The Gerontologist
Vol. 38, No. 4, 463–470

This study examined how religious/spiritual coping was related to specific conditions of caregiving and psychological distress among 127 informal caregivers to community-residing disabled elders. Support was found for the hypothesis that religious/spiritual coping influences caregiver distress indirectly through the quality of the relationship between caregiver and care recipient. Caregivers who used religious or spiritual beliefs to cope with caregiving had a better relationship with care recipients, which was associated with lower levels of depression and role submersion.
Key Words: Caregiver stress, Caregiver distress, Relationship quality, Caregiver well-being

The Role of Religion/Spirituality in Coping With Caregiving for Disabled Elders

Bei-Hung Chang, ScD,[1] Anne E. Noonan, PhD,[2] and Sharon L. Tennstedt, PhD[2]

Although it is widely recognized that religion is an underexplored area in scientific research (Levin & Schiller, 1987; Poloma & Pendleton, 1989; Witter, Stock, Okun, & Haring, 1985), there is evidence that the study of religious and spiritual issues is gaining momentum. Over the past 25 years, there have been numerous investigations into mind, body, and spirit interactions (e.g., Benson, Beary, & Carol, 1974; Benson et al., 1982; Hoffman et al., 1982), and the effects of intercessory prayer on health (e.g., Byrd, 1988). Various aspects of the "faith factor" (Matthews, Larson, & Barry, 1993) have been examined, ranging from the descriptive (e.g., denominational preference) and behavioral (service attendance, frequency of prayer) to more internalized aspects such as the intensity of beliefs, self-report of how religious one is, the importance of religion in one's life, comfort from religion (Picot, Debanne, Namazi, & Wykle, 1997), religious commitment, and orthodoxy. Although findings vary somewhat from study to study and according to the dimensions studied and measures used, the overall picture points to a positive association between religion and both physical and mental health (see reviews by Levin, 1994; Poloma & Pendleton, 1989; Witter et al., 1985).

Issues of religion/spirituality have been included more frequently in research on mental health (Decker & Schulz, 1985; Ellison, 1991; Hadaway & Roof, 1978; Hunsberger, 1985) and on specific populations such as elderly adults (Bearon & Koenig, 1990; Blazer & Plamore, 1976; Guy, 1982; Koenig, George, & Siegler, 1988; Koenig, Kvale, & Ferrel, 1988; Koenig, Siegler, Meador, & George, 1990), African Americans (Levin, Chatters, & Taylor, 1995; Levin & Taylor, 1993; Taylor, 1986), and Mexican Americans (Levin, Markides, & Ray, 1996). Not surprisingly, religion/spirituality has emerged in stress-and-coping studies as an important and helpful coping mechanism or resource for patients with conditions such as AIDS (Kendall, 1994) and breast cancer (Johnson & Spilka, 1991; Muthny, Bechtel, & Spaete, 1992). It also has been a variable of interest in studies of professional caregivers of patients with chronic diseases, for example, nurses of people with AIDS (Burr, 1996), and in research on family caregivers of children with chronic diseases (Fulton & Moore, 1995; Leyser, 1994).

However, there has been less focus on the role that religion/spirituality might play in coping with the stress of informal caregiving for older persons needing assistance with activities of daily living. Some qualitative research with family caregivers has touched upon issues of religion. For example, Guberman, Maheu, and Maillé (1992) found religious beliefs to be connected to the motivation to provide care among family caregivers to frail elders and mentally ill relatives. The connection between religious (Buddhist) beliefs and motivation to care was also observed by Caffrey (1992) among family caregivers in Thailand. Montgomery (1991) referred to the "spiritual transcendence" aspects of caregiving. In a different vein, Delgado (1996) explored the role of organized religious institutions in the caregiving systems of Puerto Rican elders. More recently, Picot et al. (1997) examined the relationship between race and perceived rewards of caregiving and also looked at four aspects of religion/spirituality: prayer, self-rated religiosity, comfort from religiosity, and service attendance. They found that race had direct effects on perceived rewards (with African Americans reporting higher rewards than Whites) and that prayer and comfort from religion mediated the relationship. Taken as a whole, these studies establish that religion is connected

This research was supported by Grant AG07182 from the National Institute on Aging. The authors would like to thank Renée Lawrence and Kevin Smith for their valuable comments on this article.

[1]Address correspondence to Bei-Hung Chang, Center for Health Quality, Outcomes, and Economic Research, Edith Nourse Rogers Memorial VA Hospital, 200 Springs Road, Bedford, MA 01730. E-mail: bhchang@bu.edu
[2]New England Research Institutes, Watertown, MA.

to why people care and how they benefit from caring, but none of the studies individually examines exactly how religion/spirituality relates to caregiver distress—either general distress or distress more specifically tied to the care situation.

It is important to understand the specific pathways through which religion/spirituality might influence caregiver distress. Whereas some of this influence might occur directly, it is also likely that some of the influence is indirect, that is, through religion's relationship with other aspects of the care situation. For example, religion/spirituality might be related to caregiver distress indirectly through the quality of the relationship between caregiver and care recipient. This link is posited for several reasons. First, because many religious belief systems foster an ethos of responsibility and care for others, these systems are likely an important resource when one is faced with the often stressful realities of responsibility and care. Second, spirituality has been said to influence the way individuals evaluate, restore, and preserve the quality of relationships with others (Marcoen, 1994). Third, religion/spirituality has been shown to be associated with more specific relationship issues, for example, higher marital quality (Dudley & Kosinski, 1990; Schumm, Bollman, & Jurich, 1982; Shehan, Bock, & Lee, 1990).

