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Ageing and Informal Support for the Elderly in Selected European Countries*

Abstract

The main aim of the article is to compare the scope of the informal support that older people with difficulties in everyday life receive from outside the family in chosen European Countries. Binomial logit models were used to verify the hypothesis that receiving informal help from outside the household depends on the living arrangements and socio-economic features of those who receive the assistance. The empirical analysis draws

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upon a new approach to population ageing presented in the Multilinks project. The results of the work allow us to demonstrate the characteristics of Central-Eastern Europe and to reveal how they differ from Northern, Western and Southern Europe. The general conclusions are compatible with results obtained by other researchers working on different databases and using different methods.

Keywords: the elderly, informal support, living arrangement, ageing.

1. Aim of the Paper

The aim of the article is to investigate the informal support older people who are experiencing difficulties performing activities in their daily lives receive from outside the household. Informal help in this context is personal care (e.g. help with dressing, bathing, eating, getting out of bed, using the toilet), practical household help, and help with paper work such as handling financial or legal matters[1]. The following hypothesis is formulated: Receiving informal help from outside the household depends on one's living arrangement and the socio-economic characteristics of those receiving the care.

The following four types of living arrangements are distinguished:

I – households composed only of persons aged 50 and over who are living alone (living alone),

II – households composed only of persons aged 50 and over who are living with a spouse/partner only (couple only),

III – households where persons aged 50 and over are living without a spouse/partner but co-reside with children or other relatives or with unrelated people (single living with other persons),

IV – households composed only of persons aged 50 and over who are living with a spouse/partner and co-reside with children or with relatives or with unrelated people (a couple living with other persons).

Older people living alone often expect help from outside the home. This type of household is dominated by women (often widowed) and persons more advanced in age who have lost a partner, and whose children have left home. The frequency of such households is on the rise, though at the same time the opposite trend has been observed in Austria, Germany and Italy, to take three examples. In these cases, the main reasons individuals require assistance are that the mortality rate is decreasing (reducing the frequency of widowhood) and children are slower to become independent. In Central and Eastern Europe, children continue to live at home due to financial and housing difficulties (de Jong Gierveld, Dykstra

[1] Difficulties with activities of daily living are defined correspondingly to the concept accepted in SHARE (see http://www.share-project.org/home0.html, accessed: 15.09.2014).

& Schenk 2012, p. 170). Co-residing may be considered a source for all kinds of support (social, emotional, practical, financial). A prior survey found that the highest level of support is present in households shared with a partner (de Jong Gierveld, Dykstra & Schenk 2012, p. 171).

2. Data and Research Methods

Data used in our research comes from the Survey of Health, Ageing and Retirement in Europe (SHARE)[2]. We consider the following European countries: Czech Republic, Hungary, Poland, Slovenia (Central-Eastern Europe), France, Germany (Western Europe), the Netherlands, Sweden (Northern Europe) and Portugal (Southern Europe).

In order to achieve the study's goal, logistic models are used for each country separately. The general analytical form of the logistic model is as follows:

$$\text{logit}\, P = a_0 + a_1 X_1 + \ldots + a_n X_n. \quad (1)$$

Informal help received from outside the household is applied to this model as a dependent binary variable. For a person who has received help, the variable is coded as (1), and for those who have not it is (0). Type of living arrangements is adopted as an explanatory variable. It is marked as (*typhh*) and is coded thus: 0 – living alone (*resp. only*) – ref. category; 1 – single living with other persons (*resp. +*); 2 – couple only (*couple only*); 3 – couple living with other persons (*couple+*).

The demographic and social-economic characteristics are taken into account as control variables. Age (*age*), gender (*sex*) and number of living children (*children*) are applied as demographic variables. The variable (*age*), measured in years, and the control variable (*children*) are quantitative variables. The variable (*sex*) is coded as 0 – male (ref. category) and 1 – female. Education level (*education*) and subjective evaluation of economic situation of household (*sub-econ*) are adopted as social-economic variables. (*Education*) has two categories and is coded as 0 – lower secondary at most (ref. category), 1 – at least upper secondary education. The second variable (*sub-econ*) has four categories: 0 – very bad (ref. category), 1 – bad, 2 – good, 3 – very good.

