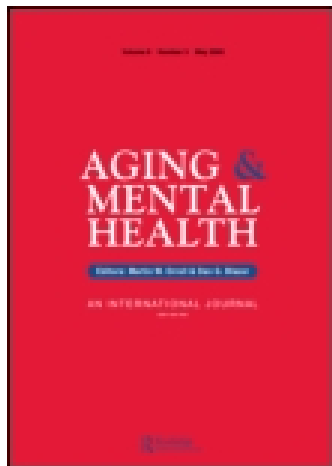


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### Psychosocial factors and caregivers' distress: Effects of familism and dysfunctional thoughts

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## Psychosocial factors and caregivers' distress: Effects of familism and dysfunctional thoughts

Andrés Losada<sup>a\*</sup>, María Márquez-González<sup>b</sup>, Bob G. Knight<sup>c</sup>, Javier Yanguas<sup>d</sup>, Philip Sayegh<sup>e</sup> and Rosa Romero-Moreno<sup>f</sup>

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**Introduction:** Caring for a relative with dementia is linked with negative psychological and physical consequences for the caregiver. The number of studies analyzing the influence of specific values and thoughts on caregivers' distress remains sparse.

**Objectives and method:** The aim of this study is to analyze the influence of both familism dimensions and dysfunctional thoughts specific to caregiving on depression in a sample of 334 dementia caregivers.

**Results:** The results of this study suggest that familism can have positive influences on caregiving distress when the family is perceived as a source of support. However, the dimensions of familism pertaining to a strong adherence to values regarding both feelings of obligation to provide support as well as behaviors and attitudes that should be followed by different members of a family were linked with caregivers' distress through their influence on dysfunctional thoughts.

**Conclusion:** This study provides support for the importance of conceptualizing familism as a multidimensional construct with both positive and negative effects on caregivers' emotional distress and suggests that familism affects emotional distress through dysfunctional thoughts rather than through burden appraisals. Clinical implications include attending to both the positive and negative effects of familism values and the potential value of targeting dysfunctional thoughts in cognitive-behavioral interventions with caregivers.

**Keywords:** caregiving; dementia; depression; social support; stress and coping

### Introduction

Caring for a relative with dementia is linked to negative psychological and physical consequences for the caregiver (e.g., Pinquart & Sörensen, 2003a; Vitaliano, Zhang, & Scanlan, 2003). Longitudinal data have shown that older spousal caregivers who experienced caregiver strain had mortality risks that were 63% higher than noncaregiving controls (Schulz & Beach, 1999). Given the prolonged life expectancy of Alzheimer's disease patients (e.g., Larson et al., 2004) and the significant number of hours that caregivers devote daily to caregiving duties (Weiss, González, Kabeto, & Langa, 2005), it is not surprising that caregiving has been described as a chronic stressor that imposes significant consequences for caregivers' lives and health (Vitaliano, Young, & Zhang, 2004).

### Culture and the stress and coping model

Theoretical models based on Lazarus and Folkman's (1984) stress and coping model have been adapted to caregiving (e.g., Haley, Levine, Brown, & Bartolucci, 1987; Pearlin, Mullan, Semple, & Skaff, 1990). Caregiving stressors (e.g., care recipient cognitive or functional status) and outcomes (e.g., depression) are

two of the dimensions included in this model. The degree to which caregiving stressors affect caregiver outcomes may vary depending on both how caregivers appraise the stressors (i.e., more or less burdensome) and the influence of mediating variables (e.g., social support, coping skills). According to Lazarus and Folkman (1984), a realistic and adaptive perception of reality is critical for appropriate functioning in and adjustment to everyday situations. This is the point where this theoretical model merges with Aaron T. Beck's cognitive theory (e.g., Beck, Rush, Shaw, & Emery, 1979), which states that, as it will be later discussed, a maladaptive way of thinking (e.g., dysfunctional thoughts) will have negative influences on behavioral and affective responses of individuals.

