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Examining the Influence of Family Dynamics on Quality of Care by Informal Caregivers of Patients With Alzheimer's Dementia in Argentina

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Abstract

Purpose: This study examined the pattern of family dynamics of Argentinian individuals with dementia that most heavily influences the quality of care provided by family caregivers (CGs). **Method:** One hundred and two CGs of individuals with Alzheimer's disease in Argentina participated in this study. The majority (75%) were female, with an average age of 57.8 years (standard deviation = 13.5) and had spent a median of 48 months (interquartile range [IQR]: 36.00-60.00) providing care to their family member with dementia, devoting a median of 60 hours (IQR: 50.00-80.00) per week to these duties. Caregivers completed Spanish versions of instruments assessing their family dynamics and quality-of-care provision. **Results:** Hierarchical regression analyses suggested that higher quality of informal care (Provide and Respect) was related to greater levels of empathy and reduced levels of overall dysfunction in CGs' families. Higher quality of care—Provide was also related to shorter duration of time (in months) spent providing care. **Conclusion**: Dementia CG interventions in Latino populations would likely benefit from addressing difficulties experienced when providing care for a prolonged period of time, as well as programming or techniques to improve family dynamics, especially family empathy and general functioning, given the strong reciprocal influence of these factors on CG quality of care.

Keywords

caregivers, dementia, Latin America, family dynamics, quality of care

Introduction

Dementia is a progressive disorder that causes irreversible changes in the brain, resulting in memory impairments, confusion, difficulties with problem solving as well as mood and personality changes.[1] Economic toll from this illness worldwide is estimated at US$604 billion in 2010,[2] and it is projected to become a major public health problem in the coming decades.[3] It is estimated that there are currently 35.6 million people with dementia worldwide.[4] This figure is likely to double every 20 years and reach 115.4 million by 2050,[4] with more than 60% of individuals affected by the disorder living in developing countries.[5] Specifically, Latin America has experienced a significant increase in life expectancy over the past 60 years (from 51.8 to 74.5 years) with a corresponding increase in the proportion of the elderly population.[6] Subsequently, prevalence of dementia in Latin America is higher than in other parts of the world, such as Western Europe or Eastern Asia (8.5%, 6.9%, and 4.2%, respectively).[4]

Due to its progressive and debilitating course, dementia affects the individual as well as the family.[7] As a result of the diseases' effect on the behavioral, cognitive, and emotional functioning, individuals with dementia require increasing amounts of assistance with activities of daily living (ADLs) including self-care, dressing, meal preparation, and finance management.[5] Most assistance is provided by informal caregivers (CGs; ie, family and friends),[8] with the

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largest proportion consisting of female spouses, children, and children-in-law.[9]

Negative effects of providing informal care to a person with dementia (PWD) are well documented. They include physical problems (eg, sleep disturbance, hypertension, compromised immune system functioning, and increased mortality rates)[10-14] as well as psychological and emotional health consequences (eg, increased rates of depression, anxiety, and burden).[15-18] Additionally, effects of diminished social support (eg, fewer socialization opportunities due to activity restrictions and reduced personal time) have been reported in previous research.[19,20] Not surprisingly, caring for a PWD is more stressful than caring for individuals with a physical disability or frail older adults without dementia who are not near the end of life.[21,22]

Among the factors that influence informal CG adjustment, family functioning variables have emerged as some of the most salient. There is an increasing amount of evidence that in the context of family systems theory,[23] family factors such as marital cohesion, communication patterns, boundary ambiguity, and family adaptability are related to emotional functioning of informal CGs.[24-27] Family conflict has been associated with increased CG depression and anger[28] as well as higher perceived burden and poorer mental health,[29] while high family cohesion has been associated with reduced CG depression and burden.[30] Additionally, quality CG–care recipient (CR) relationship prior to diagnosis is associated with increased satisfaction with care provision.[31] Numerous family interaction patterns are believed to contribute to CG distress including emotional detachment or overinvolvement, negativity, and ineffective conflict resolution.[32] However, factors such as high family support, validation of the CG's leadership, and collaborative decision making in the family may serve a protective function in shielding CGs from the negative effects of stress.[33]