The quality of relationships between caregivers and care recipients has emerged as an important variable in caregiving research, including our own work on the Massachusetts Elder Health Project. In one analysis, poor relationship quality was related to both subjective burden/overload and depressive symptoms among informal caregivers (Yates, Tennstedt, & Chang, 1997). In another analysis examining whether relationship quality mediated or moderated the stress-distress connection (Lawrence, Tennstedt, & Assmann, 1998), relationship quality mediated the relationship between problem behaviors and two aspects of caregiver distress: role captivity and depression. However, for those caregivers reporting better relationships with elder care recipients, elder disability was related to higher levels of overload/burden. Another study of caregivers to elder stroke and dementia patients found poor quality of relationship to be a risk factor for subjective burden (Draper, 1996). Further, in a comparison of caregiver role strain between African American and White daughter caregivers, Mui (1992) found that poor relationship quality between caregiver and care recipient was associated with caregiver role strain, but only for White caregivers. Thus, relationship quality may operate differently for different subgroups of caregivers. Likewise, although it may be beneficial to enjoy a close relationship with a person for whom one provides care, such a connection might be detrimental when the loved one is seriously disabled or cognitively impaired.

In the present study, we hypothesized that religious/spiritual coping would affect psychological distress indirectly through quality of relationship between elders and caregivers. The conceptual model used in this study was shaped by the stress process models of Lazarus and Folkman (1984), and Pearlin, Mullan, Semple, and Skaff (1990). As shown in Figure 1, the model included four components: stressors, coping, an intervening variable, and outcomes. The stressor variables were three aspects of the elder's health status: level of functional disability, the presence of cognitive impairment, and problem behaviors. The coping mechanism examined was the extent to which caregivers reported that religious/spiritual beliefs had helped them make sense of the caregiving experience. It should be noted that, in our conceptual model, we assumed a direct association between stressors and religious/spiritual coping. This assumption was based on various studies which showed that increased stress motivated the engagement of religious coping (Folkman, Chesney,

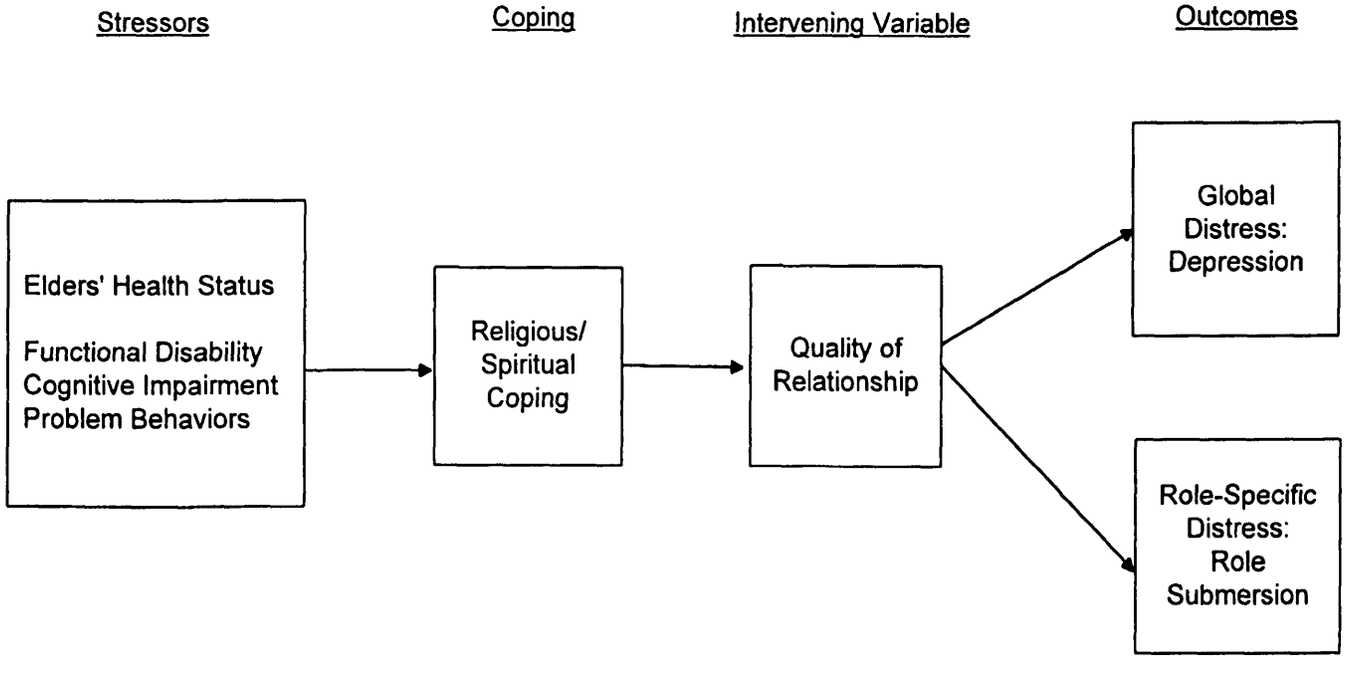

Figure 1. Proposed path model.