A more recent adaptation of the stress and coping model, the sociocultural stress and coping model, was developed by Knight and colleagues (e.g., Aranda & Knight, 1997; Knight, Silverstein, McCallum, & Fox, 2000; Knight et al., 2002), which posits that ethnicity and culture may also play a significant role in the stress and coping process. According to this model, it is hypothesized that culture may have a beneficial impact on well-being through its influence on the appraisal of stressors and the perception of social support.

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The number of studies that include ethnicity and culture as relevant variables that may influence caregiving has grown in recent years, and the need for research studies on cultural values, beliefs, and norms has been pointed out (Dilworth-Anderson, Williams, & Gibson, 2002). Although the number of studies analyzing specific cultural values remains sparse in the caregiving literature (Pinquart & Sörensen, 2005), one of the cultural values that has received more attention is familism (e.g., John, Resendiz, & de Vargas, 1997; Shurgot & Knight, 2005), which is known to be a core value for Hispanics (Aranda & Knight, 1997). Familism has been defined as 'a strong identification and attachment of individuals and their families (nuclear and extended), and strong feelings of loyalty, reciprocity, and solidarity among members of the same family, (Sabogal, Marín, Otero-Sabogal, Marín, & Perez-Stable, 1987, p. 398).

Coon et al. (2004) suggested that given the shared importance of the family and the reciprocity and solidarity that is included in the construct of familism, it would appear intuitive to predict positive influences of familism on caregiving distress. However, the existing studies in the caregiving field have reported mixed results with regard to the effects of familism. In a study involving a sample of Latino caregivers living in Los Angeles, California, Robinson and Knight (2004) found that caregivers with higher scores on familism had lower scores on burden. Using focus groups, John et al. (1997) also concluded that although burden was present in their caregiver sample, familism was seen as a positive resource for caregivers. A similar finding was reported in a study by Scharlach et al. (2006) that also involved focus groups, which concluded that 'family-centered cultural norms also provided a context for positive perceptions of the caregiving experience' (p. 149). In their study, caregiving was usually described as a source of personal satisfaction and emotional fulfillment, whereas strain and burden were rarely mentioned.

In contrast to these findings, other studies have reported results suggesting a negative influence of familism on caregiving distress. For example, Youn, Knight, Jeong and Benton (1999) found that familism did not in fact have a protective effect on caregiving distress. Shurgot and Knight (2005) found a negative link between familism and perceived positive support. Cox (1995) reported that adherence to the belief that children should be available to perform tasks for parents was related with depression. Similarly, Losada et al. (2006b) found that higher scores on familism were related to higher scores on depressive symptomatology. Kim, Knight and Flynn Longmire (2007) studied the role of familism in the stress and coping model and found no direct relation between familism and distress (depression and psychological symptoms), although an indirect effect of familism on these variables was found through avoidant coping. Moreover, caregivers with higher scores on familism were significantly more likely to use avoidant coping styles.

More recently, Rozario and DeRienzi (2008) found that having strong beliefs of familism, operationalized as 'sociocultural beliefs of caregiving' (p. 778), predisposed caregivers to higher levels of depression and perceived stress.

Although these studies differ in their findings, they share the characteristic of having studied familism in a unidimensional fashion in spite of the fact that familism has been suggested to be a multidimensional construct. In a study aimed at analyzing the relation between familism and acculturation in a noncaregiver sample, Sabogal et al. (1987) performed an exploratory factor analysis and found a three factor solution for familism (familial obligations, perceived support from the family, and family as referents) that has been recently supported through a confirmatory factor analysis by Losada et al. (2008a) in a caregiving sample.

In addition to the studies suggesting a need to attend to the multifactorial nature of familism, the research on familism's role in the stress and coping model has generally not confirmed Aranda and Knight's (1997) expectation that familism would affect physical and mental health outcomes through its effect on the appraisal of burden (Knight & Kim, 2005; Knight & Sayegh, in press). This finding raises the question of how cultural values influence the stress and coping process. In the next section, we draw upon cognitive-behavioral theories to focus on dysfunctional thoughts about caregiving as a more specific mediator of the influence of cultural values on the stress and coping process among family caregivers. The examination of the effects of both cultural values and cognitive variables such as dysfunctional thoughts on caregivers' distress has not yet been studied in the caregiving research field and may provide more insight into how these variables potentially interact in the stress and coping process for caregivers.

