Article

Profiles of Dementia Caregivers according to Psychosocial and Resource Variables. Importance of Kinship

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Abstract

The present study aims to analyze the existence of different profiles in family caregivers of people with dementia according to psychosocial and resource variables. In addition, it aims to study whether there is a greater representation of each kinship group in each of the profiles and if there are differences in emotional distress among such profiles considering the kinship with the care-recipient. Participants *were* 288 family dementia caregivers, divided into four kinship groups (wives, husbands, sons and daughters). Psychosocial (familism, dysfunctional thoughts and experiential avoidance), resource (leisure activities and social support) and outcomes (depressive, anxious and guilt symptomatology) variables were collected. A hierarchical cluster analysis using Ward's method, an exploratory factor analysis of two fixed factors and contingency tables were performed. Five clusters were obtained: *Low psychosocial vulnerability-High resources*, *Low psychosocial vulnerability-Low resources*, *Mixed*, *High psychosocial vulnerability-High resources,* and *High psychosocial vulnerability-Low resources.* Results suggested that clusters associated with lower distress were the Low psychosocial vulnerability-High resources and the High psychosocial vulnerability-High resources. Clusters associated with higher distress were the Low psychosocial vulnerability-Low resources and Mixed. High levels of dysfunctional thoughts, familism and experiential avoidance do not always have a maladaptive function. This could depend on sociocultural and resource variables such as the kinship with the caregiver or perceived social support. The identification of profiles of family caregivers potentially needing protection and vulnerable to psychological distress could help to increase the effectiveness of interventions aimed at this population.

Keywords: kinship; dementia caregivers; psychosocial variables; resources; vulnerability

(Received: 29 September 2023; revised: 18 April 2024; accepted: 23 April 2024)

Caring for a family member with dementia is considered a chronically stressful experience due to the many varied and variable tasks caregivers face for many hours a day over an extended period of time (Alzheimer's Association, 2023). Caregiving for a family member with dementia is primarily performed by women, with caregiving more likely to be undertaken by daughters and wives than by husbands and sons (Stall et al., 2019).

Different theoretical models have tried to explain the process of stress associated with the task of caregiving, among which Knight and Sayegh's (2010) sociocultural model of stress and coping adapted to caregiving stands out. This model, following what was proposed in the stress and coping model posited by Lazarus and Folkman (1984), in addition to highlighting the influence on the

consequences that the stress associated with care can generate based on the evaluation of the individual's personal and social resources, also highlights the influence of cultural values on the different processes of coping with care.

Specifically, the sociocultural model of stress and coping highlights the significant role that cultural variables such as familism play in the caregiving process through their influence on the caregiver's social support and coping strategies (McCleary & Blain, 2013). The value of familism, defined as strong feelings of attachment, loyalty, reciprocity and solidarity among family members (Aranda & Knight, 1997), is especially characteristic of some societies, such as Mediterranean societies (Cordella & Rojas-Lizana, 2020). One of its main dimensions is the dimension of family obligations. This dimension refers to the obligation perceived by an individual to provide material and emotional help to other family members, generating the belief that taking care of the family is a duty and that it should be taken into account in decision making (Eifert et al., 2015). Due to socialization into different gender roles, caregiving is attributed to and performed primarily by women, and it is women who internalize to a greater extent the perception of caring for a sick family member as a moral obligation (Meira et al., 2017).

The literature points to a negative influence of the perception of family obligations on the mental and physical health of family caregivers (Knight & Sayegh, 2010; Losada-Baltar et al., 2023), being related to the presence of dysfunctional thoughts associated with caregiving (Losada et al., 2010). For example, they may give rise to (a) thoughts related to the family's duty of care (e.g., "only the closest person knows how to take truly good care of a sick relative"); (b) not asking for help (e.g., "a caregiver should only ask for help from other people when the situation is limiting"); or (c) full dedication to the sick relative (e.g., "when a person cares for a sick relative, he/she should leave his/her interests aside and dedicate him/herself completely to the sick person"). These thoughts can facilitate maladaptive behaviors in caregivers and can have important consequences on their emotional distress (Losada et al., 2006). In addition, dysfunctional thoughts have been found to be associated with experiential avoidance (Losada et al., 2014), another variable that is significantly associated with caregiver distress (Cheng et al., 2019). This variable refers to the tendency to avoid contact with negative internal experiences (e.g., thoughts, emotions, and images) and to avoid the events or contexts that provoke them (Hayes et al., 1996). High experiential avoidance in caregivers, aimed at rigidly controlling unwanted internal experiences, could be associated with the occurrence of depressive (Spira et al., 2007) and anxious symptomatology and physical health problems (Márquez-González et al., 2018; Whitebird et al., 2013). Thus, the existence of dysfunctional thoughts hinders the building of broad social support and carrying out adequate coping strategies such as the performance of self-care or leisure/pleasurable activities, favoring the appearance of depressive (Losada et al., 2018), anxious (Sullivan et al., 2016) and guilt symptomatology (Losada Baltar et al., 2015).

