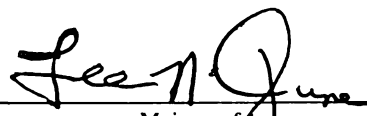This is to certify that the

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Spiritual Well-Being, Locus of Control, and
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RELIGIOUS PROBLEM-SOLVING STYLE
AS A FUNCTION OF
SPIRITUAL WELL-BEING, LOCUS OF CONTROL, AND
ATTRIBUTION OF CONTROL TO GOD

By

Constance L. DeVantier

A DISSERTATION

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ABSTRACT

RELIGIOUS PROBLEM-SOLVING STYLE
AS A FUNCTION OF
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Recent research has called for additional understanding of dispositional variables associated with preferences for religious problem-solving styles. In a response to this request, this study explored the relationships of spiritual well-being, locus of control, and attribution of control to God to religious problem-solving styles in 203 college students. The constructs of religious beliefs, behaviors, and commitment were also examined for further understanding of variation in preferences for religious problem-solving styles.

The results of this study both support and expand previous research on religious problem-solving styles. Attribution of control to God had the strongest association with each religious problem-solving style. All variables correlated significantly with the Collaborative style. The Self-Directing style was significantly related to all variables except internal locus of control and attribution of control to powerful others. The Deferring style was significantly associated with all variables except religious beliefs and attribution of control to powerful others and chance. Some group differences were found for religious problem-solving style preferences based on age, class rank, race-ethnicity, and religious affiliation.

The findings in this study suggest that the degree of control individuals attribute to God is related to the use of theistic values in problem solving. These finding have implications for psychologists and clinicians seeking to support individuals in coping more effectively.

ACKNOWLEDGEMENTS

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REVIEW OF LITERATURE

Religion is a central part of most people's experiences in life. Religious values and understandings direct people in their efforts toward effective living and problem solving. Currently, little is understood in the field of psychology as to how individuals use religion in problem solving. Religion informs people about the nature of self and God. Individuals draw from this understanding in problem solving. In contrast, the field of psychology has typically explored problem solving through scientific efforts without consideration of religious values. This lack of recognition in the psychology field of the use of religion in problem solving appears related to a discrepancy between the majority of Americans and psychologists in regard to theistic values.

The Values Gap

In 1978, the American Institute of Public Opinion reported that religious beliefs were important for approximately 90% of the general public; and that 60% of these individuals described their religious beliefs as very important. Several other polls offered similar results (Worthington, 1989). These findings suggest that theistic values are a part of the human experience for the majority of the general population in the United States. In contrast, other findings suggests that 43% of randomly selected psychologists of the American Psychological Association affirmed a belief in a transcendent deity, and that 34% denied the existence of God (Ragan, Mahoney, & Beit-Hallahmi, 1980). Thus, a gap appears to exist between the general public and the clinical field in regard to holding theistic values; the values held by mental health professionals in regard to spirituality and religion are not very harmonious with the subcultures whom they serve (Bergin, 1980).

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This emerging information about the role of theistic values in the lives of a large percentage of the general population has direct implications for the counseling psychology profession. It raises questions about the degree to which counseling psychologists might increase clinical effectiveness by more deliberately considering the range of individuals' religious and spiritual values in theories of identity and development, therapeutic models of change, conceptualization of treatment goals and plans, assessment of therapeutic outcome, and definitions of mental health. This perspective is not new to the literature. Collins (1986) stated that psychologists cannot ignore the influence of religion if they are truly interested in understanding human behavior. Pate (as cited in Morrissey, 1995) stated that spirituality should be recognized as part of multiculturalism with an understanding of the ways spiritual practices have influence in individuals' lives. Ellison (1983) captured the need for further exploration of the role of an individual's spiritual and religious values by stating:

> It is the spirit of human beings which enables and motivates us to search for meaning and purpose in life, to seek the supernatural or some meaning which transcends us, to wonder about our origins and our identities, to require morality and equity. It is the spirit which synthesizes the total personality and provides some sense of energizing direction and order. The spiritual dimension does not exist in isolation from our psyche and soma, but provides an integrative force. (p. 331-332)

Values are an integral part of the counseling psychology profession and are influential in all phases of psychotherapy. These phases include theories of personality and pathology, change method design, treatment goals, and outcome assessments (Bergin, 1985). Within the mental health profession, two broad classes of values appear to exist. Bergin (1980) referred to these value classes as clinical pragmatism and humanistic idealism. Clinical pragmatism focuses on diminishing pathologies and humanistic idealism

focuses on self-exploration and self-actualization. Increasingly, there is growing recognition in the clinical field that these two value classes do not adequately encompass the theistic values that many people hold. Additionally, clinical goals established within these value structures may at times clash with belief systems of a theistic nature.

Though not a primary focus in the values literature, historically there has been some attention to the role of theistic values in individuals' lives. However, until more recently, researchers in this area have tended to primarily investigate religion with individuals from a specialized participant pool rather than a cross section of participants from the general public (Bergin, Stinchfield, Gaskin, Masters, & Sullivan, 1988; Bufford, Paloutzian, & Ellison, 1991; Ledbetter, Smith, Fischer, Vosler-Hunter, & Chew, 1991; Ledbetter, Smith, Vosler-Hunter, & Fisher, 1991) or associate an individual's religious and spiritual dimensions with mental illness (Ellis, 1980).

<u>The Increasing Attention to Theistic Values within the Clinical Field</u>

Despite the religious and spiritual value differences between the general public and the clinical profession, the importance of values related to theistic beliefs is becoming a more salient issue in the field of psychology.

Some indications of this growing interest in religious and spiritual values in the psychology field include the upsurge of rigorous research in the area of meditation, the rapid growth of the American Psychology Association's Division 36 -- Psychologists Interested in Religious Issues, the establishment of new journals with overtly spiritual content, and the establishment of new and specialized religious professional foci such the Christian Association for Psychological Studies and The Association of Mormon Counselors and Psychotherapists (Bergin, 1980).

Bergin (1980) presented four reasons for this increasing attention to theistic

values in psychology. First, science has lost its once held position of authority as the

dominating source of truth; there is broad disillusionment and a loss in faith in science as

the cure for human ills. Second, the field of psychology has lost some status as an

authority over human action partly due to its alienation from the mainstreams of the

culture. Third, contemporary times are filled with anxiety, alienation, selfishness, and

violence, and depression, but the human spirit seems to be irrepressible. This is creating

greater examination of personality, the human condition, and science from a spiritual

perspective. Fourth, this emerging zeitgeist has aspects of a broad based movement rather

than those of a minority group of thinkers with specialized interests. The field of

psychology, as well as the psychologists in it, are influenced by the forces of this emerging

zeitgeist. Bergin (1980) stated:

> The emergence of studies of consciousness and cognition, which grew out of
> disillusionment with mechanistic behaviorism and the growth of humanistic
> psychology, has set the stage for a new examination of the possibility that presently
> unobservable realities -- namely, spiritual forces -- are at work in human behavior.
> (p. 95)

Worthington (1989) summarized additional explanations for the growing trend in

psychology to study theistic values. These explanations include the rise in popularity of

Eastern religions in the 1960s and 1970s, the popularity of new religious organizations and

cults, the salience of moral arguments in our society such as those about abortion and the

Equal Rights Amendment, the betrayal of the public by politicians through such events as

Watergate and the Irancontra Affair, and the overt religious nature of some prominent

political leaders and terrorists. The clinical field, like others, experiences the influence of

these occurrences in the values held by individuals in the field and being served by the profession.

The growing body of literature on theistic values is merging toward the conclusion that religiousness is a multidimensional construct involving ideological, intellectual, ritualistic, experiential, and consequential dimensions (Pargament, Ensing, Falgout, Olsen, Reilly, Van Haitsma, & Warren, 1990). This literature is filled with multiple references to the religious and spiritual dimensions of individuals. These variables include Christian maturity (Bassett, Camplin, Humphrey, Dorr, Biggs, Distaffen, Doxtafor, Flaherty, Hunsberger, Poage, & Thompson, 1991); God-Image (Benson & Spilka, 1973); religiosity (Chamberlin & Zika, 1988; Sapp & Gladding, 1989; Schoenfeld, 1984-85); religiousness (Bergin, Masters, & Richards, 1987; Richards, Smith, & Davis, 1989); religious attendance (Williams, Larson, Buckler, & Heckmann, 1991); religious behavior (Cornwall, 1989) such as frequency of prayer and attendance at religious services (Pargament, Kennell, Hathaway, Grevengoed, Newman, & Jones, 1988); religious commitment (Ellison & Cole, 1982; Ellison, Gay, & Glass, 1989; Gartner, Larson, & Allen, 1991; Philipchalk & Sifft, 1985); religious coping efforts (Pargament et al., 1990); religious development (Butman, 1990; Timpe, 1983); religious devoutness (Richards, 1991); religious faith (Worthington, 1989); religious lifestyles (Bergin et al., 1988); religious identity (Hertel, 1988); religious importance (McIntosh, Silver, & Wortman, 1993); religious motivation (Jackson & Coursey, 1988); religious orientation (Edmonds, Shipman, & Cahoon, 1992; Paloutzian & Janigian, 1986; Watson, Morris, & Hood, 1990); religious participation (McIntosh et al., 1993); religious problem-solving styles; religious salience (Pargament et al., 1988; Schoenfeld, 1984-85); religious values (McMinn, 1991);

spirituality (Blazer, 1991); spiritual addictions, spiritual ambition, spiritual experiences, spiritual specialness, guilt and purification, healthy spirituality (Vaughan, 1991); spiritual growth (Hall, 1986); spiritual values (Brown & Peterson, 1990; Helminiak, 1989); spiritual well-being, religious well-being, and existential well-being (Ellison, 1983); stages of faith (Fowler, 1982); and theistic values (Bergin, 1980).

Discussions of theistic variables in the literature have often been inconsistent or negligent in regard to defining these variables. Broadly, the distinction between religion and spirituality has not been made (Morrissey, 1995). Additionally, multiple definitions of spirituality have been discussed in the literature. These include defining it as a philosophical, psychological, and religious term (Conn, 1985). Spirituality has also been discussed from the perspectives of pastoral counseling; transpersonal psychology (Miller, 1990); and one's relationship with self, others, and the universe (Corrington, 1989). Additionally, the terms religion, religious, and religiosity have often been used interchangeably and without definition in studies on aging (Payne, 1990) and marked differences have existed in definitions of religious commitment (Gartner et al., 1991).

Theistic Values and Mental Health

Increasingly, researchers are suggesting that theistic variables are associated with mental health. Brown et al. (1990), in a study examining spiritual values in the treatment of alcohol dependency, suggested that value/behavior consistency is significantly related to self-concept. Hall (1986) reported that families facing crisis who based their life orientation on spiritual values appeared to have more productivity in their lives and experience more life satisfaction than other families in crisis who made no effort to examine their life orientation or values. Ellison et al. (1989) reported that private

(devotional) and public (participatory) aspects of an individual's religiosity have small, but consistently positive relationships with life satisfaction. Larson, Sherrill, Lyons, Craigie, Thielman, Greenwold, & Larson (1992) suggested that religious commitment is a multidimensional, clinically relevant phenomenon with the potential for frequent, beneficial mental health effects. Hall (1992), in summarizing the conclusions of Larson's work over time, stated that religion positively affects family life, volunteerism, divorce, suicide, substance abuse, and stress. Other research focusing on theistic variables and mental health include hope and its relationship to positive affect, problem solving, goal striving (Snyder, Irving, & Anderson 1991), and goal setting behaviors (Snyder, Harris, Anderson, Holleran, Irving, Sigmon, Yoshinobu, Gibb, Langelle, and Harney, 1991). Other positive relationships have been found between levels of spirituality and contentment (Corrington, 1989); spiritual support and self-esteem (Maton, 1989); religious participation and importance and perception of social support, finding greater meaning in death (McIntosh et al., 1993), and psychological functioning (Gartner et al., 1991); religious beliefs and adjustment to disease; positive attitudes toward religion and interactional behavior (O'Brien, 1982); select modes of religiousness and enhanced stability and resilience (Bergin et al., 1988); intrinsic religious orientation and responsibility, internal locus of control (Kahoe, 1974), self-control, and "better" personality functioning (Bergin et al., 1987); and religious commitment and well-being (Ellison et al., 1989).

Inverse relationships have been found between intrinsic religious orientation and anxiety (Bergin et al., 1987) and depression (Genia, 1993); religiosity and suicide; religious commitment and drug use and depression; religious participation and alcohol use; and church attendance and delinquency and divorce (Gartner et al., 1991).

Theistic Values and Coping

An important aspect of mental health is the ability to adjust and cope with stress and problems emerging in daily life. Religion has frequently been perceived as a central element in how people cope with stressors (Hathaway & Pargament, 1991).

Pargament et al. (1990) suggested a process through which religion becomes involved in coping. People have personal resources which affect how they deal with difficult and stressful events. These resources include their system of general beliefs, aspirations, practices, and relationships. Religion can be viewed as part of this general orienting system. In coping, religion appears to be used in three ways: 1) as part of each element in the coping process (e.g., appraising the situation), 2) as contributing to the coping process (e.g., decreasing drug and alcohol consumption), and 3) as a product of the coping process (e.g., stronger faith).

Hathaway et al. (1991) suggested that two conditions increase the likelihood of religious involvement in coping. The first condition is the availability of religion as a resource for the individual -- the presence of theistic values. The second is the degree to which religion offers a "compelling" way of dealing with problems. Additionally, they suggested that individuals are more likely to look to religion in coping with critical experiences and life transitions (e.g., birth, death); and are less likely to look to religion when non-religious approaches are more convincing (e.g., use person-made solutions for person-made problems such as putting out a fire).

Coping efforts involving religion appear to be multidimensional (Pargament et al., 1988; Hathaway et al., 1991). Pargament et al. (1990) investigated several religious coping activities as representative of the multiple dimensions of religious coping:

interpersonal, spiritual, cognitive, emotional behavioral, social, avoidance, passive,

collaborative. They reported that four religious activities appear to predict positive

outcomes to significant negative events: 1) belief in a just and loving God, 2) the

experience of God as a partner in the coping process, 3) involvement in religious rituals,

and 4) among churchgoers, the search for spiritual and personal support through religion.