Cooke, Boccellari, & Collette, 1994; Kaye & Robinson, 1994; Salts, Denham, & Smith, 1991; Wheaton, 1985). With respect to outcomes, both global and role-specific distress were examined. Global distress was indicated by depressive symptoms, whereas role-specific distress was indicated by reports of role submersion from caregiving. The variable hypothesized to intervene between coping and distress was relationship quality.

Methods

Study Sample

The data for this study were collected via telephone interviews during the last wave of Phase II of the Massachusetts Elder Health Project (MEHP) (Tennstedt, Crawford, & McKinlay, 1993). The MEHP is a longitudinal study of a representative sample of community-residing elders in eastern Massachusetts that focused on those elders classified as functionally disabled via the Hebrew Rehabilitation Center for the Aged (HRCA) Vulnerability Index (Morris, Sherwood, & Mor, 1984). Two phases of the study were conducted from 1984 to 1996. The focus of Phase II was on the process of caregiving from the perspectives of both caregiver and care recipient, with the objective of defining successful caregiving. Four follow-up waves were conducted in Phase II at five-month intervals between 1993 and 1996. This study includes data from only the final follow-up (Wave 4), because the measure of religious/spiritual coping was included only in this wave of the study. The Wave 4 sample consisted of 131 elders and primary caregiver dyads, which is a subsample of the 208 dyads in the Wave 1 sample. The decrease in the number of subjects from Wave 1 to Wave 4 was due to death of the elder (43%), nursing home admissions (42%), and a small number lost to attrition (15%). As a result, elders included in this sample were less likely to have cognitive impairment and/or problem behaviors compared to those in the Wave 1 sample. Four elder-caregiver dyads were excluded from analysis due to missing values; the actual sample size for the present analysis was 127.

Description of Study Participants

With regard to denominational preference, 52% of the elders in the MEHP were Catholic, 39% were Protestant, 4.6% were Jewish, and 3.1% were Orthodox (Syrian, Russian, or Greek). Although this information was not available for caregivers, the breakdown is expected to be roughly the same because most of the caregivers were close kin. Most of the caregivers (69%) were female, as were most of the elders (79%). The average age for elders was 88, and caregivers' average age was 62. The majority of the caregivers were offspring (55%) and spouses (17%), and slightly over half of the caregivers (52%) coresided with the elder. Although most caregivers were not employed, 40% of them did work outside the home. The samples of elders and caregivers in this study were almost exclusively White (99% at the beginning of Phase I). The average annual household income for caregivers fell in the $20,000–$40,000 range. With regard to formal education level, most caregivers had completed more than 13 years of schooling. Caregivers had been caring for the elders anywhere from 3 months to 21 years, with an average duration of 7 years.

Measures

The descriptive statistics for all variables described below are listed in Table 1.

Stressors/Elder Health Status.—The three stressor measures were elder functional disability, cognitive impairment, and problem behaviors. Level of functional disability was based on whether the elder had problems performing two Instrumental Activity of Daily Living (IADL) items (meal preparation and housework) and/or had problems performing three basic Activity of Daily Living (ADL) items (personal care, dressing, and climbing stairs). Five levels of disability were identified: 1 = no ADL problem and any IADL problem; 2 = one ADL problem and no IADL problem; 3 = one ADL problem and any IADL problem, or two ADL problems and no IADL problem; 4 = two ADL problems and any IADL problem; 5 = three ADL problems and any IADL problem. The mean functional disability level was 3.51.

The elder's cognitive impairment was a dichotomous (yes/no) variable constructed from one of three

Table 1. Descriptive Statistics of the Study Variables

Variable	Range	Mean (*SD*)	%
Stressors			
Functional disability	1–5	3.51 (1.33)	
Cognitive impairment			30.7
Problem behaviors			8.7
Coping			
Religious/spiritual coping	1–4	3.01 (0.79)	
Intervening Variable			
Quality of relationship	6–20	15.33 (3.38)	
Outcomes			
Caregiver depression score (CES-D)	5–13	7.59 (2.29)	
Caregiver role submersion score	5–18	8.43 (3.52)	
Contextual Variables			
Elder age	81–103	88.15 (4.77)	
Male elder			21.3
Caregiver age	30–90	61.87 (14.70)	
Male caregiver			31.5
Coresidence/relationship			
Spouse			16.5
Coresiding offspring			28.3
Coresiding other/ nonrelatives			7.1
Non-coresiding offspring			27.6
Non-coresiding other/ nonrelatives			20.5

sources. If possible, the elder's score on the Short Portable Mental Status Questionnaire (SPMSQ) (Pfeiffer, 1975) was used. If, however, an elder was unable to be interviewed, information from the proxy interview was used to construct the variable. Elders categorized as cognitively impaired, then, were those with four or more incorrect answers on the SPMSQ (the cut-off was adjusted for different education levels), those who required a proxy interview for reasons of dementia, or those who required a proxy interview for another reason and for whom caregivers reported frequent memory or confusion problems. As shown in Table 1, less than one third of the elders were classified as cognitively impaired.

Elder problem behaviors were assessed by asking caregivers how many days over the previous two weeks the elder had: wandered off or gotten lost; yelled, cursed, or verbally threatened people; hit, struck, or pushed others; done embarrassing things like disrobing, hiding objects, or rummaging through others' belongings; and accused others of stealing her/his belongings. Due to the skewness of the distribution, this variable was dichotomized as 0 = no problem behaviors; 1 = any problem behavior. Problem behaviors were reported for 8.7% of the elders.

