The Vigil: Religion and the Search for Control in the Hospital Waiting Room

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Abstract

This study examined how religion is involved in achieving a sense of personal control in a situation that evokes feelings of distress and vulnerability. One hundred and fifty family members, waiting in the hospital while their relative underwent coronary artery bypass surgery, completed a survey about their methods of coping, event-specific outcomes, and adjustment (depression and anxiety). As predicted, religious methods of coping designed to achieve control predicted outcomes and adjustment beyond the effects of non-religious coping measures and traditional general measures of religiousness. A collaborative approach to religious coping, in which the individual shares the responsibility for coping with God, was particularly associated with better outcomes. However, the religious coping measures were also associated with higher self-reported levels of depression and anxiety. Exploratory path analyses suggested that anxiety and depression may be stressors in themselves, eliciting religious coping responses which, in turn, lead to specific outcomes. These findings underscore the practical and empirical value of a closer, more detailed analysis of the roles of religion in coping with uncontrollable life stressors.

Keywords

religion, coping, control, mental health, surgery

MANY PEOPLE draw on their religious faith and practices in coping with critical life events (e.g. Koenig, George, & Siegler, 1988; Segall & Wykle, 1988–9). The wisdom of doing so is supported by studies that suggest religion may play a helpful role in the coping process, offering benefits even beyond those obtained through non-religious coping methods (Kirkpatrick, 1993; Maton, 1989; Pargament, 1997). Little, however, is understood about how and why religion is helpful.

Studies of religion and stressful life events typically take a macroanalytic approach. They focus on general measures of religiousness, such as: frequency of church attendance (Bohannon, 1991; Sanders, 1978); overall religious orientation, such as intrinsic, extrinsic, or quest (Acklin, Brown, & Mauger, 1983; Johnson & Spilka, 1991); and general measures of religious coping, such as ratings of the importance of faith in coping with medical problems (O'Brien, 1982). Only a few studies have taken a microanalytic approach by examining specific religious appraisals and coping activities, the different functions that religious coping serves in specific situations, and how these religious coping methods relate to outcomes. Thus, little is known about the finer details of religious life as they relate to the coping process. And yet, some evidence suggests that more specific measures of religious coping may be stronger predictors of coping outcomes than broad general measures of religiousness (Pargament et al., 1990; Pargament, 1997).

Using a microanalytic approach, this study focuses on how religion is involved in one particular function: achieving a sense of personal control in a situation that evokes feelings of distress and vulnerability. In this case, 150 family members are waiting in the hospital while their relative undergoes serious surgery for coronary artery bypass. They complete a questionnaire about their religious coping and adjustment.

Control and the coping process

Perceptions of control play an important role in coping with stressful experiences. Studies suggest that increased perception of control is related to better adjustment (Thompson, Sobolew-Shubin, Galbraith, Schwankovsky, & Cruzen, 1993), and may moderate the effects of stress (Stern, McCants, & Pettine, 1982; Tetrick & LaRocco, 1987; for a review see Litt, 1988). For example, Tetrick and LaRocco (1987) reported that perceptions of control buffer the negative relationship between job stress and job satisfaction for medical and dental personnel. Although there are some exceptions (see Burger, 1989; Folkman, 1984; Litt, 1988), taking steps to increase personal control in stressful situations seems generally beneficial.

Two different approaches to increasing control have been identified in the literature: primary and secondary. A primary approach to control refers to attempts to change the situation, and a secondary approach to control refers to efforts to change the self to adapt to the situation (Rothbaum, Weisz, & Snyder, 1982; Skinner, 1996; Weisz, McCabe, & Dennig, 1994). Both seem to be helpful in the coping process (Thompson, Nanni, & Levine, 1994). Of particular interest to our study are findings that suggest that secondary approaches to control are often relied upon when situational control is low (Band & Weisz, 1988; Folkman & Lazarus, 1980). And while not always the case (see Thompson, Collins, Newcomb, & Hunt, 1996), secondary approaches to control can be more helpful than primary approaches in low-control situations (Strentz & Auerbach, 1988; Weisz et al., 1994). For example, Strentz and Auerbach (1988) found that, in a low-control situation (a simulated abduction of hostages), participants who used emotion-focused coping (e.g. deep breathing, thought stopping, muscle relaxation) experienced less distress than those who used problem-focused coping.

