Assessing the Incremental Validity of the Religious Problem-Solving Scale In the Prediction of Clergy Burnout

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To meet the rigorous standards set by the social sciences, religious research needs to answer two questions: "To what degree are constructs developed on spirituality separate and distinct from established psychosocial variables"; and "To what degree do religious constructs provide insights into human functioning over and above those already provided by existing psychological constructs?" Addressing these questions, the current study evaluated the relative contributions of Pargament et al.'s (1988) Religious Problem-Solving scale, the NEO-FFI (a measure of the five-factor model of personality; Costa and McCrae 1992) and two measures of environmental stress in predicting burnout among American Baptist clergy on the Maslach Burnout Inventory (Maslach and Jackson 1986). The results indicated that the Religious Problem-Solving scale was a construct relatively distinct from the other psychological constructs. Hierarchical multiple regression results indicated that while the Religious Problem-Solving scale showed incremental significance in predicting burnout over the other psychosocial measures on two of the Maslach Burnout Inventory scales, its contribution was small. A methodology sensitive to the incremental validity question that uses the five-factor model as a point of reference is recommended for future research.

INTRODUCTION

Research in the scientific study of religion is interesting and engaging. As a field it recognizes the unity of human functioning and stresses the role that spirituality plays in the development of an individual's sense of personal and existential well-being. Numerous religious constructs and variables have emerged over the past forty years, but this interest in empirically studying religious variables has not been without criticism. Gorsuch (1984) has also noted several issues that operate to compromise the scientific integrity of these research endeavors and prevent their acceptance within the larger social sciences. For example, although numerous religious constructs continue to appear in the literature, very little work has been done attempting to link these constructs to one another (Gorsuch 1988). Without any conceptual organization, the very real possibility exists of redundancy among measures.

Two additional problems have been identified. The first is the lack of psychometric rigor applied in the development of religious constructs. Park and Cohen (1992) indicated that much of the research on religion and coping is seriously flawed by weaknesses related to the inadequate measurement of religious variables. Hall, Tisdale, and Brokaw (1994) concluded from their review of current religious variables that few religious variables possess the characteristics of measures needed for widespread use in research. A second problem has been raised by Van Wicklin (1990) who wondered if religious constructs were

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only the "religification" of already established personality constructs. For example, what is it that a religious well-being scale tells us about an individual's level of life satisfaction that is not obtainable from a more psychologically based index of well-being? What are the new insights that religious constructs provide? It is this issue that forms the heart of the current study. We are interested in determining two things: first, the degree to which religious variables overlap with established psychological constructs; and second, the extent to which religious constructs provide explanations of phenomena that are nonredundant with existing psychosocial variables.

These two questions address religious research at a fundamental level (Piedmont 1996). If religious constructs are to be recognized and accepted within the larger social sciences as legitimate individual difference dimensions, then researchers need to document the ability of these variables to provide unique insights into important psychological outcomes. As outlined by Piedmont (1996), this can be done by comparing religious constructs to established taxonomic models of personality, like the five-factor model of personality (Digman 1990; Goldberg 1993; McCrae and John 1992), and then to evaluate the relative contributions of these two sets of variables to explaining a common outcome. This study will apply this incremental validity paradigm to the issue of clergy burnout. The area of stress and coping was selected for two reasons. First, it is an area that is of interest to both psychological and religious researchers. Second, in his cautionary remarks about religious constructs, Van Wicklin (1990) pointed out the work of Pargament et al. (1988) on religious problem-solving as an example of a religious construct that seemed to be nonredundant with established psychological variables. Thus, there may be established religious scales that can evidence incremental validity over personality variables in this area.

Situational, Personal, and Religious Correlates to Burnout

Burnout was developed as an atheoretical construct to measure job-related stress for people who do "people work" (Maslach 1982). The term was developed to identify a work environment characterized by high work involvement, low pay, and poor recognition of employee performance (Freudenberger 1974). Theoretically the construct of burnout fits well into the psychological model of stress proposed by Lazarus and Folkman (1984). Situational, individual difference, and religious predictors of burnout as suggested by research correspond well to the situation-appraisal-outcome model of Lazarus and Folkman (1984).

