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## 27 Social networks and everyday activity limitations

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- ▶ Network size increases with the onset of limitations, but only for the less limited
  - ▶ The severely limited 80+ group, especially men, have the most limited networks
  - ▶ Higher education protects against social isolation among severely limited persons
  - ▶ Respondents in Switzerland, France and Belgium have the most diverse networks, while those in Hungary have the most familialistic network
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One of the implications of individualism and demographic transformation is that ties between generations and family members become weaker. At the same time the social relationships that remain, become more complex. The meaning and outcomes of these changing relationships for the well-being of older people, as well as for the functioning of the society as a whole, requires more research.

With ageing, chronic diseases accumulate and health conditions appear more frequently (Verbrugge 1997). Thus, in an era of increasing life expectancy, disability might become more prevalent. Conversely, higher educational levels, technological advancements and behavioural changes may lead to decreasing disability in later life. Whatever the case, the role of network resources and the support they may or may not provide for older persons should be high on the research agenda.

This chapter reports the results of a study that analysed the relationship between social network characteristics and disability outcomes of persons aged 50 and older. We looked at limitations in everyday activities as measured on the Global Activity Limitation Index (GALI), an objective and validated disability status measurement (Verbrugge 1997, Jagger et al 2010). Different types of social networks, contact frequency and quality of relationships can yield different outcomes for the well-being of older persons, especially with the onset of activity limitations. Therefore, the study of social contacts is an important means for gaining a better understanding of well-being and functioning among members of the older cohorts.

The size of networks is one of the determinants of well-being (Cornwell 2009). Mobile societies and active people tend to have larger networks, but these often consist of so-called weak ties, i. e. those that provide new information but do not supply on-going care (Granovetter 1973). Knowledge about the social networks of older people is important because with increasing functional disability strong ties remain whereas weak ties drop out of the network (Cornwell 2009).

The composition of networks is another important aspect in determining the well-being of older people and their coping with everyday activities when limitations set in. Marital status has been found to have a protective effect on one's physical ability. At the stage of limitations with daily activities, the most frequent source of support tends to be a spouse, followed by children (Wenger 1997). Spouses of physically disabled persons tend to be equated with the availability of strong emotional support, but considerable numbers of married people often lack such support. Also, the number of friends and relatives decreases with age, due to their own declining health and death, and because weaker ties - such as friends - drop out of the network when activity limitations emerge. Closer ties are easier to maintain as these are often embedded in familialistic environments, requiring less reciprocity (Cornwell 2009).

Another aspect presented in this chapter focuses on the frequency of contacts. Older people having fewer contacts with both family and friends have indicated lower scores on several scales of health-related quality of life (Lopez Garcia et al. 2005). People with severe health problems and disabilities may have trouble reciprocating in basic social exchanges. This introduces an element of inequity which can jeopardise social relationships and reduce the size of networks, while at the same time increasing the number of contacts that one has with those who remain in the network (Cornwell 2009, Oishi et al. 2013).

All of these factors tend to characterise the social network as a protector against loneliness. Other research has revealed that experiencing loneliness and social isolation results in worse health outcomes, especially poor mental health and depression (Cornwell 2009, Greenfield & Russell 2010, Moor & Komter 2011, Oishi et al. 2013). In this study we model general satisfaction with relations in the social network as a proxy for not feeling loneliness and social isolation despite the size, type and frequency of contacts one may have. In general, our main research interest derives from the assumption that the characteristics of social networks have protective effects for people who are limited in their activities. However, owing to the different evolution of societies, the nature of the network effects may differ between countries.

## **27.1 Limitations in everyday activities**

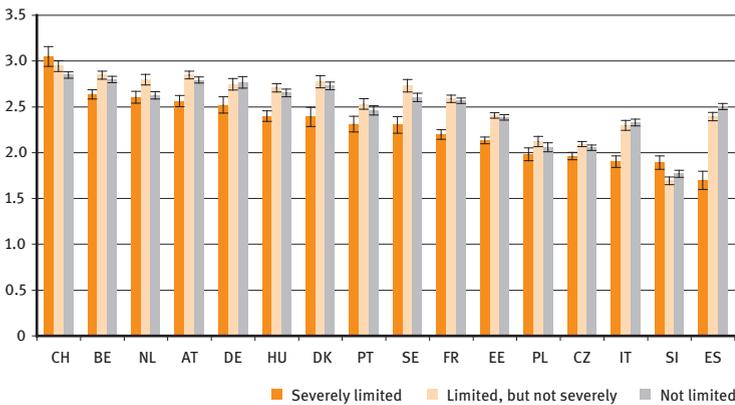
The distribution of limitations in everyday activities according to GALI is distinguished by three levels (severely limited; limited – but not severely and not limited). Estonia, Poland and the Netherlands have the biggest reported proportions of severely limited respondents among the SHARE countries. Only in the