### *Dysfunctional thoughts and caregiving*

According to Beck's empirically supported cognitive theory for depression (Beck et al., 1979), people's life experiences, including cultural experiences, shape their cognitive system, thereby determining their basic beliefs or schemata. Drawing upon this theory, it is presumable that rigid or unrealistic beliefs would be related to distress (e.g., depression), because cognitive schemata can establish inflexible and inappropriate contingencies that guide behavior (Beck et al., 1979; Halamandaris & Power, 1997). Specifically, dysfunctional thoughts may increase the likelihood of experiencing depressive symptomatology when stressful events make it difficult for a person to effectively respond to his or her rigid or unrealistic beliefs (Kuiper, Olinger, & Air, 1989).

The number of studies that have analyzed dysfunctional thoughts in caregiving is sparse. In a study with Alzheimer's caregivers, McNaughton, Patterson, Smith and Grant (1995) found that general irrational

beliefs were positively associated with depression, external locus of control, and poorer health. In a 6-month follow-up of their study sample, these authors found that a lower adherence to the assessed irrational beliefs was associated with improvement of perceived physical health. A similar pattern of results was found by Stebbins and Pakenham (2001) in a study involving caregivers of people with traumatic brain injury. Specifically, they found that adherence to irrational beliefs such as rigidity or demand for approval had significant associations with negative outcome variables such as depression, anxiety, or hostility. However, it must be pointed out that these studies analyzed the cognitive variables through general scales and items (e.g., 'I am no good unless I am all things to everyone') that were not adapted to specific caregiving situations. The importance of these cognitive variables has also been considered in intervention studies that have included the reduction or softening of negative thoughts that are often found in caregiving situations as a main target of their interventions (Burgio, Stevens, Guy, Roth, & Haley, 2003; Gallagher-Thompson et al., 2003; Márquez-González, Losada, Izal, Pérez-Rojo, & Montorio, 2007).

The aim of this study is to analyze, drawing upon the sociocultural stress and coping model, the influence of familism dimensions and dysfunctional thoughts specific to caregiving on depression. First, we hypothesized positive associations between two of the Sabogal et al. (1987) familism scale factors (Familial Obligations and Family as Referents) and dysfunctional thoughts about caregiving. We predicted these associations because a strong adherence to the beliefs that underlie these values (obligation to provide support, and behaviors and attitudes that should be followed by different members of a family) implies ways of facing caregiving that hamper an adaptive coping style with caregiving demands. Second, considering both the sociocultural stress and coping model and the theoretical postulates of cognitive theory, we expected positive and significant associations between these dimensions (familial obligations, family as referents and dysfunctional thoughts about caregiving) and depression. Finally, with respect to the familism factor that encompasses familial support, we hypothesized a protective role with regard to caregivers' emotional distress that would tap the positive dimension of caregiving posited in much of the literature on caregiving. Exploring the relations between these variables and analyzing their role in the stress and coping model adapted to caregiving (e.g., Haley et al., 1987; Knight et al., 2000) will enhance the understanding of the caregiving process and its outcomes for caregivers.

## Method

### Participants

The sample was composed of 334 caregivers of relatives with dementia from Madrid and San Sebastián,

Spain living in the community. Caregivers were recruited through announcements in social and health care centers and the media (newspapers, radio, and television) in order to participate in a larger study aimed at both analyzing the influence of psychosocial variables on caregivers' distress and testing the efficacy of a psycho-educative intervention (Losada et al., 2008b). Once located, a first interview was done by telephone in order to confirm that volunteers were primary caregivers of family members with dementia. In order to participate in the study, caregivers needed to identify themselves as the primary source of help for their relatives and report devoting more than 1 hour per day to caregiving duties for more than 3 months. The data used in this study came from baseline assessments conducted before the implementation of the psycho-educative intervention trial. Nondementia caregivers were excluded from the study. Caregivers provided their consent to participate in the study. Both the Spanish Ministry of Education and the Ethical Committee from the Universidad Rey Juan Carlos gave their approval for the study.