Some research shows that there can be situational determinants to coping effectiveness and stressful outcomes (e.g., Pearlin and Schooler 1978; Mattlin et al. 1990). Lazarus and Folkman (1984) list formal properties of situations that create the potential for threat, harm, or challenge including novelty, event uncertainty, temporal factors, and ambiguity. Religious events themselves can create stress (Park and Cohen 1992), including those that mark life transitions (e.g., baptism, funeral), times of change and growth (e.g., conversion, accepting new responsibilities), and social involvement (e.g., joining a new congregation). For the clergy, the list of stressful "religious events" may be even longer if we consider the daily operations of the local congregation as "religious" (e.g., congregational business meetings, discussion of theological positions, financial reports, etc.). Since various measures of work situations (Maslach 1978; Maslach and Jackson 1979; Pines and Kafry 1978; Wallace and Brinkerhoff 1991) and organizational health (Cox, Kuk, and Leiter 1993; Cox and Leiter 1992) were found to be predictive of burnout, in this study two approaches to measuring the situation were included.

The first measure evaluated the unique elements of the congregational environment in terms of the kinds of systematic pressures placed on ministers (Oswald 1991; Sanford 1982; Whittemore 1991). This scale is based on the work of Merry and Brown (1987) and

their attempts to define the neurotic behavior of organizations. This measure provides what we refer to as a "static" assessment of the organization, in that it evaluates the current operations of the organization and does not give a sense of history or process. As such, we developed a second measure of situational stress that focused more on the shifts in stress the clergy person has experienced over the past several months. We believe that clergy who have experienced an increase in stress over a short period of time would be more likely to experience burnout than those who may have been coping with stress for a prolonged period. In the former situation, the onset of stress may create a sense of personal disequilibrium that results in poor coping and hence burnout. In the latter scenario, the prolonged exposure to stress may result in the individual attaining some adaptive position that enables continued functioning. Thus these two measures will provide very different assessments of the situation.

Although it may be intuitively obvious that situations can exert powerful influences on an individual's experience of stress, one's capacity to adapt to these changing situations represents another domain of constructs predictive of burnout: personal dispositions. Individual differences in personality impact not only how people appraise the stressfulness of a situation, but also their ability to cope (Lazarus and Folkman 1984). The importance of personality in the coping process has often been suggested (Carver et al. 1989: 270, 280; McCrae and Costa 1986; Mattlin et al. 1990: 110; Bolger and Zuckerman 1995). Personality measures have been found to be predictive of burnout (Garden 1991, 1989, 1987; Nowack 1986; Piedmont 1993).

Research using the personality dimensions of the five-factor model has proved most interesting. This comprehensive, reliable taxonomy of personality traits has emerged from over 30 years of research (see Digman 1990; McCrae and John 1992 for reviews). The five empirically derived factors are: Neuroticism (the tendency to experience negative affect and emotional stability); Extraversion (the quantity and intensity of interpersonal relations, activity level, and need for stimulation); Openness to Experience (the tendency to be experientially open to inner and outer worlds, to novel ideas and unconventional values); Agreeableness (interpersonal tendencies ranging from those that are sympathetic to others and eager to help, to those who are antagonistic and selfish); and Conscientiousness (representing individual differences in planning, organizing, and competing). Costa and McCrae (1984, 1989) have found these dimensions to be longitudinally predictive of both coping ability and subjective well-being. Piedmont (1993) found the dimensions of Neuroticism and (low) Conscientiousness to be significant predictors of burnout among hospital staff even after situational variables were controlled. Thus, the five-factor model represents an empirically-based measurement model very useful for capturing personality constructs related to stress experience and coping.

The final aspect to burnout to be discussed is the role of religion in moderating stress experiences. Taking the theoretical framework of Lazarus and Folkman's (1984) cognitive phenomenological model of stress where importance is placed on an individual's appraisal of situational stimuli and internal resources to cope, Pargament (1990) has argued persuasively that religion can serve as a significant component to the entire stress experience, from appraisal to selection of coping technique, to being a coping resource. Pargament believes that religion can impact the stress-coping process at any point, and can even function as an outcome of that process (Pargament 1990; Park and Cohen 1992). The Religious Problem-Solving Scale (Pargament et al. 1988) was developed to evaluate at a trait level how one's relationship with God may impact the kinds of appraisals and coping techniques one might employ in managing stressful situations. Research has indicated merit to this approach, documenting this scale's association with general health (Pargament et al. 1990), psychosocial competence (Hathaway and Pargament 1990), anxiety (Schaefer and Gorsuch 1991), and illness (McIntosh and Spilka 1990). Other research using the

incremental validity approach has found that religious coping predicts adjustment to life crises over and above non-religious coping methods (Maton 1989; Pargament et al. 1990; Pargament et al. 1994).