Regarding the mental health of caregivers of people with dementia, there is a large literature that supports higher rates of psychological morbidity in family caregivers of people with dementia compared to caregivers of other chronic diseases, such as cancer or stroke (Collins & Kishita, 2020; Pinquart & Sörensen, 2003) and to the general population (D'Aoust et al., 2015). Within this psychological morbidity, the study of depression and, to a lesser extent, anxiety, has received a great deal of attention from researchers due to their high prevalence in that population (Hopkinson et al., 2019). However, guilt feelings have been scarcely studied by previous literature, despite being considered, in addition to depressive and anxiety symptomatology, a highly prevalent emotion in dementia family caregivers (Losada et al., 2010, 2018). Cultural values that facilitate the perception of caregiving as an obligation to which one must respond in the most "perfect" way possible, or the belief that one does not achieve what is expected of a good caregiver, are some of the reasons that seem to be related to the appearance of the feeling of guilt (Gallego-Alberto et al., 2020). It is female caregivers, especially daughters, who present higher levels of emotional distress, both depressive and anxious symptomatology and guilt (Erol et al., 2016; Losada et al., 2010). Thus, although the kinship of caregivers has not been taken too much into account, different studies suggest that caregiving daughters, probably due to the multiplicity of roles they must cope with (e.g., work, motherhood, etc.), are at a higher risk of presenting mental health problems (Conde-Sala et al., 2010; Romero-Moreno, Losada, Márquez et al., 2014).

Taking into consideration all of the above, and in accordance with the sociocultural model of stress and coping (Knight & Sayegh, 2010), the present study aims to analyze the existence of different profiles of family caregivers of people with dementia, according to the levels manifested in different psychosocial and resource variables: familism (family obligations), dysfunctional thoughts, experiential avoidance, perceived social support and leisure activities. In addition, the aim is to study whether there is a greater representation of each kinship group in each of the profiles and to analyze if there are differences in the levels of depressive, anxious and guilt symptomatology among them. In this respect, a further aim is to study whether the most vulnerable profiles are predominantly represented by women, especially caregiving daughters, considering the above-mentioned previous literature. This may improve the identification of vulnerable caregivers and dedicate more resources according to kinship.

Specifically:

1. Different profiles are expected to be obtained depending on the combination of high or low levels in the psychosocial variables and high or low levels in the resource variables.

Secondly, it is hypothesized that:

2. Those profiles characterized by high levels of familism, dysfunctional thoughts and experiential avoidance (high scores in these variables are considered psychosocial vulnerability) and presenting low levels of perceived social support and leisure activities (low levels of resources) will manifest greater depressive, anxious and guilt symptomatology. Conversely,

3. Those profiles with low levels of familism, dysfunctional thoughts and experiential avoidance (low scores in these variables are considered low psychosocial vulnerability) and with higher levels of social support and leisure activities (high levels of resources) will present lower levels of these symptomatologies. Finally, it is expected that,

4. Those profiles with higher levels of emotional distress, that is, higher levels of anxious, depressive and guilt symptomatology, will correspond to a predominance of the wife and daughter kinship groups. Specifically, it is expected that the profile with higher levels of the aforementioned symptomatologies will have a greater presence of caregiving daughters.

Therefore, the present study contributes to the field of dementia caregivers by identifying vulnerable profiles according to psychosocial and resource variables considering their influence based on the kinship relationship with the cared person. In this way, it is intended to inform practitioners about potential vulnerability profiles that may benefit from specific interventions and resources that might be offered to caregivers according to the identified profiles.

Method

Participants and Procedure

A total of 288 family caregivers of people with dementia, aged between 28 and 88 years ($M = 62.98$; $SD = 12.78$), residing in the Community of Madrid (Spain), participated in this cross-sectional study. A greater number of women (68.11%; $n = 196$) than men (31.89%; $n = 92$) participated in the present investigation, divided into four groups according to kinship with the cared-for person, namely: wives ($n = 74$), husbands ($n = 59$), daughters ($n = 122$) and sons ($n = 33$).

Participants were recruited through different health centers and social services of this community, where, in an initial contact with the subjects, compliance with the criteria for inclusion in the study was confirmed, namely: (a) Be recognized as the primary caregiver of the family member diagnosed with dementia; (b) spend at least one hour of care per day or a total of 7 hours per week; and (c) have

been caring for the ill family member for at least the last three consecutive months. These criteria are consistent with the general characteristics of the caregiving population (Alzheimer's Association, 2023), and are similar to the criteria used in different research with a sample of caregivers (e.g., Sutter et al., 2014; Yu et al., 2016). Three hundred forty-nine persons were initially contacted via telephone. Of those, 61 finally did not take part in the study because they did not meet the inclusion criteria ($n = 19$), because it was impossible to contact them ($n = 24$), or because they changed their mind and refused to participate ($n = 18$). No specific sample size was previously determined, all the caregivers that who contacted through the study were assessed.

