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Social Care and Gender: Who Cares for Dependent Adults in Spain?

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Abstract. Care work encompasses a series of tasks of distinct social and economic importance; however, it has not been a traditional object of study in Economics. The main objective of this article is to analyze the factors that intervene in informal care work in Spain. To approach this, an econometric analysis will be conducted using the National Health Survey (ENS as its Spanish acronym) carried out by the Instituto Nacional de Estadística (INE) of Spain. The results show that, in Spain, dependent adults do not receive the institutional support they need to perform basic daily activities. In fact, practically all of the care they receive is informal. This article will demonstrate that, within the household, women are responsible for informal care work whenever a family member is in need of such services. Our research shows that this is a consistent pattern regardless of the carer's personal characteristics and level of education as well as the characteristics of the dependent adult living in the household. These findings reveal the necessity of reorienting public policies in order to help reduce gender inequalities caused by this socio-economic reality.
Keywords: informal care, gender, Welfare States, dependent family members

[es] *Social Care* y Género: ¿Quién cuida de los adultos dependientes en España?

Resumen. El trabajo de cuidados a adultos dependientes comprende una serie de actividades de especial importancia social y económica. Sin embargo, este tema no ha sido tradicionalmente objeto de estudio de la Economía. El objetivo principal de este artículo es analizar los factores que intervienen en el cuidado informal a dependientes en España. Para abordar este problema se ha realizado un análisis econométrico de la Encuesta Nacional de Salud (ENS) realizada por el Instituto Nacional de Estadística (INE). Los resultados muestran que en España, las personas dependientes no cuentan con el apoyo institucional que necesitan y el cuidado informal es el principal recurso del que disponen. Asimismo, se constata que, independientemente de las características personales del familiar y de las de la persona dependiente residente en el hogar, incluyendo niveles educativos, son las mujeres de la familia las responsables del cuidado informal en España. Este resultado señala hacia la necesidad de una reorientación de las políticas públicas que ayuden a reducir las desigualdades de género que origina esta situación.
Palabras clave: cuidado informal, género, Estado del bienestar, personas dependientes

JEL: J14, J16, J18, I31

1. Introduction

This article analyses the provision of informal caregiving in Spain, identifying its main characteristics and attempting to shed light on relevant factors.

Informal care, following the definition of Rogero-Garcia (2009), is provided by people within the social network of the recipient. This kind of care is provided in an informal manner and it is not remunerated, while formal care is performed by a professional that offers specialized services in order to compensate for the limitations in the receiver's ability to care for him or herself. In other words, informal care is provided by family and friends, whereas

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formal care is provided by public institutions and private companies. Within formal care, it is worth noting what happened in the countries using the Mediterranean model of the Welfare State, among which the Spanish case is included. In these countries, families that can afford to do so hire immigrant women who offer these services, as the public sector does not satisfactorily cover care needs (Bettio, Simonazzi, & Villa, 2006).

The premise of this study is that the current care crisis present in developed countries requires direct action to solve it. To improve the quality of life of families with care needs, it is necessary to implement economic policies that allocate resources to manage the distribution of care activities between different institutions: the state, families, the market and voluntary organizations (Benería, 2008; Bettio & Plantenga, 2004; Carrasco, 2001; Esping-Andersen & Palier, 2010).

In Spain, this distribution is unequally arranged: The state's support of families with dependent family members is quite scarce and the women in these families must provide care for the dependents within the family (Carrasco, 2006; Torns et al., 2012; Vara, 2013). These needs are growing as the ageing of the population in developed countries increases (Colombo et al., 2011; Durán, 2012; European Commission, 2009; Pavolini & Ranci, 2008; Pickard et al., 2007). Thus, this unjust and unsustainable situation will continue to put greater and greater pressure on families, and especially women.

The objectives of this study are to determine how persistent informal care for dependent adults is in Spain, and how much it outweighs formal care. We also explore who performs this kind of work, and the characteristics of the people that provide care in an informal manner. The purpose of measuring these issues is not only an end in itself, but it is also a way of showing who is contributing to dependents' social well-being through care work. The main contribution of this study is the proposal of a logit model to find out which socioeconomic variables are present in a person's decision to become an informal caregiver of a dependant family member, and to what extent.