Clearly, then, burnout represents a phenomenon of interest for those in mainstream psychology and religious research. Both areas believe that their constructs of interest have something to contribute to our understanding of stress and coping. This overlapping interest provides a real opportunity for both conceptually and empirically expanding current paradigms in this area. If religious constructs do indeed provide new empirical relations with burnout distinct from traditional measures of both the situation and the person, then an integration of these two fields of activity will help both to expand social scientists' conceptualizations of stress and coping and improve greatly our ability to predict reactions to stress. This study will address this potentiality by evaluating the role of these three different classes of variables in predicting levels of burnout experienced by a sample of Baptist clergy. Correlational analyses will examine both the relative predictiveness of each set of variables to burnout and the general level of conceptual redundancy among these measures. Hierarchical multiple regression analyses will determine if religious problem-solving adds anything to the prediction of burnout levels over and above that provided by measures of the situation and personality, which is the question of incremental validity.

METHOD

Subjects

The population of this study was full-time pastors serving congregations in the American Baptist Churches of the United States of America (ABCUSA). A random sample of 500 pastors out of the population of 3,920 full-time pastors was created. A sample of 500 was chosen based upon previous research (Piedmont 1993) which linked measures of personality to burnout and served as a reference point for expected effect size. A power analysis was done (Cohen 1977) and indicated that a sample size of 250 would provide power for the statistical analyses of greater than .90. Assuming a response rate of 50% (Nygren and Piedmont 1988) an initial sample of 500 full-time pastors was randomly selected from the population. From the random sample 252 useable forms were returned for a 50.4% response rate, as expected.

The median age of the sample was 47.1 years. Pastors in the sample were in the pastorate for 16.3 years and at their current church for an average of 6.4 years. The sample was 87.7% Caucasian, 5.6% African-American, 3.2% Hispanic, 2% Asian, and .8% Native American. A χ^2 test indicated a significant difference between the obtained sample and the random sample with regards to race (χ^2 [5] = 48.02. $p < .05$) . The obtained sample under-represented African-Americans and over-represented Caucasians.

Measures

Religious Problem-Solving Scale (RPS). Pargament et al. (1988) developed a 36-item scale which asks persons to respond on a Likert-type scale ranging from *never* (1) to *very often* (5). The scale is based upon the theory that religion plays a role in the problem-solving process for many persons, providing a frame of reference to give understanding, guiding an individual in the process of selecting solutions to problems, giving meaning to the understanding of problems, and providing the individual with emotional support throughout the problem-solving process.

Three major problem-solving dimensions are capture by this scale: *Self-Directing* (in which it is the individual's responsibility to solve problems); *Deferring* (in which the

individual defers the responsibility of problem-solving to God); and *Collaborative* (in which the responsibility for the problem-solving process is held jointly by the individual and God). This study employed the 18-item short version of the scale (Pargament et al. 1988).

Maslach Burnout Inventory (MBI). The Maslach Burnout Inventory (Maslach and Jackson 1986) is a 22-item scale measuring the affective experience of individuals. It takes less than ten minutes to complete and consists of statements to be rated on a *Never* (0) to *Every day* (6) frequency scale. The MBI consists of three subscales. There are nine items in the Emotional Exhaustion (EE) subscale which describe the feelings of being emotionally overextended or exhausted by a person's work (e.g., "I feel emotionally drained from my work.") There are five items in the Depersonalization (DP) subscale which describe an unfeeling and impersonal response towards recipients of one's care or service (e.g., "I feel I treat some recipients as if they were impersonal objects.") There are eight items in the Personal Accomplishment (PA) subscale which describe feelings of competence and successful achievement in the work with people (e.g., "I feel I'm positively influencing other people's lives through my work.")

