This is to certify that the

dissertation entitled

Discerning the Maker's Order: The Use of Religion to Cope with Stressful Life Events

presented by

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has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Psychology

Major professor

Date 3-14-95

DISCERNING THE MAKER'S ORDER: THE USE OF RELIGION TO COPE WITH STRESSFUL LIFE EVENTS

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

1995

ABSTRACT

DISCERNING THE MAKER'S ORDER: THE USE OF RELIGION TO COPE WITH STRESSFUL LIFE EVENTS

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The role of religion in psychological adaptation has been the subject of frequent theoretical debate and empirical investigation. This study further clarifies religion's role in psychological adjustment by investigating relationships among self-reported dispositional religious attitudes, religious coping, psychological symptomatology, and stressful life events in 503 college students. Results both support and challenge previous research on religion and psychological adaptation. Factor analysis of a new measure of religious coping yielded a four-factor solution (God-centered, people-centered, bargaining, and alienated religious coping) which accounted for almost 100% of the common variance. The factor structure obtained in this study is similar to those obtained in other studies. Differences in dispositional religious attitudes (i.e. intrinsic/extrinsic religious orientation, religious well-being) predicted significant variation in the use of religious coping. While intrinsic religiousness was significantly associated with God-centered and people-centered religious coping, closeness to God (religious well-being) was significantly associated with only God-centered religious coping. Extrinsic religiousness predicted the use of bargaining and alienated religious coping.

This study challenges the generalizability of previous findings that religious coping is related to better psychological adjustment. In the current study of college

students from diverse religious backgrounds, increases in bargaining and alienated religious coping were significantly related to increases in stressful life events and increases in psychological symptoms. However, God-centered and people-centered religious coping were unrelated to stress level or symptomatology. The finding that some forms of religious coping were related to poorer psychological adjustment, regardless of stress level, contradicts other reports in the literature suggesting that religious coping acts as a stress buffer. This study's results point to the need for future research to standardize measurement of religious coping and systematically investigate its effects in different religious groups and at different stages of the life cycle.

Do religions partake of man's ability, even as he regresses, to recover creatively?

Erik Erikson, Young Man Luther

Ramon Fernandez, tell me, if you know,
Why, when the singing ended and we turned
Toward the town, Tell why the glassy lights,
The lights in the fishing boats at anchor there,
As the night descended, tilting in the air,
Mastered the night and portioned out the sea,
Fixing emblazoned zones and fiery poles,
Arranging, deepening, enchanting the night.

Oh! Blessed rage for order, pale Ramon,
The maker's rage to order words of the sea,
Words of the fragrant portals, dimly-starred,
And of ourselves and our origins,
In ghostlier demarcations, keener sounds.

Wallace Stevens, The Idea of Order at Key West

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LITERATURE REVIEW

Religion and Psychological Adaptation

Despite long-standing interest in the contribution of religion to psychological adaptation, the nature of this contribution remains unclear. Some thinkers have hypothesized that religious belief is a pathogenic influence on psychological functioning. For example, Freud's writings are punctuated by a portrayal of God as "nothing other than an exalted father" (e.g., Freud, 1910/1957, p. 123). He argued that one's intrapsychic relationship to this father imago serves as a neurotic wish-fulfillment for immortality in moments of "regressive revival of the forces which protected [us] in infancy" (Freud, 1910/1957, p. 123; 1927/1961). Freud further characterized religious behavior as "the obsessional neurosis of man" (Freud, 1907/1959, p. 116), to be left behind once one attains psychological health. Albert Ellis, conceptualizing religion from a cognitive perspective, argued that religious sentiment is nothing more than a set of irrational beliefs that continually interfere with an individual's capacity to function effectively (Ellis, 1970).

However, many psychologists have assigned a more positive role to religious life. For example, William James (1902/1985), argued that religious persons derive a sense of life's meaning through their belief in God, and that this increased understanding can lead to healthier relationships with others. Moreover, since Freud, many psychoanalytically-oriented thinkers have delineated the potential adaptive function of religious experience from developmental, cultural, existential, and object-relations perspectives (e.g., Erikson, 1981; Fromm 1950; Guntrip, 1956; Jung, 1933; May, 1940; Meissner, 1984; Rizzuto, 1979; Winnicott, 1971). Thus,

theoretical accounts are divided in their portrayal of the relationship between religious belief and psychological functioning.

Empirical findings regarding the relationship between religiousness and mental health have been equally contradictory. While some studies have found religiousness to be related to various measures of maladjustment (e.g., Graff & Ladd, 1971; Heintzelman & Fehr, 1976; Lilliston & Brown, 1981; Rokeach & Kemp, 1960), others have reported it to be positively related to psychological functioning (e.g., Acklin, Brown, & Mauger, 1983; Bernardo, 1988; Blazer & Palmore, 1976; Chan, 1994; Ellison, 1993; Frankel & Hewitt, 1994; Lindenthal, Myers, Pepper & Stern, 1970; Maton, 1989; Moberg, 1967; O'Reilly & Pembroke, 1957; Swensen, Fuller, & Clements, 1993; Shaver, Lenauer, & Sadd, 1980). In summarizing this contradictory array of findings, Bergin (1983) states that 23% of the studies he reviewed found a negative relationship between psychological health and religious commitment, 47% reported a positive relationship, and 30% found no relationship at all between these variables. In addition, some studies have emphasized that certain types of religious beliefs or practices are related to mental health while others are not (e.g., Allport & Ross, 1967; Larson et al., 1992; Pargament & Hahn, 1986; Pargament, Steele, & Tyler, 1979; Pargament et al., 1988; Pargament & Hathaway, 1991; Shaver et al., 1980).

These inconsistent findings may reflect a number of measurement and conceptual difficulties in previous research. For example, although religion is a multidimensional construct, most studies measure only one facet of it (Bergin, 1983; Gorsuch, 1984). Moreover, studies of the religion-mental health relationship have not

necessarily focused on components of religiousness that can be theoretically linked to psychological health. Research on the religion-mental health relationship has neglected potential mediating variables between trait-like religious dispositions and psychological adaptation. Several recent studies have found that religious coping could serve as a link between general dispositional religiousness and psychological adaptation (e.g., Pargament et al., 1990). Religious coping refers to any cognitive or behavioral strategies that utilize one's religious beliefs to reduce, tolerate, or master the demands of stressful life events. Finally, existing research has not examined the role of life stress in modifying the religion-mental health connection. It may be that religiousness and mental health are unrelated at low levels of stress but are strongly and positively related for individuals under high levels of stress. The lack of attention to the effects of stress on religiousness and mental health could mask the complexity of their relationship.

The current study attempts to address these measurement and conceptual difficulties. After examining the multidimensional nature of religiousness, several religious variables relevant for psychological adaptation will be investigated further. A rationale will be provided for relating these components of religiousness to religious coping, a potential mediating variable between trait-like dispositional religious attitudes and mental health. The usefulness of conceptualizing religious coping as a mediator between dispositional religiousness and mental health will then be explored in detail. The potential role of stress in the religion-mental heath relationship will also be integrated with the literature on religious coping and dispositional religiousness.

Multidimensional Nature of Religious Experience

"Religiousness" has been conceptualized and assessed in a myriad of ways, including church attendance, self-reported frequency of prayer, religious upbringing, religious belief, mystical experience, religious commitment, spiritual well-being, and God-concept (Grom, 1993; Ledbetter, Smith, Fitcher, Vosler-Hunter, & Chew, 1991; Wulff, 1991). Bergin (1983) and Gorsuch (1984) concluded their reviews of the relationship between religion and mental health by suggesting that the data's ambiguities indicate that "religion" is a multidimensional construct. Previous studies of the relationship between religion and mental health status may have obtained different results because each has considered only a single aspect of religious life.

Similarly, researchers in this area have investigated a variety of mental health variables including longevity, suicide, drug use, alcohol abuse, delinquency, depression, anxiety, marital satisfaction, psychosis, self-esteem, prejudice, authoritarianism, rigidity, suggestibility, self-actualization, and well-being (Gartner, Larson, & Allen, 1991; Spilka, Hood, & Gorsuch, 1985). These diverse operational definitions of "mental health" may also have contributed to the different findings reported in the literature.

Even within the same study, the relationship between religiousness and psychological adaptation has differed depending upon the measure of religiousness used (Antosz, 1990; Fehr & Heintzelman, 1977; Ferraro & Albrecht-Jensen, 1991). Clearly, researchers need to determine more precisely which aspects of religiousness

contribute to which mental health outcomes. Investigations of religious life need to draw both theoretical and empirical distinctions among different dimensions of religiousness (e.g., motivations, beliefs, relational aspects, behavior). Moreover, research on religion and psychological functioning must focus on aspects of religiousness that possess a strong theoretical link to psychological health (Pargament, 1990).

Religious Variables Relevant for Psychological Adaptation

Although the theoretical and empirical literature on the relationship between religious experience and mental health is vast, relatively few measures of religious life have a strong theoretical and empirical foundation that consistently attests to their importance in psychological adaptation. Three variables that have found such support are Allport's conceptions of "intrinsic" and "extrinsic" religious orientations and Ellison's notion of "relatedness to God." These dimensions of religiousness have a long history of empirical quantification. In addition, each concept describes different cognitive, motivational, emotional, and experiential components of religious life.

Intrinsic and extrinsic religious orientations. The framework developed by Allport and Ross (1967) nearly two decades ago has dominated the psychological exploration of religiosity (see reviews by Donahue 1985a, 1985b; Kirkpatrick & Hood, 1990). Allport (1959) distinguished between two types of religiousness: intrinsic religious orientation and extrinsic religious orientation. Although Allport and Ross initially conceived of intrinsic and extrinsic orientations as opposites along a single dimension, findings from several studies suggest that the constructs represent

orthogonal facets of religiousness (Donahue, 1985a; Feagin, 1964; Hood, 1971; Hunt & King, 1971).

An intrinsic religious commitment is defined as one in which religion is the "master-motive" providing meaning to all aspects of life, thereby being an end in itself. According to Allport and Ross (1967), the intrinsic religious position is one of high commitment toward one's faith and a strong motivation to live by the tenets of that faith. Allport and Ross (1967) state,

> Other needs, strong as they may be, are regarded as of less ultimate significance, and they are, so far as possible, brought into harmony with religious beliefs and prescriptions. Having embraced a creed the individual endeavors to internalize it and follow it fully. It is in this sense that he lives his religion. (p. 434)

On the other hand, an extrinsic orientation is defined as one in which religion is used as a means to other ends, such as achieving security and solace, social relations, status, self-justification, or distraction. Allport and Ross (1967) state that extrinsically oriented religion

> . . . plays an instrumental role only. It serves and rationalizes assorted forms of self-interest . . . the full creed and full teaching of religion are not adopted. The person does not serve his religion; it is subordinated to serve him. (p. 434)

This type of religious commitment is more utilitarian. The integration of religious beliefs into daily life is, by implication, more unpredictable and less meaningful for

the individual. Thus "the extrinsically motivated person uses his religion, whereas the intrinsically motivated person lives his religion" (Allport & Ross, 1967, p. 435).

A large body of research attests to the validity of Allport's proposed distinctions (for reviews see Donahue, 1985b; Kirkpatrick & Hood, 1990). While extrinsic orientation has generally been unrelated to other self-report measures of religiousness (Donahue, 1985b), intrinsic religious commitment has been correlated positively with numerous indicators of religious motivation ranging from church attendance to other self-report measures of religious experience.

Furthermore, Allport's intrinsic and extrinsic orientations have been related to a number of mental health variables. Intrinsically committed persons tend to have greater social competence (Hathaway & Pargament, 1990; Pargament et al., 1979; Pargament et al., 1988), interpersonal trust (Pargament et al., 1979), and sense of control in their lives (Pargament et al., 1979; Minton & Spilka, 1976) compared with extrinsically oriented individuals. Moreover, intrinsic orientation has been correlated negatively with trait anxiety (Baker & Gorsuch, 1982; Bergin, Masters, & Richards, 1987; Lovekin & Malony, 1977; Petersen & Roy, 1985; Sturgeon & Hamley, 1979) and depression (Koening, George, & Siegler, 1988; Park & Cohen, 1993; Watson, Hood, Morris, & Hall, 1985), while the extrinsic orientation correlated positively with these mental health variables.

Both theoretical and empirical work suggest that intrinsic and extrinsic religious commitment may influence a believer's religious coping. Allport's conception of intrinsically oriented individuals as persons who are motivated to integrate religion into all aspects of their lives suggests that intrinsic orientation may

be particularly associated with the use of religious coping in stressful circumstances. The positive correlation between intrinsic religiousness and mental health further suggests that these religious coping efforts may be associated with a positive mental health outcome. Conversely, extrinsically oriented persons, embracing a more utilitarian, superficial form of faith, may engage in less religious coping or different types of religious coping efforts compared to those who do not hold an extrinsic commitment to their faith. The correlation of extrinsic religiousness with poor mental health further suggests that extrinsic forms of religious coping may be associated with psychological distress.

Thus, Allport and Ross' (1967) intrinsic and extrinsic delineation of religious experience captures the cognitive and motivational aspects of one's religiousness, focusing on the ways in which an individual attempts to integrate his/her religiousness into daily life. However, this approach does not assess the felt quality of those religious experiences. A believer can try to understand and integrate the tenets of his/her faith into daily life without necessarily experiencing a personal, affirming relationship with God. Thus "religiousness" may have intellectual and ethical as well as interpersonal experiential dimensions. The notion of "relatedness to God" can provide insight into the interpersonal and emotional aspects of religious experience.

Relatedness to God. A number of investigators have suggested that feelings of love and/or nearness to God can foster positive psychological adaptation (Spilka, Hood, & Gorsuch, 1985; Spilka, Shaver, & Kirkpatrick, 1985). Using a measure developed for her study, King (1991) found that among a random sample of

undergraduates at three religious colleges and two secular universities, one's relatedness to God contributed to general mental health and self-esteem above and beyond religious orientation (Allport's intrinsic/extrinsic [I/E] scale) and social desirability. In addition, Shaver et al. (1980) reported that among a self-selected sample of 2,500 American women, "secure" attachment to God was significantly and positively correlated with general life satisfaction and psychological health, while "avoidant" and "ambivalent" attachment patterns were negatively correlated with mental health.

Ellison and his associates have developed a measure of spiritual well-being that assesses two dimensions of religiousness: existential well-being and religious well-being (Bufford, Paloutzian, & Ellison, 1991; Ellison, 1983; Ledbetter et al., 1991). As the name implies, the existential well-being subscale assesses the status of one's "worldly" concerns. The religious well-being subscale reflects one's "internalized, intimate relationship to God" (Ellison, 1983, p. 331) or the "quality of one's relationship to God" (Ellison, 1983, p. 332). The differences between the two subscales were recently summarized as follows:

> The religious well-being subscale items refer to God and assess the vertical dimension of spirituality . . . The existential well-being subscale . . . [measures] a horizontal dimension of well-being in relation to the world around us, including a sense of life purpose and life satisfaction." (Bufford et al., 1991, p. 57)

In their review of research using Ellison's Spiritual Well-Being Scale, Ledbetter et al. (1991) comment that more than 25 studies have assessed the construct validity of this scale. For example, persons whose denominations emphasize ethical and moral teachings score highest on the existential well-being subscale (Ellison, 1983). In contrast, religious well-being subscale scores are highest among members of denominations that emphasize a personal, direct relationship with God and acceptance and forgiveness by Christ (e.g., Born Again, Evangelical Christians). Existential well-being subscale scores positively correlate with other measures of religious commitment (e.g., Allport's I/E scale) while the religious well-being subscale scores do not. This suggests that the religious well-being subscale, in particular, measures emotional and interpersonal aspects of religious experience that are not included in Allport's intrinsic and extrinsic religious orientations.

Ellison's religious well-being subscale has been significantly and positively related to good physical and emotional adjustment (see reviews by Brinkman, 1989; Moody, 1989) and negatively related to measures of ill health, emotional maladjustment, and dissatisfaction with life (Brinkman, 1989; Moody, 1989). Moreover, its psychometric properties and validity in measuring relationship to God are better established than other measures that assess this dimension of religious life (e.g., King, 1991; Shaver et al., 1980).

Both theoretical and empirical work therefore suggest that Ellison's religious well-being subscale measures a dimension of religiousness that is particularly relevant for a study of religious coping and mental health. From a theoretical perspective, the quality of one's felt relationship to God may be an important

determinant of religious coping. Persons who have experienced an immediate, affirming, and personal relationship with the Divine may find certain religious coping activities more emotionally comforting or may tend to engage in types of religious coping that differ from those used by persons who have not experienced this relationship with God. The positive correlation between religious well-being and mental health further suggests that religious coping used by persons who feel a close relationship to God may be associated with positive psychological adaptation.

Extant work has therefore suggested a connection between the above three dimensions of religiousness and mental health, yet little is known about the precise mechanisms through which this relationship is established. Recently, however, a number of researchers have suggested that dispositional religious factors (such as intrinsic/extrinsic orientation and relatedness to God) influence psychological adaptation via "religious coping" (e.g., Maton, 1989; Pargament et al., 1990; Park, Cohen, & Herb 1990). This view proposes two distinct but integral notions that may help to clarify the religion-mental health relationship. First, it suggests that religious coping is a link, or mediating variable, between dispositional religiousness and mental health. Second, it asserts that religious coping acts as a mediator of religiousness specifically during stressful life circumstances. A closer examination of the mediational role of religious coping may lead to a more accurate understanding of the religion-mental health relationship.

Religious Coping as a Mediator Between Dispositional Religiousness and Psychological Adaptation

Lazarus and Folkman (1984) define coping (not religious coping per se) as any cognitive or behavioral action meant to minimize, reduce, tolerate, or master the demands of a specific stressor. They propose that coping acts as a mediator between dispositional factors, stress, and adaptational outcomes such as somatic health and psychological adjustment. Lazarus and Folkman (1984) argue that the formation and implementation of coping strategies is determined by both dispositional resources and situational factors (Lazarus & Folkman, 1984). Personality factors thought to influence coping are a person's values, commitments, knowledge, and motivation (Carver et al., 1989; Lazarus & Folkman, 1984).

Thus, coping can be conceptualized as the concrete actualization of more generalized dispositional variables in a specific stressful situation. In this sense, coping is linked both to general personality factors and to the outcome of specific events. Similarly, the present study conceives of religious coping as an intervening variable that mediates between general religious dispositions and the outcome of specific encounters.

Measurement of Religious Coping

A clear understanding of religious coping's connection to mental health requires a review of efforts to measure this variable. Religious coping has often been discussed in the non-religious coping literature as a unidimensional construct (e.g., Bjorck, 1991; Carver et al., 1989; Carver et al., 1993; Folkman, Lazarus, Dunkel-

Schetter, DeLongis, & Gruen, 1986, McCae & Costa, 1986; Stone & Neal, 1984). However, just as dispositional religiousness has been found to be multidimensional, research focusing on the study of religious coping has provided both theoretical and empirical evidence that it, too, is, multidimensional in nature (Pargament et al., 1988; Pargament, 1990; Pargament et al., 1990).

Two instruments are available to assess multiple aspects of religious coping. Pargament et al.'s (1988) measure of religious coping, the Religious Problem-Solving Scale, consists of 36 items that assess how the individual involves God in the problem-solving process (Appendix A). Three religious problem-solving styles were identified through factor analysis using an oblique rotation: 1) a "Collaborative" style that is characterized by active exchange with God, 2) a "Deferring" approach in which the individual is passive and waits for God to solve problems, and 3) a "Self-Directing" style that emphasizes "the freedom God gives people to direct their own lives" (Pargament et al., 1988, p. 90). This three-factor solution accounted for 86% of the common variance.

Because religious problem-solving and religious coping are similar (in that both concepts describe ways in which the individual applies his/her religious beliefs to the resolution of stressful problems), research on religious problem-solving may shed some light on the nature of religious coping. However, religious problem-solving and religious coping differ in that religious problem-solving refers to more general styles of involving God in problem resolution, while religious coping refers to concrete, specific religious activities that help an individual alleviate stress (cf. Appendix A and Appendix B).

However, Pargament et al. (1990) also have recently developed a measure of concrete religious coping strategies (Appendix B). The assessment of specific coping strategies in response to a specific stressful event is more consonant with the conception of religious coping delineated in the previous section of this study and with work on non-religious coping (e.g., Folkman & Lazarus, 1984). The Religious Coping Activities Scale consists of 31 items describing a diverse range of religious coping strategies. Factor analysis of the responses of 586 Christian church members to this questionnaire yielded five empirically-derived factors (spiritually-based, good deeds, discontent, religious support, and plead). In addition, one "theoretically" derived factor was formed (religious avoidance). This factor solution accounted for almost 100% of the common variance in the sample. Intercorrelations among these factors have not been reported.

However, as Pargament has noted (personal communication, September 23, 1992), a number of the subscales on this measure have only a few items and hence measure a limited range of potential coping strategies for that factor, leading to factor scores that are potentially unstable. Equally important, some of these items are vaguely worded, referring to multiple activities. For example, the "religious support" factor is comprised of two items: "received support from clergy" and "received support from other members of the church." In the non-religious coping literature, distinctions between problem-focused coping (coping strategies that aim to ameliorate the troubled person-environment relationship) and emotion-focused coping (responses that attempt to regulated distressing emotions) have provided important insights into the psychological functions of coping (Carver et al., 1989). However, neither of the

"religious support" items above differentiates between these types of coping. The "support from other members of the church" item could refer to emotional support (e.g., venting emotions, positive reframing) or problem-focused support (e.g., a loan, a place to stay, respite care). Because these distinctions were found to be important in a study of religious coping that utilized an interview methodology (Ebaugh, Richman, & Chafetz, 1984), it would be useful to maintain them in a questionnaire format. Increasing the specificity of religious coping items may provide greater insight into the religion-mental health link by clarifying how specific forms of religious coping are related to particular religious dispositions, on the one hand, and to psychological adjustment on the other.

Religious Coping and Dispositional Religiousness

Parallel to Lazarus and Folkman's (1984) suggestion that dispositional factors influence non-religious coping, dispositional religiousness may affect the selection of religious coping strategies. One focus of this study is to explore the ways in which dispositional religiousness is related to religious coping.

Questionnaire research using single-factor measures of religious coping suggests a relationship between religious disposition and religious coping; in general, higher levels of religiousness are associated with higher levels of religious coping (Bjorck, 1991; Webster, 1988). In addition, different religious dispositions have been related to different types of religious coping. Ebaugh et al. (1984), using an interview methodology, provide evidence that members of different denominations prefer different modes of religious coping. They report that in crisis situations, Bahai's and Charismatic Roman Catholics were more likely to pray and search for

social support than were Christian Scientists, who were more likely to engage in positive reinterpretation. Furthermore, the Roman Catholics and Bahai's differed in the kind of social support they sought. The Charismatics reported engaging in emotional social support, while the Bahai's sought advice from other congregation members based on sacred writings. Although no questionnaire studies to date have related multiple dimensions of religiousness to multidimensional measures of religious coping, a complex relationship between these variables has been suggested by research utilizing the concept of "religious problem-solving."

