Ageing and migration: Transforming personal networks and everyday activity limitations among native and migrant populations in Estonia

Liili Abuladze and Luule Sakkeus, Estonian Institute for Population Studies

Introduction

The Second Demographic Transition (SDT) has been used to describe certain fertility and family formation changes that were accompanied by weakening social cohesion in the form of transforming network types, reduced social control and shifts in socialisation values (Lesthaeghe & van de Kaa 1986, Lesthaeghe & Neels 2002). These changes assume weakening social ties among generations and family members. On the other hand, the new social relationships are very complex with a record number of multiple generations alive while the intra-generational ties have decreased (Dykstra & Fokkema 2011). With on-going ageing in several societies, changes in relationships may impact older persons' social networks and coping.

Altering social networks during the SDT also suggest that different population groups, originating from divergent demographic transition phases, but living next to each other at the same historical time-point might have different social network structures at this observed one point in time (Lesthaeghe & Neels 2002). Thus migrant populations can indicate different kinds of networks, firstly due to having later timing of the demographic transition than the natives. Secondly, migration experience requires also a certain set or types and quantity of social networks which might remain different from the natives also at old age (Oishi et al. 2013).

We focus on Estonia – a country that has one of the worse health and mortality status as well as one of the highest proportion of foreign origin population among the European nations. One third of the Estonian population is comprised of foreign-origin population coming mostly from the former Soviet Union regions – the majority being Russians (Sakkeus 2007). Foreign origin population in Estonia has lower number of healthy life years, 5-6% shorter life expectancy for men and somewhat shorter for women (1-2%), but at the same time higher disability rates which we would rather expect from those population groups who have higher survival rates (Sakkeus & Karelson 2012). This controversial situation is one of the motivations to seek answers in their social networks that might explain some differences in the disablement process.

There has been little research on migrants' social networks, especially of older migrants and their associations with health outcomes. The main purpose of this paper is to analyse the relationship between social networks' characteristics and disability outcomes of foreign-origin and native older (aged 50+) populations in Estonia. We use the indicator of limitations in everyday activities which is considered to be an objective and validated disability status measurement, and is also used as the basis for calculating healthy life years (Jagger et al. 2010, Robine et al. 2007). Social networks are analysed by tapping *personal* networks within the following aspects: network size, the composition of networks, frequency of interactions and satisfaction with relationships.

Data and methods

We use SHARE (Survey of Health, Ageing and Retirement in Europe) data from wave 4, release 1. The fieldwork for this wave was carried out in 2010-2011. We

include both men and women from the Estonian dataset aged 50 and above. We address our research objective by distinguishing foreign origin population (N=1219) and native population (N=3402; total sample size 4621). This study includes only one partner of the household if both partners were interviewed in order to avoid possible bias in the social network structures that might arise from people sharing the same household and communicating with similar people.

The SHARE 4th wave Social Network Module was based on the name generator method in which people were asked to name their confidants or with whom they discussed important matters during the previous twelve months. This enables to capture the *personal* networks that are most important to people (Stoeckel & Litwin 2013).

The dependent variable in all logistic regression models is 'Limitations in everyday activities' based on the Global Activity Limitation Index (GALI) disability measure. GALI has been proved to be an objective and validated disability status measurement (Verbrugge 1997, Jagger et al. 2010). We distinguish three limitation categories: severely limited; limited, but not severely and not limited with the latter being the reference category in regression models. We control for age (50-64, 65-74, 75+), gender, education level, partnership status, employment status, geographic proximity of network members, long-term illnesses, and receiving practical or personal help from someone (in or outside household). Weighted sample has been used in regression models, based on the individual weights provided by the SHARE international team.

Preliminary results

Preliminary results comparing migrant and native groups are presented in Table 1. Migrants with no confidant networks and no family members in their networks appear most vulnerable as they have the highest likelihood of being severely limited in their everyday activities. On the other hand, migrants with less severe limitations have at least one confidant member in their networks, indicating that networks may disappear for migrants with severe limitations.

Also, migrants with no children in their networks are most likely to be severely limited. The likelihood for natives with no children is also higher than for natives with two or more children, the differences being even somewhat larger than among the migrants with different number of children in their network. Migrants with one child have the highest likelihood to be less severely limited, indicating that they have at least one child as their confidant (or perhaps as the main caretaker which would reflect the more family-dependent support networks among the migrants).

Natives who have a spouse are more likely to be severely limited than natives without a spouse whereas it is opposite among migrants. This may suggest that spouse is one of the main confidants among the severely limited natives.

Migrants with no friends are most likely to be severely limited as well as less severely limited whereas among the native older population there are no significant differences between having or not having friends in the likelihood of being severely limited. This suggests that the severely limited native population may have more diverse personal networks or that there are more friends as caretakers among the natives.