### Measures

Face-to-face interviews were conducted with the caregivers. All of the assessments were performed by trained psychologist interviewers who were blind to the study objectives. The following variables were assessed.

### Demographic information

Data about the caregivers' sex, age, time since being a caregiver, number of daily hours devoted to caregiving duties, relationship to the care-recipient, and care-recipients' illness (Alzheimer's disease or other type of dementia) were collected through the first telephone contact with the caregivers.

### Familism

Familism was measured by a version of the the Familism Scale (Sabogal et al., 1987) that was validated in a confirmatory factor analysis by Losada et al. (2008a) using an independent caregiving sample from this study. This scale has nine items answered on a five-point Likert-type scale ranging from 1 ('strongly disagree') to 5 ('strongly agree') that measure three factors: 'familial obligations,' composed of two items (e.g., 'Aging parents should live with their relatives'); 'perceived support from the family,' composed of three items (e.g., 'When someone has problems, s/he can count on help from his/her relatives'); and 'family as referents,' composed of four items (e.g., 'children should live in their parents' house until they get married'). Acceptable fit indices were found for this scale in the confirmatory factor analysis (e.g., CFI = 0.96; RMSEA = 0.06; Losada et al., 2008a). In this study, adequate internal consistency (Cronbach's alpha) was found for the total scale



(0.78), while values of 0.60, 0.70, and 0.82 were found for the familial obligations, perceived support from the family, and family as referents factors, respectively.

#### *Dysfunctional thoughts about caregiving*

The dysfunctional thoughts about caregiving questionnaire (DTCQ; Losada, 2005; Losada et al., 2006a) is a 16-item measure developed following cognitive-behavioral principles that assesses caregivers' thoughts that may act as barriers or obstacles to an adaptive coping style with regard to caregiving (e.g., 'A good caregiver should never get mad or lose control with the person who is being cared for'). Responses are coded on a Likert scale that ranges from 0 ('totally disagree') to 4 ('totally agree'). In this questionnaire's development study (Losada, 2005; Losada et al., 2006a), this scale showed a 3-month test-retest reliability of 0.60 and a correlation of 0.59 with a brief version of the Dysfunctional Attitudes Scale developed by Andrews, Lewinsohn, Hops, and Roberts (1993). Good internal consistency was found for this scale in this study (Cronbach's  $\alpha = 0.90$ ).

#### *Social support*

The psychosocial support questionnaire (PSQ; Reig, Ribera, & Miquel, 1991) was used to measure social support. This questionnaire has six items (e.g., 'My friends or/and relatives pay me visits at home,' 'When I need it, there is always someone to encourage me and show affection') that were used to assess caregivers' perceptions of the frequency of social, emotional, and instrumental support they receive. The answers range from 0 ('never') to 3 ('very often'). Adequate internal consistency was found for this scale in this study (Cronbach's  $\alpha = 0.78$ ).

#### *Burden*

The Zarit burden interview, perhaps the most widely used burden measure in caregiving studies, was administered to assess burden in caregivers (Zarit, Reever, & Bach-Peterson, 1980). This measure is composed of 22 items (e.g., 'Do you feel that your social life has suffered because you are caring for your relative?') that are scored on a 5-point Likert scale ranging from 0 ('never') to 4 ('nearly always'). The internal consistency (Cronbach's  $\alpha$ ) for this scale in this study was 0.88.

#### *Depression*

Caregivers' depression was measured using the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977), which is a widely used scale in caregiving research. It is a 20-item measure that assesses depressive symptomatology (e.g., 'I felt sad') with answers ranging from 0 ('rarely or none of the time (less than 1 day)') to 3 ('most or all of the time

(5–7 days)'). An internal consistency (Cronbach's  $\alpha$ ) of 0.90 was found for this scale in this study.