The NEO Five-Factor Inventory (NEO-FFI). The NEO-FFI, developed by Costa and McCrae (1992), contains 60 self-response items measured on a five-point scale from *strongly disagree* (1) to *strongly agree* (5). The NEO-FFI measures the following five domains of personality: *Neuroticism* (N); *Extraversion* (E); *Openness* (O) to experience; *Agreeableness* (A); and *Conscientiousness* (C).

Validity for the NEO-FFI scales is contained to some degree in the NEO-PI-R, being subsets of the domain scales. Costa and McCrae (1992) present data to show correlations between NEO-FFI scales and a measure of the five-factor model based on adjective self-reports obtained three years earlier. Convergent correlations range from .56 to .62 and none of the divergent correlations exceeded .20. Cross-observer correlations with peers and spouses also showed good evidence of convergent and discriminant validity.

Situational Shift Scale. This scale was developed by the authors to tap shifts in the environment of the respondent during the previous six months. Questions ask for a response on a 9-point Likert scale of *Greatly decreased* (1) to *Greatly increased* (9) to statements which included the following: "In the past six months my commitment to the ministry has...," "In the past six months my prayer and devotional life has . . .;" "In the past six months my feeling of closeness to God has . . .;" and "In the past six months my enthusiasm for worship has . . . ." It was anticipated that those who experienced greater changes recently would also be experiencing greater pressure and possibly greater burnout.

Health of Organization Scale (HOS). The HOS was developed by John Savage (personal communication, June 24, 1993) from his extensive consultation work with churches across many denominations and is a measure of systemic pressure in the work environment of the pastor. On a 9-point Likert scale respondents are asked to choose between extremes. For example, respondents would be asked on a 9-point scale to rate their perception of the organizational structure between the extremes, "Feelings of organizational inadequacy" and "Strong feelings of organizational adequacy." Items are balanced to control for acquiescence.

Procedure

Questionnaires were sent with a cover letter from National Ministries ABCUSA and from the author asking for participation in a study on stress. Follow up cards encouraged participation. Response was voluntary. Participation was anonymous and no incentives were offered.

RESULTS

Sample Descriptives

T-scores for the NEO-FFI (based on adult normative data, Costa and McCrae 1992) appeared to be normative for Neuroticism (48.9), Openness (53.0), and Conscientiousness (48.8), but slightly higher for Extraversion (57.2) and Agreeableness (57.4). This is to be expected given the public nature and training of this sample. Similarly, T-score distributions for the MBI scales (based on adult normative data, Maslach and Jackson 1986) appear normative (48.0, 46.5, 51.3 for Emotional Exhaustion, Depersonalization, and Personal Accomplishment respectively).[1] Coefficient alphas were acceptable for all scales (see Table 1). Thus these instruments appear to be operating appropriately for this sample.

Correlates of Burnout

Table 1 provides the inter-correlation matrix of all variables, as well as alpha scores. The NEO Five-Factor Inventory (NEO FFI) showed moderate to high correlations with all the Maslach Burnout Inventory (MBI) scales. Extraversion, Agreeableness, Conscientiousness all correlate negatively with the Emotional Exhaustion (r's = -.26, -.22, and -.27, respectively) and Depersonalization (r's = -.23, -.30, and -.19, respectively) scales and positively with the Personal Accomplishment scale (r's = .43, .27, and .32, respectively). The Neuroticism scale shows the largest associations with the MBI scales (r's = .56, .35, -.41 for Emotional Exhaustion, Depersonalization, and Personal Accomplishment, respectively). Clearly, the tendency to experience negative affect is strongly linked to one's likelihood of experiencing burnout. The Religious Problem-Solving (RPS) Collaborative and Deferring subscales exhibited negative associations with the Emotional Exhaustion and Depersonalization scales, while the Self-Directing scale showed the opposite pattern of correlations. These results suggest that the way one relates to God to solve the problems of life has some relationship with burnout.