Religious/Spiritual Coping.—The degree of engagement in religious/spiritual coping was measured by a single item from the Meaning in Caregiving scale (Giuliano, Mitchell, Clark, Harlow, & Rosenbloom, 1990): "My religion or spiritual beliefs have helped me handle this whole experience." Caregivers were asked to rate how much they agreed with the statement (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). The mean response was 3.01; 75% of caregivers reported some level of agreement with the statement. Cronbach's α for the 12-item Meaning in Caregiving scale was .88, and the item-scale correlation for the religion item was .47.

Intervening Variable/Relationship Quality.—The proposed intervening variable, quality of relationship between elders and caregivers, was measured by five items from the positive affect measure of the University of Southern California Longitudinal Study of Three-Generation Families (Mangen, Bengtson, & Landry, 1988). These items assess general closeness, how well the caregiver can exchange ideas or talk about things that really concern the caregiver, similarity of views about life, and how well they get along together. The response categories for the items ranged from 1 = not at all close/well/similar to 4 = very close/well/similar. Of a possible range of 5–20, the average score was 15.33. Cronbach's α for the scale was .78.

Outcomes/Psychological Distress.—Two measures of distress were used. Global distress was measured by a five-item version of Radloff's (1977) Center for Epidemiologic Studies–Depression (CES-D) scale. Shorter versions of the scale have demonstrated reliability comparable to the full scale and have the advantage of ease of administration (Shrout & Yager, 1989). Caregivers were asked how frequently in the past week they: had felt depressed; enjoyed life (reverse-coded); had crying spells; felt that people disliked them; and felt happy (reverse-coded). Responses were scored as: 1 = hardly ever/less than once; 2 = occasionally/1–2 days; 3 = frequently/3–4 days; 4 = most of the time/5–7 days. Of a possible range of 5–20, the average depression score was 7.59. Cronbach's α for this scale was .73.

Role-specific distress was tapped by a scale measuring role submersion from caregiving. Role submersion is the sum of two "intrapsychic strain" measures that appeared in Pearlin's model: role captivity and loss of self (Pearlin et al., 1990; Skaff & Pearlin, 1992). These two scales were summed into one scale due to the high internal consistency among the items of the combined scale (α = .88). They also appeared conceptually similar in that they both described a sense that caregiving had "taken over" and become all-consuming. The role submersion scale asked caregivers how well five statements described their thoughts about caregiving (1 = not at all; 2 = just a little; 3 = somewhat; 4 = very much): that they wished they were free to lead a life of their own; felt trapped by the care recipient's illness; wished they could just run away; had lost a sense of who they were; and lost an important part of themselves through caregiving. Of a possible range of 5–20, the mean role submersion score was 8.43.

Contextual Variables.—The contextual variables that emerged as significant correlates of the variables of central interest were controlled for in the analysis. These included elder age, elder gender, caregiver age, caregiver gender, coresidence of caregivers and elders, and relationship of caregivers to the elders. A variable was created to combine coresidence and elder-caregiver relationship because of previously reported differences in the amount and type of care provided based on residency status compared to relationship status (Chappell, 1991; Tennstedt et al., 1993). Five categories were developed: spouse (reference group), coresiding offspring, coresiding other/nonrelatives, non-coresiding offspring, and non-coresiding other/nonrelatives.

Statistical Analysis

Path analysis was used to test both the conceptual model and the study hypothesis, and the path regression coefficients were estimated by a series of ordinary least squares (OLS) linear regression models (Pedhazur, 1982). To test the hypothesis that religious/spiritual coping affects the two distress outcomes indirectly through quality of relationship, three OLS regression models were run. One model regressed quality of relationship on stressors, coping, and contextual variables. This regression model estimated the direct effect of coping (as well as stressors) on quality of relationship. The second model regressed depression scores on stressors, coping, quality of relationship, and contextual variables. This model estimated the direct effects of quality of relationship (as well as

stressors and coping) on depression. The third model regressed role submersion scores on stressors, coping, quality of relationship, and contextual variables. This model estimated the direct effects of quality of relationship (as well as stressors and coping) on role submersion. The indirect effect of coping on depression through quality of relationship was estimated by the product of two direct effects: coping on relationship quality and relationship quality on depression. The significance of the indirect effect was tested by the approximate test derived by Sobel (1982). In a parallel fashion, the indirect effect of coping on role submersion through relationship quality was estimated and tested.

The association between stressors and religious/spiritual coping was estimated by regressing religious/spiritual coping on the stressor and contextual variables. Because the religious/spiritual coping variable was ordinal and skewed, the ordinal logit model (McCullagh, 1980) was also used (in addition to the OLS regression) for this analysis.