The article is divided into five sections. After a short introduction, the second section deals with the basic concepts of care work. In the third section, we provide a sample and how it was determined, a short descriptive analysis of the data, and the empirical model used. The fourth section examines the results of the models analysed. Finally, we will present the conclusions of the study.

2. Informal care work: Basic elements

Social care

Traditionally, the scope of study in Economics has been limited to the activities oriented towards the market, leaving out all activities that are not monetized. This is why health care related work has not been part of traditional economic analyses despite offering the coverage of a combination of needs that are fundamental to the functioning of the socioeconomic system (Carrasco, 1999; Durán, 1989; Gronau, 1980).

Among the contributions that have generated valid knowledge which highlights the importance of non-commercialized work, Daly & Lewis (2011) propose a novel approach called "social care". They define care as the physical and emotional needs of children and dependent adults. They defend the importance of using this concept as a category of analysis to comprehend the form and nature of the current Welfare States. They identify the following characteristics of care activities (Daly & Lewis, 2011; Vara, 2013):

1. It is work conditioned by the strength of each society's Welfare State. Accordingly, it can be remunerated or not, and it can be done as a formal or informal activity. Thus, the conditions in which this work is performed are worthy of analysis.
2. It is measured within a normative framework of social and family obligations and responsibilities. In addition, the fact that women are usually the ones responsible for these tasks places them in a disadvantaged position in relation to men. Regarding this, Welfare State interventions are fundamental because they can promote changes and contribute to the elimination of these inequalities.
3. It generates costs, both financial and emotional, that are transversal to public and private spaces, creating a series of issues not clearly understood yet. For instance, questions regarding: Who should undertake the costs; whether these costs should be distrib-

uted, amongst whom, and in which proportions; and how this distribution should be organized between the individual, the family, the community, the market and the State.

The most advanced Western European societies have progressively developed policies about the care of dependents through social programs, which have been changing in essentially two ways: On the one hand, most Southern European countries have witnessed a shift from the state as the provider of monetary benefits and care towards the non-profit sector and families, and, on the other hand, an increasingly wider implication of the private sector. The analysis of care work allows us to examine these transformations regarding social policies, including their gender dimensions, and, on a wider spectrum, the transformative trajectories of some Welfare States (Daly & Lewis, 2011).

Informal caregiving in Welfare States

All European Welfare States have been facing a care crisis for several decades now. They each deal with this crisis according to the gender conventions established by their institutions as well as generally socially accepted norms. Researchers have noted a greater presence of traditional family structures in southern countries (Italy, Spain, Greece, Portugal), while in Central or Northern Europe this is not as prevalent (Scandinavia, Germany, the Netherlands, among others) (Daly & Lewis, 2011; Letablier, 2007; Pavolini & Ranci, 2008).

Several studies (e.g. Esping-Andersen 1990; Jacobzone 1999; Pacolet et al. 1999; Comas-Herrera et al. 2006; Dizy 2006; Vara 2013) have shown that each country organizes caregiving tasks accordingly with the distinctive type of Welfare State that its society has adopted: Scandinavian, Continental or Mediterranean. Similarly, within these three general "models", Pavolini and Ranci (2008), differentiate two main tendencies: the "Informal care-led model", where care needs must be assumed by each individual person with support from informal networks; and the "Services-led model", where the state provides the facilities and the means for the provision of care services for dependents. The latter includes measures regarding the use of time, such as caregivers' paid leave (from their regular job). In this way, it is possible for individuals to coordinate, for limited periods, care work and paid work. The Mediterranean model, to which Spain belongs, would correspond to the "Informal care-led model". Besides the women of the family taking on an important role as caregivers, immigrant women are also being hired for the job. This situation brings up important issues, as these women normally work without a contract and their working conditions are very precarious. Additionally, for them it is a way to save money to send home to their families where in many cases they have children under their care (Bettio et al., 2006).

Generally speaking, there has been an increase in public coverage all over Europe and formal home care is being encouraged instead of residential services and policies are becoming more universal. Nonetheless, the sustainability of public benefits is at risk and funding problems have become more serious. This has translated into a rise in co-pay favouring increasingly regressive systems and in monetary services that perpetuate informal care. Relatedly, under the pretence of increasing competition and the possibility of individual choice, the introduction of quasi-markets has increased. Nevertheless, the consequences of the privatization of public services has a negative impact on women's well-being (Daly, 1997; Daly & Lewis, 2011; Glennerster & Le Grand, 1995; Pavolini & Ranci, 2008; Ungerson, 1997).