#### *Data analysis*

An analysis of the presence of univariate and multivariate outliers as well as a test for normality in the distribution of the analyzed variables was done following Tabachnick and Fidell's (1996) criteria. Following the suggestions by McDonald and Ho (2002), an analysis of the correlations between the variables included in the study was performed prior to the analysis of the goodness-of-fit of the tested model, along with the description of means and standard deviations (SDs) for the assessed variables. SPSS 15.0 software was used for all of these analyses. The relations between the assessed variables were tested by examining the fit of the path model derived from the sociocultural stress and coping model (Knight et al., 2000, 2002) and the cognitive theory (e.g., Beck et al., 1979) using the different factors that compose the familism construct. Initially, drawing upon previous studies that have shown significant (positive or negative) associations between familism and caregivers' distress (e.g., Knight et al., 2002; Losada et al., 2006a), both direct and indirect paths between the familism factors and burden and depression were posited. In a similar fashion, paths between each of the familism factors and dysfunctional thoughts about caregiving were also tested, following our hypothesis that predicted that a strong adherence to familism values imposes rigid constraints to an adequate coping style with regard to caregiving. Paths between the perceived support from the family and the family as referents familism factors and social support were also traced, considering that perceiving other relatives as possible providers of help and support would likely be linked with higher perceptions of general social support by the caregivers. In addition, paths were traced between burden and social support and depression in accordance with the sociocultural stress and coping model (Knight et al., 2000, 2002). Finally, following the model generating strategy (Joreskog, 1993), only significant associations between variables were included in the final model. AMOS 6.0 software was used for conducting path analyses.

## **Results**

### *Normality, outliers, and sample characteristics*

Skewness and kurtosis were within the expected values. Neither univariate ( $z$  scores higher than 3.29,  $p < 0.001$ ) nor multivariate (Mahalanobis distance =  $p < 0.001$ ) outliers were found. The socio-demographic characteristics of the sample are shown in Table 1. Most of the caregivers were women and were caring for relatives with Alzheimer's disease.

### Correlational analysis

As can be seen in Table 2, similar associations to those pointed out in the literature (e.g., Pinquart & Sörensen, 2003b, 2007) were found between both depression and burden, and between these two variables and social support. Although the level of association with social support was low, higher scores on social support were significantly associated with lower scores on both depression and burden.

Consistent with our first hypothesis, caregivers with higher scores on dysfunctional thoughts had higher scores on all of the familism factors (familial obligations, perceived support from the family, and family as referents). Regarding our second hypothesis, a significant association between dysfunctional thoughts about caregiving and depression was found. Specifically, those caregivers with higher scores on dysfunctional thoughts reported higher scores on depression. However, different patterns of associations between the familism factors and depression were found: while the familial obligations factor positively correlated significantly with depression in the expected direction (caregivers with higher scores on familial obligations reported higher scores on depression), no significant association between the family as referents

factor and depression was found. Therefore, this result provides partial support to our second hypothesis, given that a significant association was expected between the family as referents factor and depressive symptomatology.

Finally, regarding our third hypothesis, two of the familism factors (perceived support from the family and family as referents) were both significantly linked with caregivers' perception of social support. Specifically, higher scores on these two familism factors were associated with higher scores on social support. While the positive association between the perceived support from the family factor and social support was hypothesized, the association between the factor family as referents and social support was not hypothesized.

### Path analysis

Considering the obtained correlations, the relations between the assessed variables were tested by examining the fit of the path model derived from the sociocultural stress and coping model and the cognitive theory, as was described in the analysis section. The obtained model (Figure 1; standardized weights are shown on the arrows) explained 39% of the variance in caregivers' depressive symptomatology. Unstandardized regression weights as well as the standard errors (SEs) obtained are shown in Table 3. Considering the sample size and the obtained  $\chi^2$  value (15.53;  $df=11$ ;  $p=0.16$ ), the fit of the model to the data seems adequate. This result is supported by other goodness-of-fit indices that suggest a very good fit of the model to the obtained data: chi-square to degrees of freedom:  $\chi^2/df=1.41$  (values under 3.0 are indicative of good fit (e.g., Hu & Bentler, 1999)); root mean square error of approximation: RMSEA = 0.04 (values for RMSEA up to 0.08 are representative of reasonable errors of approximation in the population (Browne & Cudeck, 1993)); incremental fit index: IFI = 0.99; comparative fit index: CFI = 0.99; and Tucker-Lewis index: TLI = 0.98 [values for these indices higher than 0.95 are indicative of good fit (e.g., Hu & Bentler, 1999)].