Results

The estimated path coefficients (standardized) of all the proposed paths in the model are listed in Table 2. The paths with significant regression coefficients ($p < .05$) are displayed in Figure 2. (Significant paths related to the contextual variables are presented in Table 1, but are not shown in Figure 2 for ease of presentation.) We first examined the main focus of this study, which is the effect of religious/spiritual coping on caregiver distress. The hypothesis that religious/spiritual coping affects distress indirectly through quality of relationship was well supported by the data. Religious/spiritual coping had a strong direct positive effect on quality of relationship. Caregivers who used religion or spiritual beliefs to cope with the stress of caregiving were more likely to have a good quality of relationship with the care recipients ($\beta = .24$, $p < .01$). Good quality of relationship was then associated with less depression ($\beta = -.30$, $p < .01$) and lower levels of role submersion ($\beta = -.40$, $p < .001$). Religious/spiritual coping had no direct effect on distress when controlling for relationship quality. These findings support the view that religious/spiritual coping influences psychological distress indirectly through the quality of the relationship between caregivers and care recipients. The indirect effect of religious/spiritual coping on depression was estimated to be –.072 which was the product of the two direct effects: religious/spiritual coping on quality of relationship (.24) and quality of relationship on depression (–.30). The standard error of this indirect effect was estimated to be .035, which was derived from the standard errors of the two direct effects (Sobel, 1982). This indirect effect was determined by a t test to be significantly different from zero ($p < .05$). Similarly, the indirect effect of religious/spiritual coping on role submersion was estimated to be –.096 (.24*–.40) ($p < .05$) with a standard error of .042.

We then examined the other assumption in our conceptual model of a direct association between stressors and religious/spiritual coping. This assumption was not supported by the data: none of the three stressors was associated with religious/spiritual

Table 2. Regression Coefficients[a] of All Proposed Paths

	Dependent Variables			
	Religious/Spiritual Coping	Quality of Relationship	Depression (CES-D)	Role Submersion
Contextual Variables				
Elder age	.02	–.14	–.10	–.09
Elder gender (male)	–.002	–.08	.04	–.004
Caregiver age	.13	.01	.06	.14
Caregiver gender (male)	–.28**	–.12	–.06	–.21*
Coresidence × Relationship				
Non-coresiding offspring	.07	–.02	–.20	.11
Non-coresiding other/nonrelatives	.18	.10	–.25	–.01
Coresiding offspring	.13	.01	–.13	.26
Coresiding other/nonrelatives	.14	.08	–.07	.21
Spouse (reference)				
Stressors				
Functional disability	.16	.07	.20*	.20*
Cognitive impairment	.09	–.16	–.05	–.16
Problem behaviors	.04	–.33***	.11	.16
Coping				
Religious/spiritual coping		.24**	–.11	.17
Intervening Variable				
Quality of relationship			–.30**	–.40***
R^2	.14	.24	..25	.33

[a]Standardized regression coefficients.
*$p < .05$; **$p < .01$; ***$p < .001$.

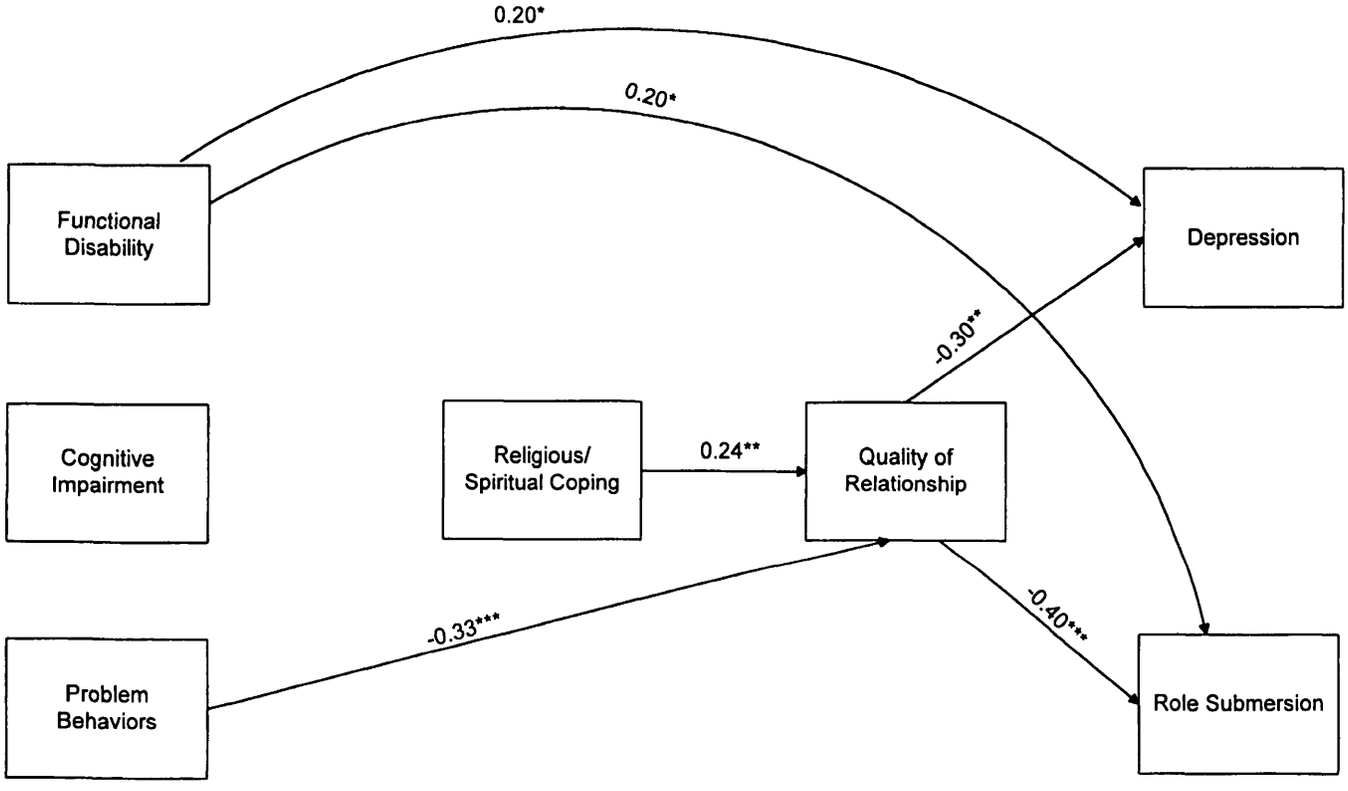

Figure 2. Major significant paths of the model. Significance level: *p < .05; **p < .01; ***p < .001.