A number of studies have found that while the use of religious problem-solving styles, in general, is associated with significantly higher levels of involvement in religion, different types of religiousness are related to different religious problem-solving approaches (Pargament et al., 1988; Schaefer & Gorsuch, 1991). Orthodox Christian beliefs and extrinsic religious commitment were associated only with the use of a Deferring religious problem-solving style. However, intrinsic religiousness was related to both Collaborative religious problem-solving and to Deferring problem-solving (Hathaway & Pargament, 1990; Pargament et al., 1988; Schaefer & Gorsuch, 1991). In addition, Schaefer and Gorsuch (1991) reported that positive God-concept (e.g. endorsement of adjectives describing God as "loving," "healing," "benevolent," etc.) is also related to both Collaborative and Deferring styles.

While the differences between the working definitions of "religious problem-solving" and "religious coping" make generalizations tentative, the above research suggests that there is a relationship between an individual's religious disposition and his/her choice of religious coping strategy. This work suggests that

extrinsic religiousness may lead to reliance on a single type of religious coping strategy characterized by a deferential style that emphasizes God's omnipotent activity. Intrinsic religiousness, in contrast, fosters multiple types of religious coping efforts characterized by both reliance on God's omnipotence and more interactive, collaborative coping efforts in which the individual actively works with God to resolve stressful events.

Religious Coping and Psychological Adaptation

As mentioned above, empirical studies suggest that religiousness is significantly related to religious problem-solving styles. Research suggests that these problem-solving styles, in turn, are related to psychological health. Three studies (Hathaway & Pargament, 1990; Pargament et al., 1988; Schaefer & Gorsuch, 1991) have reported that when the effects of deferring problem-solving on the collaborative approach were statistically controlled, collaborative religious problem-solving was positively related to good psychological adaptation (i.e. high self-esteem, low anxiety). In contrast, when the effects of collaborative modes of problem-solving were partialled out from deferring problem-solving, the deferring approach was negatively related to psychological adjustment (Hathaway & Pargament, 1990; Pargament et al., 1988; Schaefer & Gorsuch, 1991). However, due to conceptual and measurement differences between religious problem-solving and religious coping, the significance of these findings for an understanding of the mediational role of religious coping (rather than religious problem-solving) is unclear.

One published study has investigated the relationship of religious coping to mental health (Pargament et al., 1990). In a cross-sectional study of 586

Christians, Pargament and his associates found that self-reported use of religious coping predicted psychological and physical health beyond the effects of dispositional religious variables (e.g., intrinsic orientation) and the use of non-religious coping. In general, use of religious coping (total religious coping score) predicted fewer physical and psychological symptoms. However, consistent with the findings on religious problem-solving, this study found that different religious coping factors related differently to mental health. Two religious coping factors accounted for the predictive power of the total religious coping score. While the use of "spiritually based" coping was predictive of better mental health outcome, the expression of "religious discontent" (i.e. angry, disengaged feelings toward God) predicted negative psychological adjustment.

In summary, the research on the measurement and predictive power of religious coping suggests that: 1) dispositional religiousness exerts a direct effect on religious coping; 2) religious coping exerts a direct effect on psychological symptomatology; and 3) the use of strategies in which the believer collaborates with God (collaborative coping) as well as strategies that rely on God's omnipotence (deferring coping) is related to positive psychological adjustment, while sole reliance on deferring strategies or angry, disengaged coping correlates with negative psychological outcome.

Religious Coping as a Stress Buffer

None of the above studies explore the potential effects of stress on religious coping and psychological adaptation; they have neither controlled for level of life stress nor explicitly compared high versus low life stress subsamples. Research

on non-religious coping variables suggests that the negative effects of stress on physical or psychological adjustment may be reduced by the presence of a coping resource, for example, social support or cognitive coping strategies (Billings & Moos, 1981; Cohen & Wills, 1985; Pearlin & Schooler, 1978).

A number of potential models have been proposed to describe *how* coping resources help alleviate the negative impact of environmental stress. Some researchers have argued that they enhance adjustment regardless of stress level (Billings & Moos, 1985; Kessler & McLeod, 1985). In this "main effects" model, persons reporting high utilization of the coping resource report better adjustment than those who report low utilization of the coping resource *regardless of reported level of stress*. Alternatively, researchers have suggested a second model which asserts that the coping resource attenuates the deleterious effects of high levels of life stress while having negligible positive effects at low levels. This has been referred to as "stress-buffering" (see Cohen & Wills, 1985; Thoits, 1982; for reviews).

Furthermore, it has been argued that stress-buffering may be conceptualized in two distinct ways (Finney, Mitchell, Cronkite, & Moos; 1984; Wheaton, 1985). Both models produce results consistent with the definition of stress-buffering. These two models differ, however, in expressing two "analytically distinct [possibilities regarding] the joint effects of stress and coping resources" (Wheaton, 1985, p. 353) on mental health. It needs to be emphasized, however, that while these two models involve different interpretive logic and are supported by the presence of different statistical effects in a full regression equation, they are nevertheless, depicting two *forms* of the same stress-buffering phenomenon.

According to the traditional description of stress-buffering (Figure 1a), the coping resource attenuates the effects of stress on symptomatology (e.g., Cohen & Wills, 1985). Thus, in testing this model statistically, the moderating effect of the statistical interaction between stress and coping is of primary interest (Finney et al., 1984; Wheaton, 1985). In contrast, the second model delineates stress-buffering as the conjoint action of three relationships (Figure 1b). In this model, stress exerts a positive direct effect on symptoms but also mobilizes the coping resource, which, in turn, operates in a direction opposite to the positive effect of stress on symptoms, that is, coping negatively relates to psychological symptomatology (Kessler, 1983; Wheaton, 1985). Because the stress-buffering effect is created by the conjoint action of three relationships the model is referred to as an "additive effects" model. In testing this form of stress-buffering statistically, for example, in regression analyses, the significance of the stress term is of interest in an equation regressing coping on stress, as is the main effect terms of stress and coping in an equation regressing symptoms on stress and coping. Thus, additive and interactive models can be distinguished from one another primarily by 1) presence or absence of a statistically significant stress x coping interaction term, 2) examination of the nature of the relationship between exposure to stress and mobilization of the coping resource (Wheaton, 1985), and 3) the direction of the relationship between the coping resource and adjustment (Finney et al., 1984; Wheaton, 1985).[1]

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[1] Researchers have noted that additive effects and interactive effects forms of stress-buffering are not mutually exclusive. These direct and indirect stress-buffering effects may describe co-existing roles of the coping resource in a single study (Finney et al., 1984; Wheaton, 1985).

Support for the additive effects model can be found in both theoretical descriptions from religious writings and empirical research on religion and stress-buffering. Religious thinkers have often described the stress-buffering role of religion by proposing that religious coping is more useful to persons experiencing high levels of stress[2] than it is to persons under low levels of stress (e.g., Bakan, 1968; Fichter, 1986; Guntrip, 1956; Marty, 1990; May, 1940; Pruyser, 1963). More specifically, however, theologians have delineated two important components to the additive effects model of stress-buffering. First, they have argued that it is primarily in moments of extreme "ontological" anxiety (i.e. during periods of high stress) that the believer's religious capacity is most fully engaged (e.g., Kierkegarrd, 1843/1983; Niebuhr, 1941; Tillich, 1957). Perhaps the fiction writer Alice Walker (1982) has described it most succinctly in writing:

> God is inside you and inside everybody else. You come into the world with God. . . . sometimes it just manifest itself even if you not looking, or don't know what you looking for. Trouble do it for most folks, I think. (p. 177)

Thus, these religious writers suggest that stress has a direct, activating effect on religious coping (i.e. they describe the positive relationship between stress and coping in Figure 1b). This description of stress as activating the use of religious coping suggests that the additive effects model (rather than the interactive effects model) may

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[2] Religious theory has not, to this point, articulated a precise definition of "stress" nor has it articulated clear distinguished between *types* of stress commonly differentiated in the psychological literature (e.g., major life events, daily hassles). However, it appears that religious thinkers are primarily referring to major life events (e.g., birth, death, illness) as stressors.

be a more appropriate description of religious coping as a stress buffer because the interactive effects model does not describe this direct, activating effect of stress on the coping resource.

Other religious thinkers have emphasized that religious coping may reduce psychological symptoms during extreme stress (Beck, 1986; Bellah, 1970; Berger & Luckmann, 1967; Geertz, 1968; Little & Twiss, 1973). They have proposed that religious experience functions psychologically to lessen anxiety engendered during "boundary situations," events that make salient the limits of our capabilities and knowledge (e.g., death, illness, birth). Thus these thinkers suggest that religious coping serves to reduce psychological symptomatology during stressful periods (i.e. they describe the negative relationship between religious coping and psychological symptoms in the additive effects model) under high stress conditions.

The limited empirical research on religion and stress-buffering also tentatively supports the additive effects model. However, research assessing the relationship between religious coping and symptomatology in the context of stressful life events is difficult to interpret because "religious coping" has been measured using only one or two items, usually in the context of large epidemiological surveys. Only one study supports the interactive model (Park et al., 1990). Park and her co-investigators report that in a prospective study of religious coping among Christian college students, regression analyses revealed nonsignificant main effects for coping and stress but a significant Coping X Stress interaction term. Greater self-reported use of religious coping at Time 1 predicted fewer self-reported symptoms of

depression and anxiety at Time 2 for participants under high stress, but Time 1 religious coping and Time 2 depression were unrelated for students under low stress.

In contrast, results from a number of other investigations provide some support for the additive effects model (Brown & Gary, 1987; Idler, 1987; Koening et al., 1992; Krause & VanTran, 1989; Maton, 1989; Zuckerman, Kasl, & Ostfeld, 1984). In one undergraduate sample (Maton, 1989) and four elderly samples (Brown & Gary, 1987; Idler, 1987; Koening et al., 1992; Krause & VanTran, 1989; Zuckerman et al., 1984), the Stress X Religious Coping interaction term did not significantly predict physical or psychological symptomatology. In addition, as predicted by the additive effects model, the effect of stress on symptoms and on religious coping in each of these studies was significant and positive, and religious coping exerted a direct negative effect on symptomatology. However, these studies present far from conclusive evidence for the additive effects model. None explicitly sought to examine their data for this form of stress-buffering and, thus, did not report statistical analyses that assessed whether the direct effect of stress on symptoms increased when the effect of religious coping was controlled, as Wheaton (1985) suggests is the case when an additive effects form of stress-buffering is present. Thus, if the theoretical religious writings and empirical evidence on religiousness and religious coping reviewed above are integrated, they suggest that religious coping may act as a stress buffer according to the additive effects model depicted in Figure 2. However, more explicit assessment of the potential way(s) in which religious coping buffers the negative psychological effects of stress is needed.

Rationale for the Present Study

More than 90% of Americans report they believe in God and have had at least one "religious experience" in their lives (Gallup & Castelli, 1989). The majority of "baby boomers" in a recent epidemiological survey stated they believe in God and are formally affiliated with, or regularly attend, church (Roof, 1993). Thus, religiousness and religious coping could play an important role in the psychological adjustment of many individuals. An increased understanding of how different ways of being religious contribute to adjustment, identification of variables that may mediate between more general religious dispositions and psychological adaptation, and identification of the circumstances under which religious factors affect mental health could potentially lead to more effective psychological and religious interventions with religious persons.

Research examining the complex relationships among stress, dispositional religiousness, religious coping, and psychological adaptation suggests that 1) dispositional religious factors are related to religious coping, 2) specific types of religious dispositions may be related to preference for specific forms of religious coping, 3) religious coping may act as an intervening variable that determines the functional impact of religiousness on mental health, 4) some types of religious coping may be related to mental health while others are not, and 5) religious coping may exert its effects on psychological adjustment by buffering the negative impact of high stress while having little relationship to psychological adaptation in low-stress

conditions (i.e. it may act as a stress buffer). (See Figure 3 for a summary of these proposed relationships.)

However, much remains to be understood regarding these relationships. These questions can be organized into three general areas that will serve as the focus for this investigation: 1) understanding the nature of religious coping, 2) understanding the relationship between trait-like religious dispositions and the use of religious coping, and 3) understanding the relationship between the use of religious coping and psychological adjustment. Lastly, the potential influence of demographic factors on the relationship of religious coping and psychological adjustment will be considered.

The nature of religious coping. The research reviewed above suggests that religious coping is a multidimensional construct (Pargament et al., 1990; Pargament et al., 1988). Initial studies of the factor structure of religious coping (Pargament et al., 1990) and of the related concept of religious problem-solving (Pargament et al., 1988) indicated that religious coping consists of discrete interpretable factors. However, as the above literature review discussed, difficulties exist with both extant measures. Pargament et al.'s (1990) measure of religious coping contains a number of ambiguously worded items that refer to conceptually distinct domains of religious coping. In addition, some factors are comprised of only a few items (e.g., religious support) and, therefore, may inadequately sample the domain of coping they purport to measure. Moreover, because factor analysis is essentially a descriptive statistical procedure (Armstrong & Soelberg, 1968; Comrey, 1973), the factor structure of religious coping needs to be replicated in order to

determine whether proposed factors are, in fact, generalizable. This study will explore further the factor structure of religious coping by conducting a factor analysis of Pargament et al.'s (1990) religious coping activities scale in which ambiguous items have been reworded or deleted and to which additional items that sample under-represented domains of religious coping have been added (hypothesis I).

The relationship between dispositional religiousness and religious coping. Both theoretical writings and empirical research reviewed above suggests that trait-like religious dispositions may be related to the use of religious coping. Lazarus and Folkman's (1984) conceptualization that non-religious coping is influenced by both personality dispositions and situational factors sets the stage for our understanding of religious coping as influenced by religious dispositions as well as situational stress. The current study will explore the question of whether trait-like religious dispositions are related to a believer's self-reported use of religious coping (hypothesis II).

Further, this study will explore whether certain types of religiousness relate to the use of certain forms of religious coping but not others (hypothesis III). The few empirical studies that has been conducted addressing this question support the assertion that religious dispositions are related to preferences for certain religious problem-solving styles (Pargament et al., 1988) and forms of religious coping (Pargament et al., 1992). Three types of religious dispositions have been consistently distinguished in the literature (intrinsic religious orientation, extrinsic religious orientation, and relatedness-to-God). Two of these dispositions have been found to relate to specific forms of religious problem-solving (Pargament et al., 1988) and religious coping (Pargament et al., 1992). Consistent with these empirical

investigations and with Allport and Ross's (1967) conceptualization of intrinsic religious orientation as one in which the believer attempts to integrate religion into all aspects of life, it is predicted that intrinsic orientation in this study will relate to more than one religious coping style (hypothesis III). In contrast, because extrinsic religiousness has been related both theoretically and empirically to a more constricted, utilitarian approach to religion, it is expected to relate to only a single form of religious coping (hypothesis III). In addition, a third religious disposition, relatedness to God (measured by Ellison's (1983) religious well-being subscale) will be related to religious coping. The relationship between this variable and religious coping has not previously been investigated. However, theoretical work and empirical research reviewed above suggests that persons who have a close personal relationship with God may be more comforted by (and hence prefer) religious coping methods that rely on communion with God (hypothesis III).

Empirical research on dispositional religiousness has examined the relationship between religious orientation and religious coping. Researchers have found that intrinsic orientation is associated with forms of coping in which the believer shares responsibility for solving stressful circumstances with God as well as forms of coping that rely on God to alleviate difficulties (Pargament et al., 1988; Pargament et al., 1992). However, an extrinsic religious orientation has been found to relate only to forms of coping that rely on God's omnipotence to solve stressful circumstances (Pargament et al., 1988; Pargament et al., 1992). Thus, this study will add to the literature by further exploring the connection between specific religious dispositions and forms of religious coping (hypothesis IV).

The relationships among stress, religious coping, and psychological adjustment. Both the theological writings and empirical research reviewed above suggest that religious coping may attenuate the negative effects of stress on psychological adjustment. However, an additional critical question remains regarding how religious coping reduces the deleterious effects of stress on adaptation. Two forms of stress-buffering have been proposed in the stress and coping literature. While empirical studies of religious coping tend to support an additive effects model of stress-buffering, a test of this model, or of stress-buffering in general, has rarely been the explicit focus of this research. Moreover, studies that report results consistent with the additive effects model, have not thoroughly tested this model by examining the effects of stress with coping controlled. Thus this study will examine 1) whether religious coping acts as a stress-buffer, and if so, 2) whether an additive or interactive model of stress-buffering accurately describes religious coping's effects on adjustment (hypothesis V).

In addition, the few studies that have investigated the relationship of religious coping (or religious problem-solving) and psychological adjustment suggest that some forms of religious coping may be related to mental health while others are not (Pargament et al., 1988; Pargament et al., 1990; Schaefer & Gorsuch, 1991). It is expected that, consistent with previous findings, forms of religious coping that balance reliance on God with responsibility for solving one's problems will be related to better adjustment, while forms of religious coping that rely solely on God's omnipotence to solve difficulties will be related to poorer mental health (hypothesis VI). Additionally, consistent with findings on religious problem-solving (Pargament

et al., 1988; Schaefer & Gorsuch, 1991), it is predicted that forms of religious coping that express the believer's alienation or disengagement from his faith will relate to poor psychological adjustment (hypothesis VI).

Religious Coping and Demographic Factors. Although large national surveys suggest that persons who rate themselves as more "religious" tend to be older, female, African American, and employed in unskilled occupations (e.g., Princeton Religious Research Center, 1982), relatively few empirical studies have investigated how these demographic factors may affect the use or efficacy of religious coping. The few studies that have examined this relationship suggest that the connection between religious coping and better psychological adjustment transcends issues of age, gender, and socioeconomic status.

Both religious problem-solving and religious coping have been associated with better adjustment among college students (Schaefer & Gorsuch, 1991; Park et al., 1991) and middle-age adults (Pargament et al., 1988; Pargament et al., 1990). Only one study of college students reported that religious coping factors were negatively related to better mental health (Pargament et al., 1991). Similarly, the stress-buffering effects of religious coping have been found in college students (Maton, 1989; Park et al., 1990) as well as the elderly (Brown & Gary, 1987; Idler, 1987; Koenig, et al., 1992; Krause & VanTran, 1989; Zuckerman et al., 1984). Some of these studies note that the demographic variable of age is positively correlated with better adjustment independent of religious variables (Brown & Gary, 1987; Koenig et al., 1992; Pargament, 1990).

Although differences between men and women have not been as consistently examined, investigators who conducted separate analyses for men and women or who report correlations of gender with coping and mental health have not found significant differences (Chan, 1994; Park et al., 1990; Pargament et al., 1988). Consistent with national demographic data on religiousness that indicates women tend to be more religious and participate more actively in their faith (e.g., Princeton Religious Research Center, 1982), the majority of participants in studies of religious coping were women (Pargament et al., 1988; Pargament et al., 1990; Schaefer & Gorsuch, 1991; Idler, 1987). Moreover, while most large national surveys in an area of religious research similar to religious coping (i.e. "faith development"), report that differences between men and women are not statistically significant, a few statistically significant gender differences have emerged suggesting that women are more likely to utilize "relational" or social support aspects of their faith than men (e.g., Antosz, 1990; Gallup & Poling, 1980; Stokes, 1987).

Socioeconomic status has been assessed in only a minority of studies (Pargament et al., 1988; Pargament et al., 1990). While it has not been related to religious variables in these studies, Pargament et al. (1990) found it was significantly correlated with better overall mental health.

Because age has occasionally been found to relate to more positive psychological adjustment, its effects will be partialled out of regression results in this study. Moreover, the relationship of gender and socioeconomic status to both dependent and independent variables will be examined prior to testing study hypotheses.

Study Hypotheses

Utilizing the above literature review as a guide, six hypotheses were formulated. Predictions are grouped according to the general issue they address. Hierarchical multiple regressions were used to test proposed relationships among religiousness, stress, religious coping, and psychological adaptation.

In the first set of hierarchical equations, religious coping was regressed on three types of dispositional religiousness (intrinsic, extrinsic, and religious well-being) and stress[3]. After examining the relationship between stress, dispositional religiousness variables, and overall religious coping (hypothesis II), the relationship of individual dispositional religiousness variables to individual religious coping factors was explored by examining the incremental increases in predictive variance each dispositional variable explained when the effects of the other dispositional variables were partialled out ($\triangle \underline{R}^2$) (hypothesis III & IV).

In the second set of regression equations, psychological symptomatology was regressed on stress and religious coping. An additive effects stress-buffering model (hypothesis V) was tested by examining regression coefficients for stress

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[3] As Figure 3 indicates, this study hypothesized that variation in religious coping would be predicted by both stress and dispositional religiousness. Thus both were entered into regressions predicting religious coping. Note that hypotheses regarding the role of dispositional religiousness in predicting religious coping are described in hypothesis II, III, and IV. However, the relationship of stress to religious coping is related to the stress-buffering hypothesis (V). Therefore, although regressions predicting religious coping contained both stress and dispositional religiousness variables (intrinsic, extrinsic, religious well-being), the rationale for inclusion of each variable and the relationships predicted derive from different sets of hypotheses. To simplify reporting results, regression analyses predicting religious coping from stress and dispositional religiousness will be reported under hypotheses II, III, and IV; however, the stress-religious coping relationship will be reiterated in the stress-buffering section for hypothesis V.

predicting overall religious coping and stress and overall religious coping predicting symptomatology (see Figure 2). Then, the relationships of individual religious coping factors to symptomatology were explored by examining the incremental increases in predictive variance each religious coping factor explained when the effects of the other religious coping factors were partialled out ($\triangle R^2$) (hypothesis VI).

Hypothesis Regarding the Measurement of Religious Coping

I. A factor analysis of the religious coping scale developed for this study was conducted. It was predicted that more than one factor would emerge.

Hypothesis Regarding the Role of Stress and Dispositional Religiousness in Predicting Religious Coping

II. As depicted in Figure 3, it was hypothesized that religious coping would be positively related to both stress level and dispositional religiousness. To test this assertion, overall religious coping was regressed on dispositional religiousness (intrinsic, extrinsic, religious well-being) and stress (Table 1). The order of entry for the religiousness terms (intrinsic, extrinsic, or religious well-being score) was rotated so that unique effects of each type of religious disposition could be tested for statistical significance (Table 1). It was expected that each type of dispositional religiousness would explain significant variation in overall religious coping.

Hypotheses Regarding *Individual* Dispositional Religiousness Measures and *Individual* Religious Coping Factors

III. The relationships between *individual* dispositional variables and *individual* religious coping factors were also explored. Both intrinsic religiousness and religious well-being were expected to predict significant variation in more than one religious coping factor, while extrinsic religiousness was expected to be significantly related to the use of only one coping factor.

IV. Consistent with Pargament's previous work, intrinsic religiousness was expected to explain significant variation in forms of religious coping in which the individual shares responsibility with God. Intrinsic religiousness was also expected to predict forms of coping that rely on God to relieve difficult circumstances. However, extrinsic religiousness was expected to be related to a more passive coping style.

Both hypothesis III and IV were tested by examining the amount of variance in individual religious coping factors explained by each type of dispositional religiousness beyond the effects of stress and the other two forms of dispositional religiousness (Table 1). Thus each religious coping factor (God-centered, people-centered, bargaining, and alienated) was regressed on stress and the three dispositional religiousness variables (intrinsic, extrinsic, and religious well-being). The statistical significance of incremental increases in $\triangle \underline{R}^2$ for each dispositional religiousness variable when entered last in the regression equation was examined.