Religion and the search for control in coping

Religious coping activities can function as both primary and secondary approaches to control. Primary approaches to control may be evident in intercessory prayers (i.e. prayers for a divine intervention). Here control over the situation is sought through a powerful other. Other religious coping activities are better understood as secondary approaches to control. A benevolent reframing of the situation (e.g. seeing a negative situation as a reflection of God's will), believing that the outcomes of events can be predicted and

discerned through prayer, and experiencing power by aligning oneself with God—these types of activities are adaptations of the self to the situation rather than direct changes to the situation. They illustrate forms of interpretive, predictive, and vicarious control, respectively (David, Ladd, & Spilka, 1992; Rothbaum et al., 1982; Spilka, 1993a, 1993b). Other religious activities that moderate the emotional distress associated with negative life events may also serve as secondary control functions (Cole & Pargament, in press). For example, meditation, contemplative prayer, rituals, or scripture readings may have a calming effect in response to difficult situations. In this vein, Carlson, Bacaseta, and Simanton (1988) found that prayer and devotional meditations were more effective than progressive muscle relaxation or no treatment in reducing anger and anxiety.

Like secondary approaches to control generally, religious coping activities that serve secondary control purposes may be especially important in low-control situations. Several studies have found that religion is particularly helpful when situations are uncontrollable (Bickel et al., 1998; Park, Cohen, & Herb, 1990; Siegel & Kuykendall, 1990; Williams, Larson, Buckler, Heckmann, & Pyle, 1991). For example, intrinsic religiousness reportedly has a stress-buffering effect for Protestants, decreasing levels of depression experienced across time following uncontrollable negative events (Park et al., 1990). These findings suggest that religious coping may be particularly important in situations that are not amenable to direct change, such as the context of this study—a waiting room for relatives of patients undergoing major surgery.

Four religious approaches to control in coping

Pargament and his colleagues have examined the roles of religion in the search for control in more detail. They have articulated four religious approaches to increasing control in the coping process: self-directing, collaborative, deferring, and pleading (Pargament et al., 1988, 1990). In the *self-directing* approach, the individual sees him- or herself as the locus of action and responsibility. God is perceived as giving the person resources he or she needs to handle the problem. In the *collaborative* approach the individual works hand in hand with God to solve the problem. God is experienced as a supportive partner who shares the responsibility for the problem-solving process. In the *deferring* approach, the individual turns the entire situation over to God, completely, relying on the deity to orchestrate the best outcome. And finally, in the *pleading* approach, the individual requests God's direct intervention in the situation to bring about a desired outcome.

Empirical studies have shown that both the collaborative and self-directing styles are generally associated with higher levels of mental health and competence; the deferring style, in contrast, is generally associated with lower levels of personal competence (Hathaway & Pargament, 1992; Pargament et al., 1988). But what is the value of various forms of religious coping in situations in which personal control is severely limited, such as an individual awaiting the results of a relative undergoing surgery? Some studies suggest that a collaborative or deferring style may be more adaptive than the self-directing style when individuals experience a major uncontrollable negative life event (Bickel et al., 1998; Pargament et al., 1990). Unlike the self-directing approach, the collaborative and deferring forms of religious coping may assist the individual by facilitating secondary control through a relationship with or reliance on a benevolent powerful other. The implications of pleading in low-control situations are less certain. Pleading with God may increase primary control through God; however, pleading may also reflect a state of hopeless desperation and inability to adapt to the situation.

The present study

The present study examined in detail the process of religious coping in a surgical waiting room setting. It focused on specific methods of religious coping that, theoretically, function to increase control. Two types of dependent measures were included: event-specific outcomes and general adjustment. The event-specific outcomes tapped both coping outcomes (i.e. evaluations of how well individuals coped) and religious outcomes (i.e. evaluations of the degree to which individuals grew religiously as a result of the

situation). The general adjustment measures assessed two mood-related problems: anxiety and depression. Two sets of hypotheses were generated. Set 1 addressed event-specific outcomes. Set 2 addressed the general adjustment measures.

Set 1

Three hypotheses concerning the event-specific outcomes were considered. First, it was hypothesized that control-oriented ways of religious coping would predict event-specific outcomes (coping outcomes and religious outcomes) over and above the effects of control-oriented non-religious ways of coping. Religious ways of coping, we believed, would provide individuals with benefits beyond what could be achieved through only non-religious mechanisms. Second, it was hypothesized that control-oriented religious coping measures would predict event-specific outcomes better than traditional measures of religiousness (e.g. frequency of prayer, frequency of church attendance) that are not tied to a specific function of coping. And third, the four religious approaches to coping were expected to relate differentially to the event-specific outcomes. More specifically, the deferring and collaborative approaches were expected to relate positively to coping outcomes and religious outcomes, and the self-directing approach was expected to be unrelated to coping or religious outcomes. No hypothesis was formulated concerning the pleading approach given its questionable role in extending personal control.