When adopting these variables, the applied models (1) take the following form:

$$\text{logit}\, P = a_0 + a_1 sex + a_2 sub\text{-}econ + a_3 typhh + a_4 age + a_5 children + a_6 education. \quad (2)$$

[2] A detailed description of the source can be found on the SHARE website (http://www.share-project.org/data-access-documentation.html, accessed: 15.09.2014).

3. The Main Features of the Ageing Process in Chosen European Countries

Europe is not homogenous in relation to demographic ageing. Table 1 presents the following main measures: percentage of population over 65 and over 85 years of age, ratio of population age 65 and over to 0–14 years old.

Table 1. Ageing in Selected European Countries

Country	Measures				
	Percentage of population aged:				Ratio
	65 and over		85 and over		65+/0–14
	Males	Females	Males	Females	
Central-Eastern European Countries					
Czech Republic	16.81	19.51	1.60	2.26	113.29
Hungary	17.17	20.63	1.71	2.40	118.93
Poland	14.24	17.06	1.52	2.18	94.67
Slovenia	17.10	20.24	1.88	2.83	118.13
Northern, Western and Southern European Countries					
France	17.57	19.74	2.79	3.77	94.65
Germany	20.73	23.20	2.57	3.58	158.36
The Netherlands	16.83	18.42	1.94	2.68	98.14
Portugal	19.38	21.69	2.33	3.04	131.12
Sweden	19.13	20.83	2.65	3.50	113.43

Source: the authors' own elaboration on the basis of SHARE.

Central-Eastern European countries are less aged than other regions. Among the Northern, Western and Southern countries, Germany has the oldest population (20.73% males and 23.20% females are aged 65 and over), while France has the highest percentage of population at age 85 (respectively 2.79% males and 3.77% females). Hungary and Slovenia have the oldest populations in Central-Eastern Europe. In Hungary 17.17% of males and 20.63% of females are age 65 and over, while their counterparts in Slovenia come in at 17.10% and 20.24%, respectively. In addition, Slovenia shows the highest percentage of population at age 85 and over (1.88% males and 2.83% females).

In developed societies with long life expectancy, one of the main determinants of population ageing, besides lower fertility, is decreasing mortality. This is espe-

cially important in the context of increasing life expectancy at advanced ages. The data included in Table 2 allow for a comparison of life expectancy at birth (e_0), at age 65 years (e_{65}), and healthy life expectancy at age 65 years (ehl_{65}) in chosen European countries.

Table 2. Life Expectancy in Chosen European Countries

Country	Measures					
	e_0		e_{65}		ehl_{65}	
	Males	Females	Males	Females	Males	Females
Central-Eastern European Countries						
Czech Republic	75.1	81.2	15.7	19.2	8.3	8.9
Hungary	71.6	78.7	14.3	18.1	6.4	6.4
Poland	72.7	81.1	15.4	19.9	7.4	7.8
Slovenia	77.1	83.3	17.1	21.1	7.3	6.9
Northern, Western and Southern European Countries						
France	78.7	85.4	19.1	23.4	9.5	10.4
Germany	78.6	83.3	18.2	21.2	6.7	6.9
Netherlands	79.3	83.0	18.0	21.0	10.0	10.1
Portugal	77.3	83.6	17.6	21.3	7.8	6.3
Sweden	79.9	83.6	18.5	21.1	14.0	15.4

Source: the authors' own elaboration on the basis of Eurostat data (http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database, accessed: 20.05.2014).