The associations that were found through the path model were similar to those found through the correlational analysis. Again, our first hypothesis was

Table 1. Sample characteristics.

	<i>n</i>	%	M	SD	Range
Caregiver age	334		58.55	12.94	28–85
Caregiver gender					
Female	260	77.8			
Male	74	22.2			
Daily hours caring			11.73	8.13	1–24
Time caring (in months)			45.30	41.62	3–312
Care-receiver					
Spouse	122	36.5			
Parent	190	56.9			
Other relative (father-in-law, mother-in-law, aunt, etc.)	22	6.6			
Relative's illness					
Alzheimer's disease	222	66.5			
Other	112	33.5			

Table 2. Correlations, means, and SDs of the assessed variables.

Scale	1	2	3	4	5	6	Mean	SD	Range
1. Depression							18.38	11.63	0–55
2. Burden	0.59**						29.28	15.00	0–70
3. Social support	−0.16**	−0.12*					9.56	4.16	0–18
4. Dysfunctional thoughts	0.14**	−0.06	0.01				28.12	13.75	0–63
5. Familial obligations	0.15**	0.02	0.06	0.38**			6.51	1.36	3–8
6. Perceived support from the family	0.09	0.03	0.19**	0.21**	0.32**		9.26	1.93	3–12
7. Family as referents	0.10	−0.01	0.13*	0.43**	0.35**	0.17**	9.37	4.18	0–16

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ .

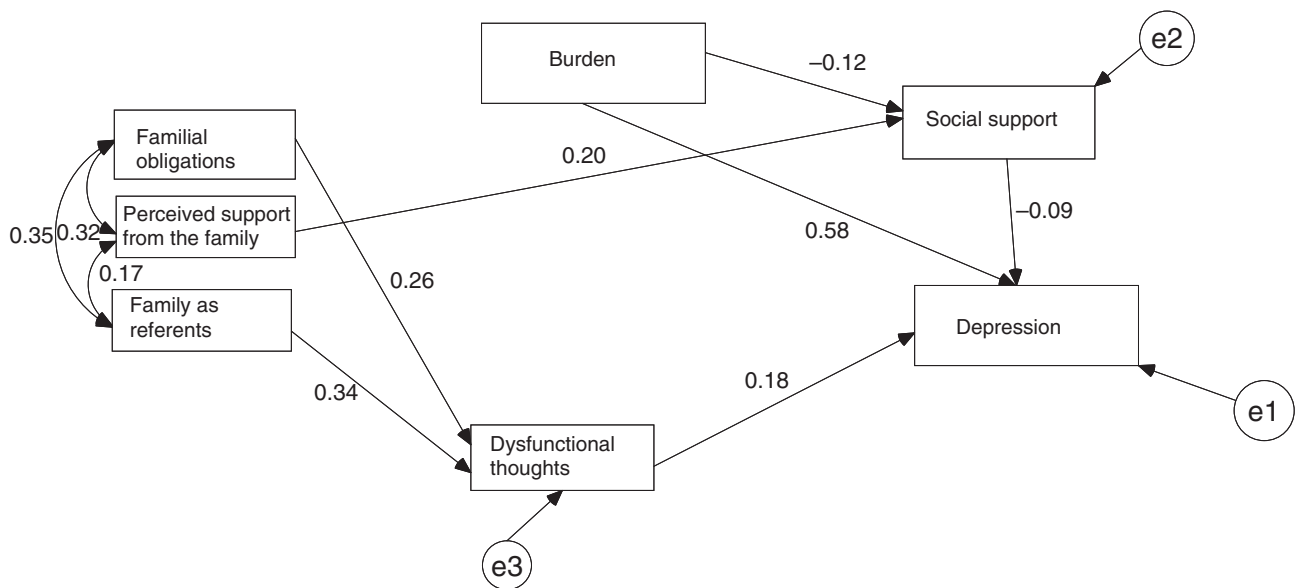


Figure 1. Tested model: standardized regression weights between variables.