Religious coping activities have predicted the outcomes of stress above and

beyond the effects of nonreligious coping activities. Empirical findings have suggested

that religious coping activities can affect the outcomes of negative events (Pargament et

al., 1990). Additionally, the theoretical literature suggests that specific efforts, such as

prayer, religious rituals, and faith can affect feelings of self-esteem and control — qualities

helpful to positive resolution of problems (Spilka, Shaver, and Kirkpatrick, 1985). At

present, it appears that religious and non-religious coping activities are related but not

redundant (Pargament et al., 1990). Pargament et al. (1990) stated:

> Religious coping activities appear to offer something to the coping process beyond
> the contributions of non-religious coping activities. This "something" is proposed
> to be a framework for understanding the limits of personal knowledge, resources,
> and control in coping; it may well be that our limits are more apparent to us in the
> face of serious negative events. (pg. 818)

They concluded that, for significant occurrences, involving religion in the coping process

is more commonplace than unusual; and that there is a need for greater integration of the

religious dimension of individuals into the coping literature.

Religious Problem-Solving Styles

One theistic variable discussed more recently in the literature as being associated

with the coping process is religious problem-solving style. Research thus far suggests that

religious problem-solving styles are important in the relationship between stress and

mental health. Additionally, empirical studies have consistently shown that individuals

report religious problem solving efforts as some of the ways they cope with stress

(Schaefer & Gorsuch, 1991). Religious problem-solving style is defined as a dispositional,

generalized style of coping (Pargament et al., 1988; Hathaway et al, 1991). It is

distinguished in the literature from religious coping activities and efforts which refer to

situation-specific coping behaviors (Pargament et al., 1990; Hathaway et al., 1991).

Pargament et al. (1988) proposed three dispositional styles of religious problem

solving -- Deferring, Collaborative, and Self-Directing. These styles vary in the level of

passivity or activity attributed to the individual and to God in problem-solving situations.

The Deferring style refers to the individual maintaining passivity and waiting for God to

resolve the problem. This style appears to be related to a reliance on external structures

and authority in problem solving, an intolerance for difference, and an extrinsic religious

orientation (the extent to which an individual is involved in religion for external reasons

such as social approval). The Collaborative style suggests a partnership between God and

the individual with both having active roles in problem solving. This style has been found

to relate positively with both quest religious orientation (the degree to which an individual

approaches religion from a questioning or tentative perspective) and intrinsic religious

orientation (the extent to which religion is a motivating force in an individual's life). The

Self-Directing style refers to the individual taking an active role in solving the problem.

This style has been found to correlate positively with a tentative religious orientation and

negatively with an intrinsic religious orientation.

Other empirical studies thus far have suggested that religious problem-solving

styles appear to mediate the relationship between religious beliefs and anxiety (Schaefer et

al., 1991) and intrinsic religiousness and psychosocial competence (Hathaway &

Pargament, 1990); more specifically, the Deferring style has been found to relate

negatively to competence (Hathaway et al., 1991). In a study exploring sin-related guilt,

the Self-Directing style of religious problem solving appeared to be negatively correlated

with guilt, and the Deferring and Collaborative styles appeared to be related positively

with guilt (Kaiser, 1991).

Past studies of religious problem-solving styles have primarily used participants

from specialized pools such as church congregation memberships (Pargament et al., 1988;

Hathaway et al., 1990; Schaefer & Gorsuch, 1993). At present, little is known about

preferences for religious problem-solving styles among college students. Those studies

which have incorporated college students as participants appear to draw participants from

church affiliated institutions (Schaefer et al., 1991) or have a limited number of

participants (Kaiser, 1991).

In that individuals use religious problem solving as some of the ways that they

cope (Schaefer et al., 1991), it appears beneficial for the clinical field to understand more

about religious problem-solving styles. By doing so, both secular and religious clinicians

may able to assist individuals in coping more effectively within a therapeutic context. The

literature has called for further research on dispositional variables associated with

individuals' preferences for religious problem-solving styles (Hathaway et al., 1990).

Currently, little is known about the variables of spiritual well-being, locus of control, and

attribution of control to God they relate to preferences for religious problem-solving

styles.

<u>Spiritual Well-Being</u>

One of the theistic variables that has received much attention in the literature as being related to positive mental health is spiritual well-being. Spiritual well-being is the overall spiritual quality of an individual's life (Ledbetter et al., 1991). More specifically, spiritual well-being has been defined as the affirmation of life in relationship with God, self, community, and environment that nurtures and celebrates wholeness (National Interfaith Coalition on Aging, 1975). Spiritual well-being is defined as having two subcomponents. The first is the dimension of religious well-being -- a self-assessment of one's relationship with God. The second dimension is existential well-being -- a self-assessment of one's sense of life purpose and life-satisfaction without any specific religious reference (Ledbetter et al., 1991).

Spiritual well-being has been found to be related to many aspects of successful coping. Positive correlations were found between spiritual well-being and healthy assertiveness, internal locus of control, hardiness, positive attitudes, self-confidence, self-esteem, asking for help (Ellison & Smith, 1991), and hope (Carson, Soeken, & Grimm, 1988). Spiritual well-being has been negatively correlated with loneliness, social isolation, despair, hopelessness, stress, physical and passive forms of aggression, dependency, and orientation toward passivity (Ellison et al., 1991).

Spiritual well-being studies have included various participant groups including college women at a southern university (Ellison et al., 1991); married individuals from churches in Southern California (Roth, 1988); religious groups (Ledbetter et al., 1991) such as Conservative Baptists, Presbyterians, and United Methodists; non-religious sociopathic convicts (Ledbetter et al., 1991); caregivers for terminally ill hospice patients,

medical outpatients, and counseling patients (Bufford et al., 1991); those struggling with issues related to sexual abuse and eating disorders (Paloutzian & Ellison, 1991); self-defined 'ethical' or 'born-again' believers, ministers, seminary students, and nursing students (Paloutzian et al., 1991).

At present, little is known about how spiritual well-being may be related to preferences for religious problem-solving styles. Given that religious problem-solving styles are based on dimensions underlying an individual's relationship with God and define a relationship with God in a specific way (Pargament et al., 1988), it seems plausible that varying degrees of comfort with spiritual values (spiritual well-being) might be related to specific preferences for religious problem-solving styles. Exploring the relationship between spiritual well-being and preferences for religious problem-solving styles appears beneficial to the clinical field. Clinicians may be better able to support clients in identifying and selecting problem-solving styles that are compatible with clients' comfort with theistic values and appropriately optimize the use of theistic values as a resource in problem solving.

<u>Locus of Control of Reinforcement</u>

Locus of control is the extent to which an individual believes that an outcome of his/her behavior is contingent on his/her own behavior or personal characteristics as opposed to external or unpredictable circumstances (Rotter, 1989). The locus of control is internal when an individual perceives that an outcome is due to his/her behavior or relatively enduring personal characteristics; it is external when outcomes are perceived to be contingent on luck, fate, chance, or the control of powerful others (Marsh, 1986).

The concept of internal locus of control developed from social learning theory (Rotter, 1975). Social learning theory encompasses the perspective that the potential for a behavior to occur is a function of the expectation that the behavior will lead to a particular reinforcement. Additionally, the theory holds that expectancies for a particular kind of reinforcement will generalize across situations (Rotter, 1989).

There is some discussion in the literature that locus of control is multidimensional in nature (Piotrowski, Dunn, Sherry, & Howell, 1983). Levenson (1974) distinguished between external control based on a belief that the world is unordered (chance), and a belief that the world is ordered by "powerful others". Piotrowski et al. (1983) found support for several distinct components of the internal-external locus of control construct but cautioned that their factor validity results were not found consistently across studies.

Locus of control is one of the most studied variables in psychology and other social sciences (Rotter, 1989). Various scales of locus of control have been translated into many different languages (Rotter, 1989) and developed for various age groups from children (Nowicki & Duke, 1983) to the elderly (Blanchard-Fields & Irion, 1988). Locus of control has long been recognized as a solid predictor of mental health. In general, individuals who accept responsibility for occurrences in their lives (internal locus of control) tend to be more healthy and productive than individuals who believe that external factors control these events (external locus of control) (Long, Williams, Gaynor, & Clark, 1988).

Studies have found internal locus of control to be related to many personal qualities associated with successful coping. These include deeper self-disclosure, greater reflectivity, greater persistence (Nowicki et al., 1983), and greater personal adjustment

(Duke & Nowicki, 1973). Studies also suggest that internal locus of control to relates

negatively to helplessness, defensiveness, and feelings of guilt (Nowicki et al., 1983). In

contrast, external locus of control has been found to be related to higher stress (Gadzella,

1994), higher levels of general trait anxiety (Archer, 1979), a lessened sense of hope

(Brackney & Westman, 1992), and burnout (Nowicki et al., 1983).

There is a small body of literature exploring the relationship of locus of control to

religious variables. Benson et al. (1973) did not find a significant relationship between

locus of control and images of God; they suggested that this relationship may have been

masked by measurement problems. Participants for their study were males from a

Catholic high school. Pargament, Sullivan, Tyler, & Steele (1982) examined locus of

control, attributions of control to God, and psychosocial competence in suburban

congregations. They suggested that God control was significantly related to chance

control, significantly and negatively related to personal control, and not significantly

related to control by powerful others. Friedbery & Friedbery (1985), in a study of college

undergraduates, suggested that locus of control was too broad a construct to yield a

significant correlation with religiosity. Gabbard, Howard, & Tageson (1986) suggested

that a religious version of the Rotter Internal/External Scale is appropriate for individuals

with strong religious beliefs. Jackson et al. (1988) suggested that, for their participant

group, high internal locus of control was related to attribution of control to God for

African Americans group. It has also been suggested that individuals who perceive

themselves as religious tend to have high internal locus of control (Gladding, Lewis, &

Adkins, 1981).

The literature also suggests some relationship between locus of control and coping. Tanck and Robbins (1979) reported that individuals tending toward externality indicated a greater likelihood to cope by seeking professional assistance, fantasizing, or drinking. Blandchard-Fields et al. (1988) suggested that, for adults, internal locus of control related negatively with coping styles of escape-avoidance, hostile reaction, and self-blame. Also, a belief in the powerfulness of others (external control) related positively to planful problem-solving and self-controlling styles in older adults.

Several measures of locus of control are available and widely used in the literature. The Rotter Internal/External Control Scale (Rotter, 1966) was designed to measure the degree to which an individual believes reinforcements are controlled by internal or external factors (Jackson et al., 1988). The Adult Nowicki-Strickland Internal-External Locus of Control Scale (Nowicki & Duke, 1974) was developed to address concerns with the Rotter scale. Specific concerns were regarding the relationship of the Rotter scale to social desirability and its failure to distinguish personal, social, and political ideological causation (Friedbery et al. 1985). Levenson (1974) suggested locus of control was multidimensional. She developed three scales (Internal, Powerful Others, and Chance) based on the Rotter scale in order to isolate those components of the internal/external construct that might lead to enhanced prediction (Phares, 1976). Levenson's scales have been used more recently in studies exploring locus of control and religious variables (Gadzella, 1994; Brackney et al., 1992; Long et al., 1988; Gabbard et al., 1986; Pargament et al., 1982).

Attribution of Control to God

God control refers to the degree of attribution to God as an active causal agent (Jackson et al., 1988). Much of the empirical literature in this area refers to locus of control as an appropriate framework for conceptualizing God control, though God control is perceived as being a complex belief rather than just one form of external locus of control (Ritzema & Young, 1983).

The literature on God control and religious and coping variables appears to be minimal. Pargament et al. (1982) reported God control was not significantly related to measures of competence or control by powerful others (external). They suggested that God control related significantly to control by chance (external). They also found a significant, negative relationship between God control and personal (internal) control. Jackson et al. (1988) reported that God control demonstrated a stronger relationship with intrinsic religious motivation than did locus of control and that females scored higher than males on the God as Causal Agent Scale. They also suggested that high God control was related to high internal control for African Americans. Additionally, they reported that this finding is in contrast to some studies which have reported that, for Caucasian participants, high God control is related to high externality.

Other research with God control has examined differences in religious groups. Furnham (1982) suggested that fundamentalists report higher God control than liberals, suggesting that perceptions of God control differ among various religious samples. Ritzema (1979) reported that, for conservative Christians, the ratings of attributions of supernatural causality to various events correlated positively with other measures of religious belief.

Hypotheses

This study proposed to contribute to the literature by expanding understanding of dispositional variables associated with preferences for religious problem-solving styles. Specific variables studied were spiritual well-being, locus of control, and attribution of control to God. Additionally, due to the discussion in the literature of the multidimensional nature of religion, select items from participant demographic form were combined to create additional measures for the variables of religious behaviors, religious beliefs, and religious commitment. A list of items contributing to these additional measures is provided in Appendix C.

Though this study was exploratory, the following specific hypotheses were presented. These hypotheses are outlined in Table 1.

Hypothesis 1:

Spiritual well-being was expected to have a positive relationship with the Collaborative problem-solving style; past research suggested that this style is positively related to higher levels of involvement with religion and an intrinsic religious orientation style.

Hypothesis 2:

A negative relationship was expected for spiritual well-being and the Self-Directing problem-solving style; past research suggested that this style is defined as having less involvement with God and a lower emphasis on traditional religious values.

Hypothesis 3:

Internal locus of control was expected to have a negative relationship to the Deferring style and a positive association with the Collaborative style. The Deferring style is characterized by higher involvement with religion. Past research reported low correlations

between internal locus of control and religiosity variables. While the Collaborative style also incorporates higher levels of involvement with religion, it also encompasses a dimension of personal agency. Thus it was expected that the Collaborative style would have a positive relationship with internal locus of control.

Hypothesis 4:

Attributions of control to chance and the Deferring problem-solving style were expected to relate positively; this style is characterized by a reliance on support from a source (God) other than self.