Both life expectancy at birth and at age 65 years in Germany, France, the Netherlands, Portugal and Sweden are higher than in Czech Republic, Hungary, Poland and Slovenia. The situation is less pronounced with regard to healthy life expectancy at age 65. Admittedly, the people of France, the Netherlands and Sweden enjoy the longest healthy lives, while the shortest healthy lifespan is in Hungary. Surprisingly, life expectancy at age 65 is lower in Germany than in Slovenia, Poland and Czech Republic.

There are striking differences between the European regions in amounts of social benefits old people receive (see Table 3). These benefits consist of transfers, in cash or in kind, by social protection schemes to households and individuals to relieve them of the burden of a defined set of risks or needs. The highest benefits are received in Sweden, France and the Netherlands and the lowest in Poland and Hungary.

Table 3. Social Benefits Per Capita Given to Elderly People (in PPS)

Country	Amount
Central-Eastern European Countries	
Czech Republic	1866.8
Hungary	1635.5
Poland	1582.5
Slovenia	2056.0
Northern, Western and Southern European Countries	
France	3495.9
Germany	2961.1
Netherlands	3466.0
Portugal	2241.7
Sweden	3684.2

Source: the authors' own elaboration on the basis of Eurostat data (http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database, accessed: 20.05.2014).

4. Informal Support for the Elderly with Problems with Activities of Daily Living – Results of Modelling

The results of the logistic regression analysis are presented in Tables 4 and 5 for Central-Eastern European Countries and for Northern, Western and Southern European Countries, respectively. The models were estimated for each country separately. All models turned out statistically significant. The a_i coefficients in model (2), for which p-values were smaller than 0.05, are marked in bold italic.

Table 4. Determinants of Receiving Help from Outside the Household in Central-Eastern Europe

Variable	Poland	Czech Republic	Hungary	Slovenia
	coefficient			
constant	***–1.824***	***–1.693***	***–2.614***	***–4.120***
sex	–0.026	–0.133	–0.040	0.039
sub-econ	–0.072	0.007	0.023	0.007
typhh	***–0.213***	***–0.470***	***–0.501***	***–0.569***
age	***0.027***	***0.038***	***0.043***	***0.038***

Table 4 cnt'd

Variable	Poland	Czech Republic	Hungary	Slovenia
	coefficient			
children	–0.079	0.156	0.041	0.158
education	–0.072	–0.028	–0.087	0.173
Likelihood Ratio Test				
Chi-square	34.49	66.46	96.81	65.76
p-value	0.000	0.000	0.00	0.000

Remarks: bold italic – variable is significant ($p < 0.05$); ref. category for dependent variable: *help* – absence of aid; ref. category for descriptive variables: *sex* – male, *sub-econ* – very bad, *typhh* – single only, *education* – at most lower secondary.

Source: the authors' own elaboration on the basis of SHARE.

Table 5. Determinants of Receiving Help from Outside the Household in Northern, Western and Southern Europe

Variable	France	Sweden	Germany	Netherlands	Portugal
	coefficient				
constant	***–3.050***	***–2.369***	–0.847	–1.464	–0.141
sex	0.292	0.137	–0.223	0.314	–0.323
sub-econ	–0.022	0.033	0.025	–0.026	–0.022
typhh	***–0.363***	***–0.617***	***–0.297***	***–0.638***	***–0.629***
age	***0.039***	***0.033***	***0.020***	***0.021***	0.005
children	***0.114***	***0.149***	–0.035	0.079	0.017
education	***–0.508***	–0.389	–0.033	***0.470***	–0.209
Likelihood Ratio Test					
Chi-square	90.91	89.75	20.76	74.00	39.23
p-value	0.000	0.000	0.002	0.000	0.000

Remarks: bold italic – variable is significant ($p < 0.05$); ref. category for dependent variable: *help* – absence of aid; ref. category for descriptive variables: *sex* – male, *sub-econ* – very bad, *typhh* – single only, *education* – lower secondary at most.

Source: the authors' own elaboration on the basis of SHARE.