Recent research indicates that providing care may also offer positive consequences for CGs. When providing "high-quality care," CGs can benefit from decreased mortality[34] and improved emotional functioning.[35] In the literature, "quality of care" is identified as a multidimensional construct which encompasses 3 factors, namely, adequacy of care to meet CRs' needs (on a continuum from inadequate to adequate), potentially harmful behaviors (PHBs; care that is less than optimal but not so severe as to warrant involvement of social or legal services), and exemplary care (EC; demonstrating to a CR that he or she is respected, loved, and worthy of special consideration).[36,37] High-quality care, therefore, is not only adequate (ie, satisfies the CR's needs in terms of basic and instrumental ADLs) but also includes the requisite component of communicating to the CR respect, concern, and thoughtfulness about their well-being.[35] Provision of this type of care and the corresponding interpersonal dynamics and interaction have been shown to forecast well-being of both the CGs and CRs, such that subjective perception of sensitivity in care provision predicted levels of depression and sense of mastery.[38,39] Conversely, conflicts among CRs and their CGs are more likely if CRs feel disrespected, demeaned, less competent, or in control.[40,41] Empirical evidence suggests that sensitivity, reciprocity, and respect in care provision may play a larger role in delivery of high-quality care than its amount or adequacy.[36]

Table 1. Caregiver Sociodemographic Characteristics.

Sociodemographic Characteristics	Family Dementia Caregivers (N = 102)
Age, years, mean (SD)	57.8 (13.5)
Gender, % female	74.5
Marital status, %	
Single	9.8
Married	80.4
Divorced/separated	4.9
Other	4.9
Education, %	
Elementary/primary	18.5
Some high school	2.0
Completed high school	43.1
Technical studies	2.0
Some college	2.0
Completed college	32.4
Socioeconomic level, %	
1-2 (times the minimum wage)	10.8
2-3	45.1
3-4	28.4
4+	15.7

Abbreviation: SD, standard deviation.

Despite the increasing prevalence of dementia in Latin America, there is still a relative paucity of research conducted with Latin American dementia CGs. Caregivers from this population are more likely to be religious, collectivist, have strong familial ties and a sense of obligation to support family members who are sick or in need,[42,43] and likely possess distinct patterns of family dynamics. The lack of access to resources including support services, residential programs, and CG treatment or interventions, suggests that these needs are less likely to be met and subsequently necessitate further study.[44-46] As such, the purpose of the present study was to investigate the relationship between family dynamics variables and provision of high-quality informal care in a sample of dementia CGs from Argentina, Latin America.

Method

Participants

The sample was comprised of 102 CGs from Rosario, Argentina. Caregivers were eligible to participate in this study if they (a) were related to the PWD, (b) were the primary CG of that person, (c) had been providing care for at least 3 months, (d) were knowledgeable about the patient's family and medical history, and (e) had no history of neurological and psychiatric disorders or learning disabilities. Participants were recruited from the Instituto de Neurociencias de San Lucas, Argentina, with 102 CGs meeting the inclusion criteria.

For a summary of CG demographics please see Table 1. The sample had an average age of 57.8 years (standard deviation

[SD] = 13.5) and was 74.5% female (n = 76). The average education level of the sample was 14.2 years (SD = 4.9), with 43.1% and 32.4% of the sample reporting having completed high school and college education, respectively. The CGs were either spouses or children of the PWD (52% and 48%, respectively), with 80.4% of the sample reporting to be married, 9.8% single (never married), and 4.9% divorced or separated. Observation of family income identified that 10.8% of the CGs earned between 1 and 2 times minimum wage, 45.1% earned the equivalent of between 2 and 3 times the minimum wage, 28.4% between 3 and 4 times minimum wage, and 15.7% more than 4 times minimum wage. Caregivers reported providing care for an average of 48.88 months (SD = 23.03) and spending 63.75 hours/week (SD = 18.58) on care provision. The CRs' average score on the Mini-Mental Status Examination (MMSE) was 20.4 (SD = 2.60), with a range of 10 to 24.

Measures

A researcher-created questionnaire was used to gather demographic information from dementia CGs. Caregivers then completed several measures that assessed quality of informal care and family dynamics. Many measures had Spanish versions readily available; however, Chapman and Carter's[47] methodology was employed to translate measures without accessible Spanish versions (ie, Relationship-Focused Coping Scale [RFCS] and Family Assessment Device-General Functioning [FAD-GF]). Measures were translated by a bilingual and bicultural researcher into Spanish then back-translated into English by a separate bilingual and bicultural researcher. Any discrepancies between the original English and back-translated English versions were mutually resolved.