Hypothesis Regarding the Role of Stress and Religious Coping in Predicting Psychological Adjustment

V. Consistent with the additive effects model of stress-buffering depicted in Figure 2, it was hypothesized that stress would be significantly positively related to psychological symptomatology and significantly positively related to overall religious coping; however, overall religious coping would be significantly negatively related to symptomatology. To test this hypothesis, three hierarchical equations were computed by entering the stress term first, overall religious coping score second, and the interaction term (stress x religious coping) last,[4] to predict 3 indices of psychological symptomatology (total symptom score; depression score; anxiety score) (Table 1). In addition, results from the regression of stress and dispositional religiousness variables was examined to determine whether stress predicted significant variation in religious coping. It was anticipated that the interaction term would not explain a statistically significant amount of variation in any of the three symptom indices. Further, it was anticipated that both the stress term and the religious coping term would explain significant variation in measures of psychological adjustment and that stress would predict significant variation

[4] Because this study is concerned with testing which form of stress-buffering characterizes religious coping, regression equations will include terms that test for the interaction effects model (i.e. a stress x coping interaction term) as well as the additive effects model. As Wheaton (1985) suggests "for future research...the emphasis must be on complete models--rather than on single equations--if we are to fully understand stress-buffering. Consideration of results of a single regression analysis... or with only whether coping has... [an] interactive effect is insufficient" (p. 360).

in religious coping. Standardized beta coefficients were examined in the full regression equations to determine whether stress was positively associated with symptoms and religious coping, and whether religious coping was negatively associated with symptoms. In addition, if examination of the standardized partial regression coefficients indicated that religious coping was functioning as a suppressor variable (i.e. if it was positively related to stress and negatively related to symptoms), then its suppressor role would be further explored by determining whether the impact of stress on symptoms increased when religious coping was controlled (Wheaton, 1985, p. 357).

Hypothesis Regarding *Individual* Religious Coping Factors and Psychological Adjustment

VI. It was expected that individual religious coping factors would be differently related to symptomatology. Consistent with Pargament's work, it was expected that coping that balanced collaborative strategies with deferring strategies would be significantly negatively related to symptomatology while coping that consisted solely of deferring or disengaged strategies would be positively related to symptoms. To test this hypothesis, three indices of symptomatology (overall symptom score, anxiety score, depression score) were regressed on stress and the religious coping factors (God-centered, people-centered, bargaining, alienated) (Table 1). The amount of variance in psychological symptomatology

explained by each form of religious coping, with effects of stress and the other religious coping factors partialled out, was tested for statistical significance, and the standardized partial regression coefficients were examined.

METHOD

Participants

Participants were 511 undergraduates at Michigan State University who completed study questionnaires in order to fulfill their research participation requirement. Data from eight subjects were not included due to extremely aberrant response patterns and/or behavior during testing suggesting that the individual was not answering accurately. For example, one student was observed alternately dozing and then answering numerous questions without referring to the questionnaire.

The remaining 503 subjects were used for all subsequent data analyses. The mean age of participants was 20.10 years, more than 60% were female, most were Caucasian, and the majority were Christian (Tables 2 and 3). Few participants indicated they did not believe in God. All subjects were retained for data analysis regardless of the degree of religiousness they endorsed or the type of religion they professed (e.g., Christian, Jewish, Muslim).

Measures

Participants completed a battery of measures that assessed the constructs of interest in this study: dispositional religiousness, religious coping, stressful life events, and psychological adjustment. The scales are described below.

Dispositional Religiousness

Three measures of dispositional religiousness were obtained. Each assesses a different religious attitude.

Intrinsic religious orientation. This study used Allport and Ross's (1967) nine-item subscale of intrinsic religious commitment. Subjects rate how much they

agree or disagree with statements on a 5-point Likert scale (1=I definitely disagree; 5=I definitely agree). Items include statements such as "My religious beliefs are what really lie behind my whole approach to life." Kuder Richardson internal consistencies for the intrinsic subscale have generally been above .85 (e.g., Kahoe, 1974; Spilka, Stout, Minton, & Sizemore, 1977). However, some researchers have reported alpha internal consistencies as low as .67 (Batson, 1976). The internal consistency for the current sample (N=503) was alpha=.88. Allport and Ross's scale has demonstrated adequate test-retest reliability and validity which has been extensively reviewed in the literature (e.g., Donahue, 1985b; Robinson & Shaver, 1973). Intrinsic orientation was calculated by totalling responses to the nine items on the intrinsic subscale. Higher scores indicate greater intrinsic orientation or commitment. See Appendix C for a copy of this measure.

Extrinsic religious orientation. This dimension of religiousness was measured using Allport and Ross's (1967) 11-item subscale of extrinsic religious commitment. As was the case for the intrinsic subscale, subjects rate how much they agree or disagree with statements on a 5-point Likert scale (1=I definitely disagree; 5=I definitely agree). Items include statements such as "The primary purpose of prayer is to gain relief and protection." Researchers have reported alpha reliabilities ranging from .69 to .82 and test-retest reliabilities above .80 for this scale. (For reviews see Donahue, 1985b; Hood, 1971; Robinson & Shaver, 1973.) The internal consistency for the present sample was alpha=.68. Extrinsic orientation was calculated by summing the 11 items on the extrinsic subscale. Higher scores indicate

greater commitment to an extrinsic orientation. See Appendix C for a copy of this measure.

Relatedness to God. This religious attitude was assessed using the 10-item "religious well-being" (RWB) subscale of Ellison's (1983) Spiritual Well-Being Scale (SWBS). To complete the RWB, subjects rate how much each statement describes their own personal religious experience by agreeing or disagreeing with each statement on a five-point Likert scale (1=strongly disagree; 5=strongly agree). Subjects are asked to respond to items such as, "I don't find much satisfaction in private prayer with God" (reverse scored), and "I have a personally meaningful relationship with God." The SWBS as a whole has demonstrated test-retest reliability above .85 in three samples after one, four, and ten weeks. (For a review see Bufford et al., 1991.) Internal consistency (alpha coefficient) for the religious well-being subscale was above .84 in eight samples. (Bernardo, 1988; Bufford et al., 1991.) Internal consistency for the present sample for the religious well-being subscale was alpha=.93. The validity of this subscale has also been established (see literature review above). Total score on the RWB subscale was employed as a measure of relatedness to God with higher scores indicating greater relatedness. See Appendix C for a copy of this measure.

Religious Coping

This study utilized a new measure of religious coping that builds upon Pargament et al.'s 1990 Religious Coping Activities Scale (RCAS). Unambiguous items from the RCAS were retained. In addition, a number of items that describe different types of specific problem-focused and emotion-focused coping activities were

added. For example, the item "My faith showed me different ways to handle the problem" (Pargament et al., 1990) was replaced by specific coping activities such as "I used my faith to decide what action I should take to change the situation" and "I tried to see what positive lesson God was trying to teach me."

Forty-six religious coping activities were selected from a larger list generated by compiling items from other religious coping scales (e.g., Bjorck, 1991) and asking five religious graduate students (2 male and 3 female) to generate descriptors of additional ways in which they used their religion during times of stress. The final selection of items is intended to assess a diverse repertoire of religious coping activities. These items reflect problem-focused, emotion-focused, and avoidant approaches to coping and describe the use of many different types of religious resources: interpersonal, spiritual, cognitive, social, and tangible/material.

Study participants indicated the degree to which they employed the described religious activity when coping with the events of the past 6 months. A four-point Likert scale (1=not at all; 4=a lot) was used. A principal factors analysis of these items yielded a four factor solution (God-centered, person-centered, bargaining, and alienated religious coping). The overall Religious Coping Scale demonstrated an internal consistency reliability of alpha =.93. The religious coping factors demonstrated alpha reliabilities of .95, .79, .84, and .70, for God-centered, people-centered, bargaining, and alienated religious coping, respectively. See Appendix C for a copy of this measure.

Stressful Life Events

The College Student Life Events Schedule (CSLES; Sandler & Lakey, 1982) was used to assess stressful life events. Subjects report whether 111 specific life events occurred in the last six months. They then indicate whether an experienced event was negative, neutral, or positive. In addition, this measure of life events was developed for the particular life circumstances of college students and therefore contains a number of potentially stressful items that may tap salient stressors (e.g., course work) for this age-group that other life events scales do not include. The CSLES has high test-retest reliability. Sandler & Lakey (1982) report a 2-day test-retest reliability coefficient for the total event score of $r=.92$.

A number of studies have demonstrated that a simple count of self-rated negative life events is an efficient strategy for assessing recent stress (e.g., Nelson & Cohen, 1983; Swearingen & Cohen, 1985). Therefore, this study obtained stress scores by summing the number of self-rated negative life events for the past six months. Higher scores indicate a greater number of stressful life events in the past year. See Appendix C for a copy of this measure.

Psychological Adaptation

The Hopkins Symptom Checklist (HSCL), developed by Derogatis and his associates, was used to assess the level of psychological symptomatology. Subjects report the extent to which they have experienced 45 psychological symptoms for the preceding six months (Derogatis, Lipman, Uhlenhuth, & Covi, 1974). Ratings are made on a Likert scale (1=not at all; 4=extremely). The HSCL assesses

psychological distress along five subscales: somatization, obsessive-compulsive, interpersonal sensitivity, anxiety, and depression (Derogatis et al., 1970). However, due to high intercorrelations among the subscales, total scale score is often used as an outcome variable (e.g., Derogatis et al., 1970; Folkman, Lazarus, Gruen, & DeLongis, 1986). In this study, HSCL factors were moderately correlated, ranging from .56 to .77 (Table 4). However, because much of the research on religiousness and psychological adjustment has focused on outcome measures of depression and anxiety, this study will examine the effects of independent variables on both a total symptom score and separate depression and anxiety subscale scores. All subscales as well as total scale scores have demonstrated test-retest and internal consistency reliabilities above .80. (See Derogatis et al., 1970, for a review.) In the current study HSCL total score alpha was .94; depression, anxiety, somatic, obsessive-compulsive, and interpersonal sensitivity subscale internal consistency reliabilities were .80, .80, .80, .85, and .77, respectively. A number of studies indicate that the HSCL also possesses adequate criterion validity. (For a review see Derogatis et al., 1974.) Moreover, the HSCL has demonstrated sensitivity to low levels of symptoms in normal populations (Rickels, Lipman, Garcia, & Fisher, 1972; Uhlenhuth, Lipman, Balter, & Stern, 1974). Both the total HSCL symptom score was calculated by summing all HSCL items. HSCL subscale scores for depression and anxiety were calculated by adding responses for these subscales. See Appendix C for a copy of this measure.

General Demographic and Religious Information. General demographic information (e.g., age, gender, parental income) was also obtained to determine

whether these factors account for spurious correlations in the measures of interest. Demographic questions regarding gender, age, and ethnicity, as well as history of religious affiliation and level of religious involvement, were obtained in order to examine variables possibly confounded with study variables (e.g., gender or SES may be confounded with both religiousness and symptomatology). Socioeconomic status was assessed using a questionnaire form of the Revised Duncan Socioeconomic Index (Stevens & Featherman, 1981). See Appendix C for a copy of demographic questions.

Procedure

The battery of questionnaires was administered to 511 subjects during Spring Semester, 1993. Surveys were administered in groups of 50. Prior to participation, subjects were invited to read the consent statement in their packet while the first author read the statement aloud (see Appendix D for a copy of consent statement). Participants indicated their consent by turning in completed questionnaires. Subjects finished all measures in approximately 1 1/2 hours. A number of reminders were printed on the questionnaires and on the black board at the front of the room to help minimize errors in completing questionnaires (e.g., reminders to check the number on Scantron sheet at the bottom of each page and to think of events in the last six months). The author and at least one research assistant were present at all administrations in order to insure standardization of instructions and answer questions. No negative effects on participants were observed or reported from the completion of this battery.

RESULTS

This study investigated the role of dispositional religiousness and religious coping in attenuating the connection between stressful life events and psychological symptomatology. Because it focuses on comparing different types and levels of religiousness, all study participants were retained for data analysis regardless of their level of interest in religion or their religious affiliation. In addition, because this study tests hypotheses requiring a number of multiple regression equations, conservative significance levels were used (i.e. $p < .01$).

Measurement of Religious Coping (Hypothesis I)

It was hypothesized that, consistent with previously published research on religious problem-solving and religious coping, factor analysis of the religious coping questionnaire would yield more than one factor. After 11 items were eliminated due to extreme positive skew or restricted range (Afifi & Clark, 1984; Gorsuch, 1985), 35 items from the religious coping scale were entered into a principal factors analysis with squared multiple correlations used as initial commonality estimates and a Varimax rotation. Using Cattell's scree test and Kaiser's criterion in conjunction with interpretability (Tinsley & Tinsley, 1987), a four-factor solution was chosen which accounted for almost 100% of the common variance and 50% of the total variance in religious coping items (Table 5). Final commonalities ranged from .17 to .73. (See Table 6 for final commonalities for each item.)

Items were retained on a factor if their correlation with that factor (i.e. factor loading) was greater than .40 (Gorsuch, 1985), and their correlation with the other three factors was statistically significantly lower than their correlation with the

factor on which they loaded.[5] This criterion was met for all items except two on the bargaining religious coping scale. The items "prayed that God would help me forget what had happened and get on with my life" and "hoped that God would take the burden from me" correlated .40 and .41, respectively, with the God-centered coping factor, and .49 and .51, respectively, with the bargaining religious coping factor. These two items were therefore eliminated from the scale. (See Table 7 for complete item factor loadings.)

Internal consistency reliabilities were calculated for the total religious coping scale (alpha=.93) and each religious coping factor (.95, .79, .84, .70 for God-centered, people-centered, bargaining, and alienated religious coping, respectively) (Table 8). Religious coping factors scores demonstrated a wide range of correlations with the total religious coping scale score (r=.94 to r=.18) and moderate to low correlations among each other (r=.59 to r =-.04) (Table 9).

The first factor, labeled God-centered religious coping, emphasizes a personal, loving, close connection with God that is utilized to provide emotional reassurance, positive reframing of negative events, and acceptance of personal limitations and loss of control. Of the four religious coping factors, God-centered religious coping explained the largest percentage of common variance in religious coping and was used most frequently in this sample (Tables 5 and 8).

In the second factor, people-centered religious coping, the emphasis shifts from a personal connection with the Divine to reliance on emotional forms of social

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[5] Thus for 503 subjects, the minimum difference between factor loadings needed to equal or exceed .07 (p<.05) for an item to be retained on a factor (Comrey, 1973; Gorsuch, 1985).

support from members of one's religious community. People-centered religious coping accounted for more than 10% of the common variance in religious coping; however, of the four religious coping factors, it was the least frequently used in this sample (Tables 5 and 8).

The third religious coping factor, bargaining religious coping, assesses a domain of religious coping in which the believer relies on God's omnipotence to mitigate stressful circumstances. This factor includes both exchange strategies, in which the believer promises to change if God intercedes, and pleas for help. This type of religious coping accounted for more than 15% of the common variance in religious coping and was frequently employed by study participants (Tables 5 and 8). Interestingly, this factor also included the item "let God know how angry I was feeling." The high correlation of this item with other bargaining strategies suggests that participants may have interpreted this item as a manipulative expression of anger in the hope that God will intervene to alleviate suffering.

In contrast to the previous religious coping factors, the fourth factor, alienated religious coping, measures active struggling with negative emotions toward God and one's religious community and feelings of distance from one's faith. This coping strategy explained about 6% of the common variance in religious coping (Table 5).

The Role of Dispositional Religiousness in Predicting the Use of Religious Coping (Hypothesis II)

Participants in this study reported a moderate level of dispositional religiousness as reflected in scores of intrinsic religious orientation ($\underline{M}$=2.58),

extrinsic religious orientation (M=2.58), and religious well-being (M=3.45). The reported level of religious coping was low (M=2.02) (Table 10).

Dispositional religiousness measures demonstrated a wide range of intercorrelations (Table 11). Extrinsic religious orientation was significantly but modestly correlated with both intrinsic religiousness and religious well-being (r=.25 and r=.23, respectively). However, intrinsic religious commitment was highly correlated with religious well-being (r=.80). Religious coping factors demonstrated low to moderate intercorrelations (ranging from r=-.04 to r=.59). However, they were generally moderately to highly correlated with two dispositional religiousness variables. Both intrinsic religious orientation and religious well-being demonstrated high correlations with God-centered and people-centered religious coping, moderate correlations with bargaining religious coping, and low correlations with alienated religious coping (Table 11). Extrinsic religious orientation was modestly correlated with bargaining religious coping and demonstrated low correlations with other religious coping factors (Table 11).

Three hierarchical multiple regressions[6] were conducted to assess the influence of dispositional religiousness on the use of religious coping. It was hypothesized that dispositional religiousness would account for significant variation in religious coping (hypothesis II). To test this hypothesis, the three dispositional

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[6] To assess whether regression assumptions of linearity, normality, and homoscedasticity were violated, scatter diagrams and residuals for each regression equation were examined. Specifically, to insure that a linear relationship existed between the dependent and independent variables, each dependent variable was plotted against each independent variable. To assess whether, for each value of the independent variable, values of the dependent variable were normally distributed, a histogram of the residuals was examined for each regression equation. The assumption of homoscedasticity was examined by plotting regression residuals against predicted values of the criterion. For all sets of regression equations none of the regression assumptions were grossly violated.

religiousness variables (intrinsic, extrinsic, and religious well-being) were regressed on total religious coping score, order of entry was varied so that the contribution of each dispositional religiousness variable could be assessed beyond the effects of the other two religious dispositions. Because age was significantly correlated with one of the predictors in this set of regression equations (Table 12), and gender was significantly correlated with outcome in regression equations addressing subsequent hypotheses, the demographic variables of age and gender were entered first into all multiple regression equations to partial out their effects and standardize the regressions across analyses. Also, because stress was hypothesized to be related to religious coping (hypothesis V and Figure 3), it was entered into the regression equation prior to the dispositional religiousness variables to determine its effects.

As predicted, stress ($\triangle R^2 = .03$, $p < .001$), religious well-being ($\triangle R^2 = .07$, $p < .001$) and intrinsic religiousness ($\triangle R^2 = .04$, $p < .001$), each explained significant variation in overall religious coping (Table 13). However, contrary to predictions, extrinsic religiousness did not predict significant variation in overall religious coping ($\triangle R^2 = .00$). Inspection of the standardized beta coefficients in a fully simultaneous model indicates that, as predicted, increases in stress, intrinsic religiousness, and religious well-being were associated with increases in overall religious coping. However, while extrinsic religiousness was positively related to overall religious coping, this beta coefficient did not attain statistical significance (Table 14).

The Relationship of Stress and *Individual* Dispositional Religiousness Factors to *Individual* Religious Coping Factors (Hypotheses III & IV)

It was predicted that intrinsic religiousness and religious well-being would predict more than one form of religious coping (hypothesis III), and that intrinsic religiousness would be related to forms of religious coping in which the individual worked collaboratively with God and that relied on God to relieve difficult circumstances (hypothesis IV). Extrinsic religious commitment, on the other hand, was expected to be significantly related to only one form of religious coping (hypothesis III) that utilized a more passive coping style relying on God's omnipotence to solve the problem (hypothesis IV).[7]

The influences of stress and individual dispositional religiousness variables on individual religious coping factors were explored in a set of 12 regression equations in which religious coping factors were regressed on stress and individual dispositional religiousness measures (intrinsic, extrinsic, religious well-being). Order of entry was varied so that the resulting increase in $\underline{R}^2$ reflects the incremental contribution of the dispositional religiousness variable beyond the effects of stress and the other two dispositional religiousness variables. As in the initial regression equation, the demographic variables of age and gender were entered first to partial out their effects and standardize regressions across analyses.

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[7] Although no specific hypotheses were formulated regarding the role of stress in predicting individual types of religious coping, this predictor variable was included in the regression equations because the stress-buffering model proposed in hypothesis V suggests it is related to religious coping. Potential differential effects of stress on different types of religious coping will be reported in this section.

Examination of the proportion of variance accounted for in religious coping by each individual dispositional religiousness measure over and above the effects of the other two dispositional measures and stress indicated that different dispositional religiousness variables contributed unique variance to different religious coping factors (Table 15). Religious well-being predicted a significant proportion of variance in God-centered coping ($\triangle R^2 = .10$, $p < .001$) and bargaining religious coping ($\triangle R^2 = .03$, $p < .001$). Intrinsic religious orientation contributed unique variance to God-centered ($\triangle R^2 = .04$, $p < .001$) and people-centered religious coping ($\triangle R^2 = .11$, $p < .001$). Extrinsic religious commitment contributed significantly to the prediction of bargaining ($\triangle R^2 = .07$, $p < .001$) and alienated religious coping ($\triangle R^2 = .02$, $p < .01$). In addition, stress was a significant predictor of bargaining religious coping ($\triangle R^2 = .07$, $p < .001$) and alienated religious coping ($\triangle R^2 = .05$, $p < .001$) but not of God-centered ($\triangle R^2 = .01$) or people-centered religious coping ($\triangle R^2 = .01$) (Table 15). Inspection of the standardized beta coefficients in a fully simultaneous model containing all independent variables indicated that, as predicted, increases in significant predictors were associated with increases in religious coping (Tables 16-19).

The Role of Stress and Religious Coping in Predicting Psychological Adjustment (Hypothesis V)

As shown in Tables 10 and 20, participants in this sample reported low levels of religious coping (total religious coping, $M = 2.02$) and psychiatric symptomatology (total symptom score, $M = 1.82$). Stressful life events score was moderately correlated with psychiatric outcome, with correlations ranging from $r = .32$

to r=.50 (Table 21). Stress also demonstrated low to moderate correlations with religious coping, with correlations ranging from r=.08 to r=.28 (Table 12). Religious coping demonstrated low to moderate correlations with psychiatric symptoms, ranging from r=.04 to r=.32 (Table 21).

Consistent with the additive effects model in Figure 2, it was hypothesized that stress would predict significant variation in religious coping and symptoms and would be positively related to both variables. Religious coping would also predict significant variation in symptomatology and would be negatively related to symptoms.

A set of four regression equations tested an additive effects versus interaction effects model of stress-buffering. In these analyses, demographics, stress, and overall religious coping score were entered; the second-order stress X religious coping interaction term was entered last to test its significance beyond the effects of the first-order terms. The additive effects versus interaction effects model was tested for three indicators of psychiatric distress (total symptomatology score, depression score, and anxiety score). In addition, the regression of overall religious coping on stress was examined to determine if stress predicted variation in religious coping.

Regression results indicate that, consistent with an additive effects model, stress explained significant variation in overall religious coping ($\triangle R^2$=.03, p<.001) (Table 13) and psychiatric symptomatology (Table 22). Stress contributed significantly to the prediction of overall psychiatric symptoms ($\triangle R^2$=.21, p<.001), depression ($\triangle R^2$=.23, p<.001), and anxiety ($\triangle R^2$=.11, p<.001). Overall religious coping predicted significant variation in total psychiatric symptomatology ($\triangle R^2$=.02, p<.001) and anxiety ($\triangle R^2$=.04, p<.001) but not depression ($\triangle R^2$=.01). As

predicted, the stress X overall religious coping interaction terms did not explain significant variation in psychiatric symptomatology scores (Table 22).

Examination of the standardized partial regression coefficients in a fully simultaneous model indicates that, as predicted, stress exhibited a significant positive relationship to religious coping (Table 14) and psychiatric symptomatology (Table 23). Contrary to predictions, total religious coping also exhibited a positive relationship to psychiatric distress, although the beta coefficients did not attain statistical significance for any of the psychiatric outcome variables (Table 23). Interaction terms were dropped from subsequent regression analyses.

