

Ego-centered Support Networks: a Cross-national European Comparison

Reti egocentrate di supporto sociale: confronto tra Paesi Europei

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Abstract This contribution aims at comparing patterns of social support -provided and received- among the elderly population in European countries. Adopting an ego-centered network perspective, by means of multivariate techniques for categorical data, we intend to map the ego-support network structures of the elderly, as well as ego-network functional content of provided and received support in the different countries. Individual and country socio-demographic characteristics will be also considered in interpreting results.

Abstract *Questo contributo intende confrontare i profili di supporto sociale -fornito e ricevuto- della popolazione anziana nei paesi europei, secondo la prospettiva delle reti egocentrate. Mediante l'utilizzo di tecniche multivariate per dati categoriali, si propone una mappatura delle reti di supporto, considerando per ciascun Paese la struttura di tali reti-egocentrate e il tipo di supporto scambiato. Le caratteristiche socio-demografiche individuali e dei singoli Paesi verranno considerate nell'interpretazione dei risultati.*

Key words: Social support, ego-centered network, SHARE Wave 7 data, MCA

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1 Introduction

Population aging has been a predominant phenomenon in twentieth century Europe and it is going to most likely intensify throughout the current century [12]. According to the latest data published by the European Institute of Statistics (Eurostat), the percentage of people aged ≥ 65 years in European Union -27 countries- represents the 20.3% of the total population in 2019, with an increase of more than 16 percentage points compared with 10 years earlier. This is due to consistently low birth rates, coupled with higher life expectancy in all of the EU Member States [10].

In order for societies to face the severe aging of population, it is crucial to ensure a healthy and active aging. Remaining active means to prevent mental and physical decline, to sustain health and well-being, and to enhance quality of life as people age [15]. In this context, active aging has been defined as the propensity to be engaged in activities for oneself or for others in later life. This definition also gives relevance to social support, that is considered a specific characterization of social participation. In particular, social support is defined as a set of helpful functions performed for an individual by significant others, for instance by family, friends, relatives and neighbours [1]. Received support, regardless the type (emotional, informational and instrumental), has been largely studied, highlighting the positive influence of social support on various health outcomes and well-being. However, minor attention has been devoted to support provided to others by the elderly. Indeed, providing support, especially to members outside of the household, instead of receiving it, can be considered a sign of an active lifestyle and participation in social life.

The network perspective in describing social support is widely suggested [8]. In particular, it is often investigated through *ego-centered support networks*. These are composed by the focal person (ego), and the persons or institutions - usually referred as “alters” - to which ego is related by some support tie of interest.

Drawing from the considerations mentioned above, this contribution aims to analyse patterns of social support among elderly population in European countries adopting an ego-centered perspective. We use Wave 7 data release [5] from the largest European survey on elderly, the “Survey of Health, Aging and Retirement in Europe” (SHARE, [4]). By means of multidimensional analysis techniques, we synthesize the support provided and received, providing cross-national comparisons in order to highlight specificities of the European countries in ego-support networks and in the type of support exchanged between ego and alters. Since ego-centered data on social support in SHARE are built from information on alter categories providing (receiving) support and type of support exchanged, Multiple Correspondence Analysis (MCA) [11] is an appropriate method to analyse the different ego-centered network characteristics, and to compare countries’ patterns.

2 Data description and related literature

Covering 28 European countries and Israel, SHARE is the data source for most European studies on aging [4]. It is a multidisciplinary and cross-national panel database of micro data that includes information on health, socio-economic status and on social and family networks. It is a large project comprising about 140,000 individuals aged 50 or older. The first wave was carried out in 2004 with only 11 European countries, while with the last wave (Wave 7) completed in 2017 a full coverage of the EU was achieved by including 8 new countries (Finland, Lithuania, Latvia, Slovakia, Romania, Bulgaria, Malta and Cyprus). Moreover, in June 2020, a sub-sample of SHARE's panel respondents was interviewed via a Computer Assisted Telephone Interview (CATI) to collect data targeted to the COVID-19 living situation of people who are 50 years and older.

Given its richness on social networks, SHARE data have been largely used to study the social participation domain in the active ageing framework with different approaches.

More specifically, from SHARE data [3] identified clusters of elderly people with similar patterns of social participation, considering also the type of activities and their frequency. [6] investigated the level of values and personal orientations, as well as relational networks among Italian active young elders, underlining the existence of a relationship between the magnitude of the social network and the propensity to exchange with other generations.

A recent study based on the fourth wave of the SHARE analysed the effect of structural social capital on the health (measured through self-perceived health) of individuals aged 60 and above living in European countries [2]. In accordance with previous studies, results underlined that self-perceived health generally worsens with age. However, the physical health of an individual is only one of several factors influencing the perception of their own health: social capital in the form of networking, volunteering, and attending clubs appeared to be preventive against poor self-perceived health, stressing the beneficial effect of support networks in elderly people. These results were in line with previous SHARE-based evidence: not only socialising is highly beneficial for one's health, but the effect intensifies with increasing frequency and heterogeneity of social contacts.