Hypothesis 5:

God control was expected to have a positive relationship to the Deferring and Collaborative problem-solving styles; these styles are characterized by higher involvement with God.

Hypothesis 6:

God control was expected to relate negatively to the Self-Directing problem-solving style due to this style being characterized by low involvement with God.

Hypothesis 7:

A positive relationship was expected between religious behaviors and the Collaborative problem-solving style due to this style being characterized by active involvement of the individual.

Hypothesis 8:

Religious beliefs were expected to have a positive relationship to the Deferring and Collaborative styles; these styles are characterized by greater inclusion of God in problem solving.

Hypothesis 9:

Religious commitment was expected to have a positive relationship to the Deferring and

Collaborative problem-solving styles; these style are characterized by greater inclusion of

God in problem solving.

Table 1 displays the hypothesized relationships among variables:

Table 1

Hypothesized Relationships Between Predictor and Outcome Variables

Predictors	Religious Problem-Solving Styles		
	Deferring	Collaborative	Self-Directing
Spiritual Well-Being		+	-
Locus of Control			
Internal	-	+	
Chance	+		
God Control	+	+	-
Religious Behaviors		+	
Religious Beliefs	+	+	
Religious Commitment	+	+	

METHOD

Participants

Data for this study was collected through questionnaires distributed to 229

Michigan State University students. These students were enrolled in classes within the

departments of Educational Administration (EAD) and Teacher Education (TE). In that

the majority of measures used for this study are appropriate only for those who belief in

God, final participants for this study were selected through a screening question on the

data questionnaire (item 10). Participants who endorsed a belief in God on the screening

question ($\underline{n}$=203) remained as participants for this study. The responses of those who did

not endorse a belief in God ($\underline{n}$=25), and an outlier were omitted from the analyses of this

study. Participants were primarily representative of freshmen, sophomore, junior, senior,

class levels. A small percentage of students were involved in master's level or other

academic pursuits.

Measures

Four instruments were selected for this study. These were the long form of the

Religious Problem-Solving Scales (Pargament et al., 1988) as the measure of preferred

religious coping style; the Spiritual Well-Being Scale (Paloutzian & Ellison, 1982) as the

measure of spiritual well-being; the Internal-Powerful Others-Chance Locus of Control

Scale (IPC) (Levenson, 1974) as the measure of locus of control, and God as Causal

Agent Scale (Ritzema et al., 1983) as a measure of attribution of control to God.

Additionally, a demographic questionnaire was included. Some additional measures

representing religious beliefs, behaviors, and commitment were created from select items

from demographic questions. Cronbach's alpha reliability coefficients were examined for

22

each of these created measures. Information regarding specific items contributing to the religious beliefs, behavior, and commitment variables is found in Appendix C.

Religious Problem-Solving Scales

The Religious Problem-Solving Scales (RPSS) (Pargament et al., 1988) measures three problem-solving styles which are based on the six phases of the problem-solving process. These six phases are defining the problem, generating alternatives, selecting a solution, implementing the solution, redefining the problem, and emotional self-maintenance. These scales are appropriate for individuals who believe in God.

The RPSS has 36 items in its long form, 12 items per style. Subjects respond to a five-point Likert scale ranging from "Never" to "Always" in regard to how often an item is true for them. Scale scores are obtained by summing each scale's 12 items and dividing by 12.

The 36 items comprising the RPSS were factor analyzed using a Promax oblique rotation. Three factors emerged accounting for 86 percent of the common variance in the sample; all items except one load greater than .40 on its appropriate factor and less than .30 on the other two factors. The three scales are moderately intercorrelated; Collaborative with Self-Directing (-.61), Collaborative with Deferring (.47) and Self-Directing with Deferring (-.37).

The authors of the RPSS (Pargament et al., 1988) also reported that Cronbach's alpha statistics were calculated as an internal consistency check for scale items. The reliability estimates reported for the scales were high: Collaborative (.94), Self-Directing (.94), and Deferring (.91). The means and standard deviations of the scales were:

Collaborative ($\underline{MN}$=36.02, $\underline{SD}$=10.67), Self-Directing ($\underline{MN}$=29.70, $\underline{SD}$=10.71), and

Deferring ($\underline{MN}$=25.81, $\underline{SD}$=9.19).

Pearson correlations were computed to examine the relationship of the RPSS

scales to several measures of religiosity. These included measures of religious salience,

frequency of attendance at religious services, frequency of prayer, religious motivation,

and God control. The Self-Directing style of problem solving was significantly negatively

correlated with all measures except the quest religious orientation. Positive correlations

were found for the Deferring and Collaborative styles with all religious measures

(Pargament et al., 1988). Additionally, items on the RPSS suggest good face and content

validity.

Spiritual Well-Being Scale

The Spiritual Well-Being Scale (SWBS) (Paloutzian et al., 1982) is the most

extensively researched measurement of an individual's subjective and spiritual well-being.

It is appropriate for use with anyone who holds a meaningful conception of the term God

(Ellison et al., 1991). Spiritual well-being is perceived as the overall spiritual quality of an

individual's life (Ledbetter et al., 1991). It has been defined as the affirmation of life in

relationship with God, self, community, and environment that nurtures and celebrates

wholeness (National Interfaith Coalition on Aging, 1975). The SWBS includes two

subscales, the Religious Well-Being Scale (RWBS) and the Existential Well-Being Scale

(EWBS). Religious well-being is perceived as a self-assessment of one's relationship with

God. Existential well-being is perceived as a self-assessment of one's sense of life purpose

and life satisfaction without any specific religious reference (Ledbetter et al., 1991). In

this study, no SWBS subscale analyses were done.

The SWBS presents 20 items in a modified Likert format. Typical response time is 10 to 15 minutes. Responses to each item are scored from 1 (strongly disagree) to 6 (strongly agree). Each subscale is comprised of ten items. Possible subscale scores range from 10 to 60, with high scores suggesting higher degrees of religious and existential well-being. The total SWBS score is obtained by summing the two subscales.

Primarily, the SWBS has been used for research purposes (Ledbetter et al., 1991). Since its development, the authors have received over 300 requests to include this instrument in studies (Paloutzian et al., 1991). There is high reliability for the SWBS and its two subscales. Test retest reliability coefficients were obtained across four studies with one through ten weeks between testings; the coefficients for the RWBS were .96, .99, .96, and .88. Coefficients for the EWBS were .86, .98, .98, and .73. Coefficients for the SWBS were .93, .99, .99, and .82. High reliability was also shown through an index of internal consistency (coefficient alpha). These coefficients ranged from .94 to .82 for the RWBS, .86 to .78 for the EWBS, and .94 to .89 for the SWBS (Paloutzian et al., 1991).

The authors report that the items on the SWBS suggest evidence of good face validity. Research shows that items cluster as expected into the two subscales, and that the SWBS is sensitive both to spiritual well-being and a lack of spiritual well-being (Bufford et al., 1991). The scales of the SWBS have been correlated with other theoretically related scales yielding predicted results. The SWBS, RWBS, and EWBS negatively correlated with the UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978), and positively with the Purpose in Life Test (Crumbaugh & Maholick, 1969), Intrinsic Religious Orientation (Allport & Ross, 1967), and a measure of self-esteem (Ellison, 1983).

<u>Internal/Powerful-Others/Chance Locus of Control Scales</u>

Levenson (1974) developed three new scales (Internal, Powerful Others, and Chance) in order to isolate those components of the internal/external construct that might lead to enhanced prediction (Phares, 1976). Her rationale in dividing Rotter's external scale into Chance and Powerful Others was that individuals who believed the world was unordered (Chance) would behave differently than those who believed that Powerful Others were in control (Phares, 1976). Levenson's scales have been used more recently in studies exploring locus of control and religious variables (Brackney et al., 1992; Gabbard et al., 1986; Gadzella, 1994; Long et al., 1988; Pargament et al., 1982) and was selected for this study.

The IPC has 24 items with a Likert response format. Responses to each item are scored from one (strongly agree) to six (strongly disagree). The 24 items break into three subscales distinguished by the type of attribution of locus of control -- internal, powerful others, and chance. The Internal subscale contains items 1, 4, 5, 9, 18, 19, 21, and 23. High scores on this scale suggest that the individual expects to have control over his/her life and low scores suggest he/she does not expect to have this control. The Powerful Others subscale contains items 3, 8, 11, 13, 15, 17, 20, and 22. High scores on this scale suggest the individual expects powerful others to have control over his/her life and low scores suggest he/she does not expect powerful other to have this control. The Chance scale contains items 2, 6, 7, 10, 12, 14, 16, and 24. High scores on this scale indicate that the individual expects chance forces (luck) to have control over his/her life and low scores indicate he/she does not expect chance to have this control (Lefcourt 1983). Items in each scale were identified via factor analytic procedures.

Reasonable reliability and validity estimates have been reported for Levenson's

scales (Gadzella, 1994). One-week retest reliability scores reported for the subscales were

.64 (Internal), .74 (Powerful Others), and .78 (Chance) (Long et al., 1988).

God as Causal Agent Scale

The God as Causal Agent Scale (GCA) was developed to assess the degree to

which individuals attribute causality to God for the effects of various events. The GCA

contains 14 items with a Likert scale response format. Half of the items are worded in the

positive direction (endorsing God as an active causal agent) and the other half are phrased

in the negative direction (Ritzema et al., 1983). The GCA has good construct validity

(Jackson et al., 1988) and an adequate amount of internal consistency as shown by the

item-whole correlations and by coefficient alpha. The GCA was developed from thirty

items pertaining to religious factors such as effectiveness of prayer, the reality of miracles,

and the experience of receiving divine guidance. Those items which correlated $r=.50$ or

greater were selected for use in the GCA (Ritzema, et al., 1983).

Procedure

Approval for this study was obtained through the Michigan State University

Committee on Research Involving Human Subjects (UCRIHS). Data collection occurred

Fall semester 1995 and Spring semester 1996. Students in EAD-315 sections completed

data questionnaires in class. Students from TE-150 sections completed data

questionnaires outside of class. Items on all measures were combined and numbered

sequentially so that only one questionnaire was required for each participant. On the

questionnaire, scales were separated by page breaks. A consent form and the data

questionnaire were given to each participant. Approximate time for completing all

documents was 20 - 30 minutes. Participant responses were anonymous. A summary of the descriptive statistics for this study will be provided to the Instructor of Record for EAD-315 upon the completion of this study. The Instructor of Record for TE-150 declined the offer for such a summary for TE-150 participants.

<div align="center">Analyses</div>

Pearson correlation and multiple regression models were used for analyzing the results of the data collected in this study. Initially, three multiple regression analyses were run for each of the three religious problem-solving styles to examine the predictive power of spiritual well-being, locus of control, and God control. Additional analyses were run, adding in measures of religious beliefs, behaviors, and commitment. The measures for religious beliefs, behavior, and commitment were created from select items on the participant demographic form. Alpha coefficients were examined for each of these created measures. Variables representing sex and group membership in EAD and TE classes were also added to regression models to adjust for differences in relationships among variables.

RESULTS

This exploratory study investigated the relationship of spiritual well-being, locus of control, and attribution of control to God to religious problem-solving styles. The relationships of religious beliefs, behaviors, and commitment to religious problem-solving styles were also examined.

Scoring on scales was reversed as necessary to provide a consistent format for comparing findings. No participant omitted more than two items on any scale. Overall, support was found for six of nine hypotheses. Partial support was found for two additional hypotheses.

Participant Demographic Characteristics

Table 2 lists demographic characteristics of the participants. Participants are listed according to class membership in EAD and TE to provide additional description.

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Table 2

Demographic Characteristics of the Sample

Variable	EAD n (%)	TE n (%)	Total n (%)
Sex			
Female	87 (75.0)	65 (74.7)	152 (74.9)
Male	29 (25.0)	22 (25.3)	51 (25.1)
Class Level			
Freshman	19 (16.4)	4 (4.6)	23 (11.3)
Sophomore	21 (18.1)	41 (47.1)	62 (30.5)
Junior	18 (15.5)	36 (41.4)	54 (26.6)
Senior	56 (48.3)	3 (3.4)	59 (29.1)
Master's	1 (0.9)	1 (1.1)	1 (1.0)
Other	1 (0.9)	2 (2.3)	2 (1.5)
Race-Ethnicity			
European American/Caucasian	85 (73.3)	72 (82.8)	157 (77.3)
African American	19 (16.4)	7 (8.0)	26 (12.8)
Hispanic/Latino/Chicano	2 (1.7)	1 (1.1)	3 (1.5)
Native American/American Indian	1 (0.9)	0 (.0)	1 (.5)
Asian/Pacific Islander	4 (3.4)	3 (3.4)	7 (3.4)
Other	5 (4.3)	4 (4.6)	9 (4.4)
Religious Affiliation			
Baha'i	0 (.0)	0 (.0)	0 (.0)
Buddhist	0 (.0)	1 (1.1)	1 (.5)
Catholic	48 (41.4)	31 (35.6)	79 (38.9)
Evangelical	2 (1.7)	2 (2.3)	4 (2.0)
Hindu	0 (.0)	0 (.0)	0 (.0)
Jewish	5 (4.3)	1 (1.1)	6 (3.0)
Muslim	0 (.0)	1 (1.1)	1 (.5)
Protestant	36 (31.0)	34 (39.1)	70 (34.5)
Other	25 (21.6)	17 (9.5)	41 (20.7)
College Major			
Decided	108 (93.1)	79 (90.8)	187 (92.1)
Undecided	8 (6.9)	8 (9.2)	16 (7.9)

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For several of the demographic items, significant differences were found between EAD and TE participants based on t tests for independent samples. Items were based on a five point Likert scale with one indicating strongly agree, two indicating agree, three indicating not sure, four indicating agree, and five indicating strongly disagree.