Assessment of the caregivers participating in the study was carried out in face-to-face interviews by trained psychologists between January 2017 and March 2020. The evaluations were performed in Spanish and took between 45 minutes and 1 hour 50 minutes. The present study was approved by the ethics committee of the Universidad Rey Juan Carlos and prior to evaluation all subjects signed an informed consent for participation.

Variables and Instruments

The instruments used were self-administered questionnaires carried out face to face by trained psychologists. These questionnaires are designed to be completed without the help or bias of the interviewer.

Sociodemographic Variables

Caregivers' age, gender, kinship relationship with the person cared for, time spent caring, and daily hours dedicated to care were collected. The type of illness and the cognitive status of the care recipient were also collected. Cognitive status was measured using the Global Deterioration Scale (GDS; Reisberg et al., 1982) that consist of the clinical description of 7 phases of dementia progression ranging from (1) normality to (7) severe dementia.

Familism. The "family obligations" subscale of the Revised Familism Scale (Revised Familism Scale, RFS; Losada et al., 2020, Spanish version), composed of five items (e.g., "people should always obey their parents without arguing even if they thought they were right"), was administered. The response range lies between 0 "*strongly disagree*" and 4 "*strongly agree*", with higher scores corresponding to higher perceptions of family obligations. This scale had an internal consistency (α) for the present study of. 75.

Dysfunctional thoughts. The Dysfunctional Thoughts Questionnaire (CPD; Losada et al., 2006), developed in Spanish, was used. It is composed of 16 items (e.g., "when a person takes care of a sick person, he/she should leave his/her interests aside and devote him/herself completely to the sick person"). The response range is between 0 and 4, with higher scores on the scale corresponding to a greater presence of dysfunctional thoughts and beliefs that hinder adaptive coping with the task of caregiving. The scale presented an internal consistency (α) of. 91 in the present study.

Experiential avoidance. The Experiential Avoidance in Caregiving Questionnaire (EACQ; Losada et al., 2014, Spanish version) scale was used, consisting of 15 items (e.g., "If a caregiver has negative thoughts about his or her family member, it is best to try to ignore them") with a response range from 1 "*not at all*" to 5 "*very much*". Higher scores on this scale correspond to higher levels of experiential avoidance. The internal consistency (α) in the present study was. 69.

Social support. The Social Support Questionnaire (PSQ; Reig et al., 1991) developed in Spanish was administered and it is composed of 6 items (e.g., "When I need it, I have someone who can give me important financial or material help") with a response range between 0 "*never*" and 3 "*always*". Higher scores correspond to a higher perception of social support and the internal consistency (α) for the selected sample was. 77.

Frequency of leisure activities. This was evaluated using an adaptation of the Leisure Time Satisfaction scale (LTS; Stevens et al., 2004) composed of 6 items (e.g., "During the past month I have had time to spend good times with other people") with a response range between 0 "*not at all*" and 2 "*very much*". This scale, administered in Spanish (Romero-Moreno, Losada, Márquez-González, et al., 2014), allows the effect of caregiving on leisure time satisfaction to be evaluated. The internal consistency (α) for the present study was. 71.

Outcomes Variables

Feelings of guilt. The Caregiver Guilt Questionnaire (CGQ; Losada et al., 2010; developed in Spanish) composed of 22 items (e.g., "I have felt bad about leaving my family member in someone else's care while I was having fun") was used, with a response range from 0 "*never*" to 4 "always or almost always". Higher scores correspond to a greater feeling of guilt in the caregiver, with the cut-off point for clinically relevant scores being established at scores equal to or higher than 22. The scale presented an internal consistency (α) for the sample studied of. 88.

Anxious symptomatology. The Tension subscale of the Profile of Mood States (POMS; McNair et al., 1971) was used. The Spanish version (Balaguer Solá et al., 1993) was administered, which uses 9 multidimensional adjectives (e.g., restless or nervous) with a response range between 0 "*not at all*" and 4 "very much" to evaluate the person's affect and feelings. Higher scores on the scale correspond to higher levels of anxious symptomatology, whose cut-off point is established at scores equal to or higher than 13 (Losada Baltar et al., 2015). The internal consistency (α) of the scale for the present study was. 82.

Depressive symptomatology. The Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977; Spanish version by Losada et al., 2012) consisting of 20 items (e.g., "I thought my life had been a failure") with a response range between 0 "*rarely or never*" and 3 "*all the time*" was administered. This scale sets the cut-off point at scores equal to or higher than 16 (Radloff, 1977) and assesses the presence of different depressive symptoms that participants may have experienced during the last week. The internal consistency of this scale (α) for the present investigation presented a value of. 89.