While these studies underlined the association between social participation and health, or analyzed specific types of interaction (such as the intergenerational) the elderly entertain with others (family or non family members), we focus on a cross-national comparison of social support network structures.

3 Ego-centered support network definition in SHARE data

We consider the Wave 7 [5] release of the SHARE data, carried out in 2017. In this wave, information on received/provided support are contained in two specific modules. The "social support" module (SP) contains information about help the

respondents might receive from or give to family or non family members. Four types of received or provided support are investigated: personal care, practical household help and help with paperwork. Information on the intensity of the support -expressed as the frequency of each type of help- are also collected as well as specific questions are devoted to deepen children's care.

The second module on "financial transfers" (FT) collects information on any financial transfers and payments given or received from others.

Both modules are part of the "regular panel" questionnaire administered to a subsample of 13,959 respondents (among which 11,390 are aged 65+) living in Austria, Germany, Sweden, Spain, Italy, France, Denmark, Greece, Switzerland, Belgium, Czech Republic and Poland (the countries involved in SP and FT modules).

The set of support information allows to build ego-centered support networks [14]. The ego-centered network is composed by a focal person, ego, and a set of alters, i.e. people to whom ego is related through given or received support. The relation of interest (the different types of given or received support) existing between ego and alters is considered as "a tie" between them. In SHARE Wave 7, respondents are allowed to indicate up to three alters –family members from outside the household, friends, neighbours and others– who helped them or they have helped in the last twelve months prior to the interview. For each alter, the role relation with ego is selected from a list of 28 role relations. In particular, the first twenty (20) categories are devoted to family and kinship roles (i.e. partner/spouse, mother, father, brother, sister, child and step-child, etc.), while the four (4) next entries are devoted, respectively, to friends, (ex-)colleagues/co-workers, neighbour and ex-spouse/partner. The last entries comprise religious (minister, priest, or other clergy) and "professional" (therapist or other professional helper; housekeeper/home health care provider) roles, plus a residual category if the alter role does not fit no one in the proposed list (see Figure 1).

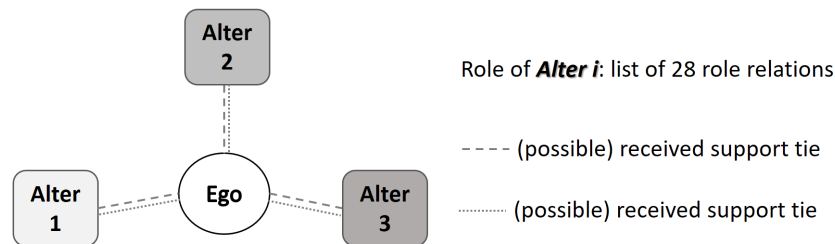


Fig. 1 Example of ego-centered support network from SHARE data.

4 Preliminary results

Table 1 provides the frequency distribution of the elders that have provided/received support outside their household. Some significant country-level differences can be noted: Southern European countries less often provide and receive support outside their household, possibly suggesting a lower propensity to seek support outside their family circle.

Table 1 Percentage of respondents who provided or received support to/from outside their household in the 12 months prior to the interview.

Country	Provided support (%)	Received Support (%)
Austria	27.6	38.6
Germany	32.9	31.8
Sweden	32.9	23.5
Spain	7.3	18.7
Italy	11.2	17.1
France	32.1	30.1
Denmark	47.5	38.8
Greece	8.6	22.7
Belgium	26.2	26.5
Czech Republic	28.0	44.0
Poland	11.3	17.5

We build the ego-centered networks of all respondent units and also consider ego's structural characteristics (gender and age), the alters' role, and the type of support. Gender and birth generation of alters can be inferred in most cases, allowing to deepen mechanisms driven by intergenerational support and/or by peer homophily support, that is the preference to be related to alters in the same birth generation.

Following [13], by using MCA [11] we map the relationship among egos, the network structure, and the type of provided/received support. MCA is suitable to deal with categorical information expressing social support, and it allows to detect and visualize underlying structures in the data. Among others, we expect to highlight patterns of inter-generational support [7].

As a final result, ego's and alters' characteristics, and type of support, will be represented as points in a bi-dimensional Euclidean space which will allow to highlight patterns of social support networks across European countries.

In interpreting results, we refer to socio-demographic and welfare system [9] characteristics of the analyzed countries. For instance - with respect to Northern European countries - Southern European countries are characterized by a "familistic" regime where people rely more on support from their family and personal social network rather than on public welfare state. We expect the detected social support patterns to reflect on such differences across countries.

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