Czech Republic the majority (40%) are limited to some extent, but not severely. Moreover, in Germany and the Czech Republic, the differences in the proportions of not limited and less limited are the smallest.

Partly due to its having the largest share of severely limited respondents, and because it is one of the new countries participating in SHARE, Estonia was used as the reference country in the regression models of the current research. We should point out as well that Estonia holds the middle position on several other variables and is thus a good reference base to see the variety among the countries.

## 27.2 Network size

Descriptive analysis shows that within most of the SHARE countries, the severely limited respondents tended to have a smaller average network size, and those that were less limited had the largest (Figure 27.1). In Italy, Spain and Germany, the largest networks were among the not limited. In Spain and Italy there were large internal differences between the limitation categories. Networks of the severely limited were smallest in East and South European countries. The severely limited in Italy, Spain, Slovenia, Poland and the Czech Republic reported having less than two network members, on average, corresponding to these countries smaller networks overall.



**Figure 27.1:** The mean size of social networks, by limitations of everyday activities

Notes: Number of observations: 56,367

Source: SHARE Wave 4 release 1

We also found that network size was smaller in older age, which may be related to decreasing survival rates of network members and to a higher likelihood of developing limitations. Respondents aged 50–64 years had larger networks than the 80+ year olds in most of the countries. Respondents aged 80 and above in Slovenia, the Czech Republic, Poland and Italy had, on average, fewer than two network members, corresponding once again to their smaller overall networks.

Multinomial logistic regression results (not shown, available on request) revealed that respondents from Austria, the Netherlands, Denmark and Hungary had the highest overall chance of having any network (at least one member) across all the limitation groups. The lowest chance was observed in Italy and Slovenia. The highest possibility of having a network among the severely limited group was in Switzerland, and lowest in Spain and Italy compared to Estonia. Spanish respondents showed large differences again across the three limitation groups – the not limited seem to have had a five-fold higher chance of having a network than the corresponding Estonian population whereas the chance of having any ties was one of the lowest among the severely limited Spaniards. However, Spain having the smallest share and Estonia the largest share of severely limited respondents might explain some of these differences. Also, men had a lower chance of having networks than women across all the limitation categories.

## 27.3 Network composition

Further analysis showed that the majority of respondents (above 80%) had at least one family member in their network. Only severely limited 80+ year olds had a slightly lower proportion (78%). In general, the proportion of family members such as spouses, siblings and parents in networks falls with age owing to their survival rates, while younger generations of relatives replace them. Although a clear pattern of the decreasing share of siblings with age can be seen across all limitation groups, it is not as remarkable for the 50–64 year olds as might have been expected, due to demographic shifts. The proportions of those having children and grandchildren in networks increased with age. However, the share of people having grandchildren in the network remained below ten per cent among the 80+ year olds across all the limitation groups. Thus, replacement by grandchildren is not yet predominant.

Regression analysis showed a 1.2–1.4 times lower likelihood for men to have any family members in their network compared to women across all the limitation categories, but it was lowest for the severely limited. In addition, having family in the network was less common for severely limited respondents with low

or medium level education compared to those with high education (but these differences were not significant). The oldest severely limited respondents reported no family ties in their networks most often. Married respondents and those in registered partnerships were more likely to have networks consisting solely of family ties than the other marital status groups. The chances of having any family ties in one's network were highest in Austria, Hungary and Estonia across all the limitation groups. The Netherlands showed highest likelihood of having family ties among the less limited. This might point towards these countries being more familialistic. Severely limited respondents from Spain, Belgium, Slovenia, the Czech Republic and France indicated the lowest chance of having family ties in their networks. Despite their having the largest shares of formal helpers (except Slovenia and the Czech Republic), however, these proportions are still too low to replace family ties.