The Role of Individual Religious Coping Factors and Stress in Predicting Psychological Adjustment (Hypothesis VI)

Hypothesis VI predicted that individual religious coping factors that balanced collaborative strategies with deferring strategies would be negatively related to symptomatology, while coping factors that consisted of disengaged or deferring strategies would be positively related to psychiatric distress.

This hypothesis was tested in a series of 12 regression equations in which the three psychological symptomatology variables (overall psychiatric symptoms, depression, and anxiety) were regressed on the four individual religious coping factors. Order of entry was varied so that the resulting increase in $\underline{R}^2$ reflected the incremental contribution of the religious coping variable beyond the effects of demographics, stress, and the other religious coping variables. Two aspects of the resulting regression equations were examined to investigate hypothesis VI. First, the increases in $\underline{R}^2$ were inspected to determine which religious coping factors were

associated with psychological symptomatology. Second, the standardized partial regression coefficients in a fully simultaneous model of psychiatric symptoms containing all religious coping factors were examined to determine whether individual religious coping factors were positively or negatively related to psychological symptoms, when the effects of stress and alternate religious coping factors were partialled out.

Examination of the increase in $\underline{R}^2$ for each religious coping factor beyond the effects of demographics, stress, and the other religious coping factors indicated that God-centered religious coping and people-centered religious coping did not contribute significant unique variance to the prediction of psychological symptoms (Table 24). However, bargaining religious coping and alienated religious coping did predict significant variation in all three measures of psychiatric symptoms (Table 24). Bargaining religious coping contributed significant unique variance to overall symptomatology ($\triangle\underline{R}^2=.02$, $\underline{p}<.001$), depression ($\triangle\underline{R}^2=.01$, $\underline{p}<.001$), and anxiety ($\triangle\underline{R}^2=.01$, $\underline{p}<.01$). Similarly, alienated religious coping predicted significant variation in all three measures of psychiatric outcome (overall symptomatology, $\triangle\underline{R}^2=.02$, $\underline{p}<.001$; depression, $\triangle\underline{R}^2=.02$, $\underline{p}<.001$; and anxiety, $\triangle\underline{R}^2=.02$, $\underline{p}<.001$).

Examination of standardized partial regression coefficients for the individual religious coping factors suggests that, as predicted, psychological symptomatology was positively (not negatively) associated with the use of both bargaining and alienated religious coping when the effects of the other religious coping factors were removed (Tables 25-27). These results only partly confirmed

hypothesis VI, suggesting that, as predicted, disengaged (i.e. alienated) and deferring (i.e. bargaining) religious coping were positively related to poor mental health outcome. However, contrary to predictions, when the effects of other religious coping factors were partialled out, collaborative religious coping (i.e. God-centered) was non-significantly related to psychological adjustment (Tables 25-27).

Religious Coping as a Mediator Between Dispositional Religiousness and Psychological Adjustment

Six exploratory regression analyses were conducted to examine whether religious coping mediates the effects of dispositional religiousness on psychiatric symptomatology. To test this post-hoc hypothesis the three psychiatric outcome measures (overall symptoms, depression, anxiety) were regressed on two predictor sets: 1) dispositional religiousness variables (intrinsic orientation, extrinsic orientation, religious well-being), and 2) religious coping variables (God-centered, people-centered, bargaining, alienated religious coping). The use of predictor sets implies a theoretical grouping of the contribution of the variables making up each set but does not affect the overall statistical computation (Cohen & Cohen, 1983). The order was varied to determine the unique contributions of each predictor set above and beyond the effects of the other predictor set and stress.

As can be seen from Table 28, religious coping added significant predictive variance to all three indicators of psychiatric symptomatology after the effect of dispositional religiousness was partialled out. Similarly, dispositional religiousness contributed unique variance to the prediction of overall symptomatology and depression beyond the effects of religious coping. However, dispositional

religiousness did not predict significant variation in anxiety symptoms beyond the effects of stress and religious coping. These results indicate that both dispositional religiousness and religious coping style contribute significantly and uniquely to the variance in overall psychiatric symptomatology and depression. However, for anxiety, religious coping alone predicts level of symptomatology. Hence, religious coping appears to mediate completely the effects of dispositional religiousness on anxiety.

DISCUSSION

The relationship between religion and psychological adjustment has been the focus of a vast array of empirical research dating back to G. Stanley Hall's investigations in the late 1800's (e.g., Hall, 1904; Starkbuck, 1897). In this long history of empirical work, religious variables have traditionally been viewed as trait-like dispositions with little attention given to the *underlying processes* through which dispositional religiousness might influence mental health. The present study examined one process in which trait-like religious attitudes, or dispositions, might affect psychological adjustment by influencing religious coping practices during stressful life events. This conceptualization follows Lazarus and Folkman's (1984) work in non-religious coping, by proposing that trait-like personality variables (i.e. dispositional religiousness) and situational factors (i.e. life stress) influence coping activity and, thus, psychological adaptation. The relationships among stress, coping, and adaptation, were further explored by determining whether they were consistent with either of two different models of stress-buffering (the additive effects and main effects models).

Results of this study both support and challenge previous findings in research on religion and psychological adaptation. Factor analysis of a new measure of religious coping confirms that religious coping is a multidimensional construct. The factor structure obtained in this study is similar to those obtained in other studies of religious coping. Assessment of the relationship of dispositional religiousness to religious coping confirms that different religious dispositions are associated with the use of different types of religious coping. While intrinsic religiousness related to both

God-centered and people-centered religious coping, religious well-being was significantly associated with only God-centered religious coping. Extrinsic religiousness, on the other hand, predicted the use of bargaining and alienated religious coping. Results of this study challenge previous research asserting that religious coping is related to better psychological adjustment. In this study, examination of individual forms of religious coping indicated that while God-centered and people-centered religious coping were unrelated to mental health status, the use of bargaining and alienated religious coping were predictive of psychological distress. Finally, contrary to findings in the literature, results of this study suggest that religious coping does not attenuate the negative psychological effects of stressful life events.

Each of these findings will be discussed below in terms of their implications for this study's hypotheses and three areas of religious research: measurement of religious coping, understanding of the relationship between religious dispositions and religious coping activity, and the study of religious coping and psychological adaptation.

Measurement of Religious Coping

Study results support the hypothesis that religious coping is a multidimensional construct. Factor analysis yielded four interpretable religious coping factors that describe relatively distinct aspects of coping.

The first factor, God-centered religious coping, emphasizes a personal loving connection with God that aids the believer in emotion-focused coping efforts (e.g., positive reinterpretation, anxiety reduction). This factor describes coping

activities similar to Pargament et al.'s (1990) "spiritually-based" religious coping factor and Pargament et al.'s (1988) collaborative religious problem-solving factor. Fifty percent of the items from Pargament et al.'s (1990) spiritually-based factor loaded on the God-centered factor in the current study. Although assessing similarities with collaborative religious problem-solving is more difficult because it refers to a more general approach to integrating religion into one's life, God-centered religious coping is similar to collaborative religious problem-solving in that both factors assess the believer's reliance on his/her relationship with God to help negotiate life stressors.

One goal of this study was to obtain a larger, more varied sample of the activities that comprise different religious coping strategies. Accordingly, two-thirds of the items on the God-centered factor are new items not found on previous measures. These new items specify other activities that are part of a God-centered religious coping approach, including, for example, attempts to obtain atonement and/or forgiveness from God for past wrong-doing. These additional items provided a more comprehensive view of this type of religious coping compared to previous studies.

Like Pargament et al.'s (1990) spiritually-based factor, God-centered coping accounted for the largest percentage of common variance in religious coping in this study. Thus for both church-going community members assessed in Pargament et al.'s (1990) study and the young adult college students in the current sample, God-centered, spiritually-based religious coping constituted the primary means of translating religious beliefs and attitudes into methods of coping.

The second factor, people-centered coping, describes the use of one's religious community to aid in emotion-focused coping activity. One goal of this study was to expand upon Pargament et al.'s (1990) two-item "religious support" factor by adding items that would elaborate *how* persons used religious social support to cope with stress.[8] Expansion of this scale yielded more detailed information regarding the type of social support believers seek. Examination of the six-item people-centered religious coping factor suggests that while this sample tended to use members of their religious communities for emotional support, they did not ask them for help in more concrete, tangible ways. Items that had been added to this measure dealing with the use of social networks for tangible or instrumental support (e.g., a loan, help caring for an ailing relative) were so infrequently endorsed by this population that they were dropped from the factor analysis. Thus, this study's elaboration of Pargament et al.'s (1990) religious support factor suggests that this form of religious coping is more complex than Pargament et al.'s (1990) initial two-items suggests. It indicates that this young adult sample utilized support networks primarily to aid in emotion-focused coping efforts. However, use of religious social ties was more varied than Pargament et al.'s initial two items would suggest. Participants used their religious relationships for understanding and support, emotional venting, advice, and support through prayer. However, the internal consistency of this scale (alpha=.79) was not appreciably different from Pargament et al.'s (1990) Religious Support factor (alpha=.78). Thus, while additional questions regarding social networks may have obtained a more

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[8] Pargament et al.,'s initial two-item scale consisting of asked only whether the participant "received support from clergy" and "received support from other members of the church."

representative sample of religious coping activity in this domain, they did not significantly increase the internal consistency of the construct.

The third factor, bargaining religious coping, accounted for a significant amount of the variance in religious coping in this sample. This religious coping factor measures the believer's attempts to engage God's omnipotent power to change troubling external circumstances. Both pleas for help and exchange strategies in which the believer promises to change if God alleviates the stressor exemplify this type of religious coping. This factor shares much in common with Pargament et al.'s (1990) "plead" religious coping factor. Indeed, Pargament et al.'s "plead" item "bargained with God to make things better" correlated most strongly with the bargaining factor in the current study. However, the addition of items to this scale in the current study more fully elucidates this method of religious coping. The new scale specifies the type of bargaining believers use to help them cope with stressful events--removing the stressor rather than modifying one's emotional response to it. The high internal consistency (alpha=.84) suggests that the scale measures a coherent and discrete coping style. Moveover, the items added in this study improved the internal consistency of Pargament et al.'s (1990) earlier scale (alpha=.61).

The fourth factor, alienated religious coping, accounted for 6% of the variance in religious coping. This factor measures active struggle with God and one's faith. Three of the four items comprising this factor are taken from Pargament et al.'s (1990) "discontent" factor. The internal-consistency reliability of this scale was somewhat low (alpha=.70). Yet, it was slightly higher than the .68 alpha reported by Pargament et al. (1990) for their three-item discontent scale. Examination of the

items that comprise this factor suggests that the low internal consistency reflects the heterogeneity of the underlying construct. The uniting theme appears to be religious struggle. However, items on this factor refer to struggles in both God-centered and people-centered areas of faith and refer to both cognitive and emotional difficulties.

Thus, this study's attempt to build upon Pargament et al.'s (1990) ground-breaking factor analytic study of religious coping provided additional information regarding the religious coping process. The four religious coping factors found in this study are similar to the four factors described in Pargament et al.'s research. The current study's findings support Pargament et al.'s assertion that religious coping is a multidimensional construct consisting of distinct, clearly-focused methods of coping. Moreover, the current study extends our knowledge of religious coping by finding that a number of factors from Pargament et al.'s research emerge in a factor analysis of a different population. While Pargament et al. assessed middle-aged, church-going Christians, this study examined religious coping among college students of diverse religious orientations. The fact that four religious coping factors are similar for both studies suggests that the underlying dimensions of religious coping may be stable across diverse populations.

In addition, the measure used in this study adds significantly to Pargament et al.'s previous effort by expanding the number of items on each scale, thereby providing a more detailed view of each form of religious coping and marginally improving the internal consistency reliability of the scales. Specification of religious coping activities as either emotion-focused or problem-focused also provided added information about the religious coping process. Participants in this study used

religion primarily to help regulate distressing emotions (emotion-focused coping). In fact, three of the four religious coping factors focused exclusively on helping the believer manage affect (God-centered, people-centered, and alienated religious coping). However, one type of religious coping (bargaining) was more problem-focused. This form of religious coping seeks to ameliorate the troubled person-environment relationship.

Examination of the intercorrelations among religious coping factors in this study reveals that while God-centered religious coping was moderately correlated with people-centered and bargaining religious coping, these two shared only a small percentage of common variance. Moreover, alienated religious coping was relatively uncorrelated with the other forms of religious coping (Table 9). These findings have both practical and theoretical significance. First, practically, the modest to low intercorrelations among religious coping scales suggests that coping tendencies are empirically distinct and that it is possible to study their differential effects on psychological adjustment; in other words, analysis of the effects of separate religious coping factors (rather than simply examining total religious coping) seems justified. Second, theoretically, the fact that alienated religious coping was not highly inversely correlated with the other religious coping scales suggests that people dealing with stress engage in a wide range of religious coping strategies including contrasting impulses such as feeling comforted by God's presence and being angry or frustrated with Him. Third, although intercorrelations are not high, scales do tend to correlate in conceptually meaningful ways. For example, God-centered religious coping, which focuses on using one's relationship with God to help manage emotional reactions,

correlates significantly with bargaining religious coping, which also centers on using one's relationship with God. However, God-centered coping focuses on regulation of internal affects while bargaining religious coping uses the believer's relationship with God to improve his/her external situation. Similarly, the moderate correlation between God-centered and people-centered coping makes conceptual sense. God-centered and people-centered coping focus on helping the believer regulate his/her emotions by utilizing different aspects of his/her faith. God-centered coping focuses on the believer's relationship with God, while people-centered coping utilizes social supports in the believer's religious community.

This study's conclusions regarding the factor structure of religious coping must be viewed in light of a number of statistical and methodological limitations. First, the factor analytic procedure used in this study, principal-factors analysis, is a descriptive procedure (Comrey, 1973). Thus it cannot be assumed that the factor structure described in this study will generalize to other samples of college students or other populations. Although the factor solution obtained in this study is similar to that obtained by Pargament et al. (1990), suggesting that the underlying structure of religious coping is stable across populations, replication of these results with different samples is needed before any firm conclusions regarding generalizability can be drawn. Second, due to constraints in the data collection process, no test-retest reliability data were obtained for this measure. Thus, the stability of factor scores over time and the degree of fluctuation in scores due to random environmental factors is unknown. Third, although results of the factor analysis suggest that this measure assesses a number of theoretically valid religious coping domains, this study did not

obtain criterion-related validity for the religious coping scales. Thus, the extent to which this self-report measure accurately assesses participants' actual use of religious coping cannot be determined.

Some of the reliability and validity limitations of the current study can be addressed by examining the correlations between established measures of dispositional religiousness and the religious coping factors. As was discussed in the literature review, two measures of dispositional religiousness, religious well-being and intrinsic religious orientation, have been consistently related to appropriate external criterion indices of religious behavior. For example, religious well-being scores were significantly higher among denominations that stressed a direct relationship with God (Ellison, 1983). Intrinsic religiousness has been related to religious behavior such as attendance in church, prayer groups, and bible study (see Schaefer & Gorsuch, 1992; Donahue, 1985a; 1985b).

Religious coping factors in this study are significantly correlated in theoretically meaningful ways with each of these indices of religiousness (Table 11). God-centered religious coping was significantly correlated with a commitment to religion as an integrating "master motive" (i.e. intrinsic religious orientation) and with a close personal relationship with God (i.e. religious well-being). Similarly, people-centered religious coping demonstrated a significant correlation with intrinsic religiousness. Thus, persons in this study who used religion as a master motive and had a close relationship with God reported engaging in forms of religious coping which utilize one's relationship with God and one's community of faith. Bargaining religious coping was most highly correlated with extrinsic religiousness, which

reflects a utilitarian approach to religion. It also demonstrated lower but modest correlations with intrinsic religious orientation and religious well-being. Alienated religious coping displayed low correlations with all established measures of religiousness. Thus, religious coping factors correlated with established measures of religiousness in theoretically meaningful and empirically significant ways. These correlations suggest that this study's measure of religious coping may possess some criterion-related validity.

The Role of Stress and Dispositional Religiousness in Predicting Religious Coping

As predicted, overall religious coping in this study was significantly related to both trait-like religious dispositions and situational stress. However, examination of the relationships between individual religious coping factors and individual religious dispositions suggests a more complex connection between dispositional religious variables and the use of religious coping. In this study, specific types of religious belief were connected to the use of particular forms of religious coping.

Intrinsic religious orientation explained significant variation in the use of both God-centered and people-centered religious coping. As described in the literature review, this type of religiousness serves as a "master motive" that leads one to integrate religion into all aspects of his/her life (Allport & Ross, 1967; Donahue, 1985b; Kirkpatrick & Hood, 1990); thus, it makes conceptual sense that this type of religiousness was related to diverse forms of religious coping that utilize different domains of faith. God-centered religious coping focuses on one's direct connection to God, while people-centered religious coping involves one's community of faith.

Similarly, another dimension of dispositional religiousness measured in this study, religious well-being, predicted the use of the two religious coping strategies that use a direct connection to God (God-centered and bargaining religious coping). This dispositional variable may have translated into a preference for these particular forms of religious coping over others because religious well-being assesses the strength of one's personal relationship to God and God-centered and bargaining religious coping revolve around use of a direct connection with God.

Extrinsic religious orientation was also significantly related to particular religious coping styles, namely, bargaining and alienated religious coping. Allport and Ross (1967) assert that persons who hold extrinsically oriented religious attitudes view their faith as a means to some other end, such as security, solace, or self-justification. Extrinsic orientation's significant relationship to the use of bargaining religious coping seems to reflect this more utilitarian approach. Bargaining religious coping strategies are ones in which the believer attempts to enlist God's omnipotent power to change external problems. Thus it seems that the dispositional variable of extrinsic religiousness, in which the believer sees religion as a means of achieving personal goals, is translated, in the face of stressful life events, into coping activity that reflects this utilitarian view by attempting to enlist God's power to reverse events that cause the believer emotional pain. Moreover, the significant relationship between extrinsic religiousness and alienated religious coping may reflect the alternate outcome of extrinsic forms of commitment to religion. In this case, the utilitarian extrinsic approach toward one's religion leads to angry, frustrated forms of religious coping in the face of stressful events when religious beliefs and practices do not achieve self-

serving ends. Under these circumstances, the extrinsic is likely to view his/her religion as a disappointing failure and hence feel distant and angry from it.

These findings are consonant with the overall findings reported in other studies of the relationship between dispositional religious variables and religious coping; however, they also diverge from past results. Consistent with the findings of others, intrinsic religiousness relates to multiple forms of religious coping (Pargament et al., 1988; Pargament et al., 1992; Schaefer & Gorsuch, 1991). However, this study found that intrinsic religiousness was related primarily to active forms of collaborative coping (God-centered, people-centered), while other studies report that intrinsically oriented individuals also rely on methods of coping that emphasized God's omnipotent activity (Pargament et al., 1988; Schaefer & Gorsuch, 1991). This difference in findings could be due to the different measures of religious coping used. Schaefer and Gorsuch (1991) related intrinsic religiousness to three general styles of religious problem-solving which do not map directly onto this study's religious coping factors, thus making precise comparisons difficult. However, the factor in this study that most clearly embodies reliance on God's omnipotence (bargaining religious coping) did not relate to intrinsic religious commitment. Thus, it appears that this study's findings do not agree with research on religious problem-solving. The findings regarding extrinsic religiousness and religious coping are consistent with the previously reported association of extrinsic religious orientation with reliance on God's omnipotence (Pargament et al., 1988; Schaefer and Gorsuch, 1991) and religious pleading (Pargament et al., 1990; Pargament et al., 1992). The consistency of these results suggests that, across diverse populations (e.g., college student,

middle-age Christians) and measures of coping (e.g., religious problem-solving, religious coping), a utilitarian attitude toward one's religion translates into forms of coping that focus on the use of God's power to achieve personal goals.

The overall findings of this study regarding the connection between dispositional religiousness and religious coping are consistent with those of both the secular and religious coping literature. Consistent with Lazarus and Folkman's (1984) transactional model of coping, this study's findings point to a connection between the general orientation the individual brings to coping (i.e. religious dispositions) and the specific forms of coping that he/she chooses. Religious attitudes may shape the religious coping process in the same way other trait-like personality variables influence choice of secular coping strategies. Religious coping efforts, like other forms of coping, grow partly from the individual's more general religious attitudes and beliefs. In this way, generalized conceptions of faith are transformed into vital forms of religious activity.

In addition to the above findings, the current study investigated the role of stress in predicting religious coping. Other research has either not studied the influence of stress on religious coping (Pargament et al., 1988; Pargament et al., 1990; Schaefer & Gorsuch, 1989) or has not measured its relationship to individual types of religious coping (Maton, 1989; Park et al., 1990). Results of this study indicate that while the use of God-centered and person-centered religious coping was not influenced by stress, the use of both bargaining and alienated forms of religious coping was significantly and positively related to the stress level. The fact that God-centered and people-centered religious coping were not responsive to stress level

suggests that these forms of religious coping may not be used to manage stressful life events but, instead, may be forms of faith that transcend the vicissitudes of daily life and are consistently performed regardless of environmental factors. Thus they do not conform to Lazarus and Folkman's (1984) conception of coping as a response influenced by both dispositional factors and situational stressors. Instead, these forms of religious coping may function more like dispositional religious variables than coping variables because they remain uninfluenced by situational factors. On the other hand, both bargaining and alienated forms of religious coping were stress-responsive in this study. Thus, these two factors appear to conform to Lazarus and Folkman's conception of coping as influenced by both disposition and situational stress. These findings also underscore the importance of assessing individual religious coping factors (rather than total religious coping) in the context of dispositional religiousness and stressful life events if we are to attain a more complete understanding of the religious coping process.

However, these findings should be understood in terms of a number of limitations of this study. First, the magnitudes of several of the significant effects were modest. Stress and dispositional religious variables accounted for less than 30% of the variance in most religious coping factors. This finding underscores the importance of viewing religious disposition as only one part of an individual's larger personality structure, other aspects of which may also influence the choice of religious coping. Similarly, situational factors other than stress may influence religious coping.

Second, the correlational results of this study do not address the directionality of the relationship between dispositional religiousness and religious

coping. It may be that religious coping efforts influence general religious dispositions. For example, an individual may seek-out religious experience during times of great stress even though he/she has not consistently integrated religion into his/her life. Based on this initial religious coping effort, the individual may change his/her belief system and religious attitudes. In addition, dispositional variables and religious coping practices may mutually influence one another. Further research is needed to tease out the direction of these effects and rule out the potential influence of extraneous variables.

The Role of Stress and Religious Coping in Predicting Psychological Adjustment

As predicted, stress was significantly related to increased psychological symptomatology in this study. However, contrary to predictions, overall religious coping was also significantly associated with increased symptomatology. God-centered and people-centered religious coping were unrelated to psychiatric status; however, as expected, bargaining and alienated religious coping were associated with increased psychological symptoms.

Thus, investigation of the relationship between individual religious coping factors and psychological symptoms revealed a complex pattern of relationships, underscoring the importance of conceptualizing religious coping as a multidimensional construct. Studies that attempt to assess religious coping as a single factor (e.g., Bjorck, 1991, Carver et al., 1989; Folkman et al., 1986) or a single item (Park et al., 1990) do not accurately determine the relationship of religious coping to psychopathology because they cannot provide a fine-grained picture of which types of religious coping aid the believer in dealing with stress and which exacerbate his/her

difficulties. Unfortunately, interpretation of the current study's results in the context of other studies that measure multiple dimensions of religious coping is inconclusive, at least in part due to methodological differences in measurement of religious coping, measurement of outcome, study design, and population sampled (see Table 29).