On many of these items, the two groups endorsed items in the same direction with the TE group agreeing with item statements more strongly. Differences were found at the .01 probability level for items which indicated a self-perception of being a religious person (EAD MN=2.38, TE MN=1.99) and a belief that God is merciful, kind, and forgiving (EAD MN=1.52, TE MN=1.25). Differences were found at the .05 probability level for items indicating a belief in God (EAD MN=1.25, TE MN=1.13); that their father's commitment to religion was strong while growing up (EAD MN=2.83, TE MN=2.44); that their relationship with God was meaningful (EAD MN=1.81, TE MN=1.57); and that they were more religious than their peers (EAD MN=3.14, TE MN=2.79).

On two other items, differences were found (p=.01) between the EAD and TE groups with the EAD group agreeing more strongly. These items endorsed reading devotional material (EAD MN=1.95, TE MN=2.46) and that their father's commitment to religion was strong while growing up (EAD MN=3.59, TE MN=2.90).

Significant differences were also found through t test comparisons of female and male participants on demographic items. For three items, female and male participants endorsed item agreement with male participants endorsing responses more strongly. Differences were found at the .05 probability level for items statements indicating that their mother's commitment to religion was strong while growing up (female MN=2.28, male MN=1.88); that their problem-solving skills lead to effective results (female

$\underline{MN}$=1.84, male $\underline{MN}$=1.61); that they had "healthy" self-esteem (female $\underline{MN}$=2.10, male $\underline{MN}$=1.82).

Means for female and male participants reflected that both groups also disagreed with the item statement that God is vengeful, harsh, and punishing, with female participants ($\underline{MN}$=4.60) disagreeing more strongly than male participants ($\underline{MN}$=4.29, $\underline{p}$=.01). Significant differences between female and male participants were also found for the item indicating that friends were unaware of the participant's religiousness ($\underline{MN}$=3.78, male $\underline{MN}$=3.45, $\underline{p}$=.05).

Religious Problem-Solving Styles

Descriptive statistics, alpha coefficients, and correlations were examined for the three religious problem-solving style scales. Scale means, standard deviations, and alpha coefficients are provided in Table 3. In this study, the alpha coefficients for the religious problem-solving scales were slightly higher than those reported by scale authors. The alpha coefficients reported by scale authors (Pargament et al., 1988) are also provided in the table as a comparison.

Table 3

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1 = strong
2 = agree
3 = not su
4 = disagr
5 = strong

Table 3

Means, Standard Deviations, and Alpha Coefficients for Religious Problem-Solving Styles

Variable	Mean	sd	Alpha	Authors' Alpha
Religious Problem-Solving Style				
Collaborative	2.58	.97	.95	.94
Self-Directing	2.60	1.04	.95	.94
Deferring	1.92	.77	.92	.91

1 = strongly agree
2 = agree
3 = not sure
4 = disagree
5 = strongly disagree

The Pearson correlations among outcome scores in this study were slightly higher than those reported by scale authors (Pargament et al., 1988). In this study, the Self-Directing religious problem-solving style correlated negatively with the Collaborative style ($r=-.71$, $p=.01$) and the Deferring style ($r=-.52$, $p=.01$). A positive relationship was found between the Collaborative and Deferring styles ($r=.67$, $p=.01$). The correlations reported by scale authors were Self-Directing and Collaborative, $r=-.61$; Self-Directing and Deferring, $r=-.37$; and Collaborative and Deferring, $r=.47$ (Pargament et al., 1988).

The distributions of values for the three religious problem-solving style scales appeared positively skewed indicating participant agreement with scale item content. Histograms of each of these outcome measures are shown in Figures 1, 2, and 3.

Figure 1

Distribution of Scores for the Collaborative Religious Problem-Solving Variable

Std. Dev = .97
Mean = 2.58
N = 203.00

Collaborative Religious Problem Solving Style
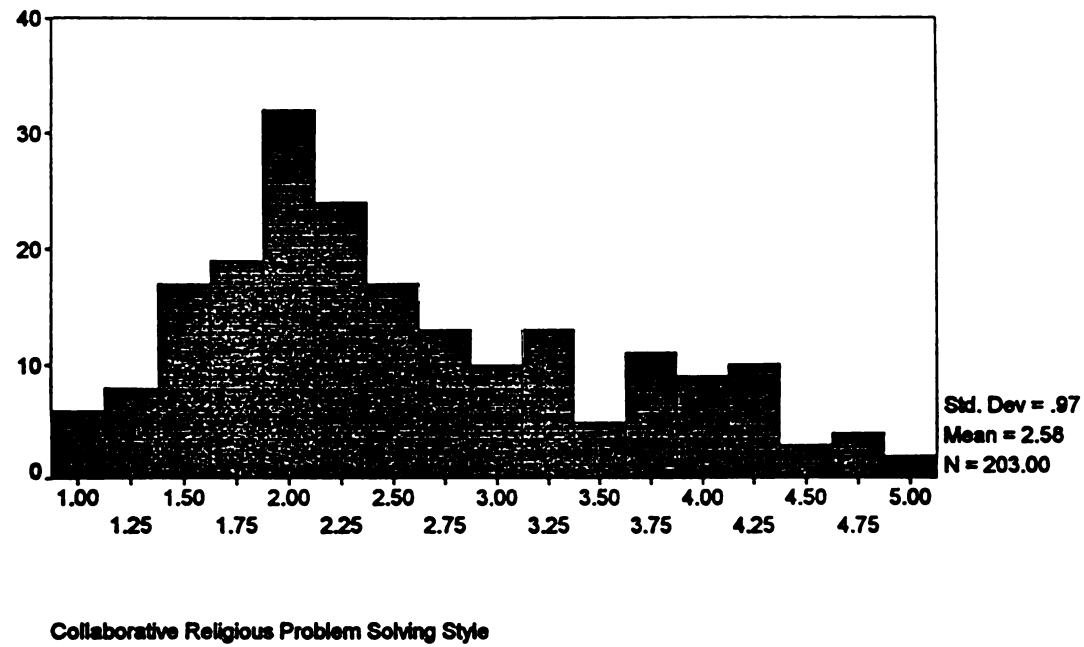
1 = strongly agree
2 = agree
3 = not sure
4 = disagree
5 = strongly disagree

Figure 2

Distribution of Scores for Self-Directing Religious Problem-Solving Variable
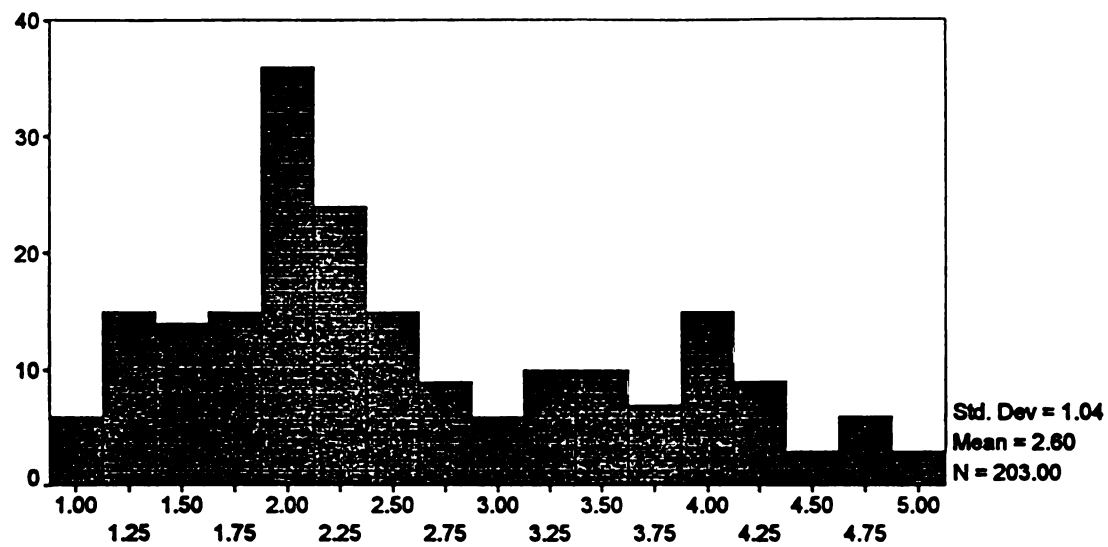
Self-Directing Religious Problem Solving Style

1 = strongly agree
2 = agree
3 = not sure
4 = disagree
5 = strongly disagree

Figure 3

Distribution of Scores for the Deferring Religious Problem-Solving Variable

Deferring Religious Problem Solving Style
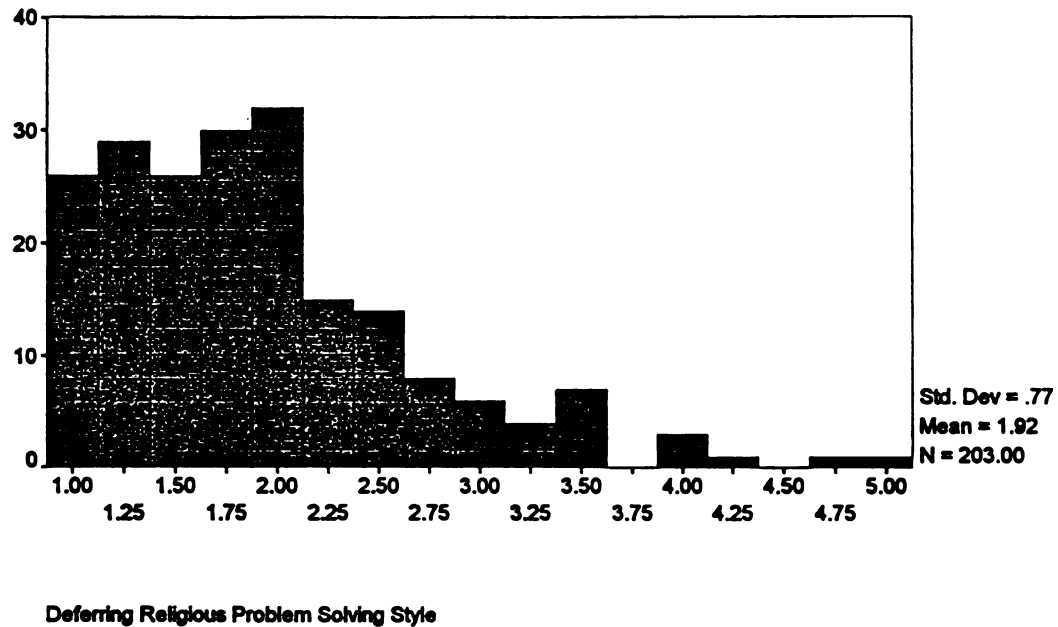
1 = strongly agree
2 = agree
3 = not sure
4 = disagree
5 = strongly disagree

Results of independent t tests suggest some group differences in outcome scores on the religious problem-solving style variables. These differences were found for race-ethnicity, religious affiliation, and class rank.

Regarding race-ethnicity, some statistically significant differences were found between African Americans and Caucasians. African Americans scored higher on the Collaborative religious problem-solving style (MN=3.19) than did Caucasian participants (MN=2.45, p=.01). African American participant scores (MN=2.72) were also higher than Caucasian participant scores on the Deferring style (MN=1.72, p=.01). Caucasian participant scores were higher on the Self-Directing style (MN=2.71) than were African American participant scores (MN=1.97, p=.01).

Participants endorsing Protestant religious affiliation scored higher (MN=1.95) on the Deferring religious problem-solving style than did those endorsing Catholic affiliation (MN=1.65, p=.01).

In regard to age, 18 year old participants scored higher on the Deferring style (MN=2.28) than did 21 year old (MN=1.75, p=.007) and 22 year old (MN=1.74, p=.015) participants. Twenty year old participants scored higher on the Deferring style (MN=2.05) than did 21 year old (MN=1.75, p=.034) participants.

Regarding class rank, juniors scored higher (MN=2.86) than did seniors (MN=2.36, p=.01) and sophomores (MN=2.50, p=.05) on the Collaborative problem-solving style variable. On the Self-Directing style variable, seniors scored higher (MN=2.85) than did juniors (MN=2.36, p=.05) and freshmen (MN=2.17, p=.01). Sophomores scored higher (MN=2.73) than did freshmen (MN=2.17, p=.05) on the

Self-Directing style variable. Senior scores (MN=1.64) were lower on the Deferring style

variable than were scores for freshmen (MN=2.27, p=.01), sophomores (MN=1.93,

p=.05), and juniors (MN=2.07, p=.01).

Spiritual Well-Being, Locus of Control, and Attribution of Control to God

The means, stand deviations, minimum values, and maximum values for the

spiritual well-being, locus of control, and God Control variables are reported in Table 4.

Table 4

Descriptive Statistics for Spiritual Well-Being, Locus of Control, and God Control

Variable	Mean	sd	Minimum	Maximum
Spiritual Well-Being	95.44	13.22	62	120
Locus of Control				
Internal	35.60	4.83	16	46
Powerful Others	23.89	5.71	8	42
Chance	24.80	6.20	8	43
God Control	50.63	8.78	25	69

The Pearson correlations of the spiritual well-being, locus of control, and God Control variables to the three religious problem-solving styles variables are presented in Table 5. Overall, God Control had the strongest relationship with each style. Spiritual well-being was the second strongest predictor of each style.

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Table 5

Correlations of Five Predictor Variables with Outcome Variables

Variable	Religious Problem-Solving Styles		
	Collaborative r	Self-Directing r	Deferring r
Spiritual Well-Being	.50**	-.48**	.31**
Locus of Control			
Internal	-.21**	.07	-.26**
Powerful Others	-.14*	.53	.54
Chance	-.19**	.14*	.44
God Control	.66**	-.68**	.50**

  * $p < .05$
** $p < .01$

Results of independent t tests suggest some differences in outcome scores on the locus of control and God control variables. These differences appear due to age, class rank, membership in EAD or TE classes, race-ethnicity, and sex.

The scores of 21 year old participants (MN=36.75) on the internal locus of control variable were higher than scores for 19 year old participants (MN=34.51, p=.02). Nineteen year old participants (MN=24.96) scored higher than 22 year old (MN=22.27, p=.04) participants on the attribution of control to powerful others variable.