Data Analysis

On the one hand, descriptive and frequency analyses were carried out to identify the characteristics of the total sample. On the other hand, a hierarchical cluster analysis was performed using Ward's method with the aim of identifying homogeneous groupings of subjects according to the scores obtained by the study participants on 5 variables: Familism (family obligations), dysfunctional thoughts, experiential avoidance, leisure activities and social support. Z-scores were used to compare the scores obtained on these scales. In addition, mean comparisons were made between the scores obtained for each variable in each of the clusters in order to identify the common characteristics of each of the clusters/profiles obtained (Yim & Ramdeen, 2015). Subsequently, an exploratory factor analysis of two fixed factors was performed, which allowed the generation of a scatter plot according to these clusters (Ward's method variable; Revelle, 2020). Contingency tables were run between the 5 clusters/profiles found and the variable of kinship with the cared-for person to find the distribution

of participants according to this variable. Finally, considering the distribution in the clusters of the participants according to kinship, contingency tables were also made between the clusters and the emotional variables depressive symptomatology, anxious symptomatology and dichotomized guilt symptomatology to identify whether there are differences in these symptomatologies among clusters. For this purpose, the cut-off points in each of these scales were used to identify people with clinically significant levels in each variable. The analyses performed in the present investigation were carried out with the Statistical Package for the Social Sciences (SPSS Statistics 22). Data collection was not preregistered. The study materials, analytic methods, and data are available from the corresponding author on reasonable request.

Results

Characteristics of the Sample

The characteristics of the sample are shown in Table 1. It was observed that the average time the participants had spent caring was 50.62 months ($SD = 42.96$) and that the average daily hours dedicated to care was 13. Wives was the group which presented higher levels of time spent caring, with an average of 58.05 months ($SD = 61.02$), and both wives and husbands were the groups which dedicated more daily hours of care, with an average of 16 hours (wives: $SD = 7.31$, husbands: $SD = 6.82$). In addition, the results show that the predominant type of dementia in the sick relative was Alzheimer's disease ($n = 165$; 57.30%) and the mean value of the patient´s cognitive assessment (GDS) was 4.62, corresponding to moderate-severe cognitive impairment. In Table 1, the means obtained by each kinship group for each the assessed variables can be seen.

Classification of Participants according to Clusters

Figure 1 shows the dendogram obtained after performing the cluster analysis, which suggests the existence of 5 possible grouping clusters for the variables familism, dysfunctional thoughts, experiential avoidance, social support and leisure activities.

Table 2 shows the mean scores on each variable for each cluster. These results show that the first cluster, called *Low psychosocial vulnerability-High resources*, had levels below average of CPD and familism, at average levels of avoidance and levels above average of leisure and social support. The second cluster, called *Low psychosocial vulnerability-Low resources,* shows levels below average of the cultural-cognitive variables (CPD, familism and experiential avoidance) and levels below average of leisure and social support. Thirdly, the cluster called *Mixed* presents levels below average of CPD and familism, levels above average of experiential avoidance, at average levels of leisure and levels below average of social support. Fourth, *the High psychosocial vulnerability-High resources* cluster presents levels above average of CPD, familism and experiential avoidance, as well as levels above average of leisure and social support. Finally, the fifth cluster, labeled *High psychosocial vulnerability-Low resources*, reflects levels above average of CPD and familism, at average levels of experiential avoidance and social support, and levels below average of leisure.

Factor Analysis and Scatterplot of the Clusters

The results obtained from the exploratory factor analysis of the 5 psychosocial and resources variables evaluated (dysfunctional thoughts, familism, experiential avoidance, leisure and social support) suggest the existence of two factors (Kaiser-Meyer-Olkin [KMO] and Bartlett's test:. 60 < .001). A first factor is composed of the three cultural/cognitive variables: Familism, CPD and experiential avoidance. The second factor is composed of the two resource variables: Leisure activities and social support. The factor loadings of each variable on each factor are in all cases greater than. 70. The factor loadings of each variable on the other factor do not exceed. 20 in any case.

Relationship between the Groups Obtained and the Relationship with the Caregiver

The results show the existence of significant differences between the groups according to kinship with the cared-for person ($\chi^2 = 104, 07$;