The situational variables correlated moderately with burnout as well. The Health of Organization scale correlated negatively with the Emotional Exhaustion (r = -.35, p < .001) and Depersonalization (r = -.36, p < .001) scales of the MBI, indicating that the more healthy the organization the less likely one would feel burned out. However, if one is experiencing dynamic shifts in one's environment toward more stress, the opposite would be true, as reflected in the positive correlations of the Situational Shift scale and the Emotional Exhaustion (r = .24, p < .001) and Depersonalization (r = .19, p < .01) scales of the MBI.

In addition to suggesting that all of the predictor variables contribute something to burnout, Table 1 also shows that there is some overlap between the Religious Problem-Solving scale and the other variables. The Religious Problem-Solving scale had low to moderate correlations with measures of the environment and personality. The Collaborative scale correlated positively with the measure of organizational health (r = .28, p < .001). The Collaborative (r = -.31, p < .001) and Deferring (r = -.32, p < .001) scales correlated negatively with dynamic shifts in the environment.

The Collaborative and Deferring scales were similar in that they both had moderate negative correlations with Neuroticism (r's = -.27 and -.20, respectively) and moderate positive correlations with Extraversion (r's = .30 and .22, respectively) and Conscientiousness (r's = .33 and .19, respectively). The Self-Directing scale differed from the other two scales by having a moderate positive correlation with Neuroticism (r = .23, p < .001) and a low negative correlation with Extraversion (r = -.18, p < .01).

TABLE 1

CORRELATION MATRIX AND ALPHA RELIABILITIES FOR ALL VARIABLES

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
Situational													
1 Org. Health	—	-.22**	-.35**	-.36**	.33**	-.45**	.22**	.12	.17*	.30**	.28**	-.12	.11
2 Sit. Shift		—	.24**	.19*	-.17*	.19*	-.28**	.06	.01	-.20*	-.31**	.19*	-.32**
MBI Scales													
3 EE			—	.63**	-.17*	.56**	-.26**	.07	-.22**	-.27**	-.22**	.24**	-.27**
4 DP				—	-.19*	.35**	-.23**	-.06	-.30**	-.19*	-.32**	.30**	-.18*
5 PA					—	-.41**	.43**	.18*	.27**	.32**	.39**	-.24**	.12
NEO-FFI													
6 Neuro.						—	-.41**	-.11	-.31**	-.41**	-.27**	.23**	-.20*
7 Extra.							—	.12	.22**	.20*	.30**	-.18*	.22**
8 Open.								—	.05	-.08	.08	-.09	-.33**
9 Agree.									—	.21*	.20*	-.12	.00
10 Consc.										—	.33**	-.15	.19*
RPS Scales													
11 Collab.											—	-.50**	.36**
12 Self-D.												—	-.09
13 Defer.													—

NOTE: N = 245; * $p < .01$; ** $p < .001$. All two-tailed tests.

The low to moderate correlations between the Religious Problem-Solving scale and measures of the environment and personality suggest that while there is some overlap between these variables, the magnitude is small enough to indicate that they are not redundant. The Religious Problem-Solving scale is measuring something separate and distinct.

Incremental Validity of the Religious Problem-Solving Scale

In order to determine the unique contribution of religion to predicting levels of burnout, a series of hierarchical multiple regression analyses were performed. The three MBI scales each served as outcomes. Table 2 contains the results of these analyses.

TABLE 2

HIERARCHICAL MULTIPLE REGRESSION RESULTS FOR RELIGIOUS,
PERSONALITY, AND SITUATION VARIABLES WITH BURNOUT

Variable	Step	Adj. R^2	ΔAdj. R^2	Partial F	df
Emotional Exhaustion Scale					
Person and Situation	1	.34	.34	18.85[**]	7,237
RPS Scales	2	.35	.01	2.27	3,234
Depersonalization Scale					
Person and Situation	1	.20	.20	9.93[**]	7,237
RPS Scale	2	.25	.05	5.31[*]	3,234
Personal Accomplishment Scale					
Person and Situation	1	.29	.29	15.44[**]	7,237
RPS Scale	2	.31	.02	3.28[*]	3,234

NOTE: $N = 252$; [*] $p < .05$; [**] $p < .001$.

In step one of the equation the five dimensions of personality and the two situational measures were entered as a block. In step two, the three dimensions of the Religious Problem-Solving scale were then entered as a block. Partial F's were calculated to see if the Religious Problem-Solving subscales explained significantly more variance in burnout over and above that measured by the personality and situational scales.