In Spain, the economic crisis of 2008 cut short the only attempt at organizing informal caregiving within the publicly provided services. The so called Dependency Law from 2006, although with important omissions, introduced for the first time the necessities of dependent people as basic rights in Spain's Welfare State (Vara, 2014). In this regard, Rodríguez-Cabrero (2011) points out the difficulties that exist for the development of a model of long-term care in Spain: the maintenance of conservative ideological visions that give responsibility for the care of women and the neoliberal visions of the State, which prevent the incorporation of the coverage of dependents into the public sector.

Informal care in Europe

In Southern European countries, in contrast to those in the north, the level of institutionalization of care work is very low, so the role of informal care continues to be crucial. In these economies, besides having a higher percentage of informal

caregivers, the rates of dependents being cared for in an informal manner are higher, and households receive less external help (Albertini, et al., 2007; Brandt, 2011; Colombo et al., 2011; Glendinning, et al., 2009; Rodríguez, et al. 2011).

The group of informal carers on the whole in Europe is mainly female, both when studying the population as a whole and when focusing the study on elderly dependents. Nevertheless, in almost all cases, women do more care work than men and, in addition, they do it for a longer period of time, that is, more intensively (Durán, 2018; Verbakel, et al, 2017). With regard to the role of men, although as caregivers they are a minority, they are incorporated into care for the very elderly and when they are out of the labour market, either because they have retired, are unemployed or because they have left work due to a low salary (Comas-d'Argemir & Chirinos, 2017).

There is empirical evidence that shows how informal care has a negative impact on the well-being of carers in three ways: it deteriorates their work situation, aggravates their levels of poverty and undermines their mental health. Moreover, the analyses carried out demonstrate that the harmful effects are more marked in Southern European countries, where informal care is more prevalent (Carmichael & Charles, 2003; Johnson & Lo Sasso, 2000; Viitanen, 2005). In the case of Spain, there is more emphasis on those negative repercussions on health; when there is no contract that regulates the hours dedicated to care, informal caregivers often work 24 hours a day, without holidays or vacations (Durán, 2006).

Informal caregivers have a higher probability of being below the poverty line. It is unsurprising that said group finds itself in such dire straits, because caregivers also display lower employment rates, and those who also have a paid job work fewer hours on average, resulting in a very low annual income. This highlights the difficult situation of families with dependency problems and who are at a low socioeconomic level. Moreover, women caregivers in these families are especially vulnerable (Johnson & Lo Sasso, 2000; Viitanen, 2005).

Women's roles

In the majority of cases, care-related activities are performed by women, since society has traditionally assigned them these responsibilities. Domestic and care work can be undertaken by any adult member within the family unit, but all studies across various countries, including those that regard social class as an important variable, have shown that women systematically devote more time to the informal care of dependents (Comas-d'Argemir, 2015; Miranda, 2011; UN Women, 2016).

Women's reproductive role has determined their role as a caregiver in most societies. Numerous studies show that the biological act of procreation is only one part of the process of the upbringing, education, and socialization of a person. The fact that the role of women as caregivers has been naturalized benefits other family members, as well as the owners of the means of production and the public powers, indirectly, since they are freed from the costs and management needed to satisfy such needs (Himmelweit, 1995; Picchio, 1996). Nonetheless, for women, the attribution of these responsibilities has contributed to more job insecurity than men, causing women to suffer from more relative poverty and putting them under enormous strain in order to balance their work. For this reason, providing a gender perspective is essential to analyse the multiple variables that affect these informal economic activities (Carrasco, 2001, 2009; Carrasco, Borderías, & Torns, 2011; Folbre, 2006; Thane, 2010; Torns, 2008; Torns et al., 2012).

It can be observed that, globally, the task of looking after elderly people is done mainly by women. In many cases, these activities are fulfilled within the family and without remuneration. Men receive more care from their partners than women, while women receive more care from other women in their family. Moreover, when these activities are paid, the conditions are usually precarious. This system is beginning to change, mainly because the need for care is growing at great speed. The organizational structures that care for the elderly have adapted unsatisfactorily to the new demands; the efforts to coordinate the institutions that offer attention and care have been inefficient, the available economic resources are insufficient, and the conditions in which care providers are hired are very precarious (Stark, 2005).