Table 3. Unstandardized regression weights.

		Estimate	SE	CR
Familial obligations	→ Dysfunctional thoughts	2.632**	0.513	5.134
Perceived support from the family	→ Social support	0.427**	0.115	3.706
Family as referents	→ Dysfunctional thoughts	1.119**	0.167	6.693
Dysfunctional thoughts	→ Depression	0.152**	0.036	4.171
Social support	→ Burden	-0.035*	0.015	-2.344
Burden	→ Depression	0.456**	0.034	13.566
Social support	→ Depression	-0.243*	0.121	2.011
Familial obligations	↔ Perceived support from the family	0.847**	0.151	5.609
Family as referents	↔ Perceived support from the family	1.397**	0.447	3.124
Familial obligations	↔ Family as referents	2.015**	0.331	6.096

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ .

confirmed, given that significant and positive associations were found between the familism factors familial obligations and family as referents with dysfunctional thoughts. Partial support was obtained for the second hypothesis. With all variables considered simultaneously, no direct association between the familism factor familial obligations and depression was found through the path analysis. The association of the familism factors familial obligations and family as referents with depression were indirect through dysfunctional thoughts about caregiving. Given that in the correlational analysis the factor familial obligations correlated significantly with depressive symptomatology, mediation was tested following Baron and Kenny (1986) procedure. Once the dysfunctional thoughts variable was controlled, the effect of familial obligations was not reduced, suggesting that there was no mediation effect. Finally, our third hypothesis was confirmed, given that a positive association between the familism factor perceived support from the family and social support was found, and a negative and

significant association between this latter variable and depressive symptomatology was also found. The inclusion of socio-demographic factors in the model (e.g., caregivers' sex, length of time caring, hours caring, relationship with the care recipient) did not change either the associations among the variables in the model or the amount of explained variance in caregivers' depressive symptomatology and were thus not included in this final path model.

## Discussion

The main objective of this study was to analyze the role of cultural (familism) and cognitive (dysfunctional thoughts about caregiving) variables on depression in the empirically supported sociocultural stress and coping model (Knight et al., 2000, 2002).

As hypothesized, an association among the familial obligations and family as referents factors and dysfunctional thoughts was found. These results are consistent with the theoretical principles of the

cognitive theory of depression (Beck et al., 1979). In the description of these principles, cultural values play a major influence in the development of belief systems (e.g., McLean & Anderson, 1998). A maladaptive way of thinking (e.g., rigid or unrealistic) has been pointed out as an important factor in the etiology, maintenance, and course of different psychological disorders (Shafran, Cooper, & Fairburn, 2002). Considering our second hypothesis, the association found between familism factors and dysfunctional thoughts on one side and the relation between dysfunctional thoughts and depression on the other seems to provide empirical support for these theoretical assumptions in caregiving. Thus, our results suggest that having a strong reliance on the value that the family 'comes first' when considering caregiving issues may have negative influences on caregivers. As was suggested by Cox (1995) and Losada et al. (2006b), having this value in a context that prevents providing family care 'as it should be done in a family' may increase distress for caregivers. The results suggest that endorsing the values of familial obligations or family as referents may affect caregivers' depression by increasing the likelihood that caregivers activate maladaptive cognitive schema when appraising caregiving (e.g., 'When a person takes care of a sick relative, he should set aside his interests, and dedicate himself completely to the care of the relative'). These results also provide support for the importance of considering familism in a multidimensional fashion and provide a possible explanation for the contradictory results regarding familism values in the literature on caregiving.