The non-significant results in the current study regarding God-centered religious coping were unexpected in view of the fact that most research has demonstrated a positive relationship between God-centered religious coping (and related constructs) and mental health (Table 29). However, closer examination of sample demographics for studies reporting this relationship suggest that it is most consistent among homogeneous samples of practicing Christians. Pargament and his colleagues have found significant relationships between positive psychological adjustment and two constructs similar to God-centered religious coping Christian groups. In three separate stratified random samples of middle-aged, Christian church members, collaborative religious problem-solving was significantly associated with higher self-esteem and psychosocial competence (Hathaway & Pargament, 1990; Pargament et al., 1988) and spiritually-based religious coping was related to fewer overall psychiatric symptoms (Pargament et al., 1990). Similarly, Schaefer and Gorsuch (1990) report that collaborative religious problem-solving was related to lower levels of anxiety among a non-random sample of students enrolled at a Christian college.

The three studies of college students from diverse religious backgrounds (including the current one), suggest that, in this population, the relationship between God-centered religious coping and lower levels of psychiatric symptomatology is less

consistent. As in the present study, Pargament et al. (1991) found no cross-sectional relationship between spiritually-based religious coping and psychological symptomatology. However, Maton (1989) found that college freshmen of diverse religious affiliations who used their relationship with God for "spiritual support" reported fewer depressive symptoms prospectively (no cross-sectional analyses were reported).

This pattern of findings suggests that while better psychological adjustment is consistently related to the use of God-centered, spiritually-based religious coping and collaborative religious problem-solving among committed Christians (regardless of age), it is less consistently associated with better adjustment among samples of religiously diverse college students. One possible explanation for is that the psychological value of particular religious activities may vary among religious groups. Although no comparative research examining this question has been published, researchers have reported a related finding that different religious groups prefer different religious coping strategies (Ebaugh et al., 1984).

The current study's finding that people-centered religious coping was unrelated to psychiatric outcome is consistent with other studies in the literature regardless of the measure of religious coping, outcome measure, study design, or population sampled (Table 29). Pargament and his colleagues found that amount of religious support was unrelated to psychiatric symptomatology in a cross-sectional study of middle-aged Christians (Pargament et al., 1990) and in a cross-sectional and longitudinal analysis of college students from diverse religious backgrounds (Pargament et al., 1991). Although the literature of secular social support is complex

and difficult to summarize, the results of studies on religious social support appear to be at odds with some social support research suggesting that secular social support is related to better psychological adjustment. (For a review see Kessler & McLeod, 1985.) However, the potential discrepancy between the importance of secular social support and religious social support for adjustment may reflect the fact that religious social support forms only a small part of an individual's social network (Ellison & George, 1994). It may be that other non-religious elements in one's social network play a more influential role in determining mental health status.

Interpretation of this study's finding regarding bargaining religious coping and mental health is made difficult by differences among studies in measurement, design, and populations sampled (Table 29). In the only other study measuring bargaining among college students from diverse religious backgrounds, pleading religious coping (similar to bargaining in the current study) was significantly related to higher levels of psychiatric symptoms cross-sectionally, but was unrelated to long-term psychiatric status (Pargament et al., 1991). In addition, the related concept of deferring religious problem-solving was cross-sectionally associated with higher levels of anxiety among Christian college students (Schaefer & Gorsuch, 1990) and lower self-esteem among homogeneous samples of middle-aged Christians (Hathaway & Pargament, 1990; Pargament et al., 1988). However, pleading was unrelated to psychological symptoms in a cross-sectional study of middle-aged Christian church members (Pargament et al., 1990). Thus it appears that while religious bargaining is not associated with emotional distress among middle-aged Christians, it may be related to increased distress among college students. Existing research provides little

information regarding the association of bargaining and distress among different religious groups within the college population. Prospective studies of bargaining religious coping further suggest that it may not be related to long-term mental health status regardless of demographic factors (Pargament et al., 1991).

Finally, this study's finding that alienated religious coping was related to poorer psychological adjustment is consistent with other findings in the literature regardless of population sampled or the measurement of dependent or independent variables. Discontented religious coping (similar to alienated religious coping in the current study) has been cross-sectionally linked to greater psychiatric symptomatology in a homogeneous sample of adult Christians (Pargament et al., 1990) and a group of college students from diverse religious backgrounds (Pargament et al., 1991). The related concept of self-directed problem-solving has been cross-sectionally associated with lower levels of self-esteem and social competence in homogeneous samples of adult Christians (Pargament et al., 1988; Hathaway & Pargament, 1990) and with higher levels of anxiety among Christian college students (Schaefer & Gorsuch, 1990). However, Pargament et al.'s (1991) comparison of cross-sectional and longitudinal results among college students indicates that while discontented religious coping was associated with increases in psychiatric symptoms cross-sectionally, it was unrelated to long-term psychiatric adjustment. These findings suggest that the current study's cross-sectional association between alienated religious coping and psychological symptoms should be interpreted cautiously.

Review of the current study findings on religious coping in the context of existing research clearly points to the need for further investigation. Our

understanding of how different types of religious coping relate to psychological adjustment is hampered by the limited number of studies on this topic. In order to tease apart potential differences in how different types of religious coping function in different religious groups and at different developmental stages, it will be necessary for future research to standardize measurement of religious coping and systematically vary measures of psychological adjustment and demographic features of the population sampled. Only through this type of systematic study can we more fully understand how different types of religious coping relate to different aspects of psychological adjustment and how they function in different religious groups and stages of development.

While the current study's focus was not the investigation of developmental aspects of religious coping, a related area of religious research (i.e. faith development) may shed some light on the pattern of results. Theorists and researchers who have examined the development of religious faith throughout the life cycle describe a number of different "modes" or "styles" of faithfulness (e.g., Fowler, 1981; Westerhoff, 1976). "Faith" in these writings is defined as a believer's active attempts to integrate his/her religious beliefs with daily experience and to use his/her unique life experience to inform religious commitment (Fowler, 1982). In this sense, it is similar to the concept of religious coping examined in the current study. Although there is disagreement regarding whether these different types of faith should be viewed as a sequential hierarchy of stages or as potentially co-existing (cf. Capps, 1987; Fowler, 1981; Stokes, 1989; Westerhoff, 1976), writers have consistently identified discrete styles of faith. Moreover, Fowler (1981) and Westerhoff (1976)

have argued that the style of faith most salient and helpful to the believer changes throughout the life cycle, based on developmental needs.

A style of faith characterized by radical questioning of previously held religious values, which Fowler (1981) has referred to as the individuative-reflective stage, is particularly relevant to this study. This stage, or style, is often accompanied by rejection of traditional forms of worship and alienation from organized or previously valued religious groups (Fowler, 1981) or an active search for new religious meaning (Westerhoff, 1976). This style of faith is accompanied by emotional distress and discomfort and is prevalent during adolescence (Fowler, 1981; Stokes, 1989). For some individuals, this stage of faith may be prominent well into adulthood.

The association between psychological distress and alienated religious coping in the current college sample may represent the struggle and turmoil associated with this aspect of faith development. Moreover, examining this study's finding of a significant association between alienated religious coping and psychological distress in light of the work on faith development, provides a context for understanding the discrepancy of results between studies of college versus adult populations. It may be that adult samples of church-goers in studies of religious coping under-represent persons grappling with the negative psychological consequences of these faith issues because such persons would be unmotivated to attend traditional religious services. However, the empirical research that could more directly evaluate these speculations has not been conducted in either the literature on faith development or religious coping. The relationship of development to psychological adaptation and religious

coping was not the focus of this study, however, current findings suggest this topic deserves more careful consideration in future research.

In addition, more cross-sectional and prospective research is needed to enhance our understanding of how different types of religious coping influence psychological adjustment over time. For example, it may be that forms of religious coping that lead to a concurrent exacerbation in psychological distress ultimately have little negative, or perhaps even a positive, impact on psychological well-being. Single studies that compare cross-sectional and longitudinal data-points are ideally suited to assessing chronological changes in the relationship between religious coping and psychological adjustment. Furthermore, because current cross-sectional designs are essentially correlational in nature, they leave open the possibility of reverse causation.

Religious Coping as a Stress-Buffer

Religious coping did not act as a stress-buffer for this sample of college students. While, as predicted, the interaction effects model of stress-buffering was not supported, neither was the additive effects model (Figure 4). Instead, religious coping was associated with increases in overall symptoms and anxiety but not depression. This finding contrasts with most extant research (Brown & Gary, 1987; Idler, 1987; Krause & VanTran, 1989; Maton, 1989; Park et al., 1990; Zuckerman et al., 1984). Only one other study (Pargament et al., 1991) has reported findings similar to those of the current study. Utilizing measures of religious coping similar to those in the current study, Pargament et al. (1991) found a significant association between religious coping and psychological distress, regardless of stress level, in a sample of college students.

Two methodological factors may account for the divergence of findings between the current study and previous reports. First, studies that have found significant stress-buffering effects have assessed religious coping using either a single item or only a few items (Brown & Gary, 1987; Idler, 1987; Kraus & VanTran, 1989; Maton, 1989; Park et al., 1990). In addition, most have reported this effect among elderly samples (Brown & Gary, 1987; Idler, 1987; Krause & VanTran, 1989; Zuckerman et al., 1984) with only two studies reporting stress-buffering among college-age adults (Maton, 1989; Park et al., 1990). It may be that studies that measured religious coping using only a few questions did not obtain a representative sample of religious coping activity. These studies could have obtained significant results simply because they measured a subset of religious coping strategies that were more adaptive. Thus their findings could not be applied to a more general conception of the stress-buffering capacity of religious coping.

While the findings are not clear in this regard, it appears that the stress-buffering effect of religious coping on mental health is more consistent in older populations. One potential explanation for this is that the elderly are more likely than young adults to face different types of stress that can be attenuated by religious coping. For example, it may be that elderly persons are more comforted by religious forms of coping because they more frequently deal with stressful life events (e.g., death, loss of social status) that religion, in particular, addresses. The current study results, when interpreted in the context of other research, also adds to the research suggesting that religious coping may be associated with different psychological effects among college-age adults than other adult populations. Further research is needed to

gain a better understanding of how different aspects of religious coping interact with developmental challenges at different stages of the life cycle.

Gender issues also need to be carefully examined in future research. The unequal number of men and women in the current study precluded statistical analysis of gender differences in the stress buffering effect of religious coping.

In addition, the cross-sectional design of the current study and most existing research limits conclusions that can be drawn. Only three studies have utilized prospective designs (Maton, 1989; Pargament et al., 1991; Park et al., 1990). While this study's participants were instructed to report current psychological symptoms and their religious coping activities and the stressful life events during the prior six months, all measurements were obtained at the same point in time. It is possible, therefore, that participants' psychiatric status influenced reconstruction of their religious coping efforts (e.g., I am not happy, therefore God has abandon me). Indeed, participant mood has been shown to affect other components of the stress-buffering process (Cohen, Towbes, & Flocco, 1988). Thus, although cross-sectional studies have begun to shed some light on the relationship between religious coping and psychological adjustment, further prospective research is needed to delineate the directional impact of religious coping on mental health.

Religious Coping as a Mediator Between Dispositional Religiousness and Psychological Adjustment

Although no formal hypotheses were generated regarding the role of religious coping as a mediator of dispositional religiousness on adjustment, such a mediational role was clearly implied in the review of existing literature (see Figure

3). In order to examine the capacity of religious coping to mediate the effects of dispositional religiousness on psychological symptoms, post-hoc analyses were conducted. While religious coping mediated completely[9] the effects of dispositional religious variables on anxiety, it did not completely mediate their effects on depression or overall symptomatology. Instead, dispositional religiousness and religious coping both contributed to the prediction of symptoms.

These findings are consistent with other research examining the mediational role of religious problem-solving (Schaefer & Gorsuch, 1990) and religious coping (Pargament et al., 1990). They suggest that long term trait-like attitudes and beliefs exert direct effects on psychological adaptation and also relate to the choice of religious coping strategy that, in turn, is associated with psychological status. Thus dispositional religiousness exerts both direct and indirect effects on mental health.

However, the finding that religious coping completely mediated the effect of dispositional religiousness on anxiety but not other measures of psychiatric outcome suggests that religious coping may possess different mediating capacities for different aspects of adjustment. Clearly, the scarcity of studies on this topic limits our understanding of the mediational role of religious coping. Further research is needed in which investigators clearly postulate and examine the relationships between different types of religious variables and different aspects of psychological adjustment.

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[9] The adequacy of religious coping as a mediator of dispositional religiousness was examined statistically by regression analyses that assessed the capacity of religious coping to account for significant variation in symptomatology beyond the effects of dispositional variables without the reverse being true (i.e. dispositional variables did not account for significant variation in symptoms beyond the effects of religious coping).

If religious coping is hypothesized to be a critical link between trait-like religious variables and psychological adaptation, then future research must continue to demonstrate its capacity to mediate the effects of general religiousness on mental health.

CONCLUSION

Kirkpatrick and Hood (1990), in their review of the literature on religion and psychological adaptation, asserted that the field needs to reconceptualize the implicit theory that underlies empirical studies of psychology and religion. They suggest that researchers broaden their theories to include other religious domains besides traditional measures of trait-like religious dispositions. This study has attempted to do just this by examining how different types of religious coping variables work together to affect psychological adjustment. Results of this study affirm the notion that trait-like religious attitudes are translated into specific forms of religious coping, and that these forms of coping, in turn, have a significant impact on psychological adjustment. Thus, while religious coping is not the only aspect of religious life that affects adjustment, it is, nevertheless, a domain that justifies further investigation.

Furthermore, this study addresses the general assumption in the coping literature that the role of "religion" in coping can be conceptualized as a general background variable and measured with a few simple questions. Results of a factor analysis of religious coping strategies support the view that religious coping, like its secular counterpart, is a multidimensional process.

This study leaves a number of crucial questions unanswered. Placing this study's results in the context of other research suggests that religious phenomena may differentially impact mental health in different religious groups and at different stages of the life cycle. For example, it may be that a direct, personal relationship with God is less psychologically helpful to persons who belong to religious groups that emphasize the importance of living by a moral code (e.g., Judaism, Islam). Thus, future research needs to examine what personal and contextual factors are associated with different forms of religious coping and different psychological outcomes.[10]

Future investigations also need to examine the stability of religious coping activities over time and delineate their short-term and long-term effects on adaptation. It may be that coping methods (e.g., pleading) that are associated with short-term distress have little impact on long-term mental health. On the other hand, forms of religious coping that have been shown to alleviate mental distress immediately may lead to long-term problems.

Research suggests that religious coping plays a small but significant role in psychological adjustment beyond the effects of non-religious coping (Pargament et al., 1990; Pargament et al., 1991). Paralleling this research finding in the clinical arena, psychological difficulties that involve a religious component have recently been recognized as a diagnosable disorder in The Diagnostic and Statistical Manual of Mental Disorders (IV). These research and clinical trends reflect a growing awareness of the importance of religion in emotional life. Perhaps a more empirically

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[10] Unfortunately, the current study's data could not be analyzed to address this question because most of the participants were Christian (N=303).

grounded understanding of how individuals translate their religious beliefs into religious coping activity, and how it in turn affects mental health, will enhance our ability to understand how individuals cope with significant life events. Moreover, a more empirically-grounded understanding of the role religious coping plays in negotiating life stress can aid mental health professionals and clergy in their efforts to help people use religious beliefs adaptively. This study serves as an initial attempt to increase our awareness of the complex and integral role of religion in the coping process.

APPENDIX A: Religious Problem-Solving Scale (RPSS)

RELIGIOUS PROBLEM-SOLVING SCALE (RPSS)

Indicate how often each statement applies to you on a scale of 1 (never) to 5 (always).

Collaborative Factor:

1. When comes to deciding how to solve a problem, God and I work together as partners.

2. When considering a difficult situation, God and I work together to think of possible solutions.

3. Together, God and I put my plans into action.

4. When I feel nervous or anxious about a problem, I work together with God to find a way to relieve my worries.

5. After solving a problem, I work with God to make sense of it.

6. When I have a problem, I talk to God about it and together we decide what it means.

Deferring Factor:

7. Rather than trying to come up with the right solutions to a problem myself, I let God decide how to deal with it.

8. In carrying out solutions to my problems, I wait for God to take control and know somehow He'll work it out.

9. I do not think about different solutions to my problems because God provides time for me.

10. When a troublesome issue arises, I leave it up to God to decide what it means for me.

11. When a situation makes me anxious, I wait for God to take those feelings away.

12. I don't spend much time thinking about troubles I've had; God makes sense of them for me.

Self-Directed Factor:

13. After I've gone through a rough time, I try to make sense of it without relying on God.

14. When I have difficulty, I decide what it means by myself without help from God.

15. When faced with trouble, I deal with my feelings without God's help.

16. When deciding on a solution, I make a choice independent of God's input.

17. When thinking about a difficulty, I try to come up with possible solutions without God's help.

18. I act to solve my problems without God's help.

APPENDIX B: Religious Coping Activities Scale (RCAS)

RELIGIOUS COPING ACTIVITIES SCALE (RCAS)

Think of the most serious negative experience in the past year. Then rate the extent to which you used the following activities in coping 1 (not at all) to 4 (a great deal).

Spiritually-Based Factor:

1. Trusted that God would not let anything terrible happen to me.
2. Experienced God's love and care.
3. Realized that God was trying to strengthen me.
4. Used Christ as an example of how I should live.
5. Took control over what I could, and gave the rest up to God.
6. My faith showed me different ways to handle the problem.
7. Accepted that the situation was not in my hands but in the hands of God.
8. Found the lesson from God in the event.
9. Used my faith to help me decide how to cope with the situation.

Religious Support Factor:

10. Received support form Clergy.
11. Received support from other members of the church.

Plead Factor:

12. Asked for a miracle.
13. Bargained with God to make things better.
14. Asked God why it happened.

Discontent Factor:

15. Felt angry with or distant from God.
16. Felt angry with or distant from the members of the church.
17. Questioned my religious beliefs and faith.

Good Deeds Factor:

18. Tried to be less sinful.
19. Confessed my sins.
20. Led a more loving life.
21. Attended religious services or participated in religious rituals.

22. Participated in church groups (support groups, prayer groups, Bible study).
23. Provided help to other church members.

Religious Avoidance Factor:

24. Focused on the world-to-come rather than on the problems of this world.
25. I let God solve my problems for me.
26. Prayed or read the Bible to keep my mind off my problems.

APPENDIX C: Study Measures

RELIGIOUS ORIENTATION SCALE

Before you begin answering the questions below, please: (a) in the space marked **PID** on the small red answer sheet, **FILL IN** the code number appearing on the outside of your packet, then (b) in the space on the red answer sheet marked **SECTION**, **FILL IN** the questionnaire number that appears in the upper right-hand corner of this page.

The statements below describe different roles religion can play in dealing with life. (a) **READ** each statement carefully, (b) **THINK** about the extent to which the statement reflects **YOUR** personal religious beliefs or approach to religion, (c) **DECIDE** which statement best describes how you feel, and (d) **FILL IN** the corresponding number on your answer sheet.

1	2	3	4	5
Strongly Disagree	**Mildly Disagree**	**Both Agree and Disagree**	**Mildly Agree**	**Strongly Agree**

** *Remember, there are no right or wrong answers. The best answer* **
** *is the one which most closely expresses your point of view.* **

1. I try hard to carry my religion over into all my other dealings in life.
2. What religion offers me most is comfort when sorrows and misfortune strike.
3. Quite often I have been keenly aware of the presence of God or the Divine Being.
4. One reason for my being a church member is that such membership helps to establish a person in the community.
5. My religious beliefs are what really lie behind my whole approach to life.
6. The purpose of prayer is to secure a happy and peaceful life.
7. The prayers I say when I am alone carry as much meaning and personal emotion as those I say during services.
8. It doesn't matter so much what I believe so long as I lead a moral life.
9. If not prevented by unavoidable circumstances, I attend church.
10. Although I am a religious person, I refuse to let religious considerations influence my every-day affairs.

Please check your answer sheet to make sure your last answer is for question #10.

1	2	3	4	5
Strongly Disagree	**Mildly Disagree**	**Both Agree and Disagree**	**Mildly Agree**	**Strongly Agree**

11. The church is most important as a place to formulate good social relationships.

12. Religion is especially important to me because it answers many questions about the meaning of life.

13. For this question **only**, choose from the following responses:

    1 = I would definitely prefer to join a social fellowship
    2 = I probably would prefer to join a social fellowship
    3 = I probably would prefer to join a Bible study group
    4 = I would definitely prefer to join a Bible study group

    If I were to join a church group I would prefer to join a Bible Study Group or a social fellowship.

14. Although I believe in my religion, I feel there are many more important things in my life.

15. I read literature about my faith (or church).

16. I pray chiefly because I have been taught to pray.

17. It is important to me to spend periods of time in private religious thought and meditation.

18. A primary reason for my interest in religion is that my church is a congenial social activity.

19. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being.

20. The primary purpose of prayer is to gain relief and protection.

Please check your answer sheet to make sure your last answer is for question #20. Checking to be sure you didn't skip a question NOW will save you time when you turn in your surveys, because your responses will be checked for mis-marked answers at that time.

SPIRITUAL WELL-BEING SCALE

Before you begin answering the questions below, please: (a) in the space marked **PID** on the small green answer sheet, **FILL IN** the code number appearing on the outside of your packet, then (b) in the space on the green answer sheet marked **SECTION**, **FILL IN** the questionnaire number that appears in the upper right-hand corner of this page.

For each of the following statements, (a) **CHOOSE** the response that best indicates the extent of your agreement or disagreement as it describes your personal experience, and (b) **FILL IN** the corresponding number on your answer sheet.

1	2	3	4	5
Strongly Disagree	**Moderately Disagree**	**Agree**	**Moderately Agree**	**Strongly Agree**

1. I don't find much satisfaction in private prayer with God.
2. I don't know who I am, where I came from, or where I'm going.
3. I believe that God loves me and cares about me.
4. I feel that life is a positive experience.
5. I believe that God is impersonal and not interested in my daily situations.
6. I feel unsettled about my future.
7. I have a personally meaningful relationship with God.
8. I feel very fulfilled and satisfied with life.
9. I don't get much personal strength and support from my God.
10. I feel a sense of well-being about the direction my life is headed in.
11. I believe that God is concerned about my problems.
12. I don't enjoy much about life.
13. I don't have a personally satisfying relationship with God.

Please check your answer sheet to make sure your last answer is for question #13.

1	2	3	4	5
Strongly Disagree	**Moderately Disagree**	**Agree**	**Moderately Agree**	**Strongly Agree**

14. I feel good about my future.

15. My relationship with God helps me not to feel lonely.

16. I feel that life is full of conflict and unhappiness.

17. I feel most fulfilled when I'm in close communion with God.

18. Life doesn't have much meaning.

19. My relation with God contributes to my sense of well-being.

20. I believe there is some real purpose for my life.

Please check your answer sheet to make sure your last answer is for question #20. Checking to be sure you didn't skip a question NOW will save you time when you turn in your surveys, because your responses will be checked for mis-marked answers at that time.

RELIGIOUS COPING SURVEY

Before you begin answering the questions below, please: (a) in the space marked **PID** on the small brown answer sheet, **FILL IN** the code number appearing on the outside of your packet, then (b) in the space on the answer sheet marked **SECTION**, **FILL IN** the questionnaire number that appears in the upper right-hand corner of this page.