Set 2

Two contrasting models were considered with respect to the measures of general adjustment (depression and anxiety) and their relationship to the four religious coping approaches. First, anxiety and depression may be conceptualized as measures of adjustment to the situation akin to the event-specific outcomes. In this case, deferring and collaborative approaches would increase personal control and thus reduce levels of anxiety and depression. In addition, the self-directing approach would likely be less effective in this regard and thus be unrelated to anxiety and depression. The effects of pleading would again be less certain. The second possibility is that anxiety and depression act as stressors in themselves or 'coping mobilizers' that elicit religious coping responses which, in turn, affect event-specific outcomes. To put it another way, people in crisis cope with their distressing feelings about the event as well as the event itself. In this vein, a few studies suggest that distressing emotions such as anxiety or depression take on the mobilizer role, evoking coping activities (e.g. Pargament et al., 1994). If this is the case, then anxiety and depression would predict higher levels of coping activity directed at increasing control; that is, higher levels of deferring, collaborative, self-directing, and possibly pleading approaches to religious coping. Regression analyses and path analyses were planned to test these two contrasting sets of models.

To test these two sets of hypotheses, families waiting for a relative undergoing coronary artery bypass grafting (CABG) completed a questionnaire which included: demographic information; traditional general measures of religious behavior; control-oriented non-religious coping scales; measures of control-oriented religious coping; and measures of the four dependent variables (coping outcomes, religious outcomes, anxiety, and depression).

Methods

Participants

Two hundred and sixteen people waiting for a relative in surgery were asked to participate. Some declined (n = 20) or returned incomplete materials (n = 30). Sixteen questionnaires were lost because family members left the waiting room before returning them. A total of 150 participants returned completed questionnaires.

The respondents were predominantly white (87 percent), married (75 percent), Protestant (65 percent), and female (70 percent). A majority (81 percent) had been in the waiting room at least 2 hours before completing the questionnaire. The mean age was 43 years (range 18–75), and 51 percent of the participants reported at least some college experience. Fifteen percent had been hospital patients themselves in the past year for 3 or more days. Overall, participants perceived their family member's illness to be serious, with a mean score of 7.4 on a scale ranging from 1 (not seriously ill) to 9 (very seriously ill). The

sample was diverse in its congregational involvement: 12 percent attended worship or religious meetings twice per week, 27 percent once per week, 17 percent once per month, 18 percent once or twice per year, and 18 percent almost never. Eight percent were not members of a congregation.

Measures

Demographic variables Participants were asked their age, gender, ethnic background, marital status, and various other questions related to the patient and the hospital.

Traditional religious variables Three general items, traditionally used to measure religiousness, were included: church attendance; frequency of prayer; and self-rated religiousness. One item assessed how often the participants attend religious worship services. Participants checked the appropriate frequency which ranged from 1 (never) to 5 (two or more times per week). A second item assessed how often the participants pray privately in places other than church. Again, participants checked the appropriate frequency which ranged from 1 (never) to 7 (one or more times per day). Finally, participants rated how religious they are on a 5-point scale ranging from 1 (not religious at all) to 5 (very religious).

Religious control-oriented coping The short form of the three Religious Problem Solving Scales (Collaborative, Deferring, Self-directing) assessed religious coping efforts to gain control (Pargament et al., 1988). In this sample, the Cronbach alpha coefficients for the three scales were .92, .90, and .75, respectively. Each 6-item scale involves a different reported relationship between God and the individual coping with the surgery. Another subscale from the Religious Coping Activities Scale was included and expanded to assess religious attempts to gain control *through* God (Pargament et al., 1990). This 6-item scale, Plead (α in present study = .86), involves prayers for miracles, and bargaining with God for direct intercession in the event.

Overall, the Plead scale and the Religious Problem Solving Scales have been significant predictors of various measures of outcome. The scales appear to predict negative and positive feelings as well as general and religious outcomes of various negative life events (Pargament et al., 1988, 1990, 1994). Participants indicated how often they used each of the religious approaches in coping with the surgery and their feelings about the surgery on a 4-point Likert scale ranging from 1 (not at all) to 4 (quite a bit).

Non-religious control-oriented coping Non-religious coping efforts to gain control were measured with five control-oriented scales from the COPE inventory (Carver, Scheier, & Weintraub, 1989), an instrument built from the theoretical approach to coping developed by Lazarus and Folkman (1984). One scale, Planning (α in present study = .73), involves coping strategies that attempt to determine steps to best handle the situation ('I made a plan of action'). A second scale, Suppression (α = .69), includes coping strategies aimed at putting aside or avoiding other information to concentrate more fully on the situation at hand ('I put aside other activities in order to concentrate on this'). Instrumental Social Support (α = .72) focuses on seeking advice, information, or assistance ('I tried to get advice from someone about what to do'). A fourth scale, Focus on and Venting of Emotion (α = .83), represents strategies that focus on the source of distress and venting resulting feelings ('I let my feelings out'). Finally, the Mental Disengagement scale focuses on alternative strategies to get one's mind off of the stressful situations (α = .47) ('I slept more than usual'). Each of the five scales contains four items resulting in 20 non-religious coping items. Participants indicated how often each of the 20 items was involved in coping with the relative's surgery on a 4-point Likert scale ranging from 1 (not at all) to 4 (a great deal).