Odds ratios have been calculated for all statistically significant variables in the logistic models presented in Tables 4 and 5. Odds values for all the countries are displayed in Figures 1 and 2, respectively.

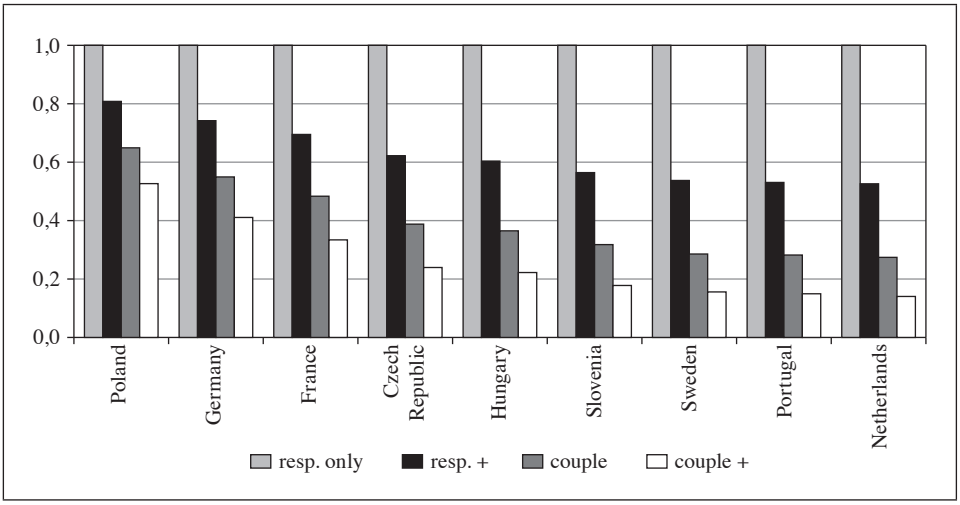

Fig. 1. Odds Ratio – Help Received from Outside the Household Variable – Type of Living Arrangement

Source: the authors' own elaboration on the basis of SHARE.

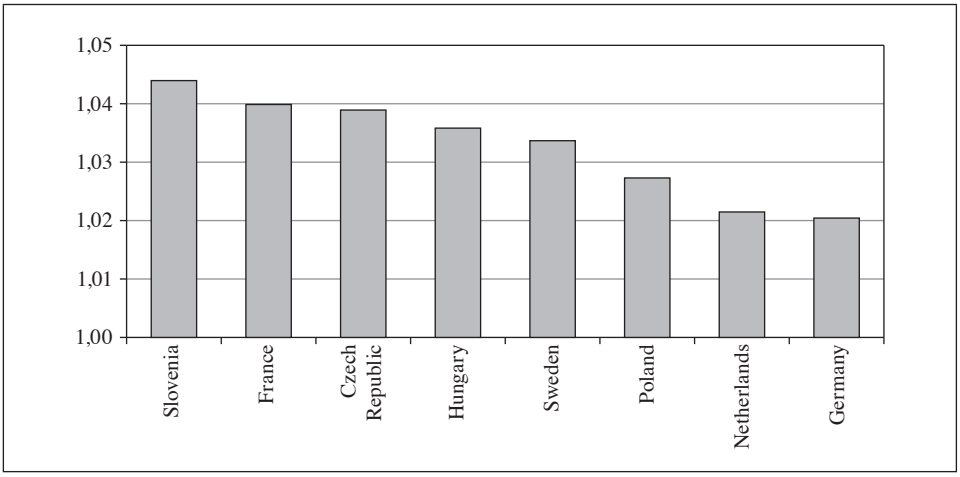

Fig. 2. Odds Ratio – Help Received from Outside the Household – Variable Age

Source: the authors' own elaboration on the basis of SHARE.

A comparison of the chance of receiving informal help from outside the household with the absence of such help showed that the following variables are significant for all countries:

1) type of living arrangements (*typhh*): persons who do not live alone have a lower probability of receiving informal help from outside their households than those who live alone;

2) age (with the exception of Portugal): the probability of receiving help from outside the household increases with age.

