

SOCIAL EPIDEMIOLOGY

Support from children, living arrangements, self-rated health and depressive symptoms of older people in Spain

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Objective	To assess the association between emotional and instrumental support from children and living arrangements with the physical and mental health of older people in Spain.
Methods	A face-to-face home interview was carried out with 1284 community-dwelling people over 65 (response rate = 83%) randomly sampled according to an age- and sex-stratified sampling scheme in 1993 at Leganés (Spain). Close to 93% of the participants had children and 45% of them coresided with them. Depressive symptoms were assessed by the CES-D (Center for Epidemiologic study depression scale) and self-rated health (SRH) by a single-item question. Emotional support was measured with a six-item scale on affection and reciprocity. Instrumental support was assessed by help received from children in 17 activities of daily living. Four living arrangements were considered: Living with spouse only, living with a spouse and children, widower living alone, and widower living with children.
Results	Multivariate analysis controlling for age, gender, education and functional status showed that low emotional support and reception of instrumental aid were significantly associated with poor SRH. Being a widower and sharing living arrangements with children was associated with good SRH. Living arrangements modify some of the associations of support of children with SRH. Depressive symptoms were associated with low emotional support, reception of instrumental help and being a widower who did not share living arrangements with children. For widowers who do not cohabit with children, reception of instrumental aid is associated with low depressive symptomatology.
Discussion	Emotional support from children seems to play an important role in maintaining the physical and mental health of elderly people in Spain. Instrumental support is widely available. Coresidence with children is very common and it is associated with good self-perceived health and low prevalence of depressive symptoms in a culture where family interdependence is highly valued. Families should be protected and encouraged to continue care-giving through a variety of community services and respite care, adapted to their needs and preferences. Research should be undertaken to find more efficient ways to help family caregivers in the Mediterranean context.
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Although international research has consistently shown that lack of social support is associated with increased mortality^{1–7} and poor health,^{4,8–9} studies on the effects of specific sources of social support in different cultures are needed. It is widely recognized that children play an important role in the wellbeing of the elderly but little is known about the specific effects

of support from children on their parent's health. A three-generation North American longitudinal study showed that children's emotional and instrumental support has beneficial effects on survival and psychological wellbeing of parents, particularly when the elderly experience widowhood or declining health.^{10,11} The authors stated that older parents prefer to be functionally autonomous for as long as possible but support from children becomes important at times of crisis. Coresidence and instrumental support appeared to be detrimental to older married couples.¹¹ Other studies carried out in the US have found no¹² or negative consequences of children's support on the morale and mental health of elderly parents.^{13,14} These negative effects have been explained by the decline in self-esteem associated with the loss of autonomy and physical and/or economic dependence. Ethnic and socioeconomic differences in the effects of support of children on the mental health of their parents have also been reported in the US.¹⁵ While for blacks and low income whites children's social support buffered the effect of stress on depression, for high income whites call on children's help for physical and emotional needs lowers self-esteem and increases the risk of depression. In Mexican Americans living in the US, the more affection from children, the fewer the somatic symptoms reported by the elderly.¹⁶ In studies from China and Japan, children's emotional support was positively associated with parent's self-rated health (SRH).^{7,17}

This paper examines the association between support from children and elderly parents' health in Spain, a Mediterranean culture where parents have strong expectations of their children's sense of obligation towards them. We hypothesize that poor support and living alone would have detrimental effects on the physical and mental health of older people in the Spanish society where good support from children and coresidence are the norm. In addition, Spanish society is going through rapid changes: Spanish women in the younger generations are increasingly working outside the home, single family dwellings have become the most frequent housing units, and the size of dwellings has been shrinking.¹⁸ These societal changes may influence the nature and the quality of the relationships between children and their elderly parents since mismatches in the expectations of elderly parents and their children may arise with increased frequency and the deleterious effects of poor support on health of the older people may be more readily detectable.

As part of a study of a population of Spanish community-dwelling people over 65, we examined the association between living arrangements, children's emotional and instrumental support and the physical and mental health of their parents. In particular, we aimed to answer the following questions: (1) What are the relationships between living arrangements, children's emotional and instrumental support, and their parents' SRH and depression? (2) Do living arrangements modify the effects of children's emotional and instrumental support on SRH and depression of their elderly parents?