The proportion of severely limited respondents having children in their networks increased from 47.9 per cent among those aged 50–64 to about 56 per cent among those aged 65 and higher. According to the regression results, the likelihood of having children among one's social ties was almost two times smaller for severely limited men than for women. This decreased to 1.8 times lower among the less limited and not limited men. This finding suggests different communication patterns between men and women and their children. For example, relationships between fathers and their children can be particularly less common after partnership dissolution (Kalmijn 2007, Dykstra & Keizer 2009). The likelihood of having children in the network was higher for the 80+ age group. Respondents from Hungary, Austria and Portugal showed the highest chances of having children in their networks across all the limitation groups. Severely limited Slovenian respondents had the smallest likelihood of having children in their networks, but it was low also among Slovenians in other limitation groups.

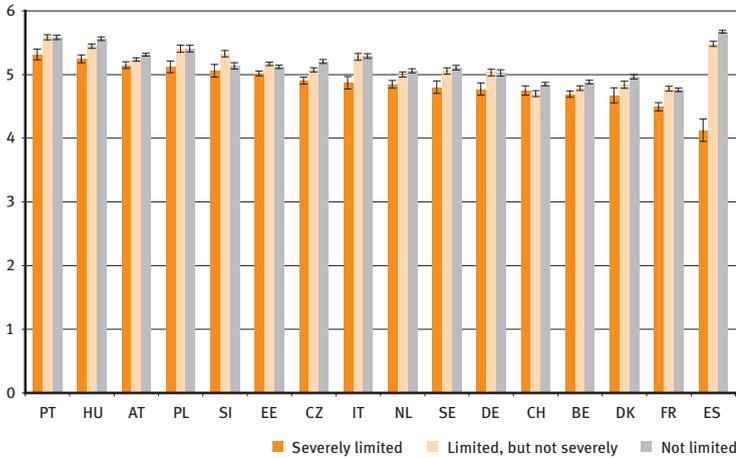
Some 58 per cent of the severely limited 50–64 year olds had a spouse or a partner in their network while among the less limited the figure was 64 per cent, and 67.7 per cent among the not limited. The severely limited clearly have a worse 'starting point' in terms of partner availability and it deteriorates with age – by age 80+ the share of severely limited respondents with a partner in their network was the smallest (29.6%) compared to the same age groups among the less limited (36.4%) and the not limited (38.1%). Within family ties, men had a much higher possibility of having a spouse or a partner in their networks than women across all the limitation groups, being the highest in the less limited group (2.1 times that of the women). Men live more often with a partner until the end of their lives and benefit from having had an important support resource. The likelihood of having a partner decreased in older ages, owing to different survival rates of spouses. In most countries the possibility of having a spouse decreased with the onset

of more severe limitation, reflecting the smaller proportions of severely limited persons with a spouse or a partner overall.

The proportion of people having friends in their network also decreased with age. Moreover, a smaller proportion of severely limited 50–64 year olds (31%) had friends in their network than their peers had (31.9% among the less limited and 32.6% among the not limited). By the age of 80+, the proportion of respondents with friends was smallest among the severely limited (14.8% compared to 18.7% among the less limited, and 22.7% among the not limited). As friends tend to be of the same age, their existence in networks in later life depends also on their survival. Having friends in one's network was 1.7 times less likely for men than women, according to the regression results. Being married and living together with a partner decreased the likelihood of having friends in the network. Marriage provides a strong tie but having others in the network brings other benefits. Highly educated respondents had a higher likelihood of having friends compared to other education levels across all the limitation categories. Severely limited respondents with low education had a 2.4 times lower likelihood of having friends than those with high education. Respondents from Eastern Europe together with Portugal differed by having less likelihood of reporting friends than the rest of Europe, especially among those with no limitations. Among the severely limited, respondents from Hungary and Spain showed the lowest likelihood of having friends in the network compared to Estonia, followed by those from the Czech Republic, Italy, Portugal and Slovenia. The likelihood of having friends decreased as the functional level moved towards the severely limited in Spain and Hungary. Within Spain, the likelihood of having friends was one of the highest among the not limited while it became the lowest for the severely limited Spaniards.