To evaluate the influence of these two variables on receiving informal help from outside the household more precisely, the odds ratios were decreased by one (in percent). They are presented in Table 6.

Table 6. Increase/Decrease in Chance of Receiving Help from Outside the Household by Significant Variables (in %)

Country	Typ of household			Age
	resp. +	*couple*	*couple* +	1 year
Central-Eastern Europe				
Czech Republic	–37.48	–60.91	–75.56	3.89
Hungary	–39.40	–63.27	–77.74	3.58
Poland	–19.21	–34.73	–47.27	2.72
Slovenia	–43.38	–67.94	–81.85	4.40
Northern, Western and Southern Europe				
France	–30.40	–51.60	–66.30	4.00
Germany	–25.67	–44.75	–58.93	2.03
Netherlands	–47.17	–72.09	–85.26	2.15
Portugal	–46.71	–71.60	–84.87	–*
Sweden	–46.03	–70.87	–84.28	3.36

Remark: * non-significant.

Source: the authors' own elaboration on the basis of SHARE.

Reducing the chance to receive this kind of support in comparison with the households maintained by an older person living alone (*resp. only*) is the greatest for older people with a partner and living with other people (*couple* +). The smallest decrease in the chance of receiving such help is observed for the households made up only of older persons living without a partner and co-residing with others (*resp.* +).

Among the countries investigated, Poland deserves our attention, as it was there that the smallest decrease in the chance of receiving help was observed for all types of households, as compared to households composed only of older person living alone (*resp. only*). This chance decreases respectively by 19.21% for households consisting of elderly and other persons (*resp.* +), by 34.73% for households created only by a couple (*couple*) and by 47.27% for couples living

with others (*couple +*). On the other hand, among the countries investigated, the Netherlands showed the largest decrease in the chance for informal support from outside the household. Compared to households maintained by elderly individuals living alone (*resp. only*), this chance is reduced by 47.17% for (*resp. +*) households, by 72.09% for households composed of the couple only (*couple*), and by 85.26% for the biggest households (*couple +*). Similar results were obtained for Portugal and Sweden. Among the countries of Central and Eastern Europe, the biggest decrease in the chance to receive informal support from outside the household was observed in Slovenia. On the other hand, from the countries of Southern, Northern and Western Europe, the smallest reduction of this chance occurred in Germany.

In the light of the obtained results, it may be concluded that age is a variable whose growth entails an increase in the chance of receiving informal support from outside the household. In most of the countries from Central and Eastern Europe, the effect of age is greater than in their counterparts in Southern, Northern and Western Europe. The smallest gain in the chance of receiving help from outside of the home resulting from an increase of an older person's age by one year was observed in Germany (2.03%), the Netherlands (2.15%) and Poland (2.72%). The highest increase was recorded in Slovenia (4.40%), France (4%) and the Czech Republic (3.89%).

Moreover, in the case of France, the Netherlands and Sweden, besides the above-described trends, other variables were also observed to have a significant influence. They include: the level of education in France and the Netherlands, and the number of children alive in France and Sweden. In France, persons with at least secondary education have a lower chance of receiving help from outside the household, as compared to those with at most a lower secondary education. This chance is lower by 60.14%. However, in the Netherlands, it is higher by 60.08%. The additional living child in both France and Sweden increases the chance of getting help from outside the household by 12.07% and 16.03%, respectively.

In an attempt to explain the differences between the countries of Central and Eastern Europe and those of Southern, Northern and Western Europe, we would turn back to the data on social benefits intended for the elderly in the countries considered. The highest amounts of aid per capita are transferred (in PPS) in Sweden (3684.2), France (3495.9), the Netherlands (3466), and the lowest in Poland (1582.5) and Hungary (1635.5). In countries with the highest institutional support, the chances of obtaining informal help from outside the household are smaller.