We are interested in how people respond when they confront stressful events in their lives. There are lots of ways to try to deal with stress. Sometimes people try and cope with important events in religious or spiritual ways. This questionnaire asks you to indicate what religious/spiritual coping strategies you have used to deal with stress in the LAST SIX MONTHS.

Presented below are a number of statements describing ways in which a person might use their religious beliefs or spirituality to cope with stressful events. Please (a) **READ** each statement carefully, then (b) indicate how frequently you have used that religious coping technique in the last six months by **FILLING IN** the appropriate number on your answer sheet:

1	2	3	4
Not at All	**A Little Bit**	**A Medium Amount**	**A Lot**

1. Trusted that God would not let anything terrible happen to me.
2. Confessed my sins.
3. Experienced God's love and care.
4. Felt angry with or distant from God.
5. Realized God was trying to strengthen me.
6. Felt angry with or distant from members of the church.
7. Realized that I didn't have to suffer since Jesus suffered for me.
8. Poured my heart out to God.
9. Asked trusted others to pray for me regarding the problem.
10. Took control over what I could, and gave the rest up to God.

Please check the 5's column on your answer sheet to be sure you have not filled-in any 5's by mistake (the choices are 1 - 4).

1	2	3	4
Not at All	**A Little Bit**	**A Medium Amount**	**A Lot**

11. Asked members of my religious group/church for concrete help (e.g., money, food, shelter, a ride, help with physical care).

12. Accepted the situation was not in my hands but in the hands of God.

13. Asked for advice from someone who shared my religious outlook.

14. Used my religion to help me accept what had happened.

15. Found a lesson from God in the event.

16. Prayed for a miracle.

17. God showed me how to deal with the situation.

18. Prayed that God would help me forget what had happened and get on with my life.

19. Used my faith to help me decide how to cope with the situation.

20. Used my religious beliefs to help keep my problems in perspective.

21. Questioned my religious beliefs and faith.

22. Looked to God for comfort.

23. With the help of Scripture and prayer, I tried to plan concrete steps I could take to make the problem better.

24. Talked to a religious leader (e.g., minister, rabbi, priest) about what to do.

25. Believed "this is all part of God's plan."

26. Took comfort knowing God is with me every step of the way.

27. Asked God why it happened.

Please check the 5's column on your answer sheet to be sure you have not filled-in any 5's by mistake (the choices are 1 - 4).

1	2	3	4
Not at All	**A Little Bit**	**A Medium Amount**	**A Lot**

28. Bargained with God to make things better.

29. Focused on the world-to-come rather than the problems of this world.

30. To the extent I felt responsible for the problem, I sought God's forgiveness.

31. Led a more loving life.

32. Looked for ways in which God was using this event for my own good.

33. To the extent I felt to blame for the problem, I was comforted knowing that God forgives those who are truly sorry.

34. Looked for understanding and support from other members of my church/religious group.

35. Prayed that things would go back the way they were before the problem came up.

36. Let God know how angry I was feeling.

37. Shared my burdens with a member of my religious group.

38. Felt frustrated with my religion.

39. Confessed my role in the problem to someone who shared my religious views and asked for their forgiveness.

40. Used my experience with the problem to help others with similar problems.

41. Hoped that God would take the burden from me.

42. Participated in a church support group or prayer group.

43. Had faith that God was doing this for a reason.

44. Prayed that if God would take this problem away, I would become a better person.

45. Used my religion to learn what positive lesson I could from the experience.

Please check the 5's column on your answer sheet to be sure you have not filled-in any 5's by mistake (the choices are 1 - 4).

1	2	3	4
Not at All	**A Little Bit**	**A Medium Amount**	**A Lot**

46. Prayed or read the Bible to keep my mind off my problems.

47. Told God that I would do whatever He wanted, if only He would make things better.

48. Put my faith in God that things would work out.

49. Focused on the fact that my sorrows would end in heaven.

50. Used my experience with the problem to work for a better world.

51. Waited for a solution from God.

52. Let God solve the problem for me.

CSLES

Before you begin answering the questions below please: (a) in the space marked **PID** on the large blue answer sheet, **FILL IN** the code number appearing on the outside of your packet, then (b) in the space on the answer sheet marked **SECTION**, **FILL IN** the questionnaire number that appears in the upper right-hand corner of this page.

The following questionnaire contains a list of events which may or may not have occurred to you in the **PAST 6 MONTHS**. Read each question carefully. **If an event did not occur, mark 8 on your answer sheet for that question. If an event did occur, you should rate the impact of the event on you at the time it occurred using the scale choices 1 through 7 below.** For each event that occurred, **FILL IN** the impact number on your answer sheet.

8
Event did not occur in past 6 months

1	2	3	4	5	6	7
Extremely Negative	**Moderately Negative**	**Somewhat Negative**	**No Impact**	**Somewhat Positive**	**Moderately Positive**	**Extremely Positive**

1. Terminated an intimate relationship (boyfriend/girlfriend)
2. Marriage
3. Became a parent
4. Became engaged
5. Negative personal encounter with a professor
6. Marital separation or divorce

Please check the 9's and 10's columns on your answer sheet to be sure you have not filled-in anything there by mistake (the choices are 1 - 8).

Please check your answer sheet to make sure your last answer is for question #6.

8
Event did not occur in past 6 months

1	2	3	4	5	6	7
Extremely Negative	**Moderately Negative**	**Somewhat Negative**	**No Impact**	**Somewhat Positive**	**Moderately Positive**	**Extremely Positive**

7. Increased separation from children
8. Re-established old personal friendship
9. Developed a good personal relationship with a professor
10. Began or increased sexual activity
11. Had a disagreement with a friend (large or small disagreement)
12. Personal rejection by a close friend or lover
13. Started a love relationship
14. Increased amount of dating
15. Separation from parents or sibling
16. Separation from close friend due to moving
17. Chose to terminate a relationship with a close friend
18. Relationship with boyfriend or girlfriend became worse
19. Decreased number of friends
20. Significantly improved your relationship with boyfriend/girlfriend or close friend

Please check the 9's and 10's columns on your answer sheet to be sure you have not filled-in anything there by mistake (the choices are 1 - 8).

Please check your answer sheet to make sure your last answer is for question #20.

8
Event did not occur in past 6 months

1	2	3	4	5	6	7
Extremely Negative	**Moderately Negative**	**Somewhat Negative**	**No Impact**	**Somewhat Positive**	**Moderately Positive**	**Extremely Positive**

21. Learned that a close friend/relative is very different than you thought (e.g., sexual behavior, involvement in serious drugs, criminal activities, etc.)

22. Relationship with relative (parents, siblings, etc.) became worse

23. Relationship with relative (parents, siblings, etc.) became better

24. Began living with lover (excluding marriage)

25. Decreased amount of dating

26. Relationship with spouse became worse or much worse

27. Relationship with spouse improved

28. Decreased sexual activity

29. Difficulty with sexual performance

30. Developed relationships with people who have new and interesting ideas or life style

31. Became an aunt or uncle

32. Marriage of close friend or relative

33. Death of a friend

34. Friend or relative encountered serious trouble or failure experience

Please check the 9's and 10's columns on your answer sheet to be sure you have not filled-in anything there by mistake (the choices are 1 - 8).

Please check your answer sheet to make sure your last answer is for question #34.

8
Event did not occur in past 6 months

1	2	3	4	5	6	7
Extremely Negative	**Moderately Negative**	**Somewhat Negative**	**No Impact**	**Somewhat Positive**	**Moderately Positive**	**Extremely Positive**

35. Parents' financial status became better or much better

36. Received a visit from (or visited) family

37. Worsening of parents' financial status

38. Friend or relative had important positive experience

39. Health of a close relative/friend became much worse

40. Death of a close relative (parent or sibling)

41. Parents separated or divorced

42. Remarriage of parent

43. Serious conflict between members of your family

44. Significantly increased your level of debt

45. Fired or lost a job

46. Quit job

47. Received positive recognition at job (promotion, significant praise)

48. Major change in work or school hours

Please check the 9's and 10's columns on your answer sheet to be sure you have not filled-in anything there by mistake (the choices are 1 - 8).

Please check your answer sheet to make sure your last answer is for question #48.

8
Event did not occur in past 6 months

1	2	3	4	5	6	7
Extremely Negative	**Moderately Negative**	**Somewhat Negative**	**No Impact**	**Somewhat Positive**	**Moderately Positive**	**Extremely Positive**

49. Significantly increased economic difficulties

50. Acquired a car

51. Won a large amount of money (over $10,000) in a lottery or sweepstakes

52. Personal rejection by a close friend or lover

53. Began a new job (part- or full-time)

54. Increased difficulty with a job

55. Discharged from the military

56. Improved mastery of academic material

57. Significantly improved your course grades

58. Transferred to a new school

59. Began college for the first time

60. Encountered increased difficulty with school regulations or facilities

61. Withdrawal from a college or university

62. Completed an assignment for school

Please check the 9's and 10's columns on your answer sheet to be sure you have not filled-in anything there by mistake (the choices are 1 - 8).

Please check your answer sheet to make sure your last answer is for question #62.

8
Event did not occur in past 6 months

1	2	3	4	5	6	7
Extremely Negative	**Moderately Negative**	**Somewhat Negative**	**No Impact**	**Somewhat Positive**	**Moderately Positive**	**Extremely Positive**

63. Returned to school after prolonged absence

64. Graduation from high school or junior college

65. Applied to graduate or professional school

66. Decided on a major or career

67. Increased demands from academic course work

68. Increased problem with academic performance (course work, grades, GRE's, etc.)

69. Accepted into graduate or professional school

70. Moved out of parents' home

71. Moved back into parents' home after living away

72. Change of residence

73. Serious conflict with roommate

74. Improved living conditions (e.g., housing, roommate)

75. Difficulty with landlord/landlady

76. Moved to a new city

Please check the 9's and 10's columns on your answer sheet to be sure you have not filled-in anything there by mistake (the choices are 1 - 8).

Please check your answer sheet to make sure your last answer is for question #76.

8
Event did not occur in past 6 months

1	2	3	4	5	6	7
Extremely Negative	**Moderately Negative**	**Somewhat Negative**	**No Impact**	**Somewhat Positive**	**Moderately Positive**	**Extremely Positive**

77. Improved physical appearance

78. Physical appearance became worse or much worse

79. Physical health became worse or much worse (due to illness or accident)

80. Began or increased the use of illicit drugs

81. Improved your physical health

82. Hospitalization of self

83. Improved your personal health/habits

84. Worsening of personal health/habits

85. Did not experience fatigue

86. Decreased use of illicit drugs

87. Female: Possibility of unwanted pregnancy
Male: Possibility of girlfriend's/wife's unwanted pregnancy

88. Female: Had an abortion
Male: Girlfriend/wife had an abortion

89. Involvement in accident

Please check the 9's and 10's columns on your answer sheet to be sure you have not filled-in anything there by mistake (the choices are 1 - 8).

Please check your answer sheet to make sure your last answer is for question #89.

8
Event did not occur in past 6 months

1	2	3	4	5	6	7
Extremely Negative	**Moderately Negative**	**Somewhat Negative**	**No Impact**	**Somewhat Positive**	**Moderately Positive**	**Extremely Positive**

90. Began counseling or psychotherapy

91. Began volunteer work

92. Received recognition or award for achievement

93. Victim of crime

94. Problem with the law (arrested, detained, etc.)

95. Acquired a pet

96. Major change in or renewed dedication to philosophy of life

97. Selected for a leadership position in an organization

98. Loss of a pet through death or runaway

99. Traveled to a new interesting place

100. Increase in amount of leisure time

101. Decreased involvement with hobby or task

102. Joined a social organization

103. Won an award at an international athletic competition

Please check the 9's and 10's columns on your answer sheet to be sure you have not filled-in anything there by mistake (the choices are 1 - 8).

Please check your answer sheet to make sure your last answer is for question #103.

8
Event did not occur in past 6 months

1	2	3	4	5	6	7
Extremely Negative	**Moderately Negative**	**Somewhat Negative**	**No Impact**	**Somewhat Positive**	**Moderately Positive**	**Extremely Positive**

104. Increased exposure to cultural or entertainment experiences

105. Accomplished a goal in a hobby or recreational activity

106. Major increase in religious commitment

107. New or increased involvement in hobby or recreational activity

108. Not accepted into a social organization you desired

109. Organization you belong to (club, team, etc.) failed to accomplish an important goal

110. Organization you belong to (club, team, etc.) accomplished an important goal

111. Increased use of alcohol

Please check the 9's and 10's columns on your answer sheet to be sure you have not filled-in anything there by mistake (the choices are 1 - 8).

. . . . . **Please check your answer sheet to make sure your last answer is for question #111.**

HOPKINS SYMPTOMS CHECKLIST (HSCL)

READ each statement carefully and indicate to what extent you have experienced the following during the **PAST 6 MONTHS** by FILLING IN the appropriate circle on your answer sheet.

1	2	3	4
Not at all	**A Little Bit**	**Moderately**	**Extremely**

1. Headaches
2. Trouble remembering things
3. Feeling critical of others
3. Faintness or dizziness
4. Nervousness or shakiness inside
5. Loss of sexual pleasure
6. Pains in the heart or chest
7. Worried about sloppiness or carelessness
8. Temper outbursts you could not control
9. Crying easily
10. A feeling of being trapped or caught
11. Feeling low in energy or slowed down
12. Feeling inferior to others
13. Feeling blocked or stymied in getting things done
14. Trouble concentrating
15. Feeling that people are unfriendly or dislike you
16. Feeling easily annoyed or irritated

1	2	3	4
Not at all	**A Little Bit**	**Moderately**	**Extremely**

17. Pains in the lower part of your back
18. Feeling fearful
19. Heart pounding or racing
20. Soreness of your muscles
21. Having to do things very slowly in order to be sure you are doing them right
22. Feeling hopeless about the future
23. Trouble getting your breath
24. Feeling others do not understand you or are unsympathetic
25. Poor appetite
26. Feeling lonely
27. Hot or cold spells
28. Having to check and double-check what you do
29. Numbness or tingling in parts of your body
30. Weakness in parts of your body
31. Feeling tense or keyed up
32. Worrying or stewing about things
33. Trembling
34. Suddenly scared for no reason
35. A lump in your throat
36. Heavy feelings in your arms or legs

1	2	3	4
Not at all	**A Little Bit**	**Moderately**	**Extremely**

37. Difficulty making decisions

38. Your mind going blank

39. Your feelings being easily hurt

40. Having to avoid certain places or activities because they frighten you

41. Thoughts of ending your life

42. Blaming yourself for things

43. Feeling blue

44. Feeling no interest in things

GENERAL RELIGIOUS INFORMATION

Please provide the following information about yourself and your family's background. Fill in the appropriate number on your answer sheet.

1. Your Gender: 1 = Male 2 = Female

2. Your Age:
   1 = Less than 18 years old
   2 = 18 - 19 years old
   3 = 19 - 20 years old
   4 = 21 - 22 years old
   5 = 22 - 23 years old
   6 = 23 - 24 years old
   7 = More than 24 years old

3. Your ethnic background:

   1 = Caucasian
   2 = Asian American
   3 = African American
   4 = Hispanic
   5 = Other

4. Your marital status:

   1 = Single 2 = Married 3 = Divorced 4 = Widowed

6. Mother's religious affiliation: (If you were not raised by your biological mother, please substitute the religious affiliation of the caretaker who you consider to be the most important "mother" figure.)

   1 = Catholic 3 = Jewish 5 = Hindu 7=Other
   2 = Protestant 4 = Muslim 6 = Buddhist 8=None 9=Don't Know

7. Father's religious affiliation: (If you were not raised by your biological father, please substitute the religious affiliation of the caretaker who you consider to be the most important "father" figure.)

   1 = Catholic 3 = Jewish 5 = Hindu 7=Other
   2 = Protestant 4 = Muslim 6 = Buddhist 8=None 9=Don't Know

8. Religious tradition in which you were raised (if any):

   1 = Catholic 3 = Jewish 5 = Hindu 7=Other
   2 = Protestant 4 = Muslim 6 = Buddhist 8=None 9=Don't Know

9. Fill in on your answer sheet the number that best describes your religious upbringing.

1	2	3	4	5
nonexistent		informal		extensive

10. In the past six months, how frequently did you attend meetings for any 12-step program (For example: Alcoholics Anonymous, Overeaters Anonymous, Adult Children of Alcoholics)?

1	2	3	4	5
never		sometimes		often

11. In the past six months, how frequently did you attend other self-help groups other than 12-step programs?

1	2	3	4	5
never		sometimes		often

12. In the past six months, how frequently have you attended a psychotherapy group (i.e., not a 12-step group or a self-help group)?

1	2	3	4	5
never		sometimes		often

13. In the past six months, how frequently have you attended individual psychotherapy or counseling for personal problems?

1	2	3	4	5
never		twice a month		every week

14. What is your current religious affiliation?

1 = Catholic	3 = Jewish	5 = Hindu	7=None
2 = Protestant	4 = Muslim	6 = Buddhist	8=Other 9=Don't Know

16. Have you ever had a "conversion" experience?

1 = No 2 = Yes

17. Were you "converted" to your current religious affiliation?

1 = No 2 = Yes

18. How often in the past 6 months did you attend religious services?

1 = Never
2 = Once a year
3 = Once every six months
4 = Once every two or three months
5 = Twice a month
6 = Twice a week
7 = One or more times a day

19. How many hours do you spend in church activities per month?

1 = One hour or less
2 = Two to four hours
3 = Five to nine hours
4 = Ten to fifteen hours
5 = More than fifteen hours

20. How has your involvement in your religion changed in the last six months?

1 = Decreased 2 = Has not changed 3 = Increased

21. Fill in on your answer sheet the number that best describes your current religious feelings and beliefs.

1	2	3	4	5
nonexistent		moderate		very strong

22. On your answer sheet, fill in the number that best describes how important religion is to you.

1	2	3	4	5
irrelevant		somewhat important		very important

23. How religious do you think you are?

1	2	3	4	5
not religious		somewhat religious		very religious

24. How often would you say religion proves to be an influence in the major decisions in your life?

1	2	3	4	5
never		sometimes		always

25. How often do you pray privately in places other than church?

1 = Never
2 = Once a year
3 = Once every six months
4 = Once every two or three months
5 = Twice a month
6 = Twice a week
7 = One or more times a day

26. How often do you read the Bible or other readings from your religion?

1 = Never
2 = Once a year
3 = Once every six months
4 = Once every two or three months
5 = Twice a month
6 = Twice a week
7 = One or more times a day

27. How often have you had a feeling of closeness to God in prayer, during worship or at important moments in daily life?

1	2	3	4	5
never		sometimes	very	often

28. How often have you felt a deep awareness of the presence of God?

1	2	3	4	5
never		sometimes	very	often

29. How often have you had a born-again experience?

1	2	3	4	5
never		sometimes	very	often

30. How often have you felt that God was speaking to you in some way?

1	2	3	4	5
never		sometimes	very often	

31. How often have you felt you were one with God?

1	2	3	4	5
never		sometimes	very often	

WRITTEN ANSWERS QUESTIONNAIRE

**** NO ANSWER SHEET FOR THIS QUESTIONNAIRE ****
**** PLEASE WRITE YOUR ANSWERS DIRECTLY ON THIS SHEET ****

Please write the code number that appears on the outside of your packet here _____.

The questions in this questionnaire cover a variety of topics. They are divided into three parts. Please read the general instructions for each part. Then, **write your answer to each question on the page in the space provided.**

PART I.A *(Most Stressful Event)*

Please refer to the questionnaires marked **"CSLES"** and **"RELIGIOUS COPING SURVEY"**. You will need them to answer the questions below. Think for a minute about your responses to these surveys.

1. What is the most stressful event you checked off on the CSLES questionnaire? Write the number of the question here_____.

2. How stressful did it feel? **(Circle one response)**

1	2	3	4
Slightly Stressful	Moderately Stressful	Very Stressful	Extremely Stressful

3. How much control do you feel you had over whether or not this event occurred?

1	2	3	4	5
No Control	Slight Control	Moderate Control	A Lot of Control	Complete Control

4. How much control do you feel you had over the event's outcome? In other words, how much control did you have over how things turned out?

1	2	3	4	5
No Control	Slight Control	Moderate Control	A Lot of Control	Complete Control

5. How much did you use your personal spiritual beliefs or religious beliefs or practices to help you cope with this event?

1	2	3	4
Not at All	A Little Bit	A Moderate Amount	A Lot

6. Look over the statements on the **RELIGIOUS COPING QUESTIONNAIRE.** Write the numbers of the three religious coping techniques most helpful to you in the following blank spaces:

_____ _____ _____

PART I.B (*Slightly Stressful Event)*

1. Choose one event that you have experienced on the CSLES questionnaire that felt only slightly to moderately stressful. Write the number of the question here_____.

2. How stressful did it feel? **(Circle one response)**

1	2	3	4
Slightly Stressful	Moderately Stressful	Very Stressful	Extremely Stressful

3. How much control do you feel you had over whether or not this event occurred? **(Circle one response)**

1	2	3	4	5
No Control	Slight Control	Moderate Control	A Lot of Control	Complete Control

4. How much control do you feel you had over the event's outcome? In other words, how much control did you have over how things turned out?

1	2	3	4	5
No Control	Slight Control	Moderate Control	A Lot of Control	Complete Control

5. How much did you use your personal spiritual/religious beliefs and/or practices to help you cope with this event?

1	2	3	4
Not at All	A Little Bit	A Moderate Amount	A Lot

6. Look over the statements on the RELIGIOUS COPING Questionnaire. Write the numbers of the three religious coping techniques most helpful to you in the following blank spaces:

_____ _____ _____

PART II

Think about the caregivers who spent the most time with you growing up. Please answer the following questions about them.

1a. Who was the head of your household? (Specify father, mother, stepmother, stepfather, aunt, uncle, grandparent, etc)

_____

1b. What was this person's occupation? (please be specific)

_____

(For example: teacher, stock clerk, farmer, car salesperson)

1c. Highest educational level completed by the head of your household: (Circle one)

Grade School	Bachelor's Degree (or equivalent)
High School	Master's Degree (or equivalent)
Some college	Ph.D., M.D. (or equivalent)
Trade School	

2a. Did the head of your household have a spouse, girlfriend, or partner who played a significant role in raising you? Circle one response.

YES NO

If your answered "YES" to the question above, please answer the following:

2b. What was this person's relationship to you? (Specify father, mother, stepmother, stepfather, aunt, uncle, grandparent, etc)

_____

2c. What was this person's occupation? (please be specific)

_____
(For example: teacher, stock clerk, farmer, car salesperson)

2d. Highest educational level completed by this person: (Circle one)

Grade School	Bachelor's Degree (or equivalent)
High School	Master's Degree (or equivalent)
Some college	Ph.D., M.D. (or equivalent)
Trade School	

3. Considering both of your caregivers' incomes together, what was your family's overall income range growing up? (Circle one)

Under 5,000	10,000-14,999	25,000-49,999
5,000-7,499	15,000-19,999	50,000 or more
7,500-9,999	20,000-24,999	

PART III

1. Who is your favorite religious figure (please be specific)?

   _____

   (For example: Abraham, St. Augustine, Moses, Mohammed, Pope John XXIII, Martin Luther King Jr., Mother Theresa, etc.)