Event-specific outcomes and adjustment measures Two outcome measures assessed specific aspects of the resolution of the event: one measure of coping outcomes and one measure of religious outcomes. The Coping Outcomes measure (α in present study = .81), taken from Pargament et al. (1990), was originally adapted from Aldwin and Revenson (1987) and Grevengoed (1985). The six items that comprise

this scale focus on what the individuals learned from the event, how well they handled the event and their feelings, and the extent to which they felt better about themselves. The second event-specific outcome scale (Pargament et al., 1990), Religious Outcomes, consisted of three items that assess perceived changes in an individual's spiritual growth, closeness to God, and closeness to the church as a result of coping with the event (α = .88).

Individuals' general adjustment to the event was assessed with self-report measures of depression and anxiety. Depressive symptoms were measured by the 20-item Center for Epidemiologic Studies Depression Scale (Radloff, 1977). The CES-D (α in present study = .88) assesses the cognitive, affective, behavioral, and somatic characteristics that participants experienced in the 2 days prior to completing the questionnaire. The Beck Anxiety Inventory (Beck, 1990) consists of 21 descriptive statements that measure the severity of self-reported anxiety (α = .95). This scale has been associated with other self-report and clinical ratings scales of anxiety, has discriminated among patients with different types of anxiety disorders, and has shown evidence of convergence with and divergence from measures of depression. The stability of test scores over a 1-week period was .75. Respondents rated each of the items from the four outcome measures on a 4-point Likert scale ranging from 1 (not at all) to 4 (quite a bit).

Procedure

Family members of CABG patients on the surgery schedule were approached as they waited during the operation and asked to participate in a study of coping during the waiting period when a relative was in surgery. Respondents were assured that their responses were confidential and were asked not to discuss their answers with others while completing the questionnaire.

Results

Family members of 50 patients completed the study. Between one and five of the 150 participants were related to each patient. Thus, all respondents were not independent. The potential effects of this lack of independence among participants was examined more closely by randomly selecting one member from each participating family, analyzing the data for this subsample, and comparing this pattern of results to those from the remaining 100 respondents. These patterns were found to be quite similar; therefore the complete sample was used in all further analyses.

Moderate correlations were found between religious and non-religious coping measures (see Table 1). This finding indicates that respondents did not use religious or non-religious coping methods independently of each other. Specifically, the collaborative, deferring, and pleading religious coping scales were correlated with most or all of the non-religious coping scales, while the self-directing religious coping scale was correlated only with the instrumental social support and disengagement scales.

Perceived seriousness of the surgery was not associated with the event-specific outcome and adjustment measures. Two background characteristics, however, were significantly associated with the criteria. Respondents who had spent at least 3 days in the hospital as patients themselves during the last year scored significantly

Table 1. Correlations between religious coping scales and non-religious coping scales

Religious coping	*Non-religious coping*				
	Planning	*Suppression*	*Social support (inst)*	*Venting*	*Disengagement*
Collaborative	.42***	.22**	.32***	.39***	.15
Deferring	.21**	.21**	.20**	.30***	.18*
Self-directing	.13	.12	.17*	.10	.21**
Pleading	.32***	.32***	.29***	.45***	.25***

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 2. Correlations between demographic, traditional religious, coping, event-specific outcome, and adjustment variables

	Event-specific		*Adjustment*	
	Coping outcomes	*Religious outcomes*	*Anxiety*	*Depression*
Demographics				
Age	.18*	.22**	−.12	−.16*
Hospital days	−.22**	−.17*	−.20*	−.11
Traditional religious				
Prayer	.32***	.53***	.15	.26***
Church attendance	.21**	.33 ***	−.06	.00
Self-rated religious	.29***	.52***	.01	.11
Religious coping				
Self-directing	−.03	−.25**	.13	.14
Collaborative	.49***	.76***	.32***	.40***
Deferring	.38***	.63***	.22**	.30***
Pleading	.33***	.54***	.46***	.52***
Non-religious coping				
Planning	.41***	.34***	.30***	.39***
Suppression	.29***	.22**	.37***	.41***
Social Support (inst)	.26***	.23**	.34***	.36***
Venting	.21**	.31***	.51***	.60***
Disengagement	.11	.05	.41***	.44***

* $p < .05$, ** $p < .01$, *** $p < .001$

lower than others on coping outcomes, religious outcomes, and anxiety scales (see Table 2). Age was positively related to coping outcomes and religious outcome and negatively related to depression scores (Table 2). Because of the significant relationships between these demographic variables, outcome, and adjustment measures, these variables were entered as a block on the first step of each of the regression analyses, removing their influence from subsequent results. Preliminary regression analyses demonstrated that each set of predictors (religious coping, non-religious coping, and traditional religious measures) was a significant predictor of event-specific outcomes and adjustment (see Table 3).