## 27.4 Frequency of contacts

Figure 27.2 shows descriptive results of the average frequency of contact within the network by the three limitation categories. In most countries, the severely limited had the least average frequency of contact. Respondents from Hungary and Portugal had the highest contact frequency overall, including among the severely limited. While Spanish respondents had the second highest contact frequency among the less limited and the not limited, they had the lowest average contact frequency among the severely limited (a score of 4.1 or slightly less than once a week). This underscores the great internal differences across limitation groups regarding social network characteristics in Spain.



**Figure 27.2:** Average frequency contact with social network, by limitations of everyday activities

Notes: Number of observations: 54,756

Source: SHARE Wave 4 release 1

Logistic regression of contact frequency (with daily/several times a week as the reference category) revealed that men were 1.7 times more likely than women to have had no contact with their social network (Table 27.1). This supports the idea of men's higher vulnerability. Women are likely to communicate with their network members more often. Also, the 80+ age group was more likely to have had no contact with its networks. Taking into account that this age group has also smaller networks makes them needing the most attention. Severely limited respondents had 1.6 times the possibility of the not limited to have had no contact with their network. Highly educated respondents had a higher likelihood of having sometimes contact with their networks than less educated people compared to the likelihood of interacting daily or several times a week. Older respondents from Italy, Slovenia, France, Poland, the Czech Republic and Belgium were more likely to have had no contact with their networks than those from Estonia while in Portugal, Hungary, the Netherlands and Austria respondents were significantly less likely to have had no contact with their networks. The latter three countries also had the greatest number of family and children ties (strong ties) in their networks, which results in having more frequent interaction.

**Table 27.1:** Multinomial logistic regression of average frequency of contact with social networks

	Never Exp(B)	S.E.	Sometimes Exp(B)	S.E.
Male	1.738***	(0.0435)	0.993	(0.0262)
50–64	0.528***	(0.0628)	0.726***	(0.0426)
65–79	0.616***	(0.0575)	0.932	(0.0402)
Married and living together	0.430***	(0.0577)	0.482***	(0.0371)
Registered partnership	0.375***	(0.2261)	0.695***	(0.1040)
Married, living separated	0.977	(0.1733)	1.035	(0.1038)
Never married	1.459***	(0.0846)	1.586***	(0.0546)
Divorced	1.124	(0.0808)	1.236***	(0.0481)
(Pre) primary	1.348***	(0.0646)	0.576***	(0.0346)
(Post) secondary	0.985	(0.0661)	0.683***	(0.0323)
Severely limited	1.621***	(0.0532)	1.079**	(0.0365)
Limited, but not severely	0.829***	(0.0511)	1.115***	(0.0286)
AT	0.554***	(0.1138)	0.750***	(0.0565)
DE	1.127	(0.1549)	1.377***	(0.0782)
SE	0.792	(0.1506)	1.338***	(0.0723)
NL	0.633**	(0.1510)	2.008***	(0.0606)
ES	0.966	(0.1103)	0.302***	(0.0991)
IT	2.095***	(0.0912)	0.436***	(0.0865)
FR	1.887***	(0.0854)	1.906***	(0.0499)
DK	1.168	(0.1311)	1.645***	(0.0649)
CH	1.237	(0.1127)	2.556***	(0.0533)
BE	1.240**	(0.0950)	1.951***	(0.0502)
CZ	1.529***	(0.0856)	0.953	(0.0543)
PL	1.348**	(0.1296)	0.503***	(0.1102)
HU	0.635**	(0.1304)	0.523***	(0.0778)
PT	0.727**	(0.1472)	0.345***	(0.1118)
SI	2.331***	(0.0957)	0.480***	(0.0867)

Significance: \*\*\* = 1%; \*\* = 5%; \* = 10 %

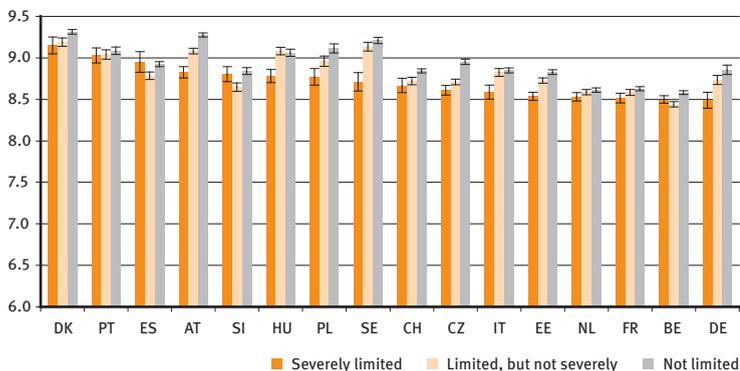
Source: SHARE Wave 4 release 1

Notes: Reference categories: daily/several times a week; female; 80+ year olds; widowed; tertiary education; Estonia; Number of observations: 53,917.