Methods

Population and sample

Data for this paper are from 'Envejecer en Leganés' (Ageing in Leganés), a longitudinal study of community-dwelling elderly.¹⁹ Leganés is a middle working class city in the metropolitan

area of Madrid. The sample was drawn from the city registry, in which citizens of all ages must register for receipt of municipal and social services. The sample was stratified by 13 2-year age groups (65–66, 67–68, ... 89+) and gender. An equal number of individuals were selected in each of the 26 age-by-gender strata in order to include enough respondents of each age group and gender in the sample. The study sample is representative of the Leganés elderly population and to a considerable degree, of older adults in Spain in general. The age, sex, level of education and SRH of the sample are comparable to the distributions of the Spanish Health Survey carried out in 1987. Response rate was 83% (n = 1284). For this paper, information on the 1193 respondents who reported having living children will be presented. Participants who did not provide information on SRH (n = 112) or depressive symptoms (n = 165) were excluded from the corresponding analysis. These subjects, who were not able to answer the questionnaire due to cognitive deficit, severe chronic conditions or hearing problems, were significantly older ($P < 0.001$) and more disabled ($P < 0.001$) than those included in the corresponding analysis of SRH (n = 1081) or depressive symptoms (n = 1028).

Measurement of the variables

Two dependent variables are considered in this study: SRH and depressive symptoms. Self-rated health was assessed by the question: How would you rate your health: very good, good, fair, poor, very poor. For the descriptive analysis these categories were grouped as good (very good and good) and poor (fair, poor and very poor). For the multivariate analysis the SRH variable ranging from 1 = very good to 5 = very poor has been used in order to study the whole range of variation. Depressive symptomatology was measured with the 20-item Centre for Epidemiologic Studies Depression (CES-D) scale.²⁰ The Spanish version of the CES-D from the Hispanic Health and Nutrition Examination Survey²¹ was used. For the descriptive analysis the 16-point cut-off has been used as it has been validated by us using the criterion of diagnosis of major depression by the Diagnostic and Statistical Manual of Mental Disorders, Third Edn (DSMIII) in a separate sample of older people living in a nearby city.²² The score was treated as a continuous variable in multivariate analyses.

The main independent variables in this study are living arrangements and emotional and instrumental support provided by children. Living arrangements were categorized in four groups according to coresidence with children and with the spouse: married couple alone, widows living without children, widows living with children and finally, married couple living with children; under the assumption that household structures offer different levels and types of resources^{23,24} and it is living arrangements more than marital status *per se* that determines the organization of the household and the exchanges of support.²⁵ To assess emotional support from children, a scale with six questions and four choices of response, based on the work of Seeman *et al.*²⁵ was applied. The questions were: How frequently do you feel loved by your children? How frequently do you feel you are listened to by your children? How frequently do you feel you can have confidence in your children? How frequently do you feel you help your children? How frequently do you feel useful to your children? How often do you feel you have an important role for your children? Factor analysis

of the scale showed that a single factor could represent the information on social support, therefore items were added to produce a single score. Since adverse health effects have been shown mostly for those who lack emotional support, subjects were classified according to whether or not they were in the lower quartile of the distribution for support of children. Instrumental support was assessed by whether or not the elderly people received instrumental help from their children for any of seven basic and ten instrumental activities of daily living.

Age, gender, education and functional status are considered potential confounders and/or modifiers of the association between support from children and parent's health and their effects were estimated by multivariate analysis. Education was categorized as complete or incomplete primary education. Functional status was categorized in four domains: complete function, functional limitations (FL), instrumental activities of daily living (IADL) disability and activities of daily living (ADL) disability.¹⁹ Activities of daily living was assessed by dependence on any of five basic activities,²⁶ IADL was based on dependence on any of 10 instrumental activities²⁷ and FL were assessed by difficulty in any of four tasks requiring mobility of the upper and lower extremities.²⁸

Statistical analysis

Two sets of analyses were run to answer the research questions. First, to test if children's emotional and instrumental support and living arrangements were significantly associated with SRH and depression, two separate multiple linear regressions were fitted, one for each dependent variable. In the first analysis, we estimated the coefficients for living arrangements and emotional and instrumental support from children without controlling for any potential confounders, in order to test for an overall statistical association. Using a structured inclusion of potential confounders, we included age, gender and education in the first step and functional status in the second step to explore how the magnitude of the coefficients of living arrangements and support of children were changed after the introduction of these covariates. In the second analysis, interactions between living arrangements and emotional and instrumental support were tested, controlling for age, gender, education and functional status to assess if the associations of children's support with physical and mental health were modified by living arrangements.