Senior scores (MN=36.85) on the internal locus of control variable were higher than sophomore scores (MN=34.76, p=.01). On the powerful others locus of control variable, sophomore scores were higher (MN=25.20) than were scores for juniors (MN=23.09, p=.05) and seniors (MN=22.75, p=.05). Freshmen scores were higher (MN=53.65) than were sophomore scores (MN=49.61, p=.05) on the God control variable.

Scores for participants from EAD classes were higher (MN=36.30) on the internal locus of control variable than scores for TE participants (MN=34.67, p=.05). Participants from TE classes scored higher (MN=52.36) than EAD participants (MN=49.33, p=.05) on the God control variable. African American participants scored higher on the God control variable (MN=54.83) than did Caucasian participants (MN=50.16, p=.01). Female participants scored lower (MN=23.41) on the powerful others locus of control variable than did male participants (MN=25.35, p=.05).

Religious Beliefs, Behaviors, and Commitment

Four additional variables were created from participant responses to demographic items. These variables were religious beliefs, behaviors, and commitment. Religious behaviors was represented by two variables, behavior1 and behavior2. The behavior1

variable encompassed more active participation in religion such as attending church. It was comprised of three items. The behavior2 variable, comprised of two items, encompassed more private, devotional behavior such as praying or reading religious material.

The behavior1 variable was based on a six point Likert scale with one indicating the behavior was rare and six indicating the behavior occurred more than once weekly. For the behavior1 variable the mean and standard deviation were 2.14 and 1.01, respectively. The behavior2 variable was based on a six point Likert scale with one indicating the behavior was rare and six indicating the behavior was more than once daily. The mean and standard deviation for the behavior2 variable were 3.37 and 1.17, respectively.

The religious beliefs and commitment variables were based on a Likert scale ranging from one (strongly disagree) to five (strongly agree). Each of these variables comprised two items. The mean and standard deviation for the belief variable were 4.56 and .50, respectively. The mean and standard deviation the commitment variable were 3.68 and .82, respectively. Tables 6 and 7 display the means and standard deviations for some participant groups on the religious beliefs, behaviors, and commitment variables.

Table 6

Means and Standard Deviations for Four Predictor Variables per Sex

Variable	Total		Female		Male	
	MN	sd	MN	sd	MN	sd
Beliefs	4.56	.50	4.60	.46	4.45	.60
Behavior1	2.14	1.01	2.18	1.04	2.02	.92
Behavior2	3.37	1.37	3.44	1.32	3.18	1.51
Commitment	3.68	.82	3.67	.80	3.69	.88

Table 7

Means and Standard Deviations for Four Predictor Variables per Group Membership

Variable	Total		EAD		TE	
	MN	sd	MN	sd	MN	sd
Beliefs	4.56	.50	4.50	.48	4.64	.53
Behavior1	2.14	1.01	2.05	.88	2.26	1.16
Behavior2	3.37	1.37	3.22	1.27	3.58	1.48
Commitment	3.68	.82	3.60	.83	3.79	.80

Alpha coefficients for each of the religious beliefs, behaviors, and commitment variables were: beliefs (.22), behavior1 (.62), behavior2 (.62), commitment (.75). No differences between groups were found on these variables as a result of t test comparisons.

Significant correlations ($p=.01$) were found for all but one of the relationships between beliefs, behaviors, and commitment variables and religious problem-solving style variables. No significant relationship was found between beliefs and the Deferring style. Table 8 displays the correlational findings for the relationships of religious beliefs, behaviors, and commitment to religious problem-solving styles. The correlational findings for all predictor variables are displayed in Table 9.

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Table 8

Pearson Correlations for Religious Beliefs, Behaviors, and Commitment with Styles

| | Religious Problem-Solving Styles | | |
| | Collaborative | Self-Directing | Deferring |
Variable	r	r	r
Beliefs	.36*	-.39*	.11
Behavior1	.56*	-.39*	.48*
Behavior2	.64*	-.58*	.54*
Commitment	.61*	-.56*	.43*

* $p < .01$

Pearson Correlations for Predictor Variables

Table 9

Pearson Correlations for Predictor Variables

Variables	SWB	INT	POW	CHA	GCA	BEL	BEH1	BEH2	COM
SWB	1.0	.03	-.35**	-.47	.63**	.54**	.30**	.40**	.44**
INT		1.0	.13*	.05	-.22**	.04	-.17*	-.20**	-.10
POW			1.0	.60**	-.17*	-.17*	.08	-.01	-.07
CHA				1.0	-.27**	-.24**	-.00	-.08	-.12
GCA					1.0	.47**	.37**	.58**	.59**
BEL						1.0	.13	.25**	.28**
BEH1							1.0	.60**	.48**
BEH2								1.0	.51**
COM									1.0

SWB = Spiritual Well-Being
INT = Internal Locus of Control
POW = Attribution of Control to Powerful Others
CHA = Attribution of Control to Chance
GCA = Attribution of Control to God
BEL = Religious Beliefs
BEH1 = Religious Behavior1
BEH2 = Religious Behavior2
COM = Religious Commitment
* = $p < .05$
** = $p < .01$

Findings in Relation to Hypotheses

Support was found for six of nine hypotheses (p=.01). Partial support was found

for two additional hypotheses (p=.01). Table 10 provides an overview of the positive and

negative bivariate relationships found between variables for each hypothesis. The

correlational findings for each hypothesis are presented in Table 11.

Table 10

Relationships Between Predictor and Outcome Variables

Predictors	Religious Problem Solving Styles		
	Deferring	Collaborative	Self-Directing
Spiritual Well-Being		+	-
Locus of Control			
Internal	-	-**	
Chance	-(ns)*		
God Control	+	+	-
Religious Behaviors		+	
Religious Beliefs	+(ns)	+	
Religious Commitment	+	+	

(ns) = p>.05 reported as non significant
  * = positive relationship expected; non significant negative relationship found
 ** = positive relationship expected; significant, negative relationship found

Table 11

Pearson Correlations for Hypothesized Relationships Between Variables

Hypothesis	Predictor Variable	RPSS Variable	r
#1	Spiritual Well-Being	Collaborative	.50*
#2	Spiritual Well-Being	Self-Directing	-.48*
#3	Locus of Control		
	Internal	Deferring	-.26*
	Internal	Collaborative	-.21*
#4	Chance	Deferring	-.05
#5	God Control	Deferring	.50*
	God Control	Collaborative	.66*
#6	God Control	Self-Directing	-.68*
#7	Religious Behavior1	Collaborative	.56*
	Religious Behavior2	Collaborative	.64*
#8	Religious Beliefs	Deferring	.11
	Religious Beliefs	Collaborative	.36*
#9	Religious Commitment	Deferring	.43*
	Religious Commitment	Collaborative	.62*

RPSS = Religious Problem-Solving Style
* $p < .01$

A positive relationship was found between spiritual well-being and the Collaborative problem-solving style (r=.50, hypothesis 1). Spiritual well-being was negatively related to the Self-Directing style (r=-.48, hypothesis 2). A significant, negative relationship was found for internal locus of control and the Deferring (style r=-.26). Internal locus of control was also negatively related to the Collaborative style (r=-.21), however, a positive relationship had been expected (hypothesis 3). No significant relationship was found between control chance and the Deferring problem-solving style (hypothesis 4). God control was positively related to the Deferring (r=.50) and Collaborative (r=.66) problem-solving styles (hypothesis 5). God control was negatively related to the Self-Directing problem-solving style (r=-.68, hypothesis 6).

Positive relationships were found for religious behavior1 (r=.56) and behavior2 (r=.64) and the Collaborative style (hypothesis 7). The religious beliefs variable was found to be related to the Collaborative style (r=.36). Findings were not significant for the relationship between beliefs and the Deferring style (hypothesis 8). Religious commitment was positively related to the Deferring (r=.43) and Collaborative (r=.62) problem-solving styles (hypothesis 9).

Multiple Regressions

Multiple regressions models were run for each problem-solving style outcome variable to further understand bivariate relationships between variables.

Spiritual Well-Being, Locus of Control, and Attribution of Control to God

The God control variable was the strongest predictor for all three religious problem-solving scales when predictors were spiritual well-being, locus of control, and God control. Spiritual well-being was the second strongest predictor for the Collaborative

and Deferring styles. Internal locus of control was the second strongest predictor for the

Self-Directing style. The standardized beta coefficients for these models are reported in

Table 12.

Table 12

Standardized Beta Coefficients for Five Predictor Variables

Variable	Total n=203	Female n=152	Male n=51	EAD n=116	TE n=87
Collaborative RPSS					
SWB	.181	.211*	.096	.208*	.129
INT	.096	-.144*	-.059	-.157*	-.033
POW	.005	-.012	.104	.048	-.055
CHA	.035	.048	-.095	.034	.067
GCA	.530**	.535**	.510**	.529*	.559**
R^2	.449	.501	.344	.492	.406
Self-Directing RPSS					
SWB	.137	-.153	-.075	-.223*	-.004
INT	.007	.012	-.009	.090	-.197
POW	-.089	-.091	-.160	-.136	-.038
CHA	-.034	-.100	-.263	-.073	.013
GCA	-.616**	-.643**	-.486**	-.575**	-.669**
R^2	.476	.523	.399	.517	.433
Deferring RPSS					
SWB	.094	.067	.249	.182	.001
INT	-.177**	-.186*	-.131	.195*	-.166
POW	.031	-.047	.236	.018	-.065
CHA	.096	.073	.140	.068	.131
GCA	.435**	.448**	.380*	.441**	.394**
R^2	.287	.305	.322	.376	.195

RPSS = Religious Problem-Solving Style
SWB = Spiritual Well-Being
INT.IPC = Internal Locus of Control
POW.IPC = Attribution of Control to Powerful Others
CHA.IPC =Attribution of Control to Chance
GCA = Attribution of Control to God
EAD = Educational Administration
TE = Teacher Education
 * $p<.05$
** $p<.01$

Spiritual well-being was the second best predictor of the Collaborative and Self-Directing styles. The second strongest predictor for the Deferring style was internal control.

When results were examined by sex and group membership in EAD or TE classes, God control remained the strongest predictor for all groups. Spiritual well-being was the second strongest predictor for women on the Collaborative style, and for women and EAD students on the Self-Directing style. Internal control was the second strongest predictor for women and EAD students on the Deferring style.

Religious Beliefs, Behaviors, and Commitment

When the religious beliefs, behaviors, and commitment variables were added into the regression models, God control lost some predictive power, though remained the strongest predictor variable for all religious problem-solving styles. For each problem-solving style, the standardized beta coefficients for the God control variable were: Collaborative, .249; Self-Directing, -.390; and Deferring, .278.

When results were examined by sex and group membership in EAD or TE classes, God control was not consistently the strongest predictor. For the Collaborative style, behavior2 was the strongest predictor for female and TE participants, while behavior1 was the strongest predictor for male and TE participants. Regarding the Self-Directing style, spiritual well-being was the best predictor for men, while God control was the strongest predictor for all other groups. For the Deferring style, the strongest predictors were God control for women, religious behavior1 for men, religious behavior2 for EAD students, and religious beliefs for TE students.

Increases in R^2 values occurred for each religious problem-solving style when the religious beliefs, behaviors, and commitment variables were added to the regression

models. The R^2 values increased from .449 to .614 for the Collaborative style, .476 to .549 for the Self-Directing style, and .287 to .414 for the Deferring style.

Increases in R^2 for each religious problem-solving style were also examined by sex and group membership in EAD or TE classes. The most striking changes were, for men, an increase in the R^2 value from .322 to .709 on the Deferring style and .344 to .626 on the Collaborative style. Table 13 reports the standardized beta coefficients for the addition of sex and class membership to the regression models. Additional standardized beta coefficients for the participant subgroups in this study are provided in Tables 14 and 15 in Appendix A. These tables are not discussed in that the groups were small and participants were not randomly selected.

Table 13

Standardized Beta Coefficients for Nine Predictor Variables

Variable	Total n=203	Female n=152	Male n=51	EAD n=116	TE n=87
Collaborative RPSS					
SWB	.023	.071	-.132	.051	-.027
INT	-.042	-.084	.116	-.128*	.046
POW	-.062	-.065	.020	-.025	-.097
CHA	-.014	.024	-.239	-.001	-.012
GCA	.250**	.263**	.237	.219*	.314**
Beliefs	.077	.052	.043	.099	.085
Behaviors1	.209**	.140*	.403**	.102	.368**
Behaviors2	.224**	.267**	.131	.316**	.102
Commitment	.214**	.195**	.264	.195*	.194*
R^2	.614	.638	.626	.639	.620
Self-Directing RPSS					
SWB	-.033	-.067	.034	-.142	.145
INT	-.014	-.023	-.022	.070	-.112
POW	-.062	-.073	-.109	-.097	-.078
CHA	-.003	-.087	.345	-.053	.098
GCA	-.390**	-.438**	-.174	-.404**	-.368**
Beliefs	-.092	-.035	-.078	-.031	-.208*
Behaviors1	.012	.047	.000	-.048	.060
Behaviors2	-.246**	-.302**	-.201	-.197*	-.340
Commitment	-.176**	-.127	-.382*	-.105	-.237*
R^2	.549	.589	.546	.564	.569

RPSS = Religious Problem-Solving Style
SWB = Spiritual Well-Being
INT = Internal Locus of Control
POW = Attribution of Control to Powerful Others
CHA = Attribution of Control to Chance
GCA = Attribution of Control to God
EAD = Educational Administration Class
TE = Teacher Education Class
  * $p<.05$
** $p<.01$

Table 13 (cont'd.)