Relationship-focused coping scale. The RFCS was utilized to evaluate empathic responding with an emphasis on preserving, managing, and/or maintaining relationships with family members during stressful periods.[48] Participants were asked to endorse 10 items (eg, "Tried to see things from the other person's point of view" and "Tried to understand how the other person felt") using a response scale from 0 (not at all) to 3 (a lot) with higher total scores representing greater levels of empathic responding. The RFCS has been validated and shown good reliability and high internal consistency (α = .93).[48] The translated version of this scale also had good internal consistency (α = .93) for this sample.

Family Adaptability and Cohesion Evaluation scale—fourth edition. The Spanish version of the Family Adaptability and Cohesion Evaluation scale—fourth edition (FACES-IV)[49] was used to evaluate family satisfaction, communication, cohesion, and flexibility. Two subscales measure balanced and unbalanced domains of flexibility (eg, "It is important to follow the rules in our family") and cohesion (eg, "Family members seem to avoid contact with each other when at home"). The subscales purport to measure the upper and lower limits of cohesion (eg, disengagement and enmeshment) and flexibility (eg, rigid and chaotic). To evaluate such constructs, 2 ratio scores are created that measure the amount of balance versus unbalance within its respective domain with higher scores representing more balanced or healthier systems.[50] The Spanish version of the FACES-IV has been shown to have adequate convergent, concurrent, and content validity as well as good internal consistency (α = .87).[49]

Family Assessment Device—General Functioning. The FAD-GF contains 12 items, measures overall health and dysfunction in the family system,[51] and is a useful tool for assessing family functioning in both clinical and research contexts.[52] Participants are asked to rate items (eg., "Planning family activities is difficult because we misunderstand each other.") on a 4-point scale from 1 (strongly agree) to 4 (strongly disagree), with higher total scores indicating more dysfunction and pathology within the family's dynamics and poorer general functioning. Because a Spanish version did not exist, the FAD-GF was translated for the purposes of this study. The English version of the FAD-GF has demonstrated good discriminant validity and good internal consistency (α = .83).[53] The translated version of this scale had good internal consistency (α = .90).

The exemplary care scale. The Exemplary Care Scale (ECS)is composed of 11 items with response options provided on a Likert-type scale (1 = Never, 2 = Sometimes, 3 = Often, and 4 = Always). The ECS assesses 2 primary factors (1) *Provision* of personalized care that extends beyond meeting basic needs (eg, "I make sure the food my care recipient likes is available for meals and snacks") and (2) *Respect* for the CR's feelings, wishes, opinions, self-esteem, and values (eg, "I try to maintain a relaxed, unhurried atmosphere").[36] The scale was initially developed with samples of CGs of older adults and is a useful tool for evaluating quality of informal care for chronically ill people. Total scores range from 11 to 44, with higher scores indicating increased EC.[36]

Procedure

This study was reviewed and approved by the ethics committee of the University of Deusto (Spain). All participants received an explanation of the study and signed an informed consent prior to enrollment. Subsequently, the participants completed a 60- to 90-minute interview with a psychologist, which took place during the CR's routine visit for a neurology consultation. During the interview, the participants provided sociodemographic information and filled out the paper-and-pencil measures of family functioning and CG quality of care. The participants received no compensation for their participation.

Data Analysis

A correlation matrix was created showing the bivariate relationships among all variables in the study. Two hierarchical multiple regressions investigated the extent to which family

Table 2. Correlations Between Quality of Care and Caregiver Family Dynamics.

Variable	1	2	3	4	5	6	7	8
1. Care—Provide								
2. Care—Respect	.79[a]							
3. Empathy	.28[a]	.40[a]						
4. General functioning	−.35[a]	−.42[a]	−.29[a]					
5. Cohesion	.26[b]	.28[a]	.32[a]	−.67[a]				
6. Flexibility	.13	.24[b]	.21[b]	−.52[a]	.79[a]			
7. Communication	.23[b]	.33[a]	.33[a]	−.80[a]	.65[a]	.55[a]		
8. Family satisfaction	.28[a]	.29[a]	.24[a]	−.79[a]	.56[a]	.40[a]	.83[a]	

[a] $P \leq .01$ (2-tailed).
[b] $P \leq .05$ (2-tailed).