coping. To check whether theses findings (based on ordinary least squares regression) were robust against the nonnormality of the religious/spiritual coping variable, the results were compared with those obtained from the ordinal logit model. A similar pattern of findings emerged from this latter model. Some of the stressor variables were, however, related to caregiver distress. Higher levels of elder functional disability were associated with higher levels of depression among caregivers ($\beta = .20$, $p < .05$) and higher levels of role submersion ($\beta = .20$, $p < .05$). These associations were observed after adjusting for religious/spiritual coping and quality of relationship between elders and caregivers. Another stressor, problem behaviors, had positive indirect effects on depression and role submersion through quality of relationship, but this finding should be interpreted with caution because only 11 elders exhibited problem behaviors.

Discussion

In this study, we examined the factors that influence and are influenced by religious/spiritual coping among those providing care for disabled elders. As hypothesized, religious/spiritual coping affected caregivers' psychological distress indirectly through the quality of the relationship between caregivers and care recipients. Caregivers who reported using religious or spiritual beliefs to help them handle the caregiving experience had a better quality of relationship with the care recipients, which was then associated with lower levels of depression and role submersion. These results indicate that the effects of religious/spiritual coping in reducing the level of depressive symptoms and role submersion are mainly attributable to higher relationship quality. As such, the conceptual model proposed and tested here was useful with regard to understanding the association between coping and distress and the ways that relationship quality intervenes in this juncture of the stress process.

However, our conceptual model was less useful with regard to the conditions of caring for a loved one that might influence religious/spiritual coping in that there was no association between stressors and religious/spiritual coping. Although the measure of religious/spiritual coping used in this study ("my religion or spiritual beliefs have helped me handle this whole experience") referred specifically to the caregiving situation, it had no association with what we considered to be the stressors of caregiving. One reason for this finding may be that our single-item indicator taps not a coping mechanism activated in response to the stress of caregiving but rather a more stable or global trait or lifestyle of the caregivers which may not react to stress the way specific behaviors (e.g., praying, attending religious services) might. However, as Koenig et al. (1988) discovered, both the "intrapsychic" (e.g., trust in God) and activity-based (e.g., church activity) aspects of religion are central features of people's descriptions of coping.

As the study of religion and spirituality becomes more prevalent, it is important to ascertain how and

when it influences people's lives, especially because its effects on distress are likely not ubiquitous. This study provides useful albeit preliminary evidence that religion plays a critical role in sustaining human relationships that are often strained by the everyday realities and necessities of providing and receiving care. In addition to its preliminary nature, the study had several limitations that may limit the generalizability of our findings. First, there was a selection bias in the study sample. Many of the participants, both elders and caregivers, were survivors. Although quite disabled, the elders were less impaired and were less likely to have problem behaviors than those who were lost to follow-up due to, for example, death or nursing home placement. Likewise, the caregivers may have been psychologically healthier and may have had better adaptation skills than those who opted out of the role. For example, a post hoc analysis confirmed that caregivers who remained in this final wave of the study reported lower levels of role submersion in an earlier phase of the study than those who later dropped out.

A second limitation was that the measure of religious/spiritual coping used in this study was a single item isolated from a longer scale of meaning in caregiving described elsewhere (Noonan & Tennstedt, 1997). Because understanding religious/spiritual coping was not a primary objective of the parent study, a more comprehensive religion measure was not included in the study's design. And although single item religion/spirituality measures are occasionally used in research (Kennedy, Kelman, Thomas, & Chen, 1996; Levin et al., 1996; Meador et al., 1992), future work should take great caution in these unidimensional measures as recently suggested by Packer (1997) with regard to the measurement of religious participation. Third, the elder and caregiver samples of this study were predominately White. Past research has highlighted the importance of religion in the lives of minority elders and has indicated how race is related to religion and the perceived rewards of caregiving (Picot et al., 1977). The lack of racial/ethnic diversity in our sample may have underestimated the effects of religiosity/spirituality on caregiver psychological distress.

Despite these limitations, this study has indicated the value of incorporating aspects of the "faith factor" in caregiving research, especially as these issues relate to the quality of the relationship between care recipients and care providers. It appears from our results that the religious and spiritual beliefs of caregivers are important factors in understanding their distress, adaptation, and experience of the stress process, and relationship quality is a critical piece of that puzzle. Our findings are also relevant to practitioners who work directly with disabled elders and their informal caregivers. While it might not be desirable or feasible to encourage caregivers to become more religious or spiritual, psychosocial interventions could help them to connect their belief systems to the caregiving experience and to the relationship that is at the center of the care situation. This process might be facilitated by conducting caregiver interventions in collaboration with religious leaders or organizations.

References

Bearon, L. B., & Koenig, H. G. (1990). Religious cognition and use of prayer in health and illness. *The Gerontologist, 30,* 249–253.