Hypothesis 1

Religious coping predicts unique amounts of variance in event-specific outcomes and adjustment, above and beyond non-religious coping.

Hierarchical regressions were conducted to assess the unique variance in event-specific outcomes and adjustment measures accounted for by the religious coping measures (see Table 4). On the first step, demographic variables (hospital days and age) were entered and R^2 was calculated. On the second step, non-religious coping scales were entered and R^2 change was calculated. On the final step, religious coping scales were entered and R^2 change was calculated. In support of the first hypothesis, religious coping accounted for significant unique amounts of variance in the prediction of anxiety (R^2 = .07), depression (R^2 = .08), religious outcomes (R^2 = .41), and coping outcomes (R^2 = .11). When religious coping was entered into the regression equation first, non-religious coping also added predictive power over and above religious coping for all but religious outcome.

Hypothesis 2

Religious coping scales account for significant amounts of variance in the prediction of event-specific outcomes and adjustment beyond traditional measures of religion.

Hierarchical regressions were conducted to assess the unique variance in event-specific outcomes and adjustment measures accounted for by the religious coping measures above and beyond the traditional measures of religion. On the first step, demographic variables were

entered and R^2 was calculated. On the second step, traditional measures of religion (frequency of church attendance, frequency of prayer, and self-rated religiousness) were entered and R^2 change was calculated. On the final step, religious coping scales were entered and R^2 change was calculated. In support of the second hypothesis, religious coping accounted for significant unique amounts of variance in the prediction of all outcomes (R^2 ranged from .10 to .28). Furthermore, when religious coping was entered into the regression equation first, traditional measures of religion added no predictive power beyond that of religious coping (Table 4).

Hypothesis 3

Specific methods of religious coping differentially predict the event-specific outcome and adjustment measures.

β weights from the hierarchical regressions were examined to determine the relationships between the religious coping scales and event-specific outcomes (see Table 3). Collaborative religious coping was positively related to the two outcome measures. Respondents who employed more collaborative coping reported more positive coping outcomes and religious outcomes. The deferring, self-directing, and pleading coping styles were not related to either coping outcomes or religious outcomes.

Results of the hierarchical regressions also revealed significant relationships between the religious coping scales and adjustment measures (see Table 3). The collaborative, self-directing, and pleading coping styles were each related to higher levels of both anxiety and depression. Deferring coping was not related to either of the adjustment measures. This pattern of findings provided support for the hypothesized religious coping mobilization process; that is, higher levels of anxiety and depression may have evoked higher levels of religious coping which,

Table 3. Hierarchical regression analyses: religious coping methods, traditional religious measures, and nonreligious coping methods predicting outcomes after controlling for demographics[1]

Set of regression variables	*Event-specific*				*Adjustment*			
	Coping outcomes		*Religious outcomes*		*Anxiety*		*Depression*	
	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Demographics	.07		.07		.07		.04	
Hospital days		−.20*		−.13		−.23**		−.14
Age		.14		.20*		−.16*		−.18*
F value	5.50**		5.20**		5.16**		3.41*	
Religious coping methods	.20		.53		.25		.36	
Self-directing		.08		−.07		.20**		.25***
Collaborative		.46***		.64***		.28*		.34**
Deferring		.00		.02		−.17		−.11
Pleading		.03		.11		.40***		.41***
F value	9.76***		47.66***		13.15***		21.16***	
Traditional religious measures	.11		.35		.04		.08	
Attendance		.10		.15*		−.12		−.09
Prayer		.20*		.33***		.18*		.27**
Religiousness		.13		.29***		.00		.04
F value	6.55***		28.53***		1.90		4.40**	
Non-religious coping methods	.15		.13		.31		.41	
Planning		.34**		.22*		−.10		.00
Suppression		.10		−.01		.12		.09
Social Support (inst)		.00		.02		.16		.13
Venting		−.02		.22*		.36***		.43***
Disengagement		.01		−.05		.19**		.19**
F value	5.41***		4.58***		14.05***		21.33***	

* $p < .05$, ** $p < .01$, *** $p < .001$

[1] R^2 for each class of variables reflect change in R^2 after demographic variables were entered into the equation

Table 4. Hierarchical regression analyses: unique effects of religious coping methods, traditional religious measures and non-religious coping methods

Unique effects	*Event-specific*		*Adjustment*	
	Coping outcomes ΔR^2	*Religious outcomes* ΔR^2	*Anxiety* ΔR^2	*Depression* ΔR^2
Religious coping methods after controlling for non-religious coping methods	.11***	.41***	.07**	.08***
Non-religious coping methods after controlling for religious coping methods.	.06*	.01	.12***	.14***
Religious coping methods after controlling for traditional religious measures	.10***	.20***	.23***	.28***
Traditional religious measures after controlling for religious coping methods	.01	.02	.02	.00

* $p < .05$, ** $p < .01$, *** $p < .001$

in turn, resulted in better coping outcomes and religious outcomes.