Table 3. Hierarchical Multiple Regression Associations Between Caregiver Variables, Family Dynamics Factors, and Quality of Care—Provide.[a]

	Model 1			Model 2		
Variable	*B*	*SE B*	β	*B*	*SE B*	β
Mini-Mental Score	−0.12	0.11	−.13	−0.16	0.11	−.18
Months caregiving	−0.40	0.01	−.38[b]	−0.04	0.01	−.39[b]
Hours/week caregiving	0.02	0.02	.18	0.01	0.02	.07
Age	0.003	0.02	.02	0.02	0.02	.10
Gender	0.44	0.57	.08	−0.02	0.56	−.003
Education	−0.14	0.14	−.13	−0.17	0.14	−.16
Income	0.37	0.32	.14	0.23	0.31	.09
Empathy				0.10	0.04	.21[c]
General functioning				−2.03	0.90	−.41[c]
Cohesion				0.13	0.36	.06
Flexibility				−0.38	0.59	−.10
Communication				−0.05	0.06	−.18
Family satisfaction				0.01	0.05	.04
R^2		.16			.32	
ΔR^2		.16			.16[c]	
F for change in R^2		2.60[c]			3.29[b]	

Abbreviation: SE, standard error.
[a] N = 102.
[b] $P < .01$.
[c] $P < .05$.

dynamic variables (cohesion, flexibility, family satisfaction, family communication, general family functioning, and empathy) were associated with each of the CG quality-of-care variables (provision of exceptional care [Provide] and respect for care–recipient autonomy [Respect]) after controlling for demographics and caregiving characteristics. In each regression model, CG gender, age, income, level of education, months spent caregiving, hours per week spent caregiving, and patients' score on the Mini-Mental Status Examination were entered as variables in the first step, the 6 family dynamic variables were entered as independent variables in the second step, and each of the 2 CG quality-of-care variables were entered as the dependent variable in each regression. A significance level of 5% ($\alpha < .05$) was used for the analyses. Analyses were performed using SPSS 22.0 (IBM Corp, Armonk, New York).

Results

Correlation Matrix

A correlation matrix was generated to examine the bivariate relationships among all variables in the current study (Table 2). Caregiver care provision variables (Provide and Respect) were positively and significantly correlated ($r =$ .79). Caregiver quality of care (Provide) was positively correlated with empathy, cohesion, communication, and family satisfaction, was negatively related to general family functioning/pathology, and was not significantly correlated with flexibility ($P = .20$). Caregiver quality of care (Respect) was positively correlated with empathy, cohesion, flexibility, communication, and family satisfaction and negatively correlated with general family functioning. All family dynamic variables were significantly related to each other.

Quality of Care—Provide

In the first hierarchical multiple regression model (Table 3), the CG characteristics (CG's age, gender, income, relationship status, months spent caregiving, and hours per week spent caregiving) and patient's MMSE score were entered into the first step. The first model was significant, $F_{7,94} =$ 2.600, $p = .017$, $R^2 = .162$. The second model including the 6 family dynamic variables was significant, $F_{13,88} = 3.123$, $P = .001$, $R^2 = .316$. When the CG quality-of-care variable was regressed onto the family dynamics variables, the amount of variance explained in CG quality of care increased by a significant $\Delta R^2 = .153$, $\Delta F_{6,88} = 3.289$, $P = .006$. Months providing care was significantly related to Provide, $\beta =$ $-.391$, $t(101) = -3.280$, $p = .001$, such that longer duration of care provision was associated with lower levels of quality of care—Provide. Additionally, family dynamics variables of empathy, ($\beta = .212$, $t(101) = 2.200$, $P = .030$, and general functioning, $\beta = .-408$, $t(101) = -2.260$, $P = .026$, were significantly associated with quality of care—Provide, with higher levels of empathy and better general functioning linked with greater levels of quality of care—Provide. However, cohesion, communication, family satisfaction, and flexibility

Table 4. Hierarchical Multiple Regression Associations Between Caregiver Variables, Family Dynamics Factors, and Quality of Care—Respect.[a]

	Model 1			Model 2		
Variable	*B*	*SE B*	β	*B*	*SE B*	β
Mini-mental score	–0.09	0.22	–.05	–0.20	0.19	–.12
Months caregiving	–0.03	0.03	–.17	–0.04	0.02	–.22
Hours/week caregiving	0.05	0.03	.20	0.02	0.03	.08
Age	0.005	0.05	.02	0.05	0.04	.14
Gender	0.44	1.09	.05	–0.59	1.01	–.06
Education	0.07	0.27	.04	0.03	0.24	.01
Income	0.05	0.62	.01	–0.14	0.56	–.03
Empathy				0.30	0.08	.34[b]
General functioning				–4.34	1.61	–.48[c]
Cohesion				–0.67	0.65	–.18
Flexibility				0.80	1.06	.12
Communication				0.01	0.10	–.01
Family satisfaction				–0.05	0.08	–.12
R^2		.05			.32	
ΔR^2		.05			.27[b]	
F for change in R^2		.73			5.85[b]	

Abbreviation: SE, standard error.

