarily prevent people from experiencing positive outcomes. In fact, a few empirical studies have shown that negative religious coping is associated with some positive outcomes, such as stress-related growth and spiritual growth (Koenig et al., 1998; Pargament et al., 1999; Pargament et al., 2000; Smith, Pargament, Brant, & Oliver, 2000). Therefore, some forms of negative religious coping may represent spiritual struggles that are actually pathways on the road towards growth, a notion that is consistent with various religious traditions that teach that struggle often precedes growth.

Finally, the results of this meta-analysis supported the fourth hypothesis that negative religious coping strategies are positively associated with negative psychological adjustment to stress. That is, individuals who reported using negative forms of religious coping experienced more depression, anxiety, distress, etc. One possible explanation for this finding is that negative religious coping represents a burden for people undergoing stressful situations. This finding is consistent with previous longitudinal research that has demonstrated the harmful effects of negative religious coping. For example, in the aforementioned study on religious coping with the Gulf War (Pargament et al., 1994), hierarchical regression analyses revealed that negative religious coping (e.g., religious avoidance) was associated with increases in global distress at three weeks follow up. In another

longitudinal study of religious coping among medical rehabilitation patients, negative religious coping was associated with poorer psychological adjustment both concurrently and at four months follow up (Fitchett, Rybarczyk, DeMarco, & Nicholas, 1999). Taken together, these studies suggest that negative religious coping leads to greater distress. Thus, consistent with previous research using longitudinal designs, the results of this meta-analysis indicate that negative religious coping appears to have some harmful effects and may represent a burden to people experiencing stressful situations.

Limitations and Future Directions

One of the major limitations of this study is its cross-sectional design. Although respondents were typically asked to rate what they did to deal with the stressful event and how they felt *after*, they rated both religious coping behaviors and outcomes at one point in time. Thus, causal statements that positive and negative religious coping strategies *result* in positive and negative outcomes, respectively, cannot necessarily be derived from this study because of its correlational methods and cross-sectional design. More longitudinal designs are needed to accurately assess the process and outcomes of religious coping.

A second limitation of this meta-analysis is that all of the studies used self-report measures. Thus, the accuracy of the reports may be influenced by the respondents' subjective experiences and reconstruction of events. However, two studies (Abernathy, Chang, Seidlitz, Evinger, & Duberstein, 2002; Pargament et al., 2000) also included more objective outcome measures such as observer-rated depression, cooperativeness, and number of medical diagnoses. Future studies should incorporate similar methods so that findings cannot be fully explained by a mono-method self-report bias.

A third limitation of this study is the heterogeneity of effect sizes obtained in this analysis. Because of the multifaceted nature of religious coping and the various indices of psychological adjustment, combining different religious coping strategies and different types of psychological adjustment into dichotomous constructs and examining them uniformly may violate the statistical assumption of homogeneity of variance. Furthermore, the wide gamut of stressful situations encountered by people across studies may also contribute to the heterogeneity of effect sizes. As previous research suggests (Mattlin, Wethington, & Kessler, 1990; McCrae, 1984), different types of situations may have different implications for coping and psychological adjustment to stress. Future research might attempt to specify relationships between individual subscales of religious coping and particular outcomes to similar types of stressful events.

Finally, the generalizability of these results is limited due to the predominance of Protestants and Catholics (85%) within this study. Because the religious coping strategies identified within this meta-analysis are based upon Judeo-Christian traditions, the implications of this study may not apply to other religious worldviews, particularly those that are not theocentric (e.g., Hinduism, Buddhism, Taoism, etc.). Future studies should examine the implications of religious coping for individuals from other religious traditions in order to understand how other religious beliefs and practices might contribute to the coping process.

Implications of the Study

The results of this study have several practical implications for the assessment, diagnosis, and treatment of individuals seeking counseling or psychotherapy. In terms of assess-

ment, the results of this study suggest that it may be important to explore people's religious coping strategies and determine whether or not their religion serves as a resource or burden for them in coping. Since negative religious coping was associated with negative outcomes in this study, it may be important for practitioners to listen carefully for themes of spiritual struggle when working with clients. Understanding negative forms of religious coping may help practitioners identify possible "warning signs" or "red flags" (Pargament, Zinnbauer, et al., 1998) in therapy and help them determine whether it might be important to address religious issues with their clients. For example, Exline et al. (2000) found that individuals who experienced greater religious strain expressed a greater interest in addressing religious issues in psychotherapy. However, clients experiencing spiritual struggles may be reluctant to address these concerns because of fears of rejection, disagreement of values, or pathologizing of religious beliefs and practices by their therapists. Thus, clinicians may need to take the initiative to address religious and spiritual issues with clients. In fact, Richards and Bergin (2002) suggest that it may be helpful to include religious and spiritual background questions as a standard part of any routine clinical intake assessment.