Global care crisis

The progressive acquisition of rights by women and their increased role in the public and work spheres in recent decades have brought

about certain changes in the traditional family model. These changes have created a scenario known the "care crisis", triggered by three main factors. The first factor is the massive incorporation of women into the job market (Carrasco, 2001; Esping-Andersen & Palier, 2010). However, women joining in on the labour force has not increased the number of hours men devote to caring for dependents within the family. The second factor is changes in family models, with new types of households and a reduction in size. The final triggering factor is the ageing of the population, a generalized and profound process that is increasing and places greater pressure on the demand of care (Benería, 2008; Bettio & Plantenga, 2004).

Despite women's incorporation into the job market and their increasing role in their countries' economies, institutions handling health care systems within these countries have barely adapted to this important socio-economic change and have not provided solutions to the obvious gap in health care provision derived from this situation. The state does not provide the necessary public services, and men do not contribute more hours to caring for dependent family members. This social gap amongst gender roles leads to a critical situation in which women are forced to reduce their participation in the job market or assume the so-called "double burden" (Oakley, 1974; Benería, 2008; Durán, 2012;).

The pervasiveness of gender stereotypes in a given society encourages the search for individual solutions in which the responsibility of the problem is ascribed exclusively to the women in the family unit. On the one hand, there is an intergenerational redistribution of work between women from different generations within the family and, on the other hand, a distribution by class and race, since families with middle and high earnings usually hire some of the care services. In addition, these jobs have precarious work conditions and are primarily provided by women, of which important percentages are immigrants. In this way, a new phenomenon arises, reflected in the paradox of women leaving the care of their loved ones in the hands of others, usually their elders (parents) in their home countries, in order to migrate to richer communities and perform similar care services for which they are remunerated. These are called "Global Care Chains", generated by trans-nationalized processes of care (Hochschild, 2000; Pérez-Orozco, 2006).

The reduction in birth rates and the rise in life expectancy are significantly changing the population structure in European countries, and the demand for care has accordingly increased, which seems to be a trend that will continue in the future (Colombo et al., 2011; Durán, M. A. 2012; European Commission, 2009; Pavolini & Ranci, 2008; Pickard et al., 2007).

3. Methodology

Data and sample

The data used in this article is provided by the Spanish National Health Survey (ENS as its Spanish acronym) that was carried out by the National Statistics Institute (INE in Spanish) between 2011 and 2012, and was published in 2013.The analysed data outlines the situation of people requiring assistance and care in Spain. Hence, this research has focused on a subset of the original sample: households with dependent adults.

The INE also collects data from other surveys that provide information about care work (e.g., Survey on Disability, Personal Autonomy and Dependency Situations [EDAD-2008 in Spanish] and the Time Use Survey from 2009-2010). In EDAD-2008 it was already evident that the dependent population aged 65 and over is a considerably large group in Spain. Moreover, this survey showed that women play a crucial role in the care of dependent adults. Another result of interest is the fact that 85% of care work is provided informally.

The NHS offers more updated information about care work in Spain, including the context of the economic crisis that began in 2008. Another advantage of the NHS over other surveys is that it offers information about all household members, which allows for an analysis of the variables that play a role in a person becoming an informal caregiver.

The NHS provides data both nationally and regionally, and the study was carried out through personal interviews using computers in the interviewees' homes. Two questionnaires were used. Firstly, the "Household Questionnaire" was addressed to the person that contributed more income to the house-

hold. This questionnaire collected information about sociodemographic and socioeconomic variables of all household members, among others. Secondly, the "Adult Questionnaire" was addressed to an adult household member randomly selected (Kish table). In this questionnaire the chosen person answered questions in relation to all household members. For example, they were asked whether a dependent adult lived in the household or not, and whether the care provided was informal or not, specifying which family member took care of them.

Descriptive analysis

In the analysed sample, 66.1% of dependent adults were over the age of 65 (60.4% were women). In the group of dependent adults that were 85 or older, the rate of women increased to 76.8%.

The main activities according to the sex of the dependent adult were distributed as follows: among women, the rate of retirement was 62.5%, while 14% were in the "unable to work" category and 22.1% were in the "housework" category. Among men, the rates were 56.5%, 30.3% and 0.8%, respectively.