[a] N = 102.

[b] $p < .001$.

[c] $p < .01$.

were not independently related to quality of care—Provide (all *P*s > .354).

Quality of Care—Respect

The second hierarchical multiple regression model was run in the same manner as the first but substituting CG quality of care—Respect as the dependent variable (Table 4). The first model was not significant, $F_{7,94} = 0.731$, $P = .646$, $R^2 = .052$. When the CG quality of care—Respect scores were regressed onto the 6 family dynamics variables, the second model was significant, $F_{13,88} = 3.218$, $P < .001$, $R^2 = .322$, with the amount of variance explained in CG Respect increasing significantly, $\Delta R^2 = .271$, $\Delta F_{6,88} = 5.854$, $P < .001$. Empathy was significantly associated with Respect, $\beta = .341$, $t(101) = 3.554$, $P = .001$, as was general functioning, $\beta = .{-}484$, $t(101) = -2.696$, $P = .008$, such that higher levels of empathy and better general functioning were associated with greater levels of quality of care—Respect. None of the other family dynamics variables were independently related to quality of care—Respect (all *P*s > .304).

Discussion

There is a dearth of research highlighting the importance of family dynamics on quality of care, much less how this extends to Latin American dementia CGs. Given the unique characteristics of this population, the aim of the current study was to investigate the role of family dynamics in the quality of informal care provided by dementia CGs from Argentina. It was hypothesized that healthier family dynamics would be predictive of high quality of informal care by dementia CGs. Examination of bivariate correlations indicates that nearly all family dynamics were significantly associated with quality-of-care provision variables, such that CGs provided better quality of care when their family dynamics were more healthy. In a series of hierarchical multiple regressions, family dynamics were significantly associated with quality-of-care provision after controlling for CG characteristics. Within these regression models, provision of exemplary care was uniquely associated with family dynamic variables of empathy and general functioning, such that greater levels of empathic response and lower levels of dysfunction/pathology in the family unit were associated with higher quality of care. Additionally, fewer months spent caregiving were uniquely associated with higher quality of care—Provide.

In the first regression equation including CG demographics and characteristics and the 6 family dynamics as independent variables and quality of care—Provide as the criterion variable, months spent providing care, empathy, and general functioning were all uniquely associated with quality of care—Provide after controlling for CG characteristics. Prior research indicates that longer time spent providing care to a loved one with dementia is related to declining CG mental and physical health, which impacts the quality of care provided by informal family CGs.[54] Similarly, CGs are more likely to experience CG strain when more time is spent providing care (ie, the "wear and tear" hypothesis)[55,56-58] as well as when there is greater family dysfunction.[59,60] When CGs are burdened, they may be less likely to form or sustain a meaningful relationship with the CR and subsequently be less likely to provide exemplary care.[36] In contrast, CGs generally report greater well-being when CGs' families engage in greater empathic response.[61] Caregivers with healthier family dynamics, including greater empathy and family functioning, have been associated with greater help to the patient,[62] which in turn may yield provision of exemplary care.

Similar to the first, the second regression model including family dynamics and CG demographics and characteristics as the predictor variables and quality of care—Respect as the outcome variable, general functioning and empathy showed a unique association with quality of care—Respect, after controlling for CG characteristics and demographics. Research has shown that CGs who experience family conflict are less likely to receive social and emotional support,[57] which may exacerbate CG strain. High stress has been associated with PHB through increased depression[64]; PHB has subsequently been negatively related to the Respect subscale.[36] On the other hand, Cheng and colleagues found that positive exchanges between CGs and family members were associated with lower burden and overload.[65] It is possible that when CGs experience their family dynamics as healthy and supportive, they are able to empathize with the CR and may be more likely to form or maintain a significant connection with the patient. This suggests that such meaningful relationships allow the CG to increasingly respect the CRs' wishes and viewpoints, which may be especially important for CGs in Latin America, where caring for an older adult is seen as a way of showing respect.[66]