Results

The descriptive characteristics of the study sample are shown in Table 1a. Proportions are weighted by the sampling scheme. More than two-thirds of the sample rated their health as fair or poor. Women's health status was significantly worse than men's: more women (76.9%) than men (58.5%) perceived their health as fair or poor and prevalence of depression (CES-D score ≥ 16) was more than three times higher in women (38.7%) than in men (11.8%). Fifteen per cent of elderly men were widowed compared to 55.3% of the women. More women (51.6%) than men (38.5%) were living with their children. Women had lower education and had higher prevalence of disability than men. Sixty-six per cent of those who were widows or widowers and 34% of those who were married shared living arrangements with at least one child. In Table 1b, the means and standard deviations of the continuous scores on

SRH and CES-D are shown. Significant associations of emotional and instrumental support with SRH and depressive symptoms are shown. Self-rated health does not vary by living arrangements while widowers had more depressive symptoms, regardless of sharing living arrangements with their children. Associations of SRH and depressive symptoms with age, gender, education and functional status are in the expected direction from previous studies.

Of the participants, 50% received help from their children and 46% shared living arrangements with them. Table 2 shows the percentages of older people with low emotional support and no instrumental help from children across different living arrangements. As expected, 70% of those who live only with their spouse do not receive help from their children compared to 10% of those widow(er)s living with children. Emotional support does not vary greatly by living arrangements although widowers tend to report having less support from children than married people.

Results of the multivariate analysis of the associations of SRH with support from children and living arrangements are shown in Table 3. First, the lack of emotional support and the reception of instrumental support are independently associated with poor SRH. Widowers living with their children report better health than older people in other living arrangements. Second, when controlling for age, gender and education, the magnitude of the associations does not change except that the coefficient for widowers living with children increases from -0.18 to -0.27 . Third, when functional status is included in the model, the coefficient for instrumental support decreases from 0.28 to 0.15 indicating that part of the association between SRH and instrumental support is due to compromised function. Those older people who are disabled are likely to receive instrumental aid from their children and they are also likely to report poor health.

Table 4 reports the modifying effect of living arrangements on the associations of children's emotional support and instrumental help with SRH. The reference category for interpreting the interaction terms is subjects living only with spouse. Two interaction terms were significant: (1) for widow(er)s living with children, lacking emotional support is especially associated with poor SRH; (2) for widow(er)s who do not share living arrangements with their children, receiving instrumental aid is especially associated with good SRH.

Results from the multivariate analysis of CES-D scores are shown in Table 5. Here again, reporting low emotional support and receiving instrumental help from children is positively associated with depressive symptoms. Widow(er)s not living with children have more depressive symptoms than older people in other living arrangements but, after controlling for age, gender and education, this last association loses statistical significance. This is due to the confounding effect of gender. However, after controlling for functional status, the coefficient reaches significance again indicating that for widows who are disabled, sharing living arrangements with children is associated with low depressive symptoms. At this stage, the association of instrumental support with depressive symptoms loses significance suggesting that those subjects with compromised function receive more instrumental support and are more likely to be depressed.