In general terms, lower income households dominated the sample. In general, the socioeconomic situation of households with dependent adults was worse than that of households without dependent adults, and the situation was aggravated when the dependent adults were over 65 years old. In some cases, the need for care in dependent adults was a severe problem that required an immediate solution (for instance, there were 20.4% of dependent women aged over 85 that lived alone).

In more than 80% of the households analysed, the care that dependent adults received was informal. The highest rates of formal care were observed when dependent adults were between 75 and 84 years old, and among dependent women aged 85 or older.

It can also be observed that informal care is a long-term kind of task for caregivers. 43.1% of informal carers had been carrying out this activity for the past 5 years, while 18.8% had been carrying out this activity for 6 to 10 years, and 28.3% for more than 10 years. Moreover, informal care was observed to be intensive, since 43.4% of the sample devoted between 19 and 24 hours daily caring for an elder family member.

68.7% of informal caregivers were women and 59.2% were aged 55 or more. Among male caregivers, the largest age group was over 65 (39.7%). The work situation of informal carers varied substantially between women and men. On the one hand, 42.9% of men doing informal care work were retired, while only 23% of women carers were retired. On the other hand, the time women devoted to "housework" went up to 38.6% in contrast to only 1.8% in men. These variations logically benefited the type and level of income that men have in contrast to women.

Empirical models

The objective of our analysis is the identification of the personal characteristics, in addition to sex, that have more influence on the probability of becoming an informal caregiver.

A logit model was done as well as a series of variations that analyse the relationship between the criterion variable "informal carer" and a series of predictor variables that were selected in accordance with the objectives of this research and chosen from statistical criteria. The sample used was made up of adults that lived in households with a dependent adult who received informal care (N= 960). The criterion variable was codified in two categories: value 1 when the person cared for the dependent adult, and value 0 when they did not.

The predictor variables used were selected by a previous exploratory analysis in order to distinguish which predictor variables were statistically related to the criterion variable at a bivariate level. Said exploratory analysis was carried out following the procedure of contingency tables and the χ^2 test, following the recommendations of Hosmer and Lemeshow (1989), and those predictors that obtain p-values < 0.250 were selected. Table 1 shows the different values and categories of predictor variables that were selected.

To avoid multicollinearity problems, the variable "housework" was excluded from the analysis since women are usually responsible for taking care of household chores in Spain. The variable "studying" as also excluded since it is heavily linked to the age of the interviewees (i.e., most students are younger than 34 years old).

The regression analysis was done following the backward stepwise procedure (Likeli-

Table 1. Predictor variables selected for the binary logistic regression.

Variable	Categories	*n*	%
Sex	(1) Men	440	45.83
	(0) Women	520	54.17
Age	(1) < 34 years old	207	21.56
	(2) 35 - 44 years old	112	11.67
	(3) 45 - 54 years old	171	17.81
	(4) 55 - 64 years old	212	22.08
	(5) ≥ 65 years old	258	26.88
Level of studies	(1) Elementary or none	351	36.56
	(2) Lower Secondary (Aged 11-16)	339	35.31
	(3) Upper Secondary (Aged 16-18)	93	9.69
	(4) Vocational training	110	11.46
	(5) University studies or equivalent	67	6.98
Working[(a)]	(1) Yes	264	27.50
	(0) No	696	72.50
Unemployed[(a)]	(1) Yes	168	17.50
	(0) No	792	82.50
Housework[(a)]	(1) Yes	172	17.92
	(0) No	788	82.08

[(a)] Multiple answer option.

hood Ratio - LR-). To evaluate the good fit of Model 1 and its variations, different indexes and analyses were taken into account. In the first place, the deviance value (G^2) was calculated, which tests the null hypothesis that the evaluated model and the null model are equal. In other words, in the event of rejecting this null hypothesis, it can be concluded that the evaluated model significantly improves the fit in relation to the null model. Thirdly, the Hosmer and Lemeshow ($\chi^2_{H\text{-}L}$) test was used, which tests the null hypothesis that the observed and prognosticated frequencies by the model are statistically equal. Finally, the presence of extreme and/or influential observation cases was also examined. In general terms, the inspection of residues and atypical values indicates a scarce presence of cases that harm the fit of the different models.