Benson, H., Beary, J. F., & Carol, M. P. (1974). The relaxation response. *Psychiatry, 37,* 37–46.

Benson, H., Lehmann, J. W., Malhotra, M. S., Goldman, R. F., Hopkins, J., & Epstein, M. D. (1982). Body temperature changes during the practice of g Tum-mo (heat) yoga. *Nature, 295,* 234–236.

Blazer, D., & Plamore, E. (1976). Religion and aging in a longitudinal panel. *The Gerontologist, 16,* 82–85.

Burr, C. K. (1996). Perinatally transmitted HIV infection: Supporting the helpers. *Nursing Clinics of North America, 31,* 243–251.

Byrd, R. B. (1988). Positive therapeutic effects of intercessory prayer in a coronary care unit population. *Southern Medical Journal, 81,* 826–829.

Caffrey, R. A. (1992). Caregiving to the elderly in Northeast Thailand. *Journal of Cross-Cultural Gerontology, 7,* 117–134.

Chappell, N. (1991). Living arrangement and sources of caregiving. *Journal of Gerontology: Social Sciences, 46,* S1–S8.

Decker, S. D., & Schulz, R. (1985). Correlates of life satisfaction and depression in middle-aged and elderly spinal cord injured persons. *American Journal of Occupational Therapy, 39,* 740–745.

Delgado, M. (1996). Religion as a caregiving system for Puerto Rican elders with functional disability. *Journal of Gerontological Social Work, 26,* 119–124.

Draper, B. M. (1996). Risk factors for stress in elderly caregivers. *International Journal of Geriatric Psychiatry, 11,* 227–231.

Dudley, M. G., & Kosinski, F. A. (1990). Religiosity and marital satisfaction: A research note. *Religious Research, 32,* 78–86.

Ellison, G. C. (1991). Religious involvement and subjective well-being. *Journal of Health and Social Behavior, 32,* 80–99.

Folkman, S., Chesney, M. A., Cooke, M., Boccellari, A., & Collette, L. (1994). Caregiving burden in HIV-positive and HIV-negative partners of men with AIDS. *Journal of Consulting and Clinical Psychology, 62,* 746–756.

Fulton, R. A., & Moore, C. M. (1995). Spiritual care of the school-age child with chronic condition. *Journal of Pediatric Nursing, 10,* 224–231.

Giuliano, A. J., Mitchell, R. E., Clark, P. G., Harlow, L. L., & Rosenbloom, D. (1990, June). *The meaning in caregiving scale: Factorial and conceptual dimensions.* Poster session presented at the second annual convention of the American Psychological Society, Dallas, Texas.

Guberman, N., Maheu, P., & Maillé, C. (1992). Women as family caregivers: Why do they care? *The Gerontologist, 32,* 607–617.

Guy, R. F. (1982). Religion, physical disabilities, and life satisfaction in older age cohorts. *International Journal of Aging and Human Development, 15,* 225–232.

Hadaway, C. K., & Roof, W. C. (1978). Religious commitment and the quality of life in American society. *Review of Religious Research, 19,* 295–307.

Hoffman, J. W., Benson, H., Arns, P. A., Stainbrook, G. L., Landsberg, L., Young, J. B., & Gill, A. (1982). Reduced sympathetic nervous system responsivity associated with the relaxation response. *Science, 215,* 190–192.

Hunsberger, B. (1985). Religion, age, life satisfaction, and perceived sources of religiousness: A study of older persons. *Journal of Gerontology, 40,* 615–620.

Johnson, S. C., & Spilka, B. (1991). Coping with breast cancer: The roles of clergy and faith. *Journal of Religion and Health, 30,* 21–33.

Kaye, J., & Robinson, K. M. (1994). Spirituality among caregivers. *Image: Journal of Nursing Scholarship, 26,* 218–221.

Kendall, J. (1994). Wellness spirituality in homosexual men with HIV infection. *Journal of the Association of Nurses in AIDS Care, 5,* 28–34.

Kennedy, G. J., Kelman, H. R., Thomas, C., & Chen, J. (1996). The relation of religious preference and practice to depressive symptoms among 1,855 older adults. *Journal of Gerontology: Psychological Sciences, 51B,* 301–308.

Koenig, H. G., George, L. K., & Siegler, I. C. (1988). The use of religion and other emotional-regulating coping strategies among older adults. *The Gerontologist, 28*(3), 303–310.

Koenig, H. G., Kvale, J. N., & Ferrel, C. (1988). Religion and well-being in later life. *The Gerontologist, 28,* 18–28.

Koenig, K. G., Siegler, I. C., Meador, K. G., & George, L. K. (1990). Religious coping and personality in later life. *International Journal of Geriatric Psychiatry, 5,* 123–131.

Lawrence, R. H., Tennstedt, S. L., & Assmann, S. F. (1998). Quality of the caregiver-care recipient relationship: Does it offset negative consequences of caregiving for family caregivers? *Psychology and Aging, 13,* 150–158.

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

Levin, J. S. (1994). Religion and health: Is there an association, is it valid, and is it causal? *Social Science & Medicine, 38,* 1475–1482.

Levin, J. S., Chatters, L. M., & Taylor, R. J. (1995). Religious effects on health status and life satisfaction among Black Americans. *Journal of Gerontology: Social Sciences, 50B,* S154–S163.