Since negative religious coping was associated with decreased mental health in the current study, it may be important to consider how religious and spiritual problems may contribute to one's diagnosis or vice versa. For example, feeling punished and abandoned by God may lead to feelings of guilt, depression, and loneliness; questioning God's powers may lead to feelings of hopelessness; attributing stressful situations to the work of the devil may provoke anxiety and fear; and expressing frustration and dissatisfaction with one's religious community may lead to social withdrawal and isolation. In contrast, particular diagnoses may predispose people to engage in certain types of negative religious coping strategies. For instance, people with dependent personality disorders may continuously defer the responsibility for improvement to God in a passive fashion; depressed individuals may consistently feel punished and abandoned by God as a result of their negative views of themselves; and people with narcissistic tendencies may refuse to take responsibility for their own shortcomings and constantly blame others in their religious community for their problems. Because of the cross-sectional nature of this study, it is not possible to determine whether particular religious beliefs and practices lead to negative symptoms or vice versa. However, Koenig and Larson (2001) suggested, "The apparent ill effects of religion may actually be the aberrant or conflictual use of religion by those with mental illness" (p. 75). This is an important suggestion to consider when diagnosing clients who are experiencing religious and spiritual problems.

Finally, the results of this meta-analysis have implications for the treatment of psychological disorders. Since religion provides a variety of resources and burdens for people dealing with stressful situations, sensitivity towards religious issues may be helpful (and crucial) for building the therapeutic alliance and promoting healing and growth for certain clients, particularly because religion is an important influence in many people's lives (Bergin & Jensen, 1990). In addition, because positive religious coping was associated with better psychological adjustment in the current study, understanding positive forms of religious coping may help practitioners to better assist their clients with accessing valuable spiritual resources. Some professionals have already begun to incorporate some "psychospiritual" interventions into their work with clients (e.g., Propst, 1988; Richards & Bergin, 2002). The results of the current study help to clarify some of the adaptive and maladaptive functions served by particular forms of religious coping and provide interesting and helpful insights for practitioners incorporating such "psychospiritual" interventions into treatment.

Conclusion

Despite its limitations, this study makes a significant contribution to the existing literature on religious coping and psychological adjustment to stress by quantitatively synthesizing the research on this topic and clarifying the nature and efficacy of religion in the coping process. In a recent review of the literature on religious coping, Harrison, Koenig, Hays, Eme-Akwari, and Pargament (2001) reported that positive religious coping strategies have consistently been associated with psychological adjustment variables such as self-esteem, life satisfaction, and quality of life, and negative religious coping strategies have consistently been related to more depressive symptoms. The results of this meta-analysis support these findings and also provide quantitative effect sizes to illustrate the strength of these relationships.

More generally, the current study helps to clarify the nature of the long debated relationship between religion and mental health. Traditionally, psychologists have held negative views of religion and have argued that religion promotes neurotic defenses (Freud, 1927) and irrational beliefs (Ellis, 1971). Early reviews of the empirical literature have supported such claims that religion has negative effects on mental health (e.g., Martin & Nichols, 1962). More recently, however, methodological advances have helped to balance the picture and have revealed positive associations between religion and mental health (see Larson et al., 1992 for a review). In an attempt to clarify the inconsistent findings on the relationship between religiosity and mental health, Bergin (1983) conducted a meta-analysis of 24 pertinent studies and found ambiguous results. Consequently, he concluded that religion is a complex phenomenon with numerous correlates and consequences that defy simple interpretations and argued the need for greater specificity in measuring religion. Because of methodological advances in measuring religious constructs since Bergin's (1983) study, the current meta-analysis was able to utilize such "greater specificity" by distinguishing between positive and negative forms of religious expression. As a result, the findings of the current study help to clarify the picture and, consistent with recent reviews of the empirical literature (e.g., Pargament, 2002; Koenig & Larson, 2001), indicate that religion has both positive and negative implications for mental health, depending upon what type of religion it is.

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