## 27.5 Satisfaction with networks

Although satisfaction with networks was generally high, the severely limited were the least satisfied (mean=8.6; scale range 0–10) (Figure 27.3). Given the smaller networks and lesser diversity in the networks of the severely limited, especially among those who are 80 and above, this assessment reflects their more disad-

vantaged position. Also, among the severely limited only those in Denmark and Portugal had an average satisfaction score above nine points. The lowest evaluation score was observed among severely limited German respondents (8.5). Less limited and not limited 50–64 year olds were less satisfied with their networks than were older respondents even though their networks were relatively better off (larger, more diverse and having more frequent interaction). Respondents from Sweden and Denmark indicated having the highest satisfaction levels among both the less limited and the not limited, while those from the Netherlands, France and Belgium showed the lowest satisfaction levels compared to Estonia. It seems, therefore, that greater satisfaction with networks is not always related to better social network parameters.



**Figure 27.3:** Average satisfaction with social networks, by limitations of everyday activities

Notes: Number of observations: 55,252

Source: SHARE Wave 4 release 1

## 27.6 Influence of social networks on limitations of everyday activities

Network size increases with the onset of limitations (Cornwell 2009), but this is confirmed only for the less limited group. The severely limited older population tends to have the smallest networks. Moreover, while the networks of older Europeans are largely composed of family members, the severely limited are less likely to have family ties (or friends) among their network contacts. In addition, the number of friends and siblings in the network decreases with age, as the proportion of children increases. However, the effect of major demographic shifts is not fully apparent in the present analysis, probably due to large shares of the

older European population still belonging to the baby boom generation. As such, the new challenges for older people that are posed by recent demographic shifts might not yet be reflected in the social network dynamics of the SHARE Wave 4 sample.

Older men, especially those who are severely limited, stand out as a vulnerable population group, reflecting similar findings in earlier research (Kalmijn 2007, Dykstra & Keizer 2009). Even though they are more likely to have a spouse nearby, their spouse is often their only network member. Similarly, the severely limited 80+ group is vulnerable in terms of its having fewer people to communicate with, less diverse networks, lesser interaction and lower satisfaction with the networks, corroborating similar findings elsewhere (Litwin 2011). It might be that those in the severely limited 80+ group have difficulties with maintaining reciprocal relationships due to having limitations, but the underlying mechanisms to explain this need further analysis.

Education indicated some protective effects against the social isolation of severely limited older people as the more highly educated benefited from having both more family members and more diverse ties in their networks. This finding is in line with earlier research results (Greenfield & Russell 2010, Oishi et al. 2013). Nevertheless, this association, as well as the role of education in bringing together different networks, needs more exploration.

The severely limited tend to have lower satisfaction with their networks than the less limited and the not limited in most countries. Also, the less limited and not limited among the 50-64 year olds were less satisfied with their networks than the corresponding older groups of respondents. Moreover, in several cases better network characteristics did not always go together with higher satisfaction levels.

Switzerland, Belgium and France seem to provide a more mobile environment for limited older people to maintain their social relationships. Most East European and South European countries are less mobile socially, with Slovenia, Spain and Italy standing out in particular. Spain and to some extent Italy exhibited large internal differences between the not limited and the severely limited groups, explained possibly by the stigmatisation of the latter.

Hungary, Austria, Estonia and Portugal can be considered as more familialistic in that family ties were the dominant relationship categories found in the networks in these countries. Conceptually, familialism assumes that family ties remain or become stronger with the development of severe limitations. However, in several countries replacement by either children or formal helpers is not taking place among the severely limited. This makes familialism a vulnerable concept as people lean on family ties too extensively. The gap between the need and the availability of family support should be addressed by development of better formal care. Different communication opportunities should be developed for

the vulnerable groups. Educational policies may help in preventing social isolation in later life. On the other hand, including older people in different activities where new skills can be acquired can keep their sense of engagement. Participating in activities has the potential to enlarge one's network and thus prevents social isolation. Those who benefit from more mobile ties maintain them even when severely limited.

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