Table 1. Characteristics of the Sample

| Variables	TOTAL SAMPLE		WIVES (25.71%)		HUSBANDS (20.48%)		DAUGHTERS (42.40%)		SONS (11.41%)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Alzheimer's dementia (*N*)	165		36		41		69		19	
Age	62.98	12.78	72.31	7.85	75.07	6.78	54.02	8.30	52.88	9.94
Time spent caring	50.62	42.96	58.05	61.02	47.28	31.72	48.14	36.40	48.84	31.32
Daily hours of care	13.02	7.83	16.26	7.31	16.76	6.82	10.70	7.39	7.43	5.84
Cognitive status	4.62	1.25	4.58	1.22	4.40	1.21	4.80	1.26	4.50	1.28
Family obligations	8.31	4.20	9.93	4.00	9.82	4.64	6.45	3.52	8.76	3.43
Dysfunctional thoughts	27.59	15.03	34.41	14.98	38.41	12.49	18.91	11.08	25.06	12.29
Experiential avoidance	44.35	9.55	48.11	9.05	47.20	9.90	41.50	9.24	41.33	6.60
Leisure activities	5.90	2.74	5.60	2.68	6.52	2.71	5.72	2.80	6.12	2.68
Social support	10.92	3.97	11.40	3.78	10.57	4.47	11.39	3.66	8.72	3.96
Depressive symptomatology	17.42	10.90	18.13	10.93	13.05	8.68	18.97	11.36	18.00	11.11
Anxious symptomatology	16.22	7.98	16.25	7.58	11.65	7.58	18.50	7.64	16.07	7.56
Guilt	20.66	12.95	14.15	9.80	16.30	10.55	25.50	13.10	25.40	13.92
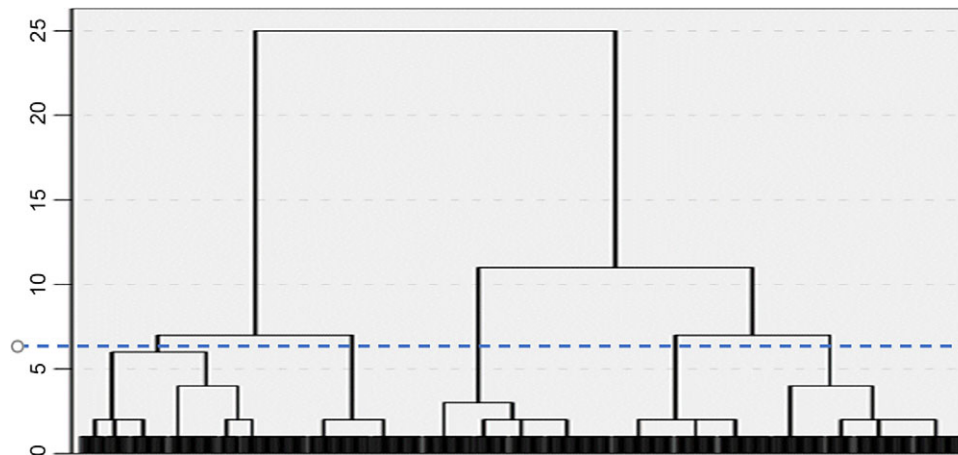
Figure 1. Cluster Dendrogram using Ward Method. Dashed Line Identifies 5-cluster Solution.
Note. Figure 1 shows the dendrogram created by the SPSS program. The X-axis represents the individual cases and the hierarchical brackets above them reflects the gradual hierarchical grouping at each stage. The horizontal line added to the Y-axis (the rescaled distance cluster combine) indicates the optimal cut-off point for clustering, showing that the cases were merged into 5 groups in the second to last hierarchy: *1. Low psychosocial vulnerability-High resource, 2. Low psychosocial vulnerability-Low resources, 3. Mixed, 4. High psychosocial vulnerability-High resources, 5. High psychosocial vulnerability-Low resources.*

Table 2. Means in Each Variable for Each Cluster

Cluster	*N*	Dysfunctional thoughts (CPD)	Familism	Experiential avoidance	Leisure activities	Social support
1–Low psychosocial vulnerability–High resources	63	16.26	7.83	43.62	8.58	19.49
2–Low psychosocial vulnerability–Low resources	52	14.00	6.02	35.32	4.80	11.77
3–Mixed	61	24.85	8.10	46.02	5.17	6.67
4–High psychosocial vulnerability–High resources	38	42.76	16.40	54.68	7.63	13.68
5–High psychosocial vulnerability–Low resources	74	41.90	13.21	44.88	4.26	10.43
Total	288	27.68	10.05	44.38	5.94	10.97

$p = .001 < .05$). As can be seen in Table 3, compared to the other kinship groups, the wives group is mainly grouped in Cluster 5 (High psychosocial vulnerability-Low resources); the husbands group in Cluster 4 (High psychosocial vulnerability-High resources); the daughters group in Clusters 1 and 2 (Low psychosocial vulnerability-High resources and Low psychosocial vulnerability-Low resources), and for the sons group there are more than expected compared to other groups in Cluster 3 (Mixed profile).

Relationship between the Groups Obtained and Depressive Symptomatology

The results show the existence of significant differences in the presence of depressive symptomatology between the different profiles/clusters (χ^2= 33.47; p = .001 < .05). As can be seen in Table 4, the data show that for the Low psychosocial vulnerability-High resources (1) and High psychosocial vulnerability-High resources (4) profiles, there are lower-than-expected number of cases with clinically significant depressive symptomatology, with means for this symptomatology of 13.66 and 11.89, respectively. In contrast, for the Low psychosocial vulnerability-Low resources (2) and the Mixed (3) profiles, whose means were 19.69 and 20.59, the opposite

occurred, with more cases than expected with clinically significant depressive symptomatology. In the case of the High psychosocial vulnerability-Low resources (5), no differences were found in the distribution of people in this profile according to depressive symptomatology. The depressive symptomatology mean in this group was 19.13.