Clinical Implications

Implications for clinical practice among dementia CGs in Latin America emerge from the results of this study which suggest that in an effort to improve quality of care for patients with dementia, future interventions should target empathy and overall family functioning as important family dynamics constructs. The results of the current study indicate that studies of interventions to improve quality of care place more emphasis on increasing empathic response by the CG, and on improving overall family functioning, which were both associated with provision of quality care and respect toward the CR. Prior intervention research has primarily focused on improving CG mental health by targeting family dynamics, such as improving family cohesion,[33] communication,[67] and family conflict[68]; however, studies aimed at improving quality of care via enhancement of family dynamics remain scarce. The results of the present study suggest that family-based interventions for CGs of individuals with dementia could impact the quality of patient care by improving general family functioning and levels of empathic responding within the family unit. These results shed a light on an understudied region where family relations play an important role in everyday life, especially for individuals affected by chronic and neurological conditions and their CGs.[61,69,70] Previous studies have revealed the protective nature of family relationships in the cultural context, with Latino informal CGs reporting lower levels of burden and depression as a function of familism values, when compared to CGs from other cultures.[71] Latino familism has been identified as a factor in delayed institutionalization of patients with dementia,[72] and Latino CGs with stronger identification and attachment to their families were most sensitive to family disagreement and experienced greater physical and depressive symptoms as well as higher levels of burden.[73] Future interventions could highlight the importance of improved empathic response and healthier family functioning in an effort to improve patient's quality of care. Possible strategies for such interventions could include a particular focus on skills such as perspective taking, efforts to interpret the psychological states underlying the CR's verbal and nonverbal communication, responding sensitively to the patient, and expressing caring and understanding in a nonjudgmental, accepting, and emotionally validating manner. The ability to respond empathically during times of stress may serve to create and maintain satisfying and meaningful relationships,[74] resulting in better quality of care provision.

Additionally, prior research has shown that providing informal CGs with respite programs and access to adult day care services for their family members with dementia increases CG well-being and reduces levels of anger, stress, and depression.[75,76] Better CG mental health functioning in turn has been related to higher likelihood of providing exemplary care.[36] This could prove essential and beneficial for CGs who have been providing care for extended periods of time in order to improve their quality of care provision, since the findings of the present study indicated that longer duration of providing care was associated with reduced quality of care provision. Therefore, creation and implementation of services such as respite programs (which are generally scarce in Latin America[77]) could be beneficial for CGs in this region when it comes to providing high-quality informal care.

Limitations and Future Directions

Despite the current study showing strong support for targeting empathy and general functioning as unique family dynamics in dementia CGs in Argentina, it has several limitations. First, the cross-sectional nature of the study impedes causal inference to be drawn between CG family dynamics and provision of exemplary care. Healthy family dynamics may provide support to the CG and in turn result in provision of exemplary care. It may also be possible that CGs who are providing high quality of care may cope with caregiving stress more effectively and subsequently may engage in healthier family dynamics. As a result, future studies should collect longitudinal data on these constructs in an effort to infer causal relationships between family dynamics and quality of care. Second, all CGs were recruited from a neuroscience institute in Argentina where patients received support for their disease, a scarce resource in the region. This may explain the relatively high income of the current sample and may not be representative of CGs living in more rural areas as well as those with limited access to health care resources.

Previous research has suggested that the psychological, physical, and emotional sequelae of providing care for a loved one with dementia may vary as a function of relatedness to the CR.[78,79] Future investigations should consider exploring the CG relationship differences in family dynamics processes and quality of care provision in studies with larger sample size. Additionally, much of the research in dementia CGs highlights the association between CG mental health and quality of care. Future research should examine mental health as a potential mediator between family dynamics and quality of care to provide a more comprehensive overview of the direction among these relationships. Finally, quality-of-care provision was assessed using a self-reported measure only and did not take into consideration CRs' perception of the care they received.

Conclusion

The findings from this study indicate that family dynamics and quality of care provided for by dementia CGs are significantly related in Argentina and that family empathy and general dysfunction may be uniquely related to provision of exemplary informal care. In cultures where familism plays a significant role, especially when caring for a relative with dementia, a focus on relationship-focused coping strategies may prove to benefit quality of care for dementia recipients. Interventions aimed at improving family relations in regions with collectivistic cultures like that in the present study may improve empathy and reduce family conflict and consequently improve quality of care for people with dementia.

Declaration of Conflicting Interests

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