Exploratory analyses

The religious coping mobilization model was tested through an exploratory path analysis using LISREL VIII (Joreskog & Sorbom, 1993). The model was tested first for anxiety and then, once again, for depression. The model consisted of the predictors (anxiety or depression), two event-specific outcome variables (coping outcomes and religious outcomes), and the four religious coping methods (self-directing, deferring, pleading, and collaborative) which were included as mediators of the relationship between the predictors and outcomes.

There were some concerns about using LISREL to analyze these data. First, 150 cases is a relatively small sample size with which to conduct such analyses. Bentler (1985) noted that a minimum of five cases is required for each parameter to be estimated in the model. For both models presented here, however, the ratio of cases to parameters exceeds that standard (9.38 : 1 for anxiety, and 8.33 : 1 for depression). Second, because these data were collected from family members, one could argue that the cases are not independent. When cases are not independent, errors may be correlated across cases, violating the assumptions of maximum-likelihood estimation techniques (Bollen, 1989). Preliminary analyses discussed earlier in this article suggested that non-independence did not impact heavily on the results of this study. Nevertheless, we addressed the potential problem of non-independence by using generalized least squares (GLS) estimation. GLS estimation in LISREL allows for the unbiased estimation of structural parameters and error terms (Bollen, 1989) and has been used in other studies where independence of cases was a concern (Judge & Ferris, 1993). It must be emphasized that these analyses are strictly exploratory and therefore these results must be interpreted with caution.

Anxiety

The model using anxiety as the predictor is shown in Figure 1. Anxiety was not directly related to either outcome variable; however, it was directly and positively related to greater use of three of the four religious coping methods: self-directing ($\beta = .189$); deferring ($\beta = .364$); and pleading ($\beta = .464$). There were also several direct relationships among the four religious coping methods. The only coping method that had direct relationships with the outcomes was collaborative coping ($\beta = .383$ for coping outcomes and $\beta = .581$ for religious

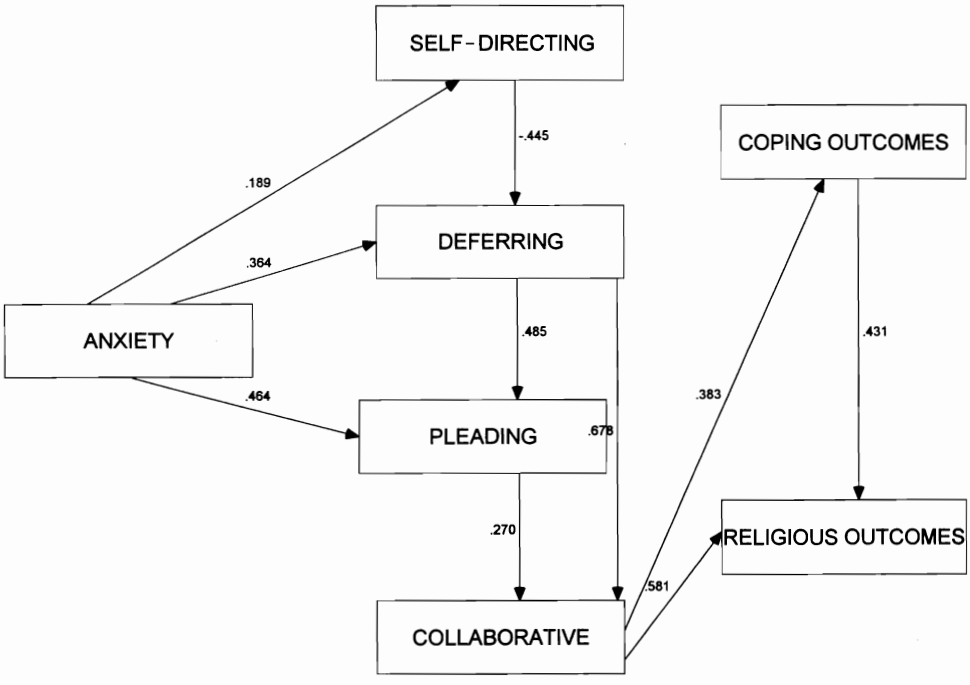

Figure 1.

outcomes). Results indicated that the model presented in Figure 1 provided a good fit for the data (χ^2 = 17.44, d.f. = 11, p = .096, GFI = .967). The non-significant chi-square value and the GFI value >.90 are indicators of good fit.