4. Results and discussion

In Table 2 the results obtained for Model 1 are shown. It can be seen that G^2 presents a critical level inferior to 0.01, so the fit of Model 1 can be considered adequate. In particular, the predictors of the model reduce the maladjustment of the null model by 48.2% (R^2 Nagelkerke = 0.482). This result is consistent with the results obtained through the Hosmwer and Lemeshow test ($\chi^2_{H\text{-}L} = 10.75$; $p = 0.216$).

Regarding "sex", a statistically significant odds ratio that penalizes women can be observed (OR = 0.084; $p < 0{,}01$). The odds of being a man and an informal caregiver are 91.6% lower than the odds of being a woman and an informal caregiver. This result confirms the fundamental idea of this research: the informal care of dependent people is carried out in most cases by women.

The fact is that, in general, the responsibility of this unpaid work falls onto women and it becomes an important obstacle when trying to achieve social and economic equality with their male peers (Himmelweit 1995; Picchio 1996; Thane 2010; Carrasco, Borderías, and Torns 2011; Miranda 2011; Comas-d'Argemir 2015; UN Women 2016).

Regarding age, in contrast to the reference category (65 years or above), the odds of being an informal caregiver are 75.9% higher in the 55 to 64 year old group (OR = 1.795; $p < 0.05$). By contrast, the odds of being an informal caregiver is 91.9% lower in the group of people that are 34 or younger.

Table 2. Results of the estimation of Model 1.

Predictor variables	OR (95% IC)
Sex (reference category: *Woman*)	
Man	0.084 (0.060 – 0.119)***
Age (reference category: ≥ 65 years)	
< 34 years	0.081 (0.046 – 0.143)***
35 – 44 years	~
45 – 54 years	~
55 – 64 years	1.795 (1.119 – 2.879)**
Level of studies (reference category: *University studies*)	
Elementary or inferior	~
Lower Secondary	~
Upper Secondary	~
Vocational training	~
Working (reference category: *No*)	
Yes	0.574 (0.378 – 0.870)**
Unemployment (reference category: *No*)	
Yes	~
Constant	7.813***
G^2 - Deviance	430.358***
R^2 - Nagelkerke	0.482
Hosmer-Lemeshow test (*p*-value)	0.216

** Statistically significant at the 5% level. *** Statistically significant at the 1% level. ~ Statistically not significant at 10% level.
Note: To evaluate signification, a Wald test and 95% IC has been used.

The odds of being an informal caregiver are 41.1% lower among those members of the household that are working (OR = 0.574; $p< 0.05$). It makes sense to think that both men and women who are unemployed have a higher probability of becoming informal caregivers of a dependent person sharing the same household. However, since women have lower rates of employment than men in Spain, they consequentially have a higher probability of carrying out informal care work.

Table 3 is included to show what happens if we analyse a sample of men and women separately. It shows the results obtained from the first variable of Model 1 (disaggregation by sex of the main carer: Model 1_sex). In this new application of Model 1, the variable "housework" is analysed, since in this case there is no risk that there is collinearity with the variable "sex".

The value of G^2 presents once again a critical level smaller than 0.05, which shows a good fit in the two models evaluated (G^2_{Women} = 144.44; $p< 0.01$, G^2_{Men} = 67.87; $p< 0.01$). The model improves the fit in relation to the null model when it is applied to the sub-sample of women (R^2_{Women} = 0.361 versusR^2_{Men} = 0.219). In both applications of Model 1, the Hosmer and Lemeshow test indicates a good fit ($p> 0.05$).

The application of Model 1 in the sub-sample of women reflects several statistically significant OR. Firstly, regarding the group of reference (65 years old or above), the odds of being an informal caregiver significantly decrease to 89.9% among younger women

Table 3. Results of the Model 1 estimation disaggregated by sex of the main care provider (Model 1_sex).