Variable	Total n=203	Female n=203	Male n=152	EAD n=116	TE n=87
Deferring RPSS					
SWB	.040	.037	.008	.079	.047
INT.IPC	-.108	-.124	-.017	-.161*	-.095
POW.IPC	-.032	-.098	.176	-.031	.000
CHA.IPC	.058	.075	-.113	.032	.072
GCA	.278**	.323**	.184	.238*	.246
Beliefs	-.128	-.092	-.206*	.001	-.271*
Behaviors1	.202**	.118	.539**	.178*	.256*
Behaviors2	.226**	.247*	.164	.309**	.133
Commitment	.068	.011	.129	.023	.068
R^2	.414	.383	.709	.503	.377

RPSS = Religious Problem-Solving Style
SWB = Spiritual Well-Being
INT = Internal Locus of Control
POW = Attribution of Control to Powerful Others
CHA = Attribution of Control to Chance
GCA = Attribution of Control to God
EAD = Educational Administration Class
TE = Teacher Education Class
  *$p<.05$
* *$p<.01$

DISCUSSION

The majority of the results of this study appear consistent with previous research findings. The results also introduce some considerations for understanding religious problem-solving styles in regard to individual differences.

Findings in Relation to Hypotheses

Support was found for six of nine hypotheses. Partial support was found for two additional hypotheses.

Hypotheses 1 and 2: Spiritual Well-Being, and Collaborative and Self-Directing Styles

Support was found for the positive relationship between spiritual well-being and the Collaborative problem-solving style ($r=.50$). The positive nature of this relationship appears to suggest that the degree of fulfillment an individual experiences with personal spirituality is related to higher degrees of personal agency and God involvement in problem-solving.

Previous research on the relationship between spiritual well-being and religious problem-solving styles appears minimal. Thus, some speculation about this found relationship with the Collaborative style seems warranted. Spiritual well-being may be related to the Collaborative problem-solving style on both the personal agency and God involvement dimensions of the Collaborative style. Regarding personal agency, previous findings suggest spiritual well-being is negatively related to dependency and an orientation toward passivity. It has been found to be positively related to internal locus of control (Ellison et al., 1991). The Collaborative style has also been found to be related to internal locus of control (Pargament et al., 1988). Thus, these parallel relationships with internal locus of control may suggest that the nature of the relationship between spiritual

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well-being and the Collaborative style may be partly based on some mutuality in regard to personal agency.

Additionally, past research has also suggested that spiritual well-being is related to belief in God as active in one's life (Durham, 1986, in Ellison et al., 1991). This appears to have some similarity with the characterization of the Collaborative style as involving God in an active role in problem solving.

From a broader perspective, the positive relationship between spiritual well-being and the Collaborative style may suggest an association between general comfort in one's faith and psychological maturity in problem solving. The spiritual well-being dimensions of religious well-being and existential well-being reflect individuals' comfort both with personal spirituality and in life. Also, research has suggested that religious individuals who experience themselves in a collaborative relationship with God may be the most healthy and effective (Schaefer, 1991). Speculation in this direction could lead to perceiving the Collaborative style, in combination with higher levels of spiritual well-being, as a more preferred religious problem-solving style due to associations with comfort and psychological effectiveness.

Support was also found in this study for the negative relationship of spiritual well-being and the Self-Directing problem-solving style ($r=-.48$). These results were expected due to the characterization of the Self-Directing style as having lower levels of traditional religiousness and God involvement. It is interesting to note that spiritual well-being has been associated with internal locus of control (Ellison et al., 1991) which is often perceived as a means of personal agency. The Self-Directing style has also been characterized by active personal agency. Thus, it could be speculated that the dissimilarity

in the nature of the religious dimensions of spiritual well-being and the Self-Directing style

provides for a stronger (negative) association than any possible similarity in dimensions of

personal agency. Overall, it can be speculated that beliefs individuals hold about God in

the context of spiritual well-being may have a strong association with preferences for

religious problem-solving styles.

Hypothesis 3: Internal Locus of Control and Deferring and Collaborative Styles

Support was found for the hypothesized negative relationship between internal

locus of control and the Deferring problem-solving style ($r=-.26$). Support was not found

for the hypothesized positive relationship between internal locus of control and the

Collaborative style. Rather, a negative association was found ($r=-.21$).

Regarding the Deferring style, the negative association of this style with internal

locus of control appears consistent with past research. Pargament et al. (1988) suggested

that the Deferring style is associated more with a reliance on external structure and

external locus of control (Pargament et al., 1988).

It is interesting to note that, in this study, differences on the Deferring style were

found for race-ethnicity, age, class rank, and religious affiliation. In this study, African

American participants scored higher than Caucasian participants on the Deferring style and

on God control measures. One consideration for this group difference is found in previous

research discussing differences between African Americans and Caucasians in regard to

locus of control and God control. Previous research has suggested that internal locus of

control is related to God control for African Americans while external locus of control is

related to God control for Caucasians (Jackson et al., 1988). Given that the Deferring

style has been found in previous research to be related to God control (Pargament et al.,

1988), group differences between African Americans and Caucasians on the construct of locus of control and attribution of control to God may have a mediating effect on preferences for the Deferring problem-solving style.

Also, the differences found in this study between African Americans and Caucasians on measures of God control and religious problem solving suggest the possibility of cultural influences on preferences for religious problem-solving styles. One such cultural influence may involve the aspect of community. Research suggests that Caucasians, as a group, are socialized toward individualism, uniqueness, and competition. In contrast, African Americans, as a group, tend to be more group centered. This tendency among African Americans toward group centeredness appears related to African heritage which has stressed, among other things, groupness, community, and cooperation (Sue & Sue, 1990). These varying degrees of emphasis on group centeredness among African American and Caucasian individuals may lead to differences in religious socialization experiences. In turn, differences in religious socialization experiences may influence preferences for religious problem-solving styles. It is also interesting to note that differences in participant age and relative development toward independence could be contributing differently to locus of control and thus preferences for the Deferring style. In this study, 21 year old participants scored higher on internal locus of control than did 19 year old participants. Also, EAD students scored higher on internal locus of control than did TE students. Participant demographics suggest that EAD students are primarily seniors and TE students are primarily sophomores and juniors. Thus, age and development as they contribute to locus of control may contribute to individuals' preferences for the Deferring problem-solving style.

Additionally 18 year old participants scored higher than did 21 and 22 year old participants on the Deferring religious problem-solving style. Also, freshmen scores were higher on the Deferring style than were seniors. This introduces speculation that age related developmental differences in cognitive complexity may be associated with religious problem-solving styles. For example, younger adults who perceive the world more dualistically may hold stronger preferences for the Deferring style due to its characterization of reliance on external authority.

Also, participants endorsing Protestant religious affiliation scored higher on the Deferring measure than did Catholic participants. Minimal information appears in the literature regarding differences in religious groups for religious problem-solving styles preferences. However, one study found support for Fundamentalists scoring higher than Liberals on a measure of internal locus of control (Furnham, 1982). This could suggest that variance among groups of differing religious affiliations on internal locus of control may yield different outcomes for the relationship of internal locus of control to the Deferring problem-solving style.

Differences in religious affiliation may also contribute to the previously discussed differences between African American and Caucasian preferences for religious problem-solving styles. On a questionnaire item asking participants to endorse their religious affiliation, 10 of the 26 African American participants in this study endorsed Protestant affiliation and 13 endorsed the item response choice of "other". In contrast, the majority of Caucasian participants endorsed Protestant ($n=55$) and Catholic ($n=74$) religious affiliations. Though the number of participants in this study is small, these

differences in endorsement may suggest some mild support for group differences in religious problem-solving styles based on religious affiliation.

Support was not found in this study for positive relationship between internal locus of control and the Collaborative religious problem-solving style. Rather, a negative overall relationship was found (r=-.21). A positive relationship was expected in that the Collaborative style is partially characterized by personal agency and has been associated with constructs similar to internal locus of control such as personal control and competence (Pargament et al., 1988). The Collaborative style is also characterized by a higher level of involvement with religion. A positive relationship was also expected between internal locus of control and the Collaborative style based on previous research suggesting that religious constructs such as intrinsic religious behavior (Benson et al., 1973) and God control (Jackson et al., 1988) are associated with internal control.

Reasons why support was not found for a positive relationship between internal locus of control and the Collaborative style may be related to race-ethnicity and age as was previously speculated for the Deferring style. In this study, African Americans scored higher than Caucasians on the Collaborative style. Juniors scored higher on the Collaborative style than did seniors or sophomores. EAD participants scored higher than TE participants on internal locus of control.

Hypothesis 4: Chance Locus of Control and Deferring Style

Support was not found for this hypothesis. Attributions of control to chance were expected to have a positive relationship to the Deferring problem-solving style due to the characterization of low personal agency associated with both chance control and the Deferring style. A non significant, negative relationship was found instead. The relatively

low correlations of chance control to other problem-solving styles do not appear useful in understanding the nature of chance control to the Deferring style. Chance control was correlated negatively with the Collaborative style ($r=-.19$, $p=.006$) which lends support to the perspective that these constructs contrast in degree of personal agency. However, chance control was also correlated positively with the Self-Deferring style ($r=.14$, $p=.045$) which is typically characterized by higher levels of personal agency. Collectively, these findings appear to conflict when considering the dimensions of personal agency. Little information is available in the literature to guide further speculation. Additional research is needed for understanding the relationship between chance control and all religious problem-solving styles.

Hypotheses 5 and 6: Attribution of Control to God and Deferring, Collaborative, and Self-Directing Styles

Support was found for the relationship of God control to all three religious problem-solving styles. Positive relationships were found with the Deferring ($r=.50$) and Collaborative ($r=.66$) styles. A negative relationship was found with the Self-Directing style ($r=-.68$). These findings are consistent with results reported by Pargament et al. (1988) for the relationship of God control to religious problem-solving styles (Deferring, $r=.62$; Collaborative, $r=.56$; and Self-Directing, $r=-.60$). Their study also explored the relationships of frequency of church attendance; frequency of prayer; religious salience; intrinsic, extrinsic, and quest religious orientations; and doctrinal orthodoxy to religious problem-solving styles.

The results found in this study for the positive relationship of God control to both

the Deferring and Collaborative styles appear to support previous research suggesting that

the construct of God control appears

multi-dimensional (Pargament et al., 1988; Pargament & Hahn, 1986). The Deferring and

Collaborative styles are both characterized by high involvement with religion, however

they are associated with different aspects of religiousness. The Deferring style is

associated with more externalized religion and the Collaborative is related to more

internalized religion. Thus, the relationship of God control to both the Deferring and

Collaborative styles suggests that the construct of God control may encompass both a

control through active manipulation by God as well as active exchange (interaction) with

God (Pargament et al., 1988).

Further research on the multi-dimensionality of God control appears necessary for

additional understanding of the relationship of God control to religious problem-solving

styles. Given the aspects of personal agency associated with religious problem-solving

styles, it may be useful for further research on the dimensions of God control to explore

the degree to which individuals perceive having free will to invite God to be active in their

lives, or, in contrast, experience God's involvement in their lives as predetermined. Also,

given the God involvement aspects of religious problem-solving styles, additional research

on dimensions of God control might include a recognition of the various beliefs individuals

have regarding characteristics of God (e.g., benevolent, vengeful).

It is interesting to note that, in this study, EAD participants were significantly

higher on the measure of God control than were TE participants. As with previous

findings suggesting potential age related differences in outcomes, this raises speculation

about age considerations in examining the relationship of God control and religious problem-solving styles.

Hypothesis 7: Religious Behavior and Collaborative Style

Positive associations were found for the relationships of religious behavior1 ($r=.56$, $p<.01$) and behavior2 ($r=.64$, $p<.01$) to the Collaborative style. These results appear consistent with previous research. Pargament et al. (1988) reported Pearson correlation coefficients for the relationship of the Collaborative style to frequency of church attendance ($r=.26$, $p=.01$) and frequency of prayer ($r=.54$, $p=.001$).

Minimal additional information is available in the literature regarding specific religious behaviors in association with religious problem-solving styles. However, past research on religious behavior suggests that religious behaviors may be directly and indirectly influenced by religious beliefs, religious commitment, religious socialization, and personal community relationships (Cornwall, 1989). Thus, future research exploring the relationship between religious behavior and religious problem-solving styles should consider potential influences on variations of religious behavior.

Hypothesis 8: Religious Beliefs and Deferring and Collaborative Styles

Support was found for the relationship of religious beliefs to Collaborative ($r=.36$) style but not for the Deferring style. The Deferring and Collaborative styles are characterized by greater inclusion of God in problem solving and were expected to be associated with beliefs individuals hold about God. The relationship of religious beliefs to the Collaborative style appears consistent with research suggesting that individuals using this style hold powerful and stable beliefs about God (Pargament et al., 1988).

The measure of religious beliefs used in this study was based on two items yielding a low alpha coefficient (.22). Thus, caution should be used in considering the findings related to hypothesis eight in regard to religious beliefs. One reason that the relationship between religious beliefs and the Deferring style was not significant may be related to the beliefs measure. A stronger measure of religious beliefs may yield different results.

Hypothesis 9: Religious Commitment and Deferring and Collaborative Styles

Religious commitment was found to be related to the Deferring (r=.43) and Collaborative (r=.62) problem-solving styles. These styles are characterized by greater inclusion of God in problem solving and were expected to be associated with commitment to personal religious growth and living in accordance with religious values. Little information is available in the literature regarding religious commitment. The results in this study lend support for further research examining the relationship of religious commitment and problem-solving styles.

Attribution of Control to God

The results of this study both support and contrast with previous research findings on God control and religious problem-solving styles. In this study, the measure of God control had the strongest correlational association with each of the religious problem-solving styles. This is consistent with results reported by Pargament et al. (1988) in a study exploring God control and other religious constructs in relation to problem-solving styles.

In this study, God control was the strongest predictor of all three styles in multiple regression analyses. This contrasts with the previous findings of Pargament et al. (1988) in which God control predicted the Deferring style only. In their study, the Self-Directing

and Collaborative styles were most strongly predicted by intrinsic religious orientation, followed by God control.

The consistent relationships in this study between God control and religious problem-solving styles suggest that individuals may have preferences for religious problem-solving styles that are most compatible with the degree of control they attribute to God.