Depression

The model using depression as the predictor variable is shown in Figure 2. Although depression was not directly related to the outcomes, it was indirectly related through the mediating effects of religious coping. Depression was directly and positively related to deferring (β = .586), pleading (β = .645), and collaborative religious coping (β = .247). Again, there were several direct relationships among the religious coping methods. And once again, collaborative religious coping was the only religious coping method positively related to both outcome measures (β = .339 for coping outcomes and β = .412 for religious outcomes). Results indicated that this model provided a good fit to the data (χ^2 = 13.69, d.f. = 9, p = .134, GFI = .974). Again, the non-significant chi-square and the GFI value >.90 are indicators of good fitting models.

The pattern of correlations for the traditional measures of religiousness provides further support for the coping mobilization hypothesis. Average church attendance and self-rated religiousness are indicators of religion that are presumably less sensitive or responsive to crisis. Not surprisingly then, there were no significant correlations between average church attendance or self-rated religiousness and the two indicators of stress, anxiety, and depression.

The results of these post hoc analyses suggest that the data from this study could fit within the coping mobilization framework. However, it is important to note that these findings do not eliminate the possibility that other models might fit these data as well.

Discussion

Surveying family members waiting for a relative undergoing CABG surgery, this study examined how religion is involved in coping with an uncontrollable stressful event. Using a micro-analytic approach, the present study examined how specific religious coping activities used to achieve a sense of control related to both event-

specific outcomes and general adjustment. Overall, the results were in accord with the hypotheses. First, religious coping strategies predicted event-specific outcomes and adjustment above and beyond the effects of non-religious strategies. Second, religious coping predicted event-specific outcomes and adjustment above and beyond the effects of traditional religious measures. Third, as predicted, collaborative coping was positively associated with the measures of coping outcomes and religious outcomes. Religious coping, however, was tied to higher rather than lower levels of depression and anxiety. These findings suggest that a religious coping mobilization process may be operating. That is, anxiety and depression may have acted as stressors stimulating greater use of religious coping methods.

Implications for research and practice

The results of this study have several implications for researchers as well as health professionals. Consistent with past research, these findings suggest that not only is religious coping helpful (Kirkpatrick, 1993; Maton, 1989; Pargament, 1997), but that these methods offer unique contributions to an individual's adaptation to a stressful life event. Additionally, the finding that both religious and non-religious coping uniquely predicted coping outcomes and religious outcomes suggests that the more coping strategies one has at one's disposal, the better. That is, a wider repertoire of coping efforts may be more adaptive, allowing individuals to choose which strategies they believe will best lead to their emotional, physical, and/or psychological adjustment. Thus, clinicians, chaplains, and healthcare workers may benefit their patients and families by providing them with a greater range of coping options, including religious as well as non-religious methods.

More specifically, the results underscore the value of a collaborative method of religious coping. The sense of control derived through a relationship with God rather than through the self (i.e. self-directing) or through God (i.e. deferring or pleading) appears to be especially helpful in this critical situation. This finding is consistent with several other studies in which collaborative religious coping has been associated with better psychological competence and

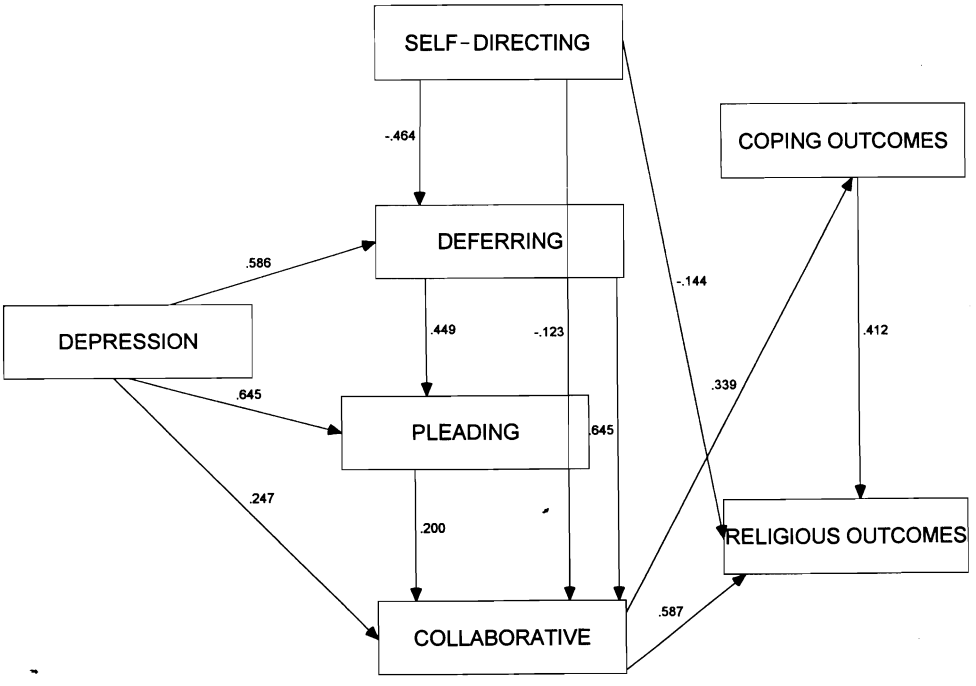

Figure 2.