As seen in Table 2 the personality and situational variables account for the greatest amount of variance in the prediction of burnout. For Emotional Exhaustion, Depersonalization, and Personal Accomplishment adjusted R^2's = .34, .20, and .29, respectively; F's (7, 237) = 18.85, 9.93, and 15.44, respectively; all p's < .001. The subscales of the Religious Problem-Solving scale do account for some additional variance in burnout, reaching significance on the Depersonalization and Personal Accomplishment scales; partial F's (3, 234) = 5.31 and 3.28, respectively; all p's < .05. However, the magnitude of these contributions was small, as shown in the ΔAdjusted R^2 column (.05, and .02 for DP, and PA respectively). The subscales of the Religious Problem-Solving scale did not reach significance on the Emotional Exhaustion scale.

DISCUSSION

Contribution of the Religious Problem-Solving Scale

The results of this study show that some of the variance of the Religious Problem-Solving subscales did predict levels of burnout beyond that of the psychological and

environmental measures, reaching significance on the Depersonalization and Personal Accomplishment subscales of the Maslach Burnout Inventory. However, this unique contribution was small (5% and 2%, respectively). The multiple regression results in this study suggest that the Religious Problem-Solving subscales moderately tap a construct that is effective for predicting coping with life events that could lead to burnout.

The limited results are particularly interesting given the population of clergy included in this study. One would think that religious orientation would be an important dimension to their working lives. Yet, it is possible that clergy persons do not use religious coping in their work environment. Certainly in clinical work the compartmentalizing of work and religious coping is not unheard of among clergy.

While this study attempted to assess the impact of a trait measure of religiousness on the process of appraisal of stressors, different results might have been obtained using more situation-specific measures of religious coping such as those used by Schaefer and Gorsuch (1993) or Pargament et al. (1990). Further, while the situational variables in this study were chosen to be of use in a situation of congregational polity, their evaluative nature may have resulted in confounding with the burnout instrument. Being burned out may result in evaluating the health of an organization negatively. Obtaining observer ratings for any of these variables may have produced different results.

Nonetheless, this study raises an important issue for religious researchers: can religious oriented constructs provide a unique contribution to understanding larger psychological outcomes? Is there something special about an individual's underlying spiritual organization that can allow researchers to anticipate how that person will psychologically manage life events? Answers to these questions can open a whole new world of hitherto unexplored individual difference constructs relevant to explaining important psychosocial outcomes. At worst, the modest findings in this study echo Van Wicklin's (1990) comments that religious variables may only be the "religification" of psychological constructs. However the findings, at best, encourage further studies with different religious variables to determine if other types of spiritually based scales may have more to offer in predicting coping outcomes (see Piedmont 1997).

Incremental Validity Paradigm

We believe that the incremental validity paradigm used in this study offers religious researchers a methodology for developing conceptually useful and empirically powerful constructs. The five-factor model of personality has three important contributions to make in this area. First, as a comprehensive taxonomy, correlating religious scales with these dimensions provides a useful reference point for evaluating the personological significance of their constructs. Each dimension of the five-factor model has clear motivational implications which can be useful for anticipating the directions individuals will move toward. In this study, the Religious Problem-Solving scale's correlations with Neuroticism and Extraversion show that it does have a relationship to one's overall sense of well-being and coping ability.

Second, correlations with these personality dimensions can serve as a "personological fingerprint" for a scale, which can be used to identify similarities and differences from other constructs. In the absence of a taxonomy of religious constructs, the five-factor model can help to nomologically link various religious constructs. Ozer and Riese (1994) have likened the correlation of a scale to the five-factor model to the establishment of latitude and longitude for a given location on the earth. Examining relations with personality variables will allow researchers to locate their religious constructs on existing maps and begin to chart the *terra incognita* of our inner spiritual world.

Finally, because the five-factor model has been shown to represent the spectrum of already identified individual difference variables that are associated with personality, it can serve as the empirical reference point for determining whether a religious construct provides any unique explanation to the variance of an outcome. The utility of any scale that fails to provide significant explanatory variance over the five personality dimensions must be seriously questioned. Merely "religifying" existing psychological constructs will not serve the ultimate interests of religious researchers. We will need to isolate, identify, and assess constructs that offer new windows into our understanding of people.