Table 6 shows the modifying effect of living arrangements on social support. For widowers who do not live with children,

Table 1a Descriptive statistics for the Leganés study sample with children^a

	Women (n = 609)	Men (n = 584)	Total (n = 1193)	<i>P</i> (χ^2)
Self-rated health (n = 1081)				<0.000
Very good and good	23.1%	41.5%	31.0%	
Fair, poor and very poor	76.9%	58.5%	69.0%	
Depressive symptoms (CES-D)^b (n = 1028)				<0.000
<16	61.3%	88.2%	72.8%	
≥16	38.7%	11.8%	27.2%	
Emotional support				0.122
Lowest quartile	24.2%	20.2%	22.5%	
Other quartiles	75.8%	79.8%	77.5%	
Instrumental support				<0.000
No help received from children	39.5%	64.8%	50.2%	
Help received from children	60.5%	35.2%	49.8%	
Living arrangements				<0.000
Widowed not living with children	19.0%	5.5%	13.3%	
Widowed living with children	36.3%	9.9%	25.3%	
Married not living with children	29.2%	56.0%	40.5%	
Married living with children	15.2%	28.5%	20.9%	
Age (years)				0.004
65–74	56.7%	65.3%	60.4%	
75–84	31.5%	27.3%	29.8%	
≥85	11.8%	7.3%	9.9%	
Education				<0.000
Incomplete primary school	88.3%	71.1%	81.0%	
Primary school or more	11.7%	28.9%	19.0%	
Functional status				<0.000
No FL ^c	33.6%	58.4%	44.1%	
FL	16.1%	11.3%	14.1%	
IADL ^d disability	31.2%	18.2%	25.7%	
ADL ^e disability	19.0%	12.1%	16.1%	

^a Weighted percentages.

^b Centre for Epidemiologic Study Depression Scale.

^c Functional limitations.

^d Instrumental activities of daily living.

^e Activities of daily living.

lacking emotional support is particularly associated with depressive symptoms. At the same time, for widowers who do not live with children, the availability of instrumental support is associated with low CES-D score.

Discussion

We have presented strong evidence of differential SRH and depressive symptoms among older adults in Spain according to the support they receive from children and their living arrangements. Children's emotional support is positively associated with the physical and mental health of older people in Spain. Overall, instrumental help from children is associated with high levels of depression and poor SRH, although for widow(er)s who live alone, instrumental help is associated with low depressive symptomatology and good SRH. Sharing living arrangements with children is associated with low depressive symptomatology and good SRH.

Relation of findings to existing knowledge

Comparisons of the effect of support from children on SRH and depression of the elderly are difficult since most published studies have been done in cultures where an individualistic perspective promoting autonomy within the family is the predominant view. Our hypothesis was that in cultures where family interdependence is highly valued, older people who can rely on their children for emotional and instrumental support will experience beneficial health effects from this support. Also, those who are able to share living arrangements, when they lose their spouse or when they become disabled, will feel in better health and will experience less depression than older people who cannot rely on their children for affection and comfort or who are not able to share houses when they are widowed or disabled. Our findings suggest that the roles of children are an important influence on the wellbeing of their parents.

Literature on living arrangements is based on societies where less than 5% of the older people live with their children, between

Table 1b Distributions of self-rated health and Centre for Epidemiologic Study Depression Scale (CES-D) score by children's support, living arrangements, sociodemographic characteristics and functional status of Leganés sample

	Self-rated health			CES-D score		
	n	Mean ± SD	P-value	n	Mean ± SD	P-value
Emotional support			0.000			0.000
Lowest quartile	245	3.07 ± 0.88		244	15.2 ± 10.4	
Other quartiles	774	2.76 ± 0.82		766	9.9 ± 8.7	
Instrumental support			0.000			0.000
Yes	561	2.96 ± 0.82		522	13.0 ± 9.8	
No	520	2.72 ± 0.87		505	9.5 ± 8.6	
Living arrangements			0.587			0.000
Widowed not living with children	137	2.93 ± 0.76		128	14.3 ± 11.1	
Widowed living with children	279	2.85 ± 0.85		256	13.3 ± 9.8	
Married not living with children	444	2.82 ± 0.92		431	9.8 ± 8.0	
Married living with children	221	2.83 ± 0.78		212	9.9 ± 8.7	
Age (years)			0.728			0.008
65–74	531	2.84 ± 0.86		525	10.7 ± 9.4	
75–84	400	2.86 ± 0.81		371	11.3 ± 9.3	
85+	150	2.80 ± 0.93		131	13.5 ± 9.0	
Gender			0.000			0.000
Men	562	2.68 ± 0.83		527	8.3 ± 7.2	
Women	519	3.02 ± 0.85		500	14.3 ± 10.4	
Education			0.000			0.013
Less than primary	860	2.9 ± 0.84		820	11.6 ± 9.4	
Primary	216	2.6 ± 0.89		204	9.8 ± 9.1	
Function			0.000			0.00
Complete	477	2.55 ± 0.77		473	8.2 ± 7.3	
FL ^a	143	2.97 ± 0.79		140	10.2 ± 8.4	
IADL ^b	307	3.00 ± 0.83		281	14.4 ± 10.6	
ADL ^c	154	3.32 ± 0.90		133	16.5 ± 9.7	

^a Functional limitations.