5. Discussion and Conclusions

The following regularities in the domain of informal support for the elderly in chosen European Countries can be formulated:

1. In all the countries considered, only the type of living arrangements and age impact the non-institutional support received from outside the household. Larger households and younger ages decrease the chance that it will be received.

2. A higher risk of receiving informal help from a person living with other people who experience problems with everyday activities occurs more frequently in Central and Eastern Europe. Living with others facilitates the flow of informal help, which compensates for relatively low social benefits in Central-Western European countries.

3. Informal help from outside the household is directed towards elderly people at more advanced ages who live in smaller households.

A comparison of this study's results with those of others' research allows the following points to be formulated.

1. Living arrangements of people with health problems in large households are evaluated positively. The results of prior research indicate that people who have health problems and are in a difficult economic situation and have low qualifications are prone to loneliness if they live independently (Pinquart 2003, Victor *et al*. 2000, Hawkley *et al*. 2008). The frequency of living alone grows with age.

2. Similar to other researchers' findings, our study revealed that informal help from outside of the household is directed toward older people living in small households (de Jong Gierveld, Dykstra & Schenk 2012, p. 170).

3. The differences in the flow of support in comparable countries are consistent with others' research results. Therefore, apart from the issues already considered, cultural context and norms applying to family-related duties should be considered (Van Bavel *et al*. 2010).

Although it directly affects people of older age, demographic ageing should be considered in the context of the whole population. Increasing longevity is connected with an increase in the chance of survival of all phases of the demographic cycle (Lee & Tuljapurkar) (childhood, adulthood, old age). The consequence of a decreasing level of fertility is a shrinking population of young people, who grow up among older people living longer. In a family, various kinds of interdependencies are shaped. An example includes relationships among younger and older generations, which are created by the transfer of support of various kinds. Different perspectives on the problem of ageing, including the family's, partners', children's, parents', and individuals' must be incorporated.

A new approach to demographic ageing, employing the perspective of the whole population, has been formulated by the authors of the Multilinks Frame-

work project (*How Demographic Changes…* 2014). The study looked at just one kind of informal help given to older people experiencing difficulties performing activities in their daily lives. In the face of contemporary demographic changes, such help will have to be strengthened by institutional support. Care for elderly family members is provided mostly by women who are most often not mobile. These women take care of elderly parents (their own and their partners'). At the same time, their grand children may expect their help. Due to inadequate institutional support (day nurseries, kindergartens, elderly care), these women may be forced to give up their professional careers in order to take care of family members unable to live independently.

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Starzenie się ludności i pozainstytucjonalne wsparcie osób w starszym wieku w wybranych krajach europejskich

(Streszczenie)

Celem pracy jest porównanie zakresu pozainstytucjonalnego wsparcia udzielanego osobom w starszym wieku doświadczającym problemów z czynnościami życia codziennego w wybranych krajach europejskich. W celu zweryfikowania hipotezy głoszącej, że otrzymywanie pomocy pozainstytucjonalnej spoza gospodarstwa przez osoby z proble-

mami życia codziennego jest determinowane typem gospodarstwa domowego i cechami społeczno-demograficznymi populacji otrzymującej wsparcie, skonstruowano dwumianowe modele logitowe. Teoretyczną podstawę analizy stanowi nowe podejście do starzenia się ludności przyjęte w projekcie Multilinks. Na podstawie uzyskanych rezultatów określono specyfikę krajów, które doświadczyły transformacji systemowej, oraz wskazano różnice występujące pomiędzy Europą Północną, Zachodnią, Południową i Środkowo-Wschodnią. Uzyskane wnioski są spójne z rezultatami otrzymanymi przez innych badaczy na podstawie innych baz danych i przy zastosowaniu różnych metod.

Słowa kluczowe: starsi ludzie, pozainstytucjonalna pomoc, sposób zamieszkiwania, starzenie się populacji.