NOTE

[1] A complete table of descriptive statistics for all variables may be obtained by writing Thomas E. Rodgerson, 14514 Mayfair Drive, Laurel, MD 20707

REFERENCES

Bolger, N., and A. Zuckerman. 1995. A framework for studying personality in the stress process. *Journal of Personality and Social Psychology* 69(5): 890–902.

Carver, C.S., M. F. Scheier, and J. K. Weintraub. 1989. Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology* 56(2): 267–83.

Cohen, J. 1977. *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Costa, P. T., Jr., and R. R. McCrae. 1984. Personality as a lifelong determinant of well-being. In *Emotion in adult development*, edited by C. Z. Malatesta and C. E. Izard, 141–56. Beverly Hills, CA: Sage.

———. 1989. Personality, stress and coping: Some lessons from a decade of research. In *Aging, stress and health*, edited by K. S. Markides and L. L. Cooper, 269–85. New York: John Wiley & Sons.

———. 1992. *Revised NEO Personality Inventory and NEO Five-Factor Inventory, manual*. Odessa, FL: Psychological Assessment Resources.

Cox, T., G. Kuk, and M. P. Leiter. 1993. Burnout, health work stress, and organizational healthiness. In *Professional burnout: Recent developments in theory and research*, edited by W. B. Schaufeli, C. Maslach, and T. Marek, 177–93. Washington, DC: Taylor and Francis.

Cox, T., and M. Leiter. 1992. The health of health care organizations. *Work and Stress* 6(3): 219–27.

Digman, J. M. 1990. Personality structure: Emergence of the five-factor model. *Annual Review of Psychology* 41: 417–40.

Freudenberger, H. J. 1974. Staff burn-out. *Journal of Social Issues* 30(1): 159–65.

Garden, Anna-Maria. 1987. Depersonalization: A valid dimension of burnout? *Human Relations* 40(9): 545–60.

———. 1989. Burnout: The effect of psychological type on research findings. *Journal of Occupational Psychology* 62(3): 223–34.

———. 1991. The purpose of burnout: A Jungian interpretation. *Journal of Social Behavior and Personality* 6(7): 73–93.

Goldberg, L. R. 1993. The structure of phenotypic personality traits. *American Psychologist* 48: 26–34.

Gorsuch, R. L. 1984. Measurement: The boon and bane of investigating religion. *American Psychologist* 39: 228–36.

———. 1988. Psychology of religion. *Annual Review of Psychology* 39: 201–21.

———. 1996. Big 5 vs. primary 16 personality factors: Where do we start interfacing with psychology of religion? Paper presented at the meeting of the American Psychological Association, Toronto (August).

Hall, T. W., T. C. Tisdale, and B. F. Brokaw. 1994. Assessment of religious dimensions in Christian clients: A review of selected instruments for research and clinical use. *Journal of Psychology and Theology* 22(4): 395–421.

Hathaway, W. L., and K. I. Pargament. 1990. Intrinsic religiousness, religious coping and psychosocial competence: A covariance structure analysis. *Journal for the Scientific Study of Religion* 29(4): 423–41.

Lazarus, R. S., and S. Folkman. 1984. *Stress, appraisal and coping*. New York: Springer Publishing.

Maslach, C. 1978. The client role in staff burn-out. *Journal of Social Issues* 34(4): 111–24.

———. 1982. *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice-Hall.

Maslach, C., and S. E. Jackson. 1979. Burned-out cops and their families. *Psychology Today*, May, 59–62.

———. 1986. *Maslach Burnout Inventory, manual*. 2d ed., Palo Alto, CA: Consulting Psychologists Press.

Maton, K. I. 1989. The stress-buffering role of spiritual support: Cross-sectional and prospective investigations. *Journal for the Scientific Study of Religion* 28(3): 310–23.

Mattlin, J. A., E. Wethington, and R. C. Kessler. 1990. Coping and coping effectiveness. *Journal of Health and Social Behavior* 31: 103–22.