In reference to God control and religious problem-solving styles, it may be that the results of this study are inconsistent with the findings of Pargament et al. (1988) because God control was examined in the context of a different set of variables. In the study by Pargament et al., (1988), all variables were of a religious nature and measured by established instruments. In this study, God control was one of two primary religious measures, the other being spiritual well-being. The other variables in this study were psychological in nature or created as part of this study. Spiritual well-being appears to address a more generalized construct -- the quality of an individual's spiritual life. In contrast, God control appears to address the more specifically defined construct of individuals' beliefs about God's action in their lives. The religious problem-solving styles are also defined more specifically in regard to God's involvement in people's lives. Thus construct specificity may have had some bearing on the strength of the relationship of God control to the problem-solving styles. It may be useful in future research efforts exploring the relationship of spiritual well-being and religious problem-solving styles to examine spiritual well-being in relation to its subscales, religious well-being and existential

well-being. These subscales may represent more specific constructs than the overall

spiritual well-being and thus yield different results in relation to religious problem-solving

styles.

Another potential reason why the findings of this study are inconsistent with

previous findings in regard to God control and religious problem-solving styles is that

Pargament et al. (1988) employed a different measure of God control than that which was

used in this study. This too, may have had some bearing on study findings.

Implications for Psychologists and Counselors

The overall findings of this study have implications for psychologists and

counselors. The results of this study parallel multiple previous studies indicating that a

majority of individuals hold religious values. Broadly speaking, psychologists have tended

to ignore the religious and spiritual aspects of individuals while claiming to pursue

understanding of issues salient in individuals' lives (Payne, Bergin, & Loftus, 1992). The

broad integration of religious beliefs among the majority of people suggests that

psychologists cannot fully understand human behavior and salient life issues until they

recognize the importance of theistic values in people's lives. Thus, the findings of this

study, as with previous research suggesting that the majority of individuals hold religious

values, suggest that psychologists must more fully recognize, accept, and understand the

religious dimension of individuals. Furthermore, psychologists need to more fully

integrate the religious dimension of individuals into current psychological theories and

models of therapeutic intervention.

For counselors, client problem-solving effectiveness is a critical consideration in

therapeutic interventions. Clinicians recognize that an important aspect of mental health is

the ability to adjust and cope with problems emerging in daily life (Hathaway et al., 1991). However, most clinicians have not adequately recognized the role of religious values in coping efforts. The results of this study support and expand previous understanding that individuals employ religious values in problem-solving approaches. Thus, clinicians may be better able to support clients in coping by becoming more aware of individuals' theistic values and how these values support or conflict with the effectiveness of client problem-solving efforts.

Additionally, the high percentage of college student participants in this study endorsing a belief in God has implications for those working with college students in clinical settings. The results of this study suggest that college students not only hold religious values, but also employ them differently with consideration to problem solving. Clinicians need to become more aware of the students' religiosity as well as seek to understand how college students integrate religious values into problem-solving efforts.

Limitations

The total number of participants in this study was relatively small (n=203) and drawn from one section of the university. Thus, the results of this study may not be widely generalizable. Also, the findings of this study suggest some variation in preferences for religious problem-solving style based on group differences of religious affiliation, race-ethnicity, class rank, and class membership in EAD or TE. However, many of the subgroups considered in this study were minimally represented. Thus, caution should be used in considering the results of this study based on group differences.

The measures for religious beliefs, behaviors, and commitment used in this study were created as general indicators of the relationship of these constructs to religious

problem-solving styles. Each of these measures was comprised of only two or three items. Also, the alpha coefficient and standard deviation for the religious beliefs measure was fairly low. Thus, other measures of the constructs of religious beliefs, behaviors, and commitment may yield differing results.

Additionally, the questionnaire administration in this study was less controlled than initially intended. Due to time and logistical limitations, TE students were permitted to complete questionnaires outside of class. These environmental differences may have contributed to the different outcomes in this study for EAD and TE participants.

Other Considerations

Many studies exploring religious problem-solving styles have used participants from more religious environments such as members of church congregations or students attending church affiliated universities. This study supports efforts to expand studies of religious problem-solving styles to more diverse participant groups. In particular, this study broadens current understanding of preferences for religious problem-solving styles among public university students.

Also, while not a primary focus of this study, it seems important to note that approximately 89% of students surveyed for this study endorsed a belief in God. This parallels past research reporting that approximately 90% of Americans hold religious beliefs (Worthington, 1989). The high percentage of participants endorsing religious beliefs in this study lends support to the call for greater attention within the psychology field to individuals' religious values.

The current literature on theistic values and mental health is very broad in regard to the variables discussed. It will be important for future research on religion and mental

health to begin identifying commonalities in this literature base, clarifying relationships among variables explored, and strengthening research directions. This study contributes to this effort by identifying the relationship between spiritual well-being and religious problem-solving styles on the construct of God involvement.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The results of this study support and expand current understanding of religious problem-solving styles. The findings suggest some conclusions about these styles and directions for future research.

The degree of control individuals attribute to God appears to have a significant relationship to individuals' preferences for how they cope through religious problem solving. Given the results reported by Pargament et al. (1988), this may be most true for the Deferring style. In the literature, God control is considered to be a complex construct (Pargament et al., 1986). Unfortunately, little research is available on the various dimensions of the God control construct. Further research on God control dimensionality appears necessary for additional understanding of the relationship of God control to religious problem-solving styles. Given the aspects of personal agency associated with religious problem-solving styles, such research might explore the degree to which individuals perceive having free will to invite God to be active in their lives, or, in contrast, experience God's involvement in their lives as predetermined. Also, given the God involvement aspects of religious problem-solving styles, additional research on dimensions of God control might include a recognition of the various beliefs individuals have regarding characteristics of God (e.g., benevolent, vengeful).

Also, it appears that there may be an association between general comfort in one's faith and psychological maturity in problem solving in regard to spiritual well-being and the Collaborative religious problem-solving style. Past research has suggested that religious individuals who experience themselves in a collaborative relationship with God may be the most healthy and effective (Schaefer, 1991). This association between spiritual

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well-being and the Collaborative style also introduces the possibility of perceiving the Collaborative style as a more preferred style for effective religious problem solving when it is combined with spiritual well-being. More research on the relationship of spiritual well-being and religious problem-solving styles is needed. Future research should consider exploring the relationships of religious well-being and existential well-being, the subscales of spiritual well-being, to religious problem-solving styles for a more detailed understanding of associations between well-being and these styles.

Also, while individuals' religiousness is discussed as multi-dimensional in the literature, it appears that religious factors contributing to preferences for religious problem-solving styles do not contribute equally. God control remained the strongest predictor in this study when considered with the religious variables of spiritual well being, religious beliefs, religious behaviors, and religious commitment. Thus, future research focusing on the additive contribution of religious constructs to preferences for religious problem-solving styles may be useful in advancing understanding of these styles.

Additionally, preferences for religious problem-solving styles appear to differ somewhat when age, class rank, race-ethnicity, and religious affiliation are considered. Age and class rank differences suggest the possibility of a relationship between cognitive development and preferences for religious problem-solving styles. It may be that younger adults who perceive the world more dualistically may prefer the Deferring style due to its characterization of reliance on external authority. Research is needed to provide additional understanding of potential relationships between cognitive complexity and religious problem-solving styles.

In this study, African Americans, when compared to Caucasians, scored higher on the Collaborative religious problem-solving style and lower on the Self-Directing style. These group differences suggest the potential influence of cultural experiences on preferences for religious problem-solving styles. One important area for research on cultural differences in style preference is the aspect of community. Past research has suggested that African Americans are socialized toward groupness and cooperation while Caucasians are socialized toward individualization and competition.

Differences in this study based on religious affiliation suggest that religious doctrine may also have an association with preferences for religious problem-solving styles. Research is needed to understand potential doctrinal differences among groups in regard to beliefs held about the characteristics of God and the nature of humankind, behavioral expectations and limitations, and membership in the church community.

Additionally, the number of participants in this study was fairly small suggesting some caution in interpreting and generalizing the results of this study, particularly in regard to group differences. Thus, it is recommended that researchers interested in the relationships of spiritual well-being, locus of control, and God control to religious problem-solving styles examine these relationships in future studies with larger numbers of participants.

Finally, The findings of this study have direct implications for psychologists and counselors. Research supports individuals' use of religion in problem solving and other life involvements. Yet, this information has not yet been integrated into mainstream theories of development and models of clinical intervention. Additionally, clinicians are inhibited from fully serving clients when they cannot or do not recognize the underlying religious

values that structure and guide individuals' lives. Clinician training programs need to

consider and work toward integrating more information about the use of religious values

in life experiences into training curricula. Such efforts would support the development of

greater counselor sensitivities toward clients and others holding religious values. It would

also support the development of additional research efforts toward understanding how

individuals integrate religion into problem-solving and other life experiences.

APPENDIX A

APPENDIX A

TABLES

Table 14

Standardized Beta Coefficients for Five Predictors per Sex and Group Membership

Variable	Total n=203	Female EAD n=87	Female TE n=65	Male EAD n=29	Male TE n=22
Collaborative RPSS					
SWB	.181	.234**	.175	.049	.120
INT	.096	-.206**	-.093	.004	.188
POW	.005	.047	-.067	.148	.256
CHA	.035	.022	.097	-.086	-.207
GCA	.530**	.549**	.548**	.531	.573
R^2	.449	.564	.434	.351	.375
Self-Directing RPSS					
SWB	.137	-.260**	-.009	-.115	-.082
INT	.007	.052	-.031	.195	-.336
POW	-.089	-.148	-.053	-.214	-.047
CHA	-.034	-.167	-.004	.278	.127
GCA	-.616**	-.611**	-.688**	-.407	-.490
R^2	.476	.585	.473	.444	.362

RPSS = Religious Problem-Solving Style
SWB = Spiritual Well-Being
INT = Internal Locus of Control
POW = Attribution of Control to Powerful Others
CHA = Attribution of Control to Chance
GCA = Attribution of Control to God
EAD = Educational Administration
TE = Teacher Education
 * $p<.05$
**$p<.01$

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Table 14 (cont'd.)

Variable	Total n=203	Female EAD n=87	Female TE n=65	Male EAD n=29	Male TE n=22
Deferring RPSS					
SWB	.094	.179	-.063	.132	.285
INT	-.177*	-.253*	-.150	.020	-.269
POW	.031	-.010	.005	.262	-.002
CHA	.096	.048	.071	-.059	.607
GCA	.435*	.459*	.413*	.396	.411
R^2	.287	.439	.182	.289	.426

RPSS = Religious Problem-Solving Style
SWB = Spiritual Well-Being
INT = Internal Locus of Control
POW = Attribution of Control to Powerful Others
CHA = Attribution of Control to Chance
GCA = Attribution of Control toGod
EAD = Educational Administration
TE = Teacher Education
 * p<.05
**p<.01

Table 15

Standardized Beta Coefficients for Nine Predictors per Sex and Group Membership

Variable	Total n=203	Female EAD n=87	Female TE n=65	Male EAD n=29	Male TE n=22
Collaborative RPSS					
SWB	.023	.102	.043	.180	-.091
INT	-.042	-.161**	-.038	-.095	.338
POW	-.062	.012	-.128	-.087	.539
CHA	-.014	-.022	.078	.051	-.697
GCA	.250**	.352**	.191	-.157	.359
Beliefs	.077	.009	.133	.159	-.024
Behaviors1	.209**	.045	.267*	.197	.557*
Behaviors2	.224**	.274**	.252	.452*	.024
Commitment	.214**	.149	.222*	.303	.171
R^2	.614	.642	.680	.748	.660
Self-Directing RPSS					
SWB	-.033	-.206	.102	-.056	.032
INT	-.014	.017	-.030	.209	-.449*
POW	-.062	-.128	-.069	-.046	-.338
CHA	-.003	-.143	.000	.285	.569
GCA	-.390**	-.501**	-.335*	-.034	-.209
Beliefs	-.092	.053	-.186	-.075	-.100
Behaviors1	.012	.021	.095	-.148	.189
Behaviors2	-.246**	-.194	-.430*	-.116	-.433
Commitment	-.176**	-.112	-.164	-.373	-.514*
R^2	.549	.620	.605	.605	.651

RPSS = Religious Problem-Solving Style
SWB = Spiritual Well-Being
INT = Internal Locus of Control
POW = Attribution of Control to Powerful Others
CHA = Attribution of Control to Chance
GCA = Attribution of Control toGod
EAD = Educational Administration
TE = Teacher Education
  * $p<.05$
** $p<.01$

Table 15 (cont'd.)