2. What religious denomination do you **currently** belong to (please be specific)?

   _____

   (For example: Evangelical Christian, Methodist, Orthodox Jewish, Roman Catholic)

3. What religious denomination **were you raised in** (please be specific)?

   _____

   (For example: Evangelical Christian, Methodist, Orthodox Jewish, Roman Catholic)

APPENDIX D: Consent Statement

CONSENT STATEMENT

"Attitudes Toward Religion & Life Experience"

Thank you for considering to participate in this research. Please read the information presented below carefully. This information may help you decide whether to participate in this study.

1. The purpose of this research is to examine how important life events and certain types of religious beliefs & practices may affect people. However, YOU DO NOT NEED TO HAVE A RELIGIOUS BACKGROUND OR AFFILIATION IN ORDER TO PARTICIPATE. On the other hand, if you do consider yourself religious, or were at one time, you are also invited to participate.

2. If you agree to take part in this study, you will be asked to complete a number of questionnaires that will take approximately 2 1/2 hours to finish. They consist of questions regarding your religious up-bringing, current beliefs, practices, experiences, your general health, and stressful events you've experienced in the last 6 months. Please feel free to ask for assistance at any time if you have a question about how to complete a questionnaire.

3. There are no known risks associated with this study.

4. If you find any aspect of this study upsetting, you are free to discontinue participation at any time. You also have the right not to answer any question on any questionnaire. However, each of your answers is very valuable to us. It is important to realize that omission of various items may make it difficult or impossible to use the information you do provide.

5. In order to protect your privacy, your responses are completely anonymous. Your name will never appear on your answer sheets or on any other document in this packet. Information concerning this study will be discussed only as data from a group of participants. In any report or publication of results, no reference to you personally will ever be made. Because your responses are completely anonymous, it is not possible to provide feedback on your individual answers, but you may obtain group results of this study, when they are available, upon request at the address below.

6. If you have any further questions or concerns about this study, you may contact the primary investigator, Jackie Grober, at Department of Psychology, 129 Psychology Research Building, Michigan State University, East Lansing, MI 48824 or leave a message at (517) 355-9561.

I have read and understood the above information and voluntarily agree to participate in this study according to these guidelines, understanding I can withdraw my participation at any time. **YOU INDICATE YOUR VOLUNTARY AGREEMENT TO PARTICIPATE BY COMPLETING AND RETURNING THE ENCLOSED QUESTIONNAIRES.**

PLEASE DO NOT SIGN THIS CONSENT FORM!

APPENDIX E: Tables

Table 1

Summary of Regression Equations (specifying precise order of entry for predictor variables) for Study Hypotheses

Hypothesis	Number of Regressions	Predictors (in order of entry)	Criterion	Statistic of Interest
II[a]	3	Age, Gender, Stress*, Extrinsic, Intrinsic, Religious Well-Being	Total Score Religious Coping	ΔR^2
		Age, Gender, Stress, Religious Well-Being, Extrinsic, Intrinsic		
		Age, Gender, Stress, Intrinsic Religious Well-Being, Extrinsic		
III & IV	12	Age, Gender, Stress, Extrinsic, Intrinsic, Religious Well-Being	God-Centered Religious Coping	ΔR^2
		Age, Gender, Stress, Religious Well-Being, Extrinsic, Intrinsic		
		Age, Gender, Stress, Intrinsic Religious Well-Being, Extrinsic		
		Age, Gender, Stress, Extrinsic, Intrinsic, Religious Well-Being	People-Centered Religious Coping	
		Age, Gender, Stress, Religious Well-Being, Extrinsic, Intrinsic		
		Age, Gender, Stress, Intrinsic Religious Well-Being, Extrinsic		
		Age, Gender, Stress, Extrinsic, Intrinsic, Religious Well-Being	Bargaining Religious Coping	
		Age, Gender, Stress, Religious Well-Being, Extrinsic, Intrinsic		
		Age, Gender, Stress, Intrinsic Religious Well-Being, Extrinsic		

Table 1 cont'd

Hypothesis	Number of Regressions	Predictors (in order of entry)	Criterion	Statistic of Interest
III & IV cont'd				
		Age, Gender, Stress, Extrinsic, Intrinsic, Religious Well-Being	Alienated Religious Coping	
		Age, Gender, Stress, Religious Well-Being, Extrinsic, Intrinsic		
		Age, Gender, Stress, Intrinsic Religious Well-Being, Extrinsic		
V[a]	3[a]	Age, Gender, Stress, Total Religious Coping Score, Stress X Religious Coping	Total Symptom Score	ΔR^2 Beta
		Age, Gender, Stress, Total Religious Coping Score, Stress X Religious Coping	Depression Score	
		Age, Gender, Stress, Total Religious Coping Score, Stress X Religious Coping	Anxiety Score	
VI	12	Age, Gender, Stress, Alienated, Bargaining, People-Centered, God-Centered	Total Symptom Score	ΔR^2 Beta
		Age, Gender, Stress, God-Centered, Alienated, Bargaining, People-Centered		
		Age, Gender, Stress, People-Centered, God-Centered, Alienated, Bargaining		
		Age, Gender, Stress, Bargaining, People-Centered, God-Centered, Alienated		
		Age, Gender, Stress, Alienated, Bargaining, People-Centered, God-Centered	Depression Score	ΔR^2 Beta

Table 1 cont'd

Hypothesis	Number of Regressions	Predictors (in order of entry)	Criterion	Statistic of Interest
VI cont'd		Age, Gender, Stress, God-Centered, Alienated, Bargaining, People-Centered		
		Age, Gender, Stress, People-Centered, God-Centered, Alienated, Bargaining		
		Age, Gender, Stress, Bargaining, People-Centered, God-Centered, Alienated		
		Age, Gender, Stress, Alienated, Bargaining, People-Centered, God-Centered	Anxiety Score	ΔR^2 Beta
		Age, Gender, Stress, God-Centered, Alienated, Bargaining, People-Centered		
		Age, Gender, Stress, People-Centered, God-Centered, Alienated, Bargaining		
		Age, Gender, Stress, Bargaining, People-Centered, God-Centered, Alienated		

Note [a] To test the additive effects form of stress-buffering proposed in hypothesis V, the regression of religious coping on stress (performed in connection with hypothesis II) was examined. Thus information from the first regression equation in hypothesis II was used in hypothesis V.

Table 2

Frequencies for Demographic Variables and Religious Affiliation
(N = 503)

Variable Name	Frequency	Percent	Cumulative Percent
Gender			
Male	173	34.4	34.4
Female	330	65.6	100.0
Marital Status			
Single	496	98.6	98.6
Married	3	.6	99.2
Divorced	4	.8	100.0
Ethnicity[a]			
Caucasian	428	85.1	85.2
African-American	28	5.6	90.7
Asian-American	13	2.6	93.4
Hispanic	9	1.8	95.2
Other	23	4.6	100.0
Religious Affiliation[a]			
Protestant	184	36.6	36.6
Catholic	119	23.7	60.4
Jewish	25	5.0	65.4
Buddhist	5	.9	66.3
Muslim	2	.3	66.6
Other[b]	97	19.3	85.8
Atheist	9	1.8	87.7
None[c]	60	11.9	100.0

[a] Sample size is reduced due to missing data.

[b] Persons in this category included, for example, humanists, rastifarians, and subjects who claimed to adhere to their "own personal religion."

[c] Subjects were included in this category only if they indicated they did not believe in any organized religion nor did they firmly *dis*believe in God.

Table 3

Descriptive Statistics for Demographic Variables and Level of Religiosity
(N=503)

Variable Name	Mean	Range	Standard Deviation
Subject Age	20.10 years	17-32	0.92 years
Highest Level of Education Attained by Parents	15.70 years	6-23	1.40 years
Family SES[a]	45.81	13.8-89.6	22.09
Level of Religiosity			
Hood's Religious Interest Question[b]	3.31	1-5	1.22
Pargament's Religious Experience Scale[c]	2.04	5-23	0.88

[a] Measured using the Revised Duncan Socioeconomic Index (Stevens & Featherman, 1981). Score represents a composite of both parents' occupations. Scores of 45.0 include skilled craftsmen and office workers, for example.

[b] Hood's (1973) Religious Interest Question is a single item that asks the subject to "estimate how important religion is to you" (1=not at all; 5=extremely important). It has been used in college samples to distinguish religious from non-religious individuals (e.g., Park, Cohen, & Herb, 1990).

[c] Pargament's (1992) 5-item Religious Experiences Scale provides an index of the subject's private religious experience (1=none; 5=very often) by asking how often he/she has experienced: 1) a feeling of closeness to God in prayer, during worship, or at important moments in daily life, 2) a feeling of deep awareness of the presence of God, 3) a born again experience in which Jesus entered your life, 4) the experience of having God speak to you, and 5) the experience of feeling one with God.

Table 4

Pearson Correlation Coefficients for Psychiatric Symptomatology Scales
(N = 503)

	1.	2.	3.	4.	5.	6.
1. Total Symptom Score	--	.91*	.81*	.81*	.83*	.85*
2. Depression		--	.70*	.60*	.67*	.77*
3. Anxiety			--	.63*	.58*	.60*
4. Somatization				--	.58*	.56*
5. Obsessive-Compulsive					--	.63*
6. Interpersonal Sensitivity						--

* $p < .01$

Table 5

Eigenvalues and Percentage of Variance Explained by Religious Coping Factors

	Eigenvalue	Percent of Variance Accounted For	
		Total	Common
Factor Name			
God-Centered Religious Coping	11.36	34.40	68.30
People-Centered Religious Coping	1.69	5.10	10.15
Bargaining Religious Coping	2.51	7.60	15.08
Alienated Religious Coping	1.07	3.30	6.45
Total Religious Coping Scale		50.40	99.98

Table 6

Final Commonalities for the Religious Coping Scale
(N=503)

Factor Item	Item Commonality
God-Centered Religious Coping	
1. Took comfort knowing God is with me every step of the way.	.5013
2. Experienced God's love and care.	.6227
3. Found a lesson from God in the event.	.5638
4. Put my faith in God that things would work out.	.3592
5. Used my religion to help me accept what had happened.	.1718
6. Realized God was trying to strengthen me.	.3905
7. Looked to God for comfort.	.3695
8. Had faith that God was doing this for a reason.	.4294
9. Used my religious beliefs to help keep my problems in perspective.	.3494
10. To the extent I felt to blame for the problem, I was comforted knowing that God forgives those who are truly sorry.	.6098
11. Believed "this is all part of God's plan."	.6318
12. Trusted that God would not let anything terrible happen to me.	.4050
13. To the extent I felt responsible for the problem, I sought God's forgiveness.	.5875
14. Looked for ways in which God was using this event for my own good.	.4441
15. Accepted the situation was not in my hands but in the hands of God.	.6328
16. Took control over what I could, and gave the rest up to God.	.3536
17. Prayed or read the Bible to keep my mind off my problems.	.4687

Table 6 (cont'd)

Factor Item	
People-Centered Religious Coping	
18. Looked for understanding and support from other members of my church/religious group.	.7289
19. Shared my burdens with a member of my religious group.	.6044
20. Participated in a church support group or prayer group.	.5357
21. Talked to a religious leader (e.g., minister, rabbi, priest) about what to do.	.5508
22. Asked trusted others to pray for me regarding the problem.	.5659
23. Asked for advice from someone who shared my religious outlook.	.6192
Bargaining Religious Coping	
24. Bargained with God to make things better.	.4264
25. Prayed that if God would take this problem away, I would become a better person.	.3988
26. Told God that I would do whatever He wanted, if only He would make things better.	.4483
27. Prayed that things would go back the way they were before the problem came up.	.6946
28. Prayed for a miracle.	.3999
29. Let God know how angry I was feeling.	.6242
Alienated Religious Coping	
30. Felt frustrated with my religion.	.5797
31. Questioned my religious beliefs and faith.	.3437
32. Felt angry with or distant from God.	.5484
33. Felt angry with or distant from members of the church.	.6693

Table 7

Complete Factor Loading for the Religious Coping Scale
(N=503)

Factor Item	Factor 1	Factor 2	Factor 3	Factor 4
God-Centered Religious Coping				
1. Took comfort knowing God is with me every step of the way.	.8130	.2257	.1041	-.0782
2. Experienced God's love and care.	.7610	.1815	.0724	-.0742
3. Found a lesson from God in the event.	.7559	.2162	.1075	-.0451
4. Put my faith in God that things would work out.	.7458	.1893	.2565	-.1067
5. Used my religion to help me accept what had happened.	.7342	.2466	.0989	-.0120
6. Realized God was trying to strengthen me.	.7280	.1608	.0662	.0597
7. Looked to God for comfort.	.7265	.2293	.2285	.0126
8. Had faith that God was doing this for a reason.	.7142	.1813	.2845	.0175
9. Used my religious beliefs to help keep my problems in perspective.	.7003	.3014	.0732	-.0298
10. To the extent I felt to blame for the problem, I was comforted knowing that God forgives those who are truly sorry.	.6791	.1957	.2545	.0403
11. Believed "this is all part of God's plan."	.6430	.1674	.1644	.0137
12. Trusted that God would not let anything terrible happen to me.	.6424	.1165	.2585	-.0910
13. To the extent I felt responsible for the problem, I sought God's forgiveness.	.6436	.1706	.2971	.0643
14. Looked for ways in which God was using this event for my own good.	.6403	.2171	.3020	.0500

Table 7 (cont'd)

Factor Item	Factor 1	Factor 2	Factor 3	Factor 4
15. Accepted the situation was not in my hands but in the hands of God.	.6068	.1888	.1588	-.0166
16. Took control over what I could, and gave the rest up to God.	.5742	.1284	.1497	-.0301
17. Prayed or read the Bible to keep my mind off my problems.	.4632	.3506	.0750	.0253
People-Centered Religious Coping				
18. Looked for understanding and support from other members of my religious group.	.2057	.7543	.0768	.0457
19. Shared my burdens with a member of my religious group.	.1964	.6329	.0698	.0657
20. Participated in a church support group or prayer group.	.2903	.5618	-.0058	.0059
21. Talked to a religious leader (e.g., minister, rabbi, priest) about what to do.	.2016	.5559	.0004	-.0628
22. Asked trusted others to pray for me regarding the problem.	.3409	.4773	.2140	-.0259
23. Asked for advice from someone who shared my religious outlook.	.3474	.4627	.0553	.1075
Bargaining Religious Coping				
24. Bargained with God to make things better.	.2072	-.0189	.7443	.0844
25. Prayed that if God would take this problem away, I would become a better person.	.2005	.0152	.7308	.0721
26. Told God that I would do whatever He wanted, if only He would make things better.	.1797	.0411	.7166	.0305

Table 7 (cont'd)

Factor Item	Factor 1	Factor 2	Factor 3	Factor 4
27. Prayed that things would go back the way they were before the problem came up.	.1154	.0642	.6350	.0753
28. Prayed for a miracle.	.2710	.1153	.5573	.0882
29. Let God know how angry I was feeling.	.2546	.1522	.4862	.2728
Alienated Religious Coping				
30. Felt frustrated with my religion.	-.0111	.0843	.0185	.8289
31. Questioned my religious beliefs and faith.	-.1261	.0000	.0180	.6541
32. Felt angry with or distant from God.	.0991	.0085	.2169	.5498
33. Felt angry with or distant from members of the church.	.0610	-.0100	.0767	.4026

Table 8

Psychometric Characteristics of the Religious Coping Scale
(N=496)

Factor Item	M	SD
Total Religious Coping Scale (33 Items) (Alpha=.93)	70.57	19.71
(Item Mean)	(2.02)	(0.56)
God-Centered Religious Coping (17 Items) (Alpha=.95)	37.44	13.14
(Item Mean)	(2.21)	(0.77)
1. Took comfort knowing God is with me every step of the way.	2.28	1.07
2. Experienced God's love and care.	2.50	1.03
3. Found a lesson from God in the event.	2.14	1.04
4. Put my faith in God that things would work out.	2.39	1.05
5. Used my religion to help me accept what had happened.	2.09	1.01
6. Realized God was trying to strengthen me.	2.34	1.09
7. Looked to God for comfort.	2.45	1.04
8. Had faith that God was doing this for a reason.	2.30	1.02
9. Used my religious beliefs to help keep my problems in perspective.	2.13	1.02
10. To the extent I felt to blame for the problem, I was comforted knowing that God forgives those who are truly sorry.	2.29	1.08
11. Believed "this is all part of God's plan."	2.19	1.01
12. Trusted that God would not let anything terrible happen to me.	2.46	1.02
13. To the extent I felt responsible for the problem, I sought God's forgiveness.	2.17	1.07
14. Looked for ways in which God was using this event for my own good.	2.11	0.98
15. Accepted the situation was not in my hands but in the hands of God.	2.04	1.04
16. Took control over what I could, and gave the rest up to God.	2.21	1.07
17. Prayed or read the Bible to keep my mind off my problems.	1.48	0.83

Table 8 (cont'd)

Factor Item	M	SD
People-Centered Religious Coping (6 Items) (Alpha=.79)	9.29	3.50
(Item Mean)	(1.55)	(0.58)
18. Looked for understanding and support from other members of my church/religious group.	1.43	0.75
19. Shared my burdens with a member of my religious group.	1.43	0.81
20. Participated in a church support group or prayer group.	1.34	0.80
21. Talked to a religious leader (e.g., minister, rabbi, priest) about what to do.	1.17	0.54
22. Asked trusted others to pray for me regarding the problem.	1.69	1.01
23. Asked for advice from someone who shared my religious outlook.	2.23	1.03
Bargaining Religious Coping (6 Items) (Alpha=.84)	12.35	4.67
(Item Mean)	(2.06)	(0.78)
24. Bargained with God to make things better.	2.01	1.04
25. Prayed that if God would take this problem away, I would become a better person.	1.92	1.03
26. Told God that I would do whatever He wanted, if only He would make things better.	1.78	0.98
27. Prayed that things would go back the way they were before the problem came up.	2.28	1.10
28. Prayed for a miracle.	2.36	1.12
29. Let God know how angry I was feeling.	2.01	1.00
Alienated Religious Coping (Items=4) (Alpha=.70)	7.33	2.81
(Item Mean)	(1.83)	(0.70)
30. Felt frustrated with my religion.	1.69	0.94
31. Questioned my religious beliefs and faith.	2.22	1.06
32. Felt angry with or distant from God.	1.75	0.87
33. Felt angry with or distant from members of the church.	1.68	1.00

Table 9

Correlations Among Religious Coping Factors
(N=503)

	1.	2.	3.	4.	5.
1. Total Score Religious Coping	--	.94*	.69*	.67*	.18*
2. God-Centered Religious Coping		--	.59*	.47*	-.04
3. People-Centered Religious Coping			--	.27*	.05
4. Bargaining Religious Coping				--	.20*
5. Alienated Religious Coping					--

* $p < .01$

Table 10

Descriptive Statistics for Dispositional Religiousness and Religious Coping Variables
(N=503)

Total Factor Score (Item Mean)	M (M)	SD (SD)	RANGE (RANGE)
Dispositional Religiousness Scales			
Intrinsic Religious Orientation	23.23 (2.58)	8.88 (0.93)	9.00 43.00 (1.00) (5.00)
Extrinsic Religious Orientation	28.38 (2.58)	6.59 (0.60)	11.00 46.00 (1.00) (5.00)
Religious Well-Being (Closeness to God)	34.46 (3.45)	9.64 (0.96)	10.00 50.00 (1.00) (5.00)
Religious Coping Variables			
Total Religious Coping Score	70.57 (2.02)	19.71 (0.56)	35.00 120.00 (1.00) (4.00)
God-Centered Religious Coping	37.44 (2.21)	13.14 (0.77)	17.00 68.00 (1.00) (4.00)
People-Centered Religious Coping	9.29 (1.55)	3.50 (0.58)	6.00 24.00 (1.00) (4.00)
Bargaining Religious Coping	12.35 (2.06)	4.67 (0.78)	6.00 30.00 (1.00) (4.00)
Alienated Religious Coping	7.33 (1.83)	2.81 (0.70)	3.00 16.00 (1.00) (4.00)

Table 11

Pearson Correlation Coefficients of Religious Variables
(N=503)

	Dispositional Religiousness			Religious Coping				
	1.	2.	3.	4.	5.	6.	7.	8.
Dispositional Religiousness								
1. Intrinsic	--	.25*	.80*	.70*	.76*	.55*	.24*	-.08
2. Extrinsic		--	.23*	.26*	.19*	.09	.35*	.11
3. Religious Well-Being			--	.72*	.80*	.44*	.30*	-.12*
Religious Coping								
4. Total Religious Coping Score				--	.94*	.69*	.67*	.18*
5. God-Centered					--	.59*	.47*	-.04
6. People-Centered						--	.27*	.05
7. Bargaining							--	.20*
8. Alienated								--

* $p < .01$

Table 12

Pearson Correlation Coefficients for Demographic Variables with Stress, Religious Variables, and Psychiatric Symptomatology (N=503)

	Gender	Age	Family SES	Stress
Stressful Life Events Score	.17*	-.09	.01	1.0
Dispositional Religiousness Scales				
Intrinsic Religious Orientation	.03	.15*	.04	-.03
Extrinsic Religious Orientation	.07	-.04	-.02	.04
Religious Well-Being	.06	.09	.01	-.04
Religious Coping Scales				
Total Religious Coping Score	.09	.02	-.03	.18*
God-Centered Religious Coping	.09	.05	-.01	.08
People-Centered Religious Coping	.02	.00	-.01	.10
Bargaining Religious Coping	.11	-.08	-.10	.28*
Alienated Religious Coping	-.02	-.01	.04	.22*
Psychiatric Symptomatology				
Total Symptom Score	.14*	-.07	-.01	.48*
Depression	.15*	-.05	-.05	.50*
Anxiety	.09	.03	-.03	.35*
Somatization	.14*	-.07	.01	.32*
Obsessive-Compulsive	.02	-.07	.01	.38*
Interpersonal Sensitivity	.19*	-.09	.04	.43*

* $p < .01$

Table 13

Summary[a] of Hierarchical Multiple Regression Analyses for Variables Predicting Overall Religious Coping from Dispositional Religiousness

Criterion			
Predictors	ΔR^2	F[c]	p[b]
Overall Religious Coping (summary of 3 regressions)			
Stress	.03	14.80	.001
Religious Well-Being[c]	.07	83.96	.001
Intrinsic Orientation[c]	.04	54.39	.001
Extrinsic Orientation[c]	.00	4.34	ns

[a] Represents the results of 3 regression equations.

[b] $p > .01$ recorded as not significant (ns).

[c] Results represent the effects of the predictor when entered last into the regression equation after the effects of demographic variables (age, gender), stress, and the other two dispositional variables have been partialled-out.

Table 14

Standardized Beta Weights in a Fully Simultaneous Model Predicting Overall Religious Coping

	Unstandardized Beta	Standardized Beta	t	p[a]
Age	-.89	-.05	-1.75	ns
Gender	.60	.02	.54	ns
Stress	.54	.20	6.97	.001
Religious Well-Being	.82	.43	9.16	.001
Intrinsic Orientation	.78	.35	7.38	.001
Extrinsic Orientation	.17	.07	2.08	ns

[a] $p > .01$ recorded as not significant (ns).