Relationship between the Groups Obtained and Anxious Symptomatology

The data obtained reveal the existence of significant differences in the presence of anxious symptomatology between the different profiles/clusters (χ^2= 27.88; p = .001 < .05). As can be seen in Table 4, it is observed that for the High psychosocial vulnerability-High resources profile (4), there are fewer cases than expected with clinically relevant levels of anxious symptomatology, with a mean of 11.92 for this symptomatology. In contrast, for the Low psychosocial vulnerability-Low resources Profile (2) and the mixed Profile (3), there were more cases than expected with clinically significant levels of such symptomatology. The mean obtained for Profile 2 was 19.94, with 18.02 for Profile 3. Finally, for the Low psychosocial vulnerability-High resources (1) and High psychosocial vulnerability-Low resources (5) profiles, the cases are distributed

Table 3. Relationship between Obtained Clusters and Kinship with the Care-recipient

	1-Low psychosocial vulnerability-High resources	2-Low psychosocial vulnerability-Low resources	3-Mixed	4-High psychosocial vulnerability-High resources	5-High psychosocial vulnerability-Low resources	Total
Wifes						74.00
Count	10.00	7.00	11.00	12.00	34.00	
Expected count	16.20	13.40	15.70	9.80	19.00	
Corrected residual	−2.00	−2.20	−1.50	0.90	4.60	
Husbands						59.00
Count	6.00	2.00	11	19.00	21.00	
Expected count	12.90	10.70	12.5	7.80	15.20	
Corrected residual	−2.40	−3.30	−0.5	4.80	2.0	
Daughters						122.00
Count	38.00	42.00	25.00	5.00	12.00	
Expected count	26.70	22.00	25.80	16.01	31.30	
Corrected residual	3.3	6.2	−0.2	−3.99	−5.3	
Sons						33.00
Count	9.00	1.00	14.00	2.00	7.00	
Expected count	7.20	6.00	7.00	4.40	8.50	
Corrected residual	0.80	−2.40	3.20	−1.30	−0.6	

as expected. The means of anxious symptomatology in both groups were 15.14 and 15.26, respectively.

Relationship between the Obtained Groups and Guilt Symptomatology

The results show the existence of significant differences in the presence of guilt symptomatology between the different profiles/clusters ($\chi^2 = 21.69$; $p = .001 < .05$). As can be seen in Table 4, the data reflect that the High psychosocial vulnerability-High resources (4) and High psychosocial vulnerability-Low resources (5) profiles present fewer cases than expected with clinically relevant levels of guilt, with means for this symptomatology of 13.87 and 16.47. In contrast, the Low psychosocial vulnerability-High resources (1) and Low psychosocial vulnerability-Low resources (2) profiles have more caregivers than expected with clinically relevant levels of guilt. The mean obtained for Profile 1 was 23.44, with 24.10 for Profile 2. For the Mixed Profile (3), guilt levels were consistent with those expected, with a mean of 24.36.

Discussion

The aim of this study was to identify the existence of profiles of family caregivers of people with dementia according to the levels manifested in different psychosocial and resource variables and to analyze if there is a greater representation of each kinship group in each of the profiles. In this way, it was attempted to analyze which

profile appears to be more vulnerable and which more protected against the emotional distress associated with the task of caregiving according to kinship. In addition, it was also intended to study if the most vulnerable profiles are represented mostly by women, especially by caregiving daughters.

The results of this research suggest, in relation to the first hypothesis, the existence of 5 clusters formed from the variables family obligations, dysfunctional thoughts, experiential avoidance, perceived social support and leisure activities. Specifically, the identified clusters have been named:

1. Low psychosocial vulnerability-High resources.
2. Low psychosocial vulnerability-Low resources.
3. Mixed.
4. High psychosocial vulnerability-High resources.
5. High psychosocial vulnerability-Low resources.

As Hypotheses 2, 3 and 4 suggested, the results show, on the one hand, differences in the significance of emotional distress depending on the cluster and, on the other hand, that the distribution of participants in each of the clusters is significantly related to the relationship of kinship. This is, as mentioned in the previous section, the wives group primarily in Cluster 5 (High psychosocial vulnerability-Low resources), husbands in Cluster 4 (High psychosocial vulnerability-High resources), daughters in Clusters 1 and 2 (Low psychosocial vulnerability-High resources and Low psychosocial vulnerability-Low resources), and sons to a greater extent than the other groups in Cluster 3 (Mixed Profile).

Table 4. Relationship between Cluster Groups Obtained and Depressive, Anxious and Guilt Symptomatologies