Variable	Total n=203	Female EAD n=87	Female TE n=65	Male EAD n=29	Male TE n=22
Deferring RPSS					
SWB	.040	.121	-.081	.087	.231
INT	-.108	-.205*	-.090	.016	-.144
POW	-.032	-.030	-.062	.031	.244
CHA	.058	-.003	.104	-.039	.114
GCA	.278**	.379**	.185	-.060	.242
Beliefs	-.128	-.084	-.037	-.074	-.338
Behaviors1	.202**	.080	.163	.455*	.485*
Behaviors2	.226**	.295**	.283	.310	-.100
Commitment	.068	-.054	.058	.263	.118
R^2	.414	.519	.301	.718	.775

RPSS = Religious Proble- Solving Style
SWB = Spiritual Well-Being
INT = Internal Locus of Control
POW = Attribution of Control to Powerful Others
CHA = Attribution of Control to Chance
GCA = Attribution of Control toGod
EAD = Educational Administration
TE = Teacher Education
 * p<.05
** p<.01

Table 16

Pearson Correlations for Nine Predictor Variables and Outcome Variables

Variable	Religious Probelm-Solving Styles		
	Collaborative r	Self-Directing r	Deferring r
Spiritual Well-Being	.50**	-.48**	.31**
Locus of Control Internal	-.21**	.13	-.26**
Powerful Others	-.14*	.04	-.04
Chance	-.19**	.14*	-.05
God Control	.66**	-.68**	.50**
Beliefs	.36**	-.39**	.11
Behavior1	.56**	-.39**	.48
Behavior2	.64**	-.58**	.54**
Commitment	.61**	-.56**	.43**

*p<.05
**p<.05

APPENDIX B

APPENDIX B

PARTICIPANT QUESTIONNAIRE

PARTICIPANT INFORMATION SHEET

PART I: *Read each statement and choose the response from the list below that best describes you and your experiences. Fill in the area on the answer sheet that corresponds with your response:*

         1 = strongly agree
         2 = agree
         3 = not sure
         4 = disagree
         5 = strongly disagree

1.   My religious beliefs are important to me.

2.   I am committed to living in a manner consistent with my religious values.

3.   I am a religious person.

4.   I am committed to my religious growth and development.

5.   In general, my problem-solving efforts lead to effective results.

6.   Religious beliefs were important in my family while I was growing up.

7.   I feel confused over my religious beliefs.

8.   My mother's commitment to religion was strong while I was growing up.

9.   Overall, I have sufficient problem-solving skills.

10.   I believe in God.

11.   I feel confused over my religious values.

12.   In general, I have a "healthy" self-esteem.

13.   My belief in God is strong.

14.   My religious beliefs were important to me while I was growing up.

15.   My relationship with God is positive.

16.   My friends don't know that I am a religious person.

17.   I believe God is merciful, kind, and forgiving.

18.   My father's commitment to religion was strong while I was growing up.

19.   My relationship with God is meaningful.

20.   I believe God is vengeful, harsh, and punishing.

21.   Overall, I am more religious than most of my peers.

22.   In general, I prefer not to let my friends know that I hold religious beliefs.

PART II: *Read each statement and choose the response that best describes you and your experiences. Fill in the area on the answer sheet that corresponds with your response:*

23.   About how often do you participate in activities through campus/student religious organizations?
            1 = rarely/never
            2 = two or three times per year
            3 = six to ten times per year
            4 = once per month
            5 = once per week
            6 = more than once per week

24.   About how often do you attend church?
            1 = rarely/never
            2 = two or three times per year
            3 = six to ten times per year
            4 = once per month
            5 = once per week
            6 = more than once per week

25. About how often do you attend religious classes (e.g., Sunday School, Catechism class)?

        1 = rarely/never
        2 = two or three times per year
        3 = six to ten times per year
        4 = once per month
        5 = once per week
        6 = more than once per week

26. About how often do you read devotional material (literature about your faith, church, or religion)?

        1 = rarely/never
        2 = a few times per year
        3 = once per month
        4 = once per week
        5 = a few times per week
        6 = once per day
        7 = more than once per day

27. About how often do you pray (outside of church)?

        1 = rarely/never
        2 = a few times per year
        3 = once per month
        4 = once per week
        5 = a few times per week
        6 = once per day
        7 = more than once per day

28. About how often did you attend church while growing up?

        1 = rarely/never
        2 = two or three times per year
        3 = six to ten times per year
        4 = once per month
        5 = once per week
        6 = more than once per week

29. About how often did you attend religious classes (e.g., Sunday School, Catechism class) while growing up?

        1 = rarely/never
        2 = two or three times per year
        3 = six to ten times per year
        4 = once per month
        5 = once per week
        6 = more than once per week

30. About how often did your family say grace before meals while growing up?
     1 = rarely/never
     2 = a few times per year
     3 = once per month
     4 = once per week
     5 = a few times per week
     6 = once per day
     7 = more than once per day

31. What is your age?
     1 = 17 years   6 = 22 years
     2 = 18 years   7 = 23 years
     3 = 19 years   8 = 24 years
     4 = 20 years   9 = Other (please specify)_____
     5 = 21 years

32. What is your sex?
     1 = Female
     2 = Male

33. What is your Race/Ethnicity?
     1 = European American/Caucasian
     2 = African American
     3 = Hispanic/Latino/Chicano
     4 = Native American/American Indian
     5 = Asian/Pacific Islander
     6 = Other (please specify)_____

34. What is your academic class level?
     1 = Freshman
     2 = Sophomore
     3 = Junior
     4 = Senior
     5 = Master's
     6 = Life-long Learning
     7 = Other (please specify)_____

35. Have you decided on a college major?
     1 = Undecided
     2 = Decided (please specify major)_____

36. What is your religious affiliation?
    1 = Bahai
    2 = Buddhist
    3 = Catholic
    4 = Evangelical
    5 = Hindu
    6 = Jewish
    7 = Muslim
    8 = Protestant
    9 = Other (please specify)_____

37. Do/did your parents have occupations involved with religion and/or church?
    1 = both parents (please specify)_____
    2 = father only (please specify)_____
    3 = mother only (please specify)_____
    4 = neither parent

38. How many siblings do you have?
    1 = one   6 = six
    2 = two   7 = seven
    3 = three   8 = eight
    4 = four   9 = more than eight
    5 = five   10 = none

39. What is the nature of your parent's relationship with each other?
    1 = married
    2 = separated
    3 = divorced
    4 = widowed
    5 = other (please specify)_____

40. What is your family's estimated income?
    1 = $25,000 or below
    2 = $26,000 - $45,000
    3 = $46,000 - $70,000
    4 = $71,000 - $100,000
    5 = $101,000 and over

RPS SCALE

Presented below are several statements concerning the role of religion in dealing with problems. Please: (a) READ each statement carefully, (b) THINK about how often the statement applies to you, (c) DECIDE whether each statement is true of you: (1) never; (2) occasionally; (3) fairly often; (4) very often; or (5) always. Fill in the area on the answer sheet that corresponds to your response.

1 = Never
2 = Occasionally
3 = Fairly Often
4 = Very Often
5 = Always

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

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

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

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

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

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

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

48. When a difficult period is over, I make sense of what happened on my own without involvement from God.

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

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

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

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

53. The Lord works with me to help me see a number of different ways that a problem can be solved.

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

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

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

57. When I feel nervous or anxious, I calm myself without relying on God.

58. When faced with a decision, I wait for God to make the best choice for me.

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

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

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

62. In carrying out solutions, I work hard at them knowing God is working right along with me.

63. When faced with a decision, I make the best choice I can without God's involvement.

64. When I have a problem I try not to think about it and wait for God to tell me what it means.

65. When faced with a question, I work together with God to figure it out.

66. When I am trying to come up with different solutions to troubles I am facing, I do not get them from God but think of them myself.

67. I do not become upset or nervous because God solves my problems for me.

68. God and I talk together and decide upon the best answer to my question.

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

70. When I run into trouble, I simply trust in God knowing that he will show me the possible solutions.

71. When a hard time passes, God works with me to help me learn from it.

72. God doesn't put solutions to my problems into action, I carry them out myself.

73. I don't worry too much about learning from difficult situations, since God will make me grow in the right direction.

74. When I'm upset, I try to soothe myself, and also share the unpleasantness with God so He can comfort me.

75. When I run into a difficult situation, I make sense out of it on my own without divine assistance.

76. God solves problems for me without my doing anything.

SWB SCALE

For each of the following statements, select the response choice that best indicates the extent of your agreement or disagreement as it describes your personal experience. Fill in the area on the answer sheet that corresponds to your response.

1 = Strongly Agree	4 = Disagree
2 = Moderately Agree	5 = Moderately Disagree
3 = Agree	6 = Strongly Disagree

77.   I don't find much satisfaction in private prayer with God.

78.   I don't know who I am, where I came from, or where I am going.

79.   I believe that God loves me and cares about me.

80.   I feel that life is a positive experience.

81.   I believe that God is impersonal and not interested in my daily situations.

82.   I feel unsettled about my future.

83.   I have a personally meaningful relationship with God.

84.   I feel very fulfilled and satisfied with life.

85.   I don't get much personal strength and support from my God.

86.   I feel a sense of well-being about the direction my life is headed in.

87.   I believe that God is concerned about my problems.

88.   I don't enjoy much about life.

89.   I don't have a personally satisfying relationship with God.

90.   I feel good about my future.

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

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

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

94.   Life doesn't have much meaning.

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

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

IPC SCALE

For each of the following statements, select the response choice that best describes you. Fill in the area on the answer sheet that corresponds to your response.

1 = Strongly Agree   4 = Slightly Disagree
2 = Agree   5 = Disagree
3 = Slightly Agree   6 = Strongly Disagree

97. Whether or not I get to be leader depends mostly on my ability.

98. To a great extent my life is controlled by accidental happenings.

99. I feel like what happens in my life is mostly determined by powerful people.

100. Whether or not I get into a car accident depends mostly on how good a driver I am.

101. When I make plans, I am almost certain to make them work.

102. Often there is no chance of protecting my personal interests from bad luck happenings.

103. When I get what I want, it's usually because I'm lucky.

104. Although I may have good ability, I will not be given leadership responsibility without appealing to those in positions of power.

105. How many friends I have depends on how nice a person I am.

106. I have often found that what is going to happen will happen.

107. My life is chiefly controlled by powerful others.

108. Whether or not I get into a car accident is mostly a matter of luck.

109. People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.

110. It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.

111. Getting what I want requires pleasing those people above me.

112. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.

113. If important people were to decide they didn't like me, I probably wouldn't make many friends.

114. I can pretty much determine what will happen in my life.

115. I am usually able to protect my personal interests.

116. Whether or not I get into a car accident depends mostly on the other driver.

117. When I get what I want, it's usually because I worked hard for it.

118. In order to have my plans work, I make sure that they fit in with the desires of people who have power over me.

119. My life is determined by my own actions.

120. It's chiefly a matter of fate whether or not I have a few friends or many friends.

GCA SCALE

For each of the following statements, select the response choice that best describes you. Fill in the area on the answer sheet that corresponds to your response.

> 1 = Strongly Agree
> 2 = Agree
> 3 = Undecided
> 4 = Disagree
> 5 = Strongly Disagree

121. Every new life is a direct miracle of God.

122. A close call in a situation where an accident is likely, is probably God intervening to protect.

123. More than once I have felt that God responded specifically to a prayer that I made.

124. God created the world in seven days by giving the commands.

125. Events happen or don't happen quite by chance in this world.

126. Many people who have claimed to feel the presence of God were probably just experiencing their own emotions.

127. Just as in the past when primitive people thought that storms, volcanoes and other natural events were due to divine action, many people nowadays consider God or the devil responsible for things that really have completely physical causes.

128. Miracles happen much more frequently than most people suspect.

129. I'm usually skeptical when someone tells me that they're convinced that God did something to change their attitudes or beliefs.

130. God does miraculously heal diseases.

131. One problem with many Christians is that they try to give supernatural explanations for events that probably were caused by natural phenomena.

132. I have never been completely sure that anything that has happened in my life has come as an answer to prayer

133. One thing I don't like is the tendency that some people have to call everything they don't understand a miracle.

134. There have been a number of times in my life when I was convinced that some particular event was caused by direct action of God.

APPENDIX C

APPENDIX C

SCORING REFERENCES

RELIGIOUS BELIEFS, BEHAVIORS, AND COMMITMENT

The measures for religious beliefs, behaviors, and commitment were comprised of the following items from the participant demographic form:

Religious Beliefs

17   I believe God is merciful, kind, and forgiving.

20.   I believe God is vengeful, harsh, and punishing.

Religious Behavior1

23   About how often do you participate in activities through campus/student religious organizations?

24.   About how often do you attend church?

25.   About how often do you attend religious classes (e.g., Sunday School, Catechism class)?

Religious Behavior2

26.   About how often do you read devotional material (literature about your faith, church, or religion)?

27.   About how often do you pray (outside of church)?

Religious Commitment

2.   I am committed to living in a manner consistent with my religious values.

4.   I am committed to my religious growth and development.

RELIGIOUS PROBLEM-SOLVING SCALES:
ITEMS PER PROBLEM-SOLVING STYLE

C = Collaborative Style
S = Self-Directing Style
D = Deferring Style

C41. When it comes to deciding how to solve a problem, God and I work together as partners.

S42. After I've gone through a rough time, I try to make sense of it without relying on God.

D43. Rather than trying to come up with the right solution to a problem myself, I let God decide how to deal with it.

C44. When considering a difficult situation, God and I work together to think of possible solutions.

S45. When I have difficulty, I decide what it means by myself without help from God.

D46. In carrying out solutions to my problem, I wait for God to take control and know somehow He'll work it out.

C47. Together, God and I put my plans into action.

S48. When a difficult period is over, I make sense of what happened on my own without involvement from God.

D49. I do not think about different solutions to my problems because God provides them for me.

C50. When I feel nervous or anxious about a problem, I work with God to find a way to relieve my worries.

S51. When faced with trouble, I deal with my feelings without God's help.

D52. When a troublesome issue arises I leave it up to God to decide what it means for me.

C53. The Lord works with me to help me see a number of different ways that a problem can be solved.

S54. When deciding on a solution, I make a choice independent of God's input.

D55. When a situation makes me anxious, I wait for God to take those feelings away.

C56. After solving a problem, I work with God to make sense of it.

S57. When I feel nervous or anxious, I calm myself without relying on God.

D58. When faced with a decision, I wait for God to make the best choice for me.

C59. When I have a problem, I talk with God about it and together we decide what it means.

S60. When thinking about a difficulty, I try to come up with possible solutions without God's help.

D62. I don't spend much time thinking about troubles I've had; God makes sense of them for me.

C62. In carrying out solutions, I work hard at them knowing God is working right along with me.

S63. When faced with a decision, I make the best choice I can without God's involvement.

D64. When I have a problem I try not to think about it and wait for God to tell me what it means.

C65. When faced with a question, I work together with God to figure it out.

S66. When I am trying to come up with different solutions to troubles I am facing, I do not get them from God but think of them myself.

D67. I do not become upset or nervous because God solves my problems for me.

C68. God and I talk together and decide upon the best answer to my question.

S69. I act to solve my problems without God's help.

D70. When I run into trouble, I simply trust in God knowing that he will show me the possible solutions.

C71. When a hard time passes, God works with me to help me learn from it.

S72. God doesn't put solutions to my problems into action, I carry them out myself.

D73. I don't worry too much about learning from difficult situations, since God will make me grow in the right direction.

C74. When I'm upset, I try to soothe myself, and also share the unpleasantness with God so He can comfort me.

S75. When I run into a difficult situation, I make sense out of it on my own without divine assistance.

D76. God solves problems for me without my doing anything.

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