Predictor variables (Model 1_sex)	OR (95% IC)	
	Women	**Men**
Age (reference category: ≥ 65 years)		
< 34 years	0.101 (0.048 – 0.214)***	0.079 (0.026 – 0.239)***
35 – 44 years	~	~
45 – 54 years	~	~
55 – 64 years	3.290 (1.494 – 7.245)***	~
Level of studies (reference category: *University studies*)		
Elementary or inferior	~	0.231 (0.089 – 0.599)***
Lower Secondary	~	0.228 (0.088 – 0.589)***
Upper Secondary	~	0.209 (0.065 – 0.669)***
Vocational training	~	0.251 (0.085 – 0.745)**
Working (reference category: *No*)		
Yes	~	0.277 (0.134 – 0.574)***
Unemployment (reference category: *No*)		
Yes	~	~
Housework (reference category: *No*)		
Yes	2.824 (1.504 – 5.305)***	~
Constant	2.065***	2.236*
N	520	440
G^2 - Deviance	149.442***	67.874***
R^2 - Nagelkerke	0.361	0.219
Hosmer-Lemeshow test (*p*-value)	0.950	0.685

*Statistically significant at the 10% level. **Statistically significant at the 5% level. ***Statistically significant at the 1% level. ~ Statistically not significant at 10% level.
Note: To evaluate signification, a Wald test and 95% IC has been used.

($OR_{< 34 \text{ years old}} = 0.101$). In the group of women between 55 and 64, the odds increase 229% ($OR_{55\text{-}64 \text{ years old}} = 3.29$). This percentage is much higher than the result obtained in General Model 1, which indicates that caregivers in this age group are overwhelmingly women. From 65 years old onwards, the percentage of women that provides care decreases, because instead of caring for they are cared for.

Secondly, the odds of being an informal carer are 182.4% higher among women that are housewives (OR = 2.824). Comparing it to the application of Model 1 at an aggregated level, the variable "working" is no longer statistically significant. In other words, among all possible employment situations, the only one that influences the probability of being an informal caregiver among women is housework.

The application of Model 1 in the subsample of men shows the following statistically significant results: Firstly, regarding the group of reference (65 or above), the odds of being an informal carer decrease significantly to 92.1% among younger men ($OR_{< 34 \text{ years}} = 0.079$). Nonetheless, the difference in the application of the model at an aggregate level and the application of the subsample of women for the age group between 55 and 64 years old does not present a statistically significant OR. This result coincides with other authors that have observed that the older the men are, the higher their chances of becoming providers, particularly after retiring (Milne and Hatzidimitriadou 2003; Ducharme et al. 2006; Comas-d'Argemir & Chirinos, 2017).

Secondly, the odds of men that are unemployed being an informal carer are 72.3% lower than for those who are working (OR = 0.277). As opposed to the sub-sample of women, among men the variable "working" is the most influential in the probability of being a caregiver.

Thirdly, all the categories that form the variable level of studies show lower odds than the reference category (university studies). Thus, the odds of being an informal carer is higher among men that have a university education. Several studies, such as Jones & Mosher (2013), point to the fact that a higher cultural level can make men participate more actively in housework. The reason for this would be that men with a higher education tend to consider household chores a shared responsibility. This result is extremely interesting, firstly because it is the first time that the variable "level of studies" appears as statistically significant; and secondly, it is reflected that men with a higher educational level have a higher probability of undertaking care work, while for women, level of education does not influence their probability of becoming caregivers.

Table 4 shows the results obtained from the following analysis of Model 1 disaggregation by sex and age of the dependent person (Model 1_dep). The indexes of fit in the four analyzed models show a good fit, with R^2

Table 4. Results of the estimation of the model differentiating the characteristics of the dependent person (Model 1_dep).

Predictor variables(Model 1_dep)	**OR (95% IC)**			
	Dependent woman	**Dependent men**	**Dependent < 65 years old**	**Dependent ≥ 65 years old**
Sex (reference category: *Woman*)				
Men	0.064 (0.036 – 0.114)***	0.045 (0.022 – 0.089)***	0.066 (0.33 – 0.132)***	0.073 (0.044 – 0.121)***
Age (reference category: ≥ 65 years old)				
< 34 years old	0.035 (0.014 – 0.085)***	0.039 (0.014 – 0.108)***	0.166 (0.064 – 0.428)***	0.019 (0.007 – 0.050)***
35 – 44 years old	0.418 (0.164 – 1.064)*	0.122 (0.046 – 0.324)***	~	0.186 (0.072 – 0.484)***
45 – 54 years old	~	~	~	~
55 – 64 years old	~	~	2.621 (1.096 – 6.271)**	~
Working (reference category: *No*)				
Yes	0.419 (0.233 – 0.753)***		0.446 (0.193 – 1.032)*	~
Unemployment (reference category: *No*)				
Yes		2.097 (0.949 – 4.630)*		~
Constant	9.762***	3.861***	4.993***	7.186***
N	464	354	274	544
G^2 - Deviance	219.558***	202.429***	137.852***	280.162***
R^2 - Nagelkerke	0.503	0.581	0.527	0.537
Hosmer-Lemeshow test (*p*-value)	0.761	0.806	0.824	0.021