	Depressive symptomatology significant		Anxious symptomatology significant		Guilt symptomatology significant		
	No	Yes	No	Yes	No	Yes	Total
1–Low psychosocial vulnerability–High resources							
Count	45.00	18.00	27.00	36.00	27.00	36.00	63
Expected count	33.70	29.30	21.90	41.10	35.40	27.60	
Corrected residual	3.20	−3.20	1.50	−1.50	−2.40	2.40	
2–Low psychosocial vulnerability–Low resources							
Count	20.00	32.00	8.00	44.00	23.00	29.00	52
Expected count	27.80	24.20	18.10	33.90	29.30	22.80	
Corrected residual	−2.40	2.40	−3.20	3.20	−2.00	2.00	
3–Mixed							
Count	23.00	38.00	12.00	47.00	29.00	32.00	61
Expected count	32.60	28.40	21.00	39.80	34.30	26.70	
Corrected residual	−2.80	2.80	−2.20	2.20	−1.50	1.50	
4–High psychosocial vulnerability–High resources							
Count	29.00	9.00	20.00	18.00	31.00	7.00	38
Expected count	20.30	17.70	13.20	24.80	21.40	16.60	
Corrected residual	3.00	−3.00	2.50	−2.50	3.40	−3.40	
5–High psychosocial vulnerability–Low resources							
Count	37.00	37.00	31.00	43.00	52.00	22.00	74
Expected count	39.60	34.40	25.7	48.30	41.60	32.40	
Corrected residual	0.70	0.70	1.50	−1.50	2.80	−2.80	
Total	154.00	134.00	100.00	188	162.00	126.00	288

Furthermore, the results obtained suggest that Profile 2 (Low psychosocial vulnerability-Low resources), in which the majority of caregiving daughters are distributed, seems to be particularly vulnerable to presenting higher levels of emotional distress. This profile, while manifesting low levels of familism, experiential avoidance and dysfunctional thoughts associated with caregiving, also presents low levels of leisure and social support and high levels of depressive, anxious and guilt symptomatology. According to previous literature, caregiving daughters are subjected to higher levels of stress due to the multiplicity of roles they must cope with (Steiner & Fletcher, 2017). This would lead them to question to a greater extent the socially imposed pressures derived from the familistic values that characterize Mediterranean society (Meira et al., 2017). On the other hand, questioning and rationalization of the existing difficulties in complying with social demands does not protect them from presenting high levels in such symptomatologies, since moving away from a socially desirable value such as familism can lead them to an internal conflict derived from the impossibility of responding as society expects. Therefore, the presence of high levels of psychological distress in this profile seems to indicate that social norms could be having an implicit influence on the daughters. That is, although explicitly the caregiving daughters seem not to adhere to the socio-familial norms to which they are subjected, implicitly these seem to still be present (Márquez-González et al., 2018). In addition, this profile presents greater social vulnerability, so it could be called *Maladaptive Functional*, because although the levels of

psychosocial vulnerability are low, the levels of resources are also low, presenting high levels of psychological discomfort.

Following Profile 2, Profiles 3 (Mixed) and 5 (High psychosocial vulnerability-Low resources) also appear to be vulnerable to psychological distress. In relation to Profile 3 (Mixed), although the levels of familism and dysfunctional thoughts are below average, the presence of social support is low. For this group, comprising more son caregivers than expected, coming to adopt the role of primary caregiver usually implies that they are alone and do not have the support of other women in the environment (Huertas-Domingo et al., 2021). This, in turn, leads them to have an environment with few reinforcers, which would explain the presence of psychological distress, especially high levels of depressive symptomatology. With respect to Profile 5, represented mostly by wives, although the number of caregivers with high levels of guilt is lower than expected, 50% of the subjects present clinically significant depressive symptomatology. One possible explanation for the lower levels of guilt is that although this profile is characterized by high levels of familism and dysfunctional thoughts, these do not conflict with other roles, so these caregiving wives "can afford" to act as expected. However, acting in accordance with these socially imposed norms leads wives to reduce their levels of leisure and reinforcers, as they "must put their interests aside and devote them to the sick family member," influencing levels of depressive symptomatology. Therefore, this profile could be called *Pathological* since the levels in the variables studied are related to vulnerability to psychological discomfort.

In relation to Profile 1 (Low psychosocial vulnerability-High resources), although the levels of depressive symptomatology are lower than expected, this does not occur with the levels of guilt symptomatology. The fact that Profile 1 is mostly represented by caregiving daughters could explain the high levels of such symptomatology. As mentioned above, because of the social pressures to which they are subjected, presenting high levels of leisure and social support (unlike Profile 2) could at the same time facilitate lower levels of depressive symptomatology and high levels of guilt due to the existence of internal conflict caused by not acting in accordance with what is expected of them. Consequently, this profile could be called *Adaptive*, while considering that the high levels of guilt symptoms could, in the long term, modify the use of resources and increase the vulnerability to psychological distress.

Finally, the results also suggest that the presence of high levels of familism (family obligations) and dysfunctional thoughts associated with caregiving do not always have a maladaptive function, but that their impact could depend on sociocultural variables such as kinship with the caregiver or perceived social support. For example, in Profile 4 (High psychosocial vulnerability-High resources), mostly represented by husbands, presenting high levels in familism and dysfunctional thoughts, in addition to generating satisfaction for "doing what they should, since their wives have always taken care of them and now it is their turn" (Conde-Sala et al., 2010; Yu et al., 2018), does not conflict with performing leisure activities or having the support of other people in the environment, who are likely to be women (Larrañaga et al., 2009). This means that their levels of psychological distress, i.e., depressive, anxious and guilt symptomatology, are lower than the rest of the groups. Bearing this in mind, this profile could be called *Adapted Pathological*, because although the levels obtained in the variables studied are associated with greater vulnerability to psychological distress, this does not occur due to sociocultural variables.