In terms of the sociocultural stress and coping model, the results of this study provide data that replicate the results of other studies that have used this model (e.g., Knight et al., 2000). These results are also similar to those reported by Kim et al. (2007) in that the effects of familism on caregivers' distress seem to operate through variables such as avoidant coping or dysfunctional thoughts that have been shown in the psychological and caregiving literature to have negative influences on distress (e.g., Gottlieb & Wolfe, 2002). The observed association between the familism factor familial obligations and dysfunctional thoughts supports Kim et al.'s (2007) conclusion that familism 'may represent obligation more than positive feelings about family support' (p. 573).

However, with regard to our third hypothesis, our results also suggest a possible competing positive influence of familism on caregiving distress. When analyzing the familism factor perceived support from the family, a positive association between this variable and social support was found, and social support showed a negative significant association with depression. The items that compose this factor (Losada et al., 2008a; Sabogal et al., 1987) measure caregivers' beliefs about the family as a reliable source of support and,

contrary to the items that compose the familial obligations and family as referents factors, they do not include words or contents suggesting rigid rules or beliefs (e.g., 'one should...' or 'children should...'). These results suggest that familism can have indirect positive influences on caregiving distress when considering the role of the family as a source of support in contrast to the negative influences due to familial obligations and family as referents.

Other usually reported findings under the stress and coping framework were also found in this study. The buffering role of social support on caregiving distress was supported by the results of this study, as was the linkage of burden with the report of higher depressive symptoms by caregivers.

Although this study involved a large sample, the use of both a convenience sample and self-report measures may limit the generalizability of the results. In addition, considering the large number of variables that affect caregiving, future studies should test whether the effects of familism and dysfunctional thoughts on caregiving distress may be mediated by variables not measured in this study. For example, the effects of dysfunctional thoughts on caregivers' behaviors (e.g., behavioral activation or help seeking) or other cultural values could potentially have contributed to a greater explanation of caregivers' distress. Additionally, the direction of relations described should be considered with caution given the cross-sectional design of this study. For example, although burden has usually been considered a measure of caregivers' appraisal of the stressful nature of caregiving that theoretically affects coping strategies (e.g., Knight et al., 2000), the cross-sectional design of our study prohibits us from rejecting the possibility of social support or depressive feelings having an influence on burden. A longitudinal analysis of the influence of cultural and cognitive variables on caregiving distress would allow for a better understanding of the relation between the variables examined in this study.

Nonetheless, the results of this study provide support for the importance of including both cultural and cognitive variables, specifically the underlying dimensions that comprise the cultural value of familism and dysfunctional thoughts, in the analysis of caregiving distress under the sociocultural stress and coping framework. Although further research is clearly needed, this study suggests that cultural values influence the stress and coping process through maladaptive cognitive thoughts rather than through the more global appraisal of caregiving reflected in the Zarit burden interview (Zarit et al., 1980). Considering the negative impact of caregiving on caregivers' health and the significant associations found in this study between familism factors, dysfunctional thoughts about caregiving, and other variables usually considered in the stress process model, these results suggest that it may be useful to include both cultural and cognitive factors



in the interventions aimed at helping caregivers cope with the stressors associated with caregiving. Similar to how dysfunctional or irrational thoughts or beliefs have been treatment targets in different intervention studies (e.g., Gallagher-Thompson et al., 2003; Márquez-González et al., 2007), cultural values that negatively impact caregivers' health should be more deeply studied in search for therapeutic tools that could help caregivers emphasize the positive effects of cultural values and reduce the impact of the negative effects on their health. However, considering that values such as family responsibility or obligation may explain why many caregivers underuse resources (Scharlach et al., 2006), those caregivers with strong familism values (e.g., Latino caregivers or African American caregivers) and/or dysfunctional thoughts may not be reached for this type of intervention (although they could be those who are most in need), and other strategies that consider the results found in this study should be used in order to reach them. In agreement with Zarit and Femia (2008), the results of this study suggest that there is a need for approaches that take into account the caregivers' varying profiles in order to tailor or adapt interventions based on caregivers' scores on key variables. Considering the participation of other relatives in the interventions as a means to take into account caregivers' value of the family, as has been done with very good results in the intervention developed by Mary S. Mittelman (e.g., Mittelman, Roth, Coon, & Haley, 2004), could function as an effective way to help these caregivers in need.

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