Table 15

Summary[a] of Hierarchical Multiple Regression Analyses for Variables Predicting Religious Coping from Dispositional Religiousness

Criterion Predictors	ΔR^2	F	p[b]
God-Centered Religious Coping (summary of 3 regressions)			
Stress	.01	2.56	ns
Religious Well-Being[c]	.10	162.15	.001
Intrinsic Orientation[c]	.04	72.93	.001
Extrinsic Orientation[c]	.00	1.15	ns
People-Centered Religious Coping (summary of 3 regressions)			
Stress	.01	4.38	ns
Religious Well-Being[c]	.00	.11	ns
Intrinsic Orientation[c]	.11	80.11	.001
Extrinsic Orientation[c]	.00	2.69	ns
Bargaining Religious Coping (summary of 3 regressions)			
Stress	.07	35.67	.001
Religious Well-Being[c]	.03	20.25	.001
Intrinsic Orientation[c]	.00	.50	ns
Extrinsic Orientation[c]	.07	50.03	.001
Alienated Religious Coping (summary of 3 regressions)			
Stress	.05	28.27	.001
Religious Well-Being[c]	.01	4.09	ns
Intrinsic Orientation[c]	.00	.01	ns
Extrinsic Orientation[c]	.02	8.81	.01

[a] Represents the results of 12 regression equations.

[b] $p > .01$ recorded as not significant (ns).

[c] Results represent the effects of the predictor when entered last into the regression equation after the effects of demographic variables (age, gender), stress, and the other two dispositional variables have been partialled-out.

Table 16

Standardized Beta Weights in a Fully Simultaneous Model Predicting God-Centered Religious Coping

	Unstandardized Beta	Standardized Beta	t	p[a]
Age	-.40	-.03	-1.27	ns
Gender	.94	.03	1.35	ns
Stress	.21	.11	4.26	.001
Religious Well-Being	.72	.53	12.73	.001
Intrinsic Orientation	.56	.36	8.54	.001
Extrinsic Orientation	-.06	-.03	-1.07	ns

[a] $p > .01$ recorded as not significant (ns).

Table 17

Standardized Beta Weights in a Fully Simultaneous Model Predicting People-Centered Religious Coping

	Unstandardized Beta	Standardized Beta	t	p[a]
Age	-.26	-.08	-2.04	ns
Gender	-.16	-.02	-.56	ns
Stress	.06	.11	3.02	.01
Religious Well-Being	.01	.02	.34	ns
Intrinsic Orientation	.24	.56	8.95	.001
Extrinsic Orientation	-.03	-.06	-1.64	ns

[a] $p > .01$ recorded as not significant (ns).

Table 18

Standardized Beta Weights in a Fully Simultaneous Model Predicting Bargaining Religious Coping

	Unstandardized Beta	Standardized Beta	t	p[a]
Age	-.27	-.06	-1.49	ns
Gender	.18	.02	.45	ns
Stress	.18	.26	6.71	.001
Religious Well-Being	.14	.29	4.50	.001
Intrinsic Orientation	-.03	-.05	-.71	ns
Extrinsic Orientation	.20	.28	7.07	.001

[a] $p > .01$ recorded as not significant (ns).

Table 19

Standardized Beta Weights in a Fully Simultaneous Model Predicting Alienated Religious Coping

	Unstandardized Beta	Standardized Beta	t	p[a]
Age	.04	.02	.38	ns
Gender	-.36	-.06	-1.39	ns
Stress	.09	.23	5.14	.001
Religious Well-Being	-.04	-.15	-2.02	ns
Intrinsic Orientation	.00	.01	.11	ns
Extrinsic Orientation	.06	.13	2.97	.01

[a] $p > .01$ recorded as not significant (ns).

Table 20

Descriptive Statistics for Stress and Psychological Symptomatology
(N=503)

Total Factor Score (Item Mean)	M (M)	SD (SD)	RANGE (RANGE)	
Stress Variable				
Stressful Life Events Score	13.06	6.83	0.00	39.00
Psychological Symptomatology Scales				
Total Symptom Score	80.00 (1.82)	18.80 (0.43)	44.00 (1.00)	145.00 (4.00)
Depression	20.52 (1.87)	6.05 (0.55)	11.00 (1.00)	41.00 (4.00)
Anxiety	9.24 (1.54)	2.84 (0.48)	6.00 (1.00	22.00 (4.00)
Somatization	20.02 (1.67)	4.97 (0.41)	12.00 (1.00)	42.00 (4.00)
Obsessive-Compulsive	16.17 (2.02)	4.37 (0.55)	8.00 (1.00)	31.00 (4.00)
Interpersonal Sensitivity	14.05 (2.01)	4.01 (0.57)	7.00 (1.00)	25.00 (4.00)

Table 21

Pearson Correlation Coefficients for Psychiatric Symptomatology with Stress and Religious Variables (N = 503)

	Total Symptoms	Depression	Anxiety	Somatization	Obsessive-Compulsive	Interpersonal Sensitivity
Stressful Life Events Score	.48*	.50*	.35*	.32*	.38*	.43*
Dispositional Religiousness						
Intrinsic Orientation	.07	.01	.13*	.10	.08	.01
Extrinsic Orientation	.15*	.14*	.11	.13*	.09	.13*
Religious Well-Being	.00	-.05	.06	.04	.02	-.03
Religious Coping Scale						
Total Religious Coping	.24*	.18*	.26*	.19*	.22*	.18*
God-Centered Coping	.14*	.09	.17*	.12*	.13*	.08
People-Centered Coping	.09	.05	.14*	.11	.08	.04
Bargaining Coping	.32*	.29*	.28*	.22*	.28*	.31*
Alienated Coping	.27*	.26*	.23*	.17*	.22*	.25*

* $p < .01$

Table 22

Summary[a] of Hierarchical Multiple Regression Analyses Testing Additive Effects versus Interaction Effects Models of Stress-Buffering for Religious Coping

Criterion Predictors	ΔR^2	F	p[b]
Overall Psychiatric Symptoms (1 regression)			
Stress	.21	137.71	.001
Overall Religious Coping[c]	.02	15.23	.001
Stress x Overall Religious Coping[d]	.00	.04	ns
Depressive Symptoms (1 regression)			
Stress	.23	155.43	.001
Overall Religious Coping[c]	.01	5.71	ns
Stress x Overall Religious Coping[d]	.00	.06	ns
Anxiety Symptoms (1 regression)			
Stress	.11	67.85	.001
Overall Religious Coping[c]	.04	21.92	.001
Stress x Overall Religious Coping[d]	.00	1.02	ns

[a] Summarizes the results of 3 regression equations.
[b] $p > .01$ recorded as not significant (ns).
[c] Represents the effects of the predictor after the effects of demographics, & stress have been partialled-out.
[d] Represents the effects of interaction terms when entered last in the regression equation.

Table 23

Standardized Beta Weights in Three Fully Simultaneous Models Testing Additive Effects and Interaction Effects Models of Stress-Buffering

	Unstandardized Beta	Standardized Beta	to	p[a]
Overall Psychiatric Symptoms				
Age	-.40	-.02	-.57	ns
Gender	2.03	.05	1.30	ns
Stress	1.23	.41	2.69	.01
Overall Religious Coping	.14	.14	1.71	ns
Stress X Overall Religious Coping	.00	.04	.20	ns
Depressive Symptoms				
Age	-.02	-.00	-.08	ns
Gender	.81	.06	1.62	ns
Stress	.39	.44	2.87	.001
Overall Religious Coping	.02	.08	.93	ns
Stress X Overall Religious Coping	.00	.05	.25	ns
Anxiety Symptoms				
Age	.14	.05	1.19	ns
Gender	.18	.03	.69	ns
Stress	.07	.16	.98	ns
Overall Religious Coping	.02	.12	1.38	ns
Stress X Overall Religious Coping	.00	.19	1.01	ns

[a] $p > .01$ recorded as not significant (ns).

Table 24

Summary[a] of Hierarchical Multiple Regression Analyses Predicting Psychiatric Symptomatology

Criterion Predictors	ΔR^2	F	p[b]
Overall Psychiatric Symptoms (summary of 4 regressions)			
Stress[c]	.21	137.71	.001
God-Centered Religious Coping[d]	.00	.51	ns
People-Centered Religious Coping[d]	.00	.15	ns
Bargaining Religious Coping[d]	.02	13.73	.001
Alienated Religious Coping[d]	.02	14.44	.001
Depressive Symptoms (summary of 4 regressions)			
Stress[c]	.23	155.44	.001
God-Centered Religious Coping[d]	.00	.02	ns
People-Centered Religious Coping[d]	.00	.81	ns
Bargaining Religious Coping[d]	.01	10.31	.001
Alienated Religious Coping[d]	.02	13.11	.001
Anxiety Symptoms (summary of 4 regressions)			
Stress[c]	.12	67.85	.001
God-Centered Religious Coping[d]	.00	1.29	ns

Table 24 (cont'd)

Criterion Predictors	ΔR^2	F[c]	p[b]
People-Centered Religious Coping[d]	.00	.37	ns
Bargaining Religious Coping[d]	.01	8.70	.01
Alienated Religious Coping[d]	.02	11.03	.001

[a] Summarizes the results of 15 regression equations.
[b] $p > .01$ recorded as not significant (ns).
[c] Results represent the effects of stress with the effects of demographic variables (age, gender) partialled-out.
[d] Results represent the effects of the predictor when entered last in the equation after demographic variables (age, gender), stress, and the alternate three religious coping variables.

Table 25

Standardized Beta Weights in a Fully Simultaneous Model Predicting Overall Psychiatric Symptomatology from Religious Coping Factors

	Unstandardized Beta	Standardized Beta	t	p[a]
Age	-.17	-.01	-.24	ns
Gender	2.31	.06	1.50	ns
Stress	1.07	.39	9.54	.001
God-Centered Religious Coping	.05	.04	.71	ns
People Centered Religious Coping	-.10	-.02	-.39	ns
Bargaining Religious Coping	.68	.17	3.71	.001
Alienated Religious Coping	1.01	.15	3.80	.001

[a] $p > .01$ recorded as not significant (ns).

Table 26

Standardized Beta Weights in a Fully Simultaneous Model Predicting Depressive Symptomatology from Religious Coping Factors

	Unstandardized Beta	Standardized Beta	to	p[a]
Age	.05	.01	.24	ns
Gender	.89	.07	1.82	ns
Stress	.37	.42	10.43	.001
God-Centered Religious Coping	.00	.01	.16	ns
People-Centered Religious Coping	-.07	-.04	-.90	ns
Bargaining Religious Coping	.19	.15	3.21	.001
Alienated Religious Coping	.31	.14	3.62	.01

[a] $p > .01$ recorded as not significant (ns).

Table 27

Standardized Beta Weights in a Fully Simultaneous Model Predicting Anxiety Symptoms from Religious Coping Factors

	Unstandardized Beta	Standardized Beta	t	p[a]
Age	.18	.06	1.57	ns
Gender	.20	.03	.81	ns
Stress	.11	.27	6.25	.001
God-Centered Religious Coping	.01	.06	1.14	ns
People-Centered Religious Coping	.02	.03	.60	ns
Bargaining Religious Coping	.09	.14	2.95	.01
Alienated Religious Coping	.15	.14	3.32	.001

[a] $p > .01$ recorded as not significant (ns).

Table 28

Summary[a] of Hierarchical Multiple Regression Analyses Predicting Psychiatric Symptomatology from Dispositional Religiousness and Religious Coping

Criterion Predictors[b]	ΔR^2	F	p[c]
Overall Psychiatric Symptoms (2 regressions)			
Dispositional Religiousness Predictor Set	.02	4.15	.01
Religious Coping Predictor Set	.05	8.99	.001
Depressive Symptoms (2 regressions)			
Dispositional Religiousness Predictor Set	.02	4.58	.01
Religious Coping Predictor Set	.04	7.16	.001
Anxiety Symptoms (2 regressions)			
Dispositional Religiousness Predictor Set	.01	2.52	ns
Religious Coping Predictor Set	.05	7.28	.001

[a] Summarizes the results of 6 regression equations.
[b] Regression results represent the effects of the predictor set when entered last in the equation after demographic variables (age, gender), stress, and the alternate predictor set.
[c] $p > .01$ recorded as not significant (ns).

Table 29

Relationship between Religious Coping Variables and Psychological Adjustment

	Sample Religious Affiliation			
	Christian		Christian & Non-Christian	
	Middle-aged Adults	College Students	Middle-aged Adults	College Students
God-Centered Coping (Grober, 1994)	**	**	**	ns Symptoms
Spiritually-Based Coping (Pargament et al., 1990; Pargament et al., 1991)	Negative Symptoms	**	**	ns Symptoms
Collaborative Problem-Solving (Hathaway & Pargament, 1990; Pargament et al, 1988; Schaefer & Gorsuch, 1990)	Positive SE/SC	Negative Anxiety	**	**
Spiritual Support (Maton, 1989)	**	**	**	Negative Depression
People-Centered Coping (Grober, 1994)	**	**	**	ns Symptoms
Religious Support Coping (Pargament et al., 1990; Pargament et al, 1991)	ns Symptoms	**	**	ns Symptoms
Bargaining Coping (Grober, 1994)	**	**	**	Positive Symptoms
Pleading Coping (Pargament et al., 1990 Pargament et al., 1991)	ns Symptoms	**	**	Positive Symptoms
Deferring Problem-Solving (Hathaway & Pargament, 1990; Pargament et al., 1988; Schaefer & Gorsuch, 1990)	Negative SE/SC	Positive Anxiety	**	**

Table 29, Cont'd

	Sample Religious Affiliation			
	Christian		Christian & Non-Christian	
	Middle-aged Adults	College Students	Middle-aged Adults	College Students
Alienated Coping (Grober, 1994)	**	**	**	Positive Symptoms
Discontent Coping (Pargament et al., 1990; Pargament et al., 1991)	Positive Symptoms	**	**	Positive Symptoms
Self-Directed Problem-Solving (Hathaway & Pargament, 1990; Pargament et al., 1988; Schaefer & Gorsuch, 1990)	Negative SE/SC	Positive Anxiety	**	**

Note:

Direction of Relationship
** = not assessed
ns = non-significant relationship
Negative = negative relationship
Positive = positive relationship

Measure of Adjustment
Symptoms = Overall Symptom index
SE/SC = Measures Self-Esteem & Social Competence
Anxiety = State/Trait Anxiety Scale

APPENDIX F: Figures

Figure 1a: Interactive effects model

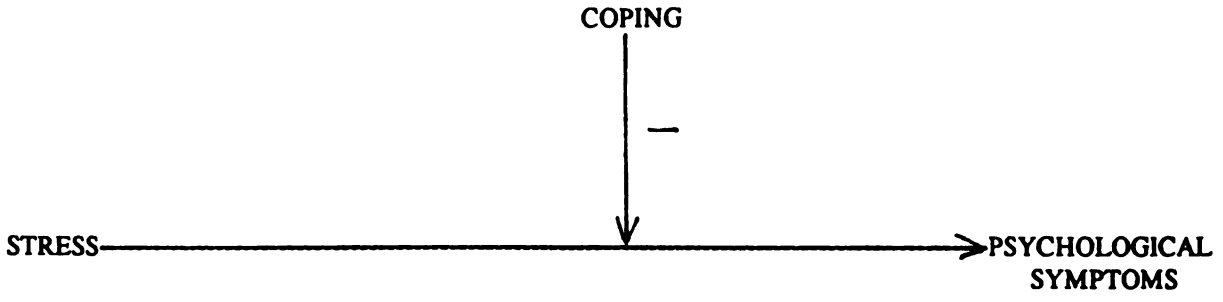

Figure 1b: Additive effects model

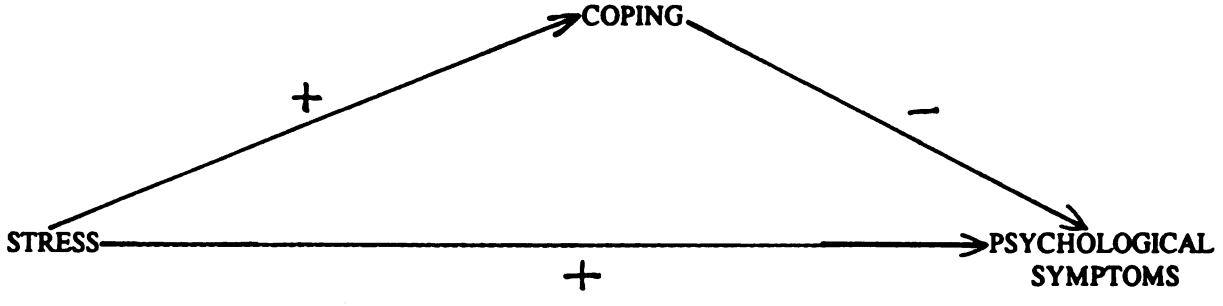

Figure 1a & 1b: Two Alternative Models of Stress-Buffering, after Wheaton (1985)

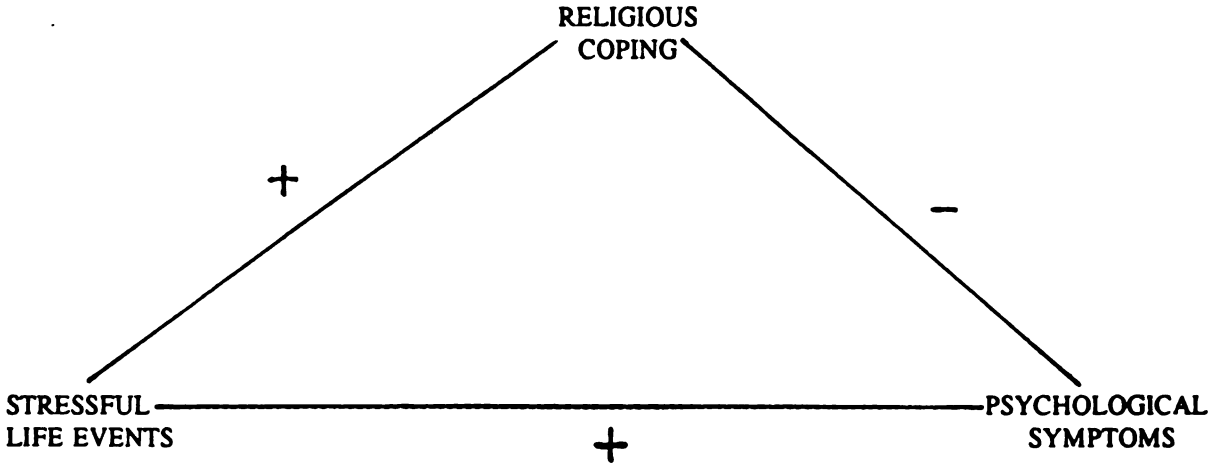

Figure 2: Additive Effects Model of Religious Coping as a Stress-Buffer

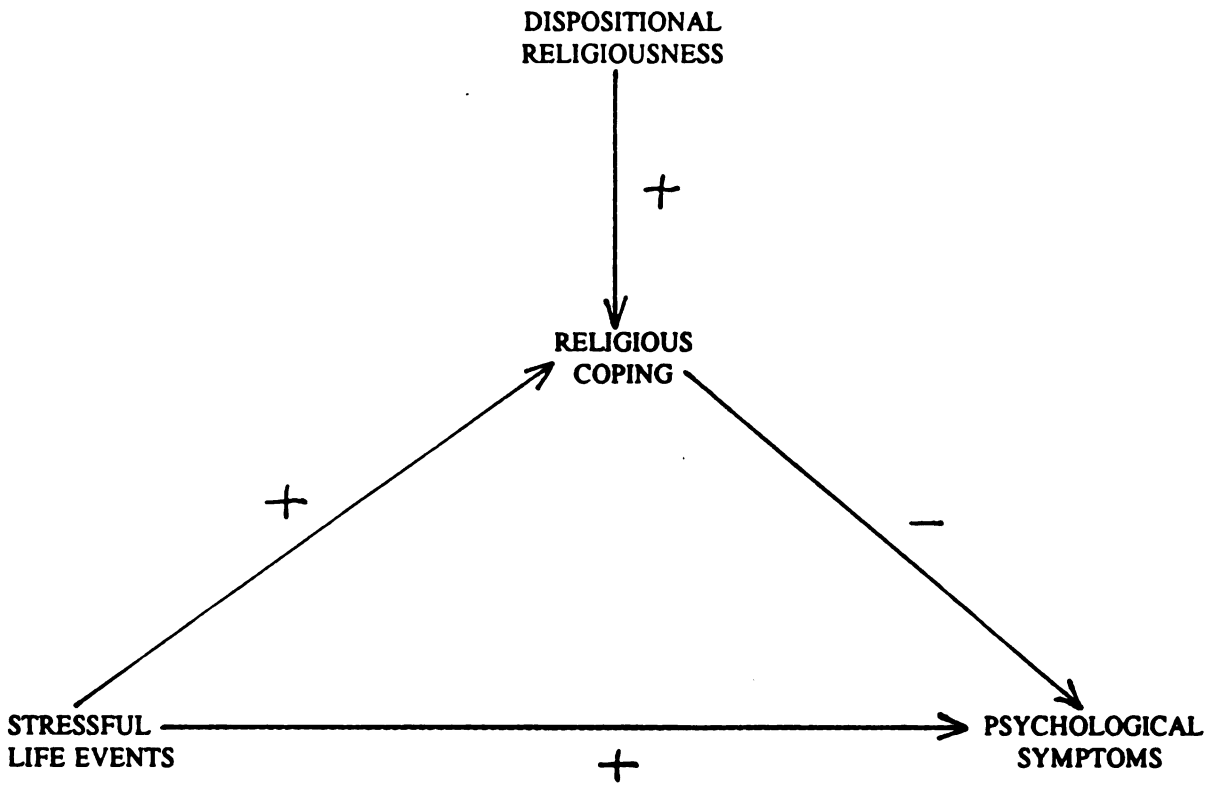

Figure 3: Summary of Proposed Relationships among Dispositional Religiousness, Religious Coping, Stress, and Psychological Symptomatology

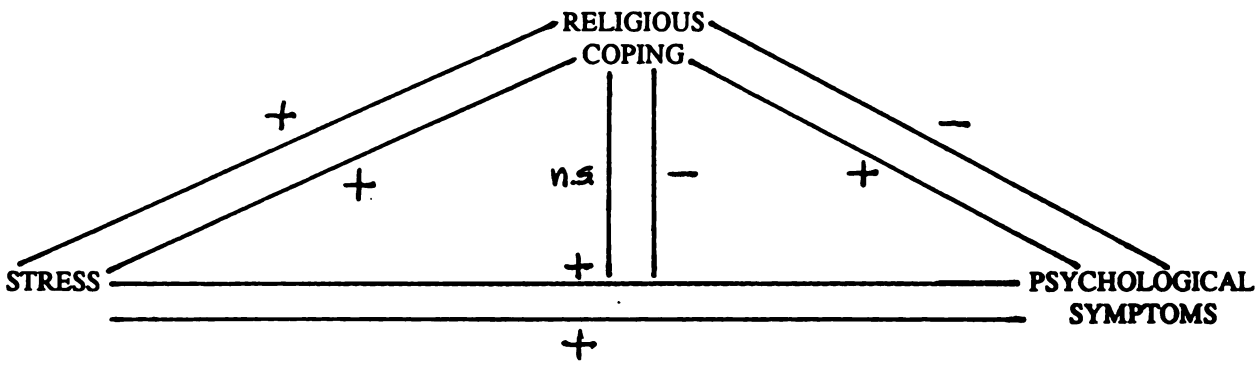

Figure 4: Summary of Expected Relationships (upper line) and Actual Relationships (lower line) testing the Additive Effects versus Interaction Effects Models of Stress-Buffering

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