Something similar would occur with the levels of experiential avoidance, because although the results of previous studies support a greater presence of depressive and anxious symptomatology in caregivers with high levels of experiential avoidance (Lappalainen et al., 2021), the results of the present research suggest that this could differ according to variables such as kinship with the cared-for person or the gender of the caregiver. Again, regarding Profile 4 (High psychosocial vulnerability-High resources; mostly husbands), despite having high levels of experiential avoidance, their caregiving situation does not conflict with the perception of high social support nor with engaging in leisure activities. On the one hand, given that caregiving is socially expected to be carried out by women, they tend to take greater responsibility for caregiving and, consequently, tend to offer their support to male caregivers (Lago Urbano & Alós Villanueva, 2012). On the other hand, male caregivers attach great importance to leisure activities, dedicating more time and space to them than female caregivers (Larrañaga et al., 2009). On the contrary, Profile 2 (Low psychosocial vulnerability-Low resources; mostly daughters), which shows low levels of experiential avoidance, is the profile with the highest levels of depressive, anxious and guilt symptomatology. That is, caregiving daughters reflect to a greater extent on their caregiving situation, since the obligation to the family falls primarily on them (Yee & Schulz, 2000). However, because of the difficulties they face in combining family and work, and because they connect with the negative thoughts associated with caregiving, they report a greater negative impact on their emotional distress.

Considering the above, the results suggest that the interventions for each identified group should be different. Thus, for example, for the group of caregiving daughters who present high levels of distress (Profiles 1 and 2) it would be appropriate to carry out interventions aimed at validating the feeling of guilt, with the objective of releasing the pressures to which they are subjected, as well as offering them resources that allow them to reconcile the different roles they have to face, something that could also benefit the caregiving sons (Profile 3) who have low support to cope with the caregiving situation. Finally, for the group of husbands (Profile 4), and especially for the wives (Profile 5), psychological interventions focused on the restructuring of acquired dysfunctional beliefs, derived from cultural values such as familism, would be appropriate, favoring greater self-care and leisure behaviors that would benefit their emotional state.

The present study has a number of limitations. Given that this is a cross-sectional study, it is not possible to establish causal relationships between the variables studied. Second, because caregivers participating in the study were volunteers and the sample size for the group of sons may be somewhat low, the study sample is not representative of the population of caregivers of relatives with dementia. In addition, the sample size could be low for the use of cut-off points in the scales used to evaluate emotional distress. This information must be taken into consideration when interpreting the results. Third, there are other variables (e.g., cognitive fusion, frequency of disruptive behaviors, etc.) that also appear to be relevant in the identification of family caregiver profiles (Barrera-Caballero et al., 2021) that were not studied in the present research.

Furthermore, in relation to the familism variable, given that in the present research only the dimension of family obligations has been analyzed, it would be interesting for future studies to study the identification of caregiver profiles considering other dimensions of familism. It should also be mentioned that the Cronbach´s alpha level of the Experiential Avoidance in Caregiving Questionnaire is slightly lower than recommended, so the results in relation to this variable must be interpreted with caution. The variables of the study are based on self-report responses given by caregivers, so in some cases they could be influenced by social desirability bias, that is, the tendency of participants to appear to be acting correctly (Huertas-Domingo et al., 2023). Future studies should take this possibility into consideration when using this questionnaire and try to establish a source of control for the possible effects of social desirability. Moreover, since the variables were always evaluated in the same order, the possibility that the halo effect existed when responding must be considered. Finally, the work has been carried out in a country with a Mediterranean culture, so the findings here may not be generalizable to other cultural environments (Losada et al., 2006).

Despite the above limitations, the results obtained in this study are relevant for understanding dementia family caregivers´ emotional distress. High levels of dysfunctional thoughts, familism and experiential avoidance are not always associated with greater psychological distress but depend on sociocultural and resource variables such as the kinship relationship or the perceived social support. Therefore, the results suggest the importance of considering specific profiles of family caregivers of people with dementia based on psychosocial and resource variables and kinship groups, this study being a pioneer in considering these variables in the identification of profiles of caregivers of people with dementia. The consideration of these profiles in the design of interventions for caregivers could be necessary, in addition to helping to increase the effectiveness of interventions aimed at this population, which so far are at best moderate (Cheng et al., 2020).

Authorship credit. Cristina Huertas-Domingo had a main role in the conceptualization of the study, analyzed the data and wrote the first draft of the manuscript. Andrés Losada-Baltar designed the study, co-wrote the manuscript, and obtained funding for the study. Laura Gallego-Alberto, Inés García-Batalloso, and Laura García-García collaborated in the data collection and helped in the writing of the study. María Márquez-Gonzalez helped with the design and writing of the study, and obtained funding for the study.

Data sharing. The data, analytic methods, and materials are available upon request from the corresponding author on reasonable request.

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