*Statistically significant at the 10% level. **Statistically significant at the 5% level. ***Statistically significant at the 1% level.
~ Statistically not significant at 10% level.

values with an improvement around 50-58% in relation to the null model. The only model that presents a bad fit in the application of Model 1 is the sub-sample of dependent people aged 65 or above ($\chi^2_{H\text{-}L} = 16.45$; $p = 0.021$).

The results in Table 4 indicate that, regardless of the sex of the dependent, "Sex" and "Age" are maintained as crucial variables when it comes to being a caregiver or not. When the dependent person is a woman, the variable "Working" is influential. This could be explained by the fact that it is more probable that said dependent women are cared by their husbands. When the dependent is a man, the variable that is most influential is "Unemployment".

Regarding the differences by the age of the dependent person, in Table 4 it can be observed that in households with a dependent person younger than 65 years old, as in the general model, the variables "Sex", "Age" and "Working" are influential. However, only the variables "Sex" and "Age" have influence in households with a dependent who is 65 years old or older. Moreover, men have a higher probability of caring for dependent people aged 65 or older than dependent people younger than 65. Overall, women have the highest probability of caring for a dependent person.

The variations applied to Model 1 have shown that the variable "Sex" is fundamental in all the samples, since women do more care work in all categories. "Age" has proven to be influential, because the older the person is, the higher the probability that this person will take on care work. The economic activities that in some cases are significant are "Working", "Housework" and "Unemployment". It was also confirmed that in the case of men, the characteristics that increase the probability of becoming a caregiver are: being 65 years old or above, having a college degree and being unemployed.

5. Conclusions

From the present study two main conclusions can be drawn. Firstly, informal care in Spain is the most prevalent kind of care when it comes to dependents within the family. This result supports the idea that the Dependency Law, with the promotion of the widespread use of economic compensation, has encouraged and maintained the prominence of informal care within Spanish households with dependents. In addition, the results from the 2008 EDAD survey are corroborated, which means that very few changes have occurred in the last five years since this law was approved. It can be observed that Spain continues to be clearly within the Mediterranean model of Welfare State, supported by family networks of care.

Secondly, the analysis postulated here has demonstrated that, independently of social class, type of household, characteristics of the dependent person, and personal characteristics –such as age– of economic activity, women have a much higher probability of becoming an informal caregiver than men. This situation is unjust and unsustainable; if men and women are equals according to the Spanish Constitution, the Welfare State cannot leave the responsibility of caring for loved ones solely in women's hands. This problem is a prevalent and pervasive one in our society, despite the efforts and pressure of the Spanish public opinion, academics, political parties, etc. The amount of informal care provided by women is still very high, which in turn affects them negatively in many ways. Many Spanish households do not have sufficient purchasing power to hire the professional care services they need, and they cannot rely on the necessary yet non-existent public services that are essential to providing for dependents within the household.

Moreover, this problem was not resolved before 2008, when the economy was experiencing healthy buoyancy, and has definitely not been on the government's agenda since then. The current stagnation Spain has been experiencing since the sluggish recovery from the economic recession, which lasted well into 2016, has caused the government to constantly put into question our Welfare State and the state of Spain's public finances, preventing any progress in this respect.

In a Welfare State, access to formal care should be expanded and improved. In Scandinavian countries, the public sector offers universal coverage, strong institutional networks and highly professionalized services. In addition, efforts aimed at improving the quality of life of informal caregivers should be put in place in Spain. Along these lines, some of the recommendations that can be extracted from this analysis are: proper allocation of public funds, restitution of socio-economic aid which has been reduced substantially since 2008, and training policies and assistance with reintegration to the job market for those that temporarily leave their jobs to care for family members as well as those who provide this kind of care full time in an informal manner.

6. References

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