Levin, J. S., Markides, K. S., & Ray, L. A. (1996). Religious attendance and psychological well-being in Mexican Americans: A panel analysis of three-generations data. *The Gerontologist, 36,* 454–463.
Levin, J. S., & Schiller, P. L. (1987). Is there a religious factor in health? *Journal of Religion and Health, 26,* 9–36.
Levin, J. S., & Taylor, R. J. (1993). Gender and age differences in religiosity among Black Americans. *The Gerontologist, 33,* 16–23.
Leyser, Y. (1994). Stress and adaptation in orthodox Jewish families with a disabled child. *American Journal of Orthopsychiatry, 64,* 376–385.
Mangen, D. J., Bengtson, V. L., & Landry, P. H. E. (1988). *Measurement of intergenerational relations.* Beverly Hills: Sage.
Marcoen, A. (1994). Spirituality and personal well-being in old age. *Aging and Society, 14,* 521–536.
Matthews, D. A., Larson, D. B., & Barry, C. P. (1993). *The faith factor: An annotated bibliography of clinical research on spiritual subjects.* Rockville, MD: National Institute for Health Care Research.
McCullagh, P. (1980). Regression models for ordinal data. *Journal of the Royal Statistical Society, Series B, 42,* 109–142.
Meador, K. G., Koenig, H. G., Hughes, D. C., Blazer, D. G., Turnbull, J., & George, L. K. (1992). Religious affiliation and major depression. *Hospital & Community Psychiatry, 43,* 1204–1208.
Montgomery, C. L. (1991). The caregiving relationship: Paradoxical and transcendent aspects. *The Journal of Transpersonal Psychology, 23,* 91–104.
Morris, J., Sherwood, S., & Mor, V. (1984). An assessment tool for use in identifying functionally vulnerable persons in the community. *The Gerontologist, 24,* 373–379.
Mui, A. C. (1992). Caregiver strain among Black and White daughter caregivers: A role theory perspective. *The Gerontologist, 32,* 203–212.
Muthny, F. A., Bechtel, M., & Spaete, M. (1992). Lay etiologic theories and coping with illness in severe physical disease. An empirical comparative study of female myocardial infarct, cancer, dialysis and multiple sclerosis patients. *Psychotherapie, Psychosomatik, Medizinische Psychologie, 42*(2), 41–53.
Noonan, A. E., & Tennstedt, S. L. (1997). Meaning in caregiving and its contributions to caregiver well-being. *The Gerontologist, 37,* 785-794.
Packer, S. (1997). Letter to the editor. *Journal of Gerontology: Psychological Sciences, 52B,* 156–157.
Pearlin, L. I., Mullan, J. T., Semple, S. J., & Skaff, M. M. (1990). Caregiving and the stress process: An overview of concepts and their measures. *The Gerontologist, 30,* 583–594.
Pedhazur, E. J. (1982). *Multiple regression in behavioral research: Explanation and prediction.* New York: Holt, Rinehart, and Winston.
Pfeiffer, E. (1975). A Short Portable Mental Status Questionnaire for the assessment of organic brain deficit in elderly patients. *Journal of the American Geriatrics Society, 23,* 433–441.
Picot, S. J., Debanne, S. M., Namazi, K. H., & Wykle, M. L. (1997). Religiosity and perceived rewards of Black and White caregivers. *The Gerontologist, 37,* 89–101.
Poloma, M. M., & Pendleton, B. F. (1989). Religious domains and general well-being. *Social Indicators Research, 22,* 1–22.
Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1,* 385–401.
Salts, C. J., Denham, T. E., & Smith, T. A. (1991). Relationship patterns and role of religion in elderly couples with chronic illness. *Journal of Religious Gerontology, 7,* 41–54.
Schumm, W. R., Bollman, S. R., & Jurich, A. P. (1982). The "marital conventionalization" argument: Implications for the study of religiosity and marital satisfaction. *Journal of Psychology and Theology, 10,* 236–241.
Shehan, C. L., Bock, E. W., & Lee, G. R. (1990). Religious heterogamy, religiosity, and marital happiness: The case of Catholics. *Journal of Marriage and the Family, 52,* 37–39.
Shrout, P. E., & Yager, T. J. (1989). Reliability and validity of screening scales: Effect of reducing scale length. *Journal of Clinical Epidemiology, 42,* 69–78.
Skaff, M. M., & Pearlin, L. I. (1992). Caregiving: Role engulfment and loss of self. *The Gerontologist, 32,* 656–664.
Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equations models. In S. Leinhart (Ed.), *Sociological methodology* (pp. 290–312). San Francisco: Jossey-Bass.
Taylor, R. J. (1986). Religious participation among elderly Blacks. *The Gerontologist, 26,* 630–636.
Tennstedt, S. L., Crawford, S., & McKinlay, J. B. (1993). Determining the pattern of community care: Is coresidence more important than caregiver relationship? *Journal of Gerontology: Social Sciences, 48,* S74–S83.
Wheaton, B. (1985). Models for the stress-buffering functions of coping resources. *Journal of Health and Social Behavior, 26,* 352–364.
Witter, R. A., Stock, W. A., Okun, M. A., & Haring, M. J. (1985). Religion and subjective well-being in adulthood: A quantitative synthesis. *Review of Religious Research, 26,* 332–342.
Yates, M. E., Tennstedt, S., Chang B. (1997). Contributors to and mediators of psychological well-being for informal caregivers. Manuscript submitted for publication.

Received July 2, 1997
Accepted April 3, 1998