^b Instrumental activities of daily living.

^c Activities of daily living.

Table 2 Distribution of low emotional support and lack of instrumental support by living arrangements^a

	Totals (n = 1193)	Widowers not living with children (n = 148)	Widowers living with children (n = 342)	Married not living with children (n = 470)	Married living with children (n = 232)
Lowest quartile of emotional support	25%	26.1%	27.4%	20.4%	18%
No instrumental support	50%	52.9%	10.2%	70%	59%

^a Weighted percentages.

30% to 40% of the community-dwelling elderly live alone and most of the remaining 55% to 65% live with their spouse.^{29–32} In our sample, 91% of older people have children and 46% of them live with their children. In addition, many of those who do not share housing live in the same neighbourhood. These differences in living arrangements reflect differences in the organization of family life which may influence health status.

Studies exploring the associations between depressive symptoms and living alone report different results depending on socioeconomic status and culture. Studies on poor elderly populations tend to report strong associations between living alone and depressive symptoms.³³ However, when studies are

done in general community-dwelling populations the associations are weaker.^{32,34} The fact of living alone explained very little (less than 1%) of the variability in the rural elderly in Iowa;³² depressive disorders were not more frequent among older people living alone than among those living with others in a city in Australia although they tended to have dysphoric symptoms and the authors noted that those living alone tend to be widows with good economic situations.³⁴ In a survey on people over 75 years living in London, where 50% lived alone, living alone was associated with higher levels of life satisfaction.³⁰ However, in a survey of community-dwelling people over 65 years in Athens, living alone was strongly associated

Table 3 Multiple linear regression of self-rated health on emotional support, instrumental support, living arrangements, sociodemographic characteristics and functional status

Variables	Unstandardized coefficients (SE) The higher the score, the worse the self-perceived health		
	Living arrangements, support from children	Living arrangements, support from children, and sociodemographics	Living arrangements and support from children sociodemographics and function
Intercept	2.87 (0.06)***	3.10 (0.09)***	2.73 (0.1)***
Lacking emotional support			
Lowest quartile	0.29 (0.06)***	0.30 (0.06)***	0.22 (0.06)***
Instrumental support			
Yes	0.30 (0.6)***	0.28 (0.06)***	0.15 (0.08)**
Living arrangements			
Widowed not living with children	-0.01 (0.8)	-0.13 (0.09)	-0.05 (0.08)
Widowed living with children	-0.18 (0.7)*	-0.27 (0.08)***	-0.21 (0.07)**
Married living with children	-0.04 (0.7)	-0.05 (0.07)	-0.02 (0.06)
Age (years)			
75-84		-0.05 (0.06)	-0.15 (0.09)**
85+		-0.13 (0.09)	-0.32 (0.06)***
Gender			
Men		-0.30 (0.06)***	-0.20 (0.07)***
Education			
Less than primary		0.16 (0.07)**	0.16 (0.06)**
Function			
FL ^a			0.34 (0.07)***
IADL ^b			0.44 (0.07)***
ADL ^c			0.73 (0.08)***
N	1018	1016	1016
R²	0.05	0.09	0.17

^a Functional limitations.

^b Instrumental activities of daily living.

^c Activities of daily living.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

with depressive symptoms and the authors explained the findings considering the fact of living alone a stressful event.³⁵ Data from the current study would support this interpretation of the predominant meaning of living alone in old age in a Mediterranean country.