McCrae, R. R., and P. T. Costa, Jr. 1986. Personality, coping, and coping effectiveness in an adult sample. *Journal of Personality* 54: 385–405.

McCrae, R. R., and O. P. John. 1992. An introduction to the five-factor model and its applications. *Journal of Personality* 60: 175–215.

McIntosh, D., and B. Spilka. 1990. Religion and physical health: The role of personal faith and control beliefs. In *Research in the social scientific study of religion*, edited by M. L. Lynn and D. O. Moberg, vol. 2, 167–94. Greenwich, CT: JAI Press.

Merry, U., and G. I. Brown. 1987. *The neurotic behavior of organizations*. New York: Gardner Press.

Nowack, K. M. 1986. Type A, hardiness, and psychological distress. *Journal of Behavioral Medicine* 9(6): 537–48.

Nygren, D., and R. L. Piedmont. 1988. Issues of status, power, and role differentiation in male religious identity: Results of a national survey. In *Who are my brothers*, edited by P. Armstrong, 187–224. New York: Alba House.

Oswald, R. M. 1991. *Clergy self-care*. Washington, DC: Alban Institute.

Ozer, D. J., and S. P. Reise. 1994. Personality assessment. *Annual Review of Psychology* 45: 357–88.

Pargament, K. I. 1990. God help me: Toward a theoretical framework for the psychology of religion. *Research in the Social Scientific Study of Religion* 2: 195–224.

Pargament, K. I., D. S. Ensing, K. Falgout, H. Olsen, B. Reilly, K. Van Haitsma, and K. Warren. 1990. God help me: (I): Religious coping efforts as predictors of the outcomes to significant negative life events. *American Journal of Community Psychology* 18(6): 793–824.

Pargament, K. I., K. Ishler, E. F. Dubow, P. Stanik, R. Rouiller, P. Crowe, E. P. Cullman, M. Albert, and B. J. Royster. 1994. Methods of religious coping with the Gulf War: Cross-sectional and longitudinal analyses. *Journal for the Scientific Study of Religion* 33(4): 347–61.

Pargament, K. I., J. Kennell, W. Hathaway, N. Grevengoed, J. Newman, and W. Jones. 1988. Religion and the problem-solving process: Three styles of coping. *Journal for the Scientific Study of Religion* 27(1): 90–104.

Park, C., and L. H. Cohen. 1992. Religious beliefs and practices and the coping process. In *Personal Coping: Theory, Research, and Application*, edited by B. N. Carpenter, 185–98. Westport: Praeger.

Pearlin, L. I., and C. Schooler. 1978. The structure of coping. *Journal of Health and Social Behavior* 19: 2–21.

Piedmont, R. L. 1993. A longitudinal analysis of burnout in the health care setting: The role of personal dispositions. *Journal of Personality Assessment* 61(3): 457–73.

———. 1996. Strategies for using the five-factor model in religious research. In *The five-factor model and its value for religious research*, edited by R. L. Piedmont. Symposium conducted at the annual convention of the American Psychological Association, Toronto (August).

———. 1997. Development and validation of the Transcendence Scale: A measure of spiritual experience. In *Spiritual experience and the five-factor model of personality*, edited by J. E. G. Williams (Chair). Symposium conducted at the annual convention of the American Psychological Association, Chicago (August).

Pines, A, and D. Kafry. 1978. Occupational tedium in the social services. *Social Work* 23: 499–507.

Sanford, J. A. 1982. *Ministry burnout*. New York: Paulist Press.

Schaefer, C. A., and R. L. Gorsuch. 1991. Psychological adjustment and religiousness: The multivariate belief-motivation theory of religiousness. *Journal for the Scientific Study of Religion* 30(4): 448–61.

———. 1993. Situational and personal variations in religious coping. *Journal for the Scientific Study of Religion* 32(2): 136–47.

Van Wicklin, J. F. 1990. Conceiving and measuring ways of being religious. *Journal of Psychology and Christianity* 9(2): 27–40.

Wallace, J. E., and M. B. Brinkeroff. 1991. The measurement of burnout revisited. *Journal of Social Service Research* 14(1–2): 85–111.

Whittemore, H. 1991. Ministers under stress. *Parade Magazine*, 14 April, 4–6.