more positive outcomes to stressful life situations (e.g. McIntosh & Spilka, 1990; Pargament et al., 1988, 1990; Schaefer & Gorsuch, 1991). More so than the other approaches to control, religious collaboration appears to offer the 'best of both worlds', a sense of personal efficacy and responsibility and a sense of ultimate reassurance and support that comes from a relationship with the divine.

Overall, the results support a microanalytic approach to the study of religion and coping. Traditionally, the majority of studies have taken a macro-approach to this topic by focusing on general measures of religiousness (e.g. frequency of church attendance), or general measures of religious coping (e.g. ratings of the importance of religion in coping with the stressful event). In contrast, the micro-approach offers a clearer insight into *how* religion may help in the coping process by focusing on specific religious coping mechanisms that are functionally connected to the demands of the event. The religious coping methods examined in this study, we believe, provided participants with a sense of secondary control in the face of a seemingly uncontrollable event.

Finally, results from both the hierarchical regression analyses and the exploratory path analyses suggest that anxiety and depression should not necessarily be viewed as 'outcomes' of coping mechanisms. Instead, these distressing emotions may represent 'coping mobilizers'. That is, anxiety and depression may be stressors in themselves, eliciting coping responses which, in turn, lead to specific outcomes. If this is the case, then caution is called for in interpreting the findings of cross-sectional studies of coping and adjustment using these criteria.

Limitations and directions for future research

Some limitations to the study should be noted. First, this study examined a single stressful event (i.e. waiting for a relative undergoing surgery), assumed to be relatively uncontrollable. Although family members cannot physically control the outcome of a surgical procedure, other variables such as the general health of the patient and the prognosis for full recovery can also play a role in the coping process. For example, how family members appraise the seriousness of the surgery may influence their coping responses which, in turn, may influence the resolution of the event. Lazarus and Folkman (1984) state that the outcomes of an event are determined by how a person appraises an event, as well as how he or she copes with the situation. Folkman (1984) further argues that it is the appropriateness of the appraisals of control (or lack of control), rather than a particular coping strategy that contributes to an individual's level of adjustment. Thus, it would be valuable to assess participants' reactions, appraisals, and attitudes regarding the surgery more fully.

Second, the cross-sectional nature of the study does not provide a good assessment of the 'flow' of coping. Folkman and Lazarus (1980) argue that the coping process is a reciprocal process involving a relationship between an individual, situation, and social system that unfolds over time. From this perspective, examining only short-term outcomes (i.e. level of adjustment prior to knowing the results of the surgery) does not provide a complete picture of the efficacy of coping. While collaborative coping efforts appear to be helpful in the short term, it is not known how advantageous these strategies are in the long term. Conversely, deferring, pleading, and self-directing approaches may have more significant long-term implications (for better or worse) than they appear to have in the short term. Future research should examine how various coping activities change over time, and how the success or failure of early coping strategies influence later coping efforts.

Third, the study was limited by its reliance on self-report methodology. The results could have been affected by response set biases. Shedler, Mayman, and Manis (1993), for example, have found that self-report measures of mood underestimate clinically based levels of depression and anxiety. However, it should be noted that studies of religious coping have yielded significant results even after controlling for the effects of social desirability and indiscriminate proreligiousness (Pargament et al., 1990). Nevertheless, these findings would be strengthened by including behavioral and physiological measures of health and by including external reports on the coping behavior and adjustment of people in the midst of critical life situations.

Finally, it is important to consider some of the

potential moderators of the relationships between life stress, religious coping, and psychological adjustment, such as personality, religious orientation, and religious denomination. For example, in a study of Protestants and Roman Catholics dealing with the stresses of kidney transplant surgery, religious coping was associated with better adjustment for Protestants, but poorer adjustment for Catholics (Tix & Frazier, 1998). In the present study, the majority of participants were of the Protestant faith (65 percent), so it cannot be determined if religious denomination influenced the results. Perhaps if a primarily Catholic or Jewish sample had been used, the relationships between coping and adaptation may have differed. Future research in the area of religion and coping should examine religiously diverse samples.

Summary

In conclusion, the present study points to the usefulness of a microanalytic approach to the study of religion and coping. By examining the specific functions religion serves in the coping process, we can develop a clearer understanding of how religious efforts relate to health and well-being. Researchers have shown that some religious coping efforts can be helpful in dealing with life stressors. Now we are beginning to understand why.

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