Literature on the health effects of living arrangements on the elderly other than living alone is scarce. A recently published study from the US reported that Hispanic adults in late midlife living in married couple households with others showed better SRH and lower depression scores than whites in similar households.²⁴ At the same time, Hispanics living alone showed worse scores in the depression scale. The authors explained these findings as 'Hispanics value family closeness and intergenerational coresidence and ... living alone is culturally devalued and indicates greater distress for Hispanics than other groups'.²⁴ This explanation may be valid for other cultures that value family interdependence.³⁶ In another recent study, examining the role of social support in the disablement process in the New Haven EPESE (Established Populations for the Epidemiologic Study of the Elderly), significant associations were found for the support of relatives and friends but no relationship was found for the support from children. The authors acknowledged that they did not expect this result and had difficulty explaining it.³⁷

Spain, as many other countries in the Mediterranean and in South America, is going through a period of economic and

social transition but Spanish families remain cohesive.³⁸ Two facts have been the subject of scientific studies: (1) contacts with children have been reported to increase longevity and (2) children assume responsibility for their frail elderly parents. Two recent doctoral dissertations on mortality of rural elderly populations in Spain have pointed out that having children near is associated to longevity. The first study was done in Guadix, a rural village with high migration to the city, in Andalusia.³⁹ Those who had children living in the village at the time of data collection had double the probability of survival 9 years later than those who did not have children or those whose children had migrated to the city. The second study was done in Galicia.⁴⁰ Those who reported a good relationship with their children had an almost double probability of survival when compared to those who had no children or those who had a bad relationship with their children (RR = 1.8). Similar results were reported in a study on mortality of a poor elderly population in the US.⁴¹

Interpretation of findings

According to the concept of a Social Support Bank,⁴² individuals take a long-term view of their social exchanges, interactions, and relationships with other people. The concept adds a dynamic aspect to the equity and exchange theories and helps to explain why intergenerational family relationships, due to their intimate and long-term nature, may be best explained by commitment to

Table 4 Multiple linear regression of self-rated health on emotional support, instrumental support, living arrangements: test for interactions controlling for sociodemographic characteristics and functional status^a

Variables	Unstandardized coefficients (SE)	
	The higher the score, the worse the self-perceived health	
Intercept	2.81 (0.11)***	
Lack of emotional support		
Lowest quartile	0.36 (0.09)***	
Instrumental support		
Yes	0.31 (0.08)***	
Living arrangements		
Widowed living without children	-0.33 (0.13)**	
Widowed living with children	-0.22 (0.10)*	
Married living with children	-0.13 (0.11)	
Lacking emotional support and		
Widowed living without children	-0.13 (0.18)	
Widowed living with children	-0.30 (0.14)*	
Married living with children	-0.18 (0.16)	
Receiving instrumental aid and		
Widowed living without children	-0.59 (0.16)***	
Widowed living with children	0.03 (0.18)	
Married living with children	-0.23 (0.13)	

^a Reference categories are high emotional support, does not receive instrumental help, lives only with spouse.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

Table 5 Multiple linear regression of Centre for Epidemiologic Study Depression Scale (CES-D) score on emotional support, instrumental support, living arrangements, sociodemographic characteristics and functional status

Variables	Unstandardized coefficients (SE) The higher the score, the more depressive symptoms reported		
	Living arrangements, support from children	Living arrangements, support from children, and sociodemographics	Living arrangements and support from children sociodemographics and function
Intercept	10.6 (0.6)***	14.2 (1.0)***	11.5 (1.1)***
Lacking emotional support			
Lowest quartile	4.8 (0.7)***	4.7 (0.6)***	3.9 (0.6)***
Instrumental support			
Yes	2.6 (0.6)***	2.2 (0.6)***	0.9 (0.6)
Living arrangements			
Widowed not living with children	3.5 (0.9)***	1.3 (0.9)	2.0 (0.9)*
Widowed living with children	1.5 (0.8)	-0.6 (0.8)	-0.2 (0.8)
Married living with children	-0.4 (0.8)	-0.4 (0.7)	-0.1 (0.7)
Age (years)			
75-84		-0.4 (0.7)	-1.5 (0.6)
85+		1.0 (1.0)	-0.9 (0.9)
Gender			
Men		-5.3 (0.6)***	-4.5 (0.6)***
Education			
Less than primary		-0.2 (0.7)	-0.2 (0.7)
Function			
FL ^a			0.9 (0.8)
IADL ^b			4.6 (0.70)***
ADL ^c			6.6 (0.89)***
N	1009	1008	1008
R²	0.10	0.17	0.23

^a Functional limitations.

^b Instrumental activities of daily living.

^c Activities of daily living.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

Table 6 Multiple linear regression of Centre for Epidemiologic Study Depression Scale (CES-D) score on emotional support, instrumental support, living arrangements: test of interactions controlling for sociodemographic characteristics and functional status^a

Variables	Unstandardized coefficients (SE) The higher the score, the more depressive symptoms reported
Intercept	12.4 (1.2)***
Lack of emotional support	
Lowest quartile	3.7 (1.0)***
Instrumental support	
Yes	2.2 (0.9)*
Living arrangements	
Widowed living without children	-1.2 (1.4)
Widowed living with children	-0.9 (1.1)
Married living with children	-1.0 (1.2)
Lacking emotional support and	
Widowed living without children	3.7 (1.9)*
Widowed living with children	-0.4 (1.5)
Married living with children	-1.1 (1.8)
Receiving instrumental aid and	
Widowed living without children	-4.1 (1.7)*
Widowed living with children	-1.5 (1.9)
Married living with children	-1.6 (1.4)

^a Reference categories are high emotional support, does not receive instrumental help, lives only with spouse.

give help when help is needed.⁴³ At the same time, support provided creates a support debt that can be called in during an unspecified future time of need.⁴² Provision of support at one point in time allows for expectation of assistance at some future time, if and when it becomes required.^{42,44} This family support increases health practices, reduces stress through emotional reassurance and facilitates access to formal and informal care.^{10,44} However, the nature and types of support vary widely across cultural contexts; social and economic resources are unevenly distributed, social and health care systems differ, and the norms on filial responsibility and individual expectations also vary across cultures. There is thus a need for cross-cultural research in which the social and psychological processes underlying the relationships between social support and health in the elderly populations are identified and studied.

Although the cross-sectional nature of the study limits our discussion on the direction of associations, this study has a large sample size, good response rate, valid measurement instruments and it advances knowledge on support from children and health of the elderly in a culture which values family interdependence; a cultural context which predominates widely in the world and in which care of the elderly relies heavily on filial obligation.

Implications of research for future policy or practice

The physical and mental health status of this sample of Spanish elderly population is worse than the reported health status of elderly populations from North American studies and from the city of Barcelona⁴⁵ but is similar to prevalences found in several rural and urban surveys of the elderly in Spain.⁴⁶⁻⁴⁸ These differences are consistent with the low level of education of older people in this study and with similar results in studies done in Italy⁴⁹ and Taiwan.⁵⁰ In fact, the situation in Leganés

regarding level of education, availability of social support and frequency of coresidence with children is intermediate between the situation in Taiwan and in North American and Northern European studies. Contrary to what happens in most OECD countries, the proportion of people living alone starts to decline after age 75, and is very low for people over 85, paralleling widowhood and the onset of functional disabilities. Institutionalization is still rare (2.7/100 people over 65 are institutionalized in Spain)⁵¹ and it is the last resort when conflict arises or when there is no family available.⁵² Those who have no close family, no children or bad relationships with their children tend to be isolated with few social resources, since the formal system of services is not very developed.⁵³ Generally, the care of disabled parents is the responsibility of one of the daughters⁵⁴ but women are increasingly entering the labour force and having fewer children.

To face these societal changes and in view of the findings of this study, longitudinal research on the role of living arrangements and support from children on older people's health should be carried out. Long-term care services for the disabled elderly need to be planned, taking into account involvement of the children of older people and facilitating family care through community care and housing developments with combined living arrangements where older people could be close to and at the same time independent of their children.

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KEY MESSAGES

- Coresidence with children, with or without spouse, is still the most common living arrangement in this representative sample of Spanish older population.
- Emotional support and cohabitation with children are associated with good self-rated health and low depressive symptoms in the Spanish older population.
- Receiving help with the activities of daily living is generally associated with poor self-rated health and high depressive symptomatology partly due to the underlying poor function of those elderly who receive instrumental support.
- The widowed who do not live with their children but receive emotional support and instrumental help from their children tend to rate their health as good and have low depressive symptoms.

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