Tabel 1. Logistic regression results for personal network characteristics of older migrants and natives, by everyday activity limitations

		Severely limited			Less severely limited		
		Exp(B)	Sig.	S.E.	Exp(B)	Sig.	S.E.
Network size (reference: 2+ members*natives)	0 members* migrants	2,615	0,000	0,0460	0,635	0,000	0,0508
	1 member* migrants	2,070	0,000	0,0323	1,147	0,000	0,0292
	2+ members* migrants	2,000	0,000	0,0238	1,614	0,000	0,0211
	0 members* natives	1,184	0,000	0,0150	0,907	0,000	0,0128
	1 member* natives	1,482	0,000	0,0158	1,580	0,000	0,0129
	Nagelkerke r sq			0,45			
Family members (ref: 2+ family members* natives)	0 members* migrants	2,276	0,000	0,0302	1,624	0,000	0,0264
	1 member* migrants	1,803	0,000	0,0235	1,476	0,000	0,0199
	2+ members* migrants	1,523	0,000	0,0187	1,548	0,000	0,0152
	0 members* natives	1,679	0,000	0,0242	1,150	0,000	0,0210
	1 member* natives	1,135	0,000	0,0181	0,900	0,000	0,0151
	Nagelkerke r sq			0,45			
Number of children (ref: 2+ children*natives)	0 children* migrants	2,296	0,000	0,0241	1,692	0,000	0,0200
	1 children* migrants	1,923	0,000	0,0242	2,097	0,000	0,0199
	2+ children* migrants	1,823	0,000	0,0271	1,425	0,000	0,0225
	0 children* natives	1,640	0,000	0,0192	1,188	0,000	0,0158
	1 children* natives	1,153	0,000	0,0189	1,137	0,000	0,0151
	Nagelkerke r sq			0,45			
Spouse in network (ref: has a spouse*natives)	no spouse* migrants	1,590	0,000	0,0245	1,800	0,000	0,0203
	spouse* migrants	1,163	0,000	0,0228	1,578	0,000	0,0180
	no spouse* natives	0,927	0,001	0,0223	1,154	0,000	0,0183
	Nagelkerke r sq			0,45			
Friends in network (ref: has friends*natives)	no friends* migrants	1,688	0,000	0,0192	1,976	0,000	0,0163
	friends* migrants	1,224	0,000	0,0224	1,540	0,000	0,0180
	no friends* natives	0,978	0,151	0,0153	1,210	0,000	0,0127
	Nagelkerke r sq			0,45			
Contact frequency (ref: often/daily contact* natives)	never/rare* migrants	1,797	0,000	0,0455	0,908	0,032	0,0448
	intermediate* migrants	1,346	0,000	0,0232	1,411	0,000	0,0190
	often/ daily* migrants	1,630	0,000	0,0169	1,699	0,000	0,0142
	never/rare* natives	1,236	0,000	0,0380	1,717	0,000	0,0320
	intermediate* natives	0,987	0,410	0,0155	0,861	0,000	0,0129
	Nagelkerke r sq			0,45			
Satisfaction with networks	low satisfaction* migrants	1,743	0,000	0,0277	1,392	0,000	0,0250
	high satisfaction* migrants	1,665	0,000	0,0143	1,778	0,000	0,0120
	low satisfaction* natives	1,794	0,000	0,0185	1,870	0,000	0,0159
	Nagelkerke r sq			0,45			

Migrants with never/ rare as well as often/daily contact frequency are most likely to be severely limited. Therefore, if the severely limited older migrants have confidants, they are almost in their daily reach. Also, migrants with often/ daily contact are most likely to be less severely limited among migrants, confirming that there seem to be confidant networks around when limitations develop, but in some cases they drop out when the severe limitations set on. Natives with intermediate contact frequency are slightly less likely to be severely limited than natives with often/ daily contact. This suggest that migrants and natives have somewhat divergent communication

frequencies with their confidant networks, especially among the less severe limitations.

Natives who have low satisfaction level with their relationships are most likely to be severely limited as well as most likely to be less limited. Migrants with low satisfaction level are more likely to be severely limited than natives with high satisfaction, but the difference in limitation likelihood compared to the migrants with high satisfaction is negligible. Migrants with high satisfaction are slightly more likely to be less limited than migrants with low satisfaction, which is opposite to the trend among the native population. As less severe limitations often came with larger network size and more frequent communication patterns for migrants, the differences in satisfaction also reflect these differences in network resources as well as communication compared to natives. It is also possible that if migrants are satisfied with their networks, then the differences in personal networks between migrants and natives do not impact the differences in limitations of everyday activities or disabilities to such an extent, but it is rather the differences in the morbidity structure of the population groups.

References

Dykstra, P. and Fokkema, T. (2011). Relationships between parents and their adult children: A West European typology of late-life families. *Ageing and Society*, *31*, 545 – 569.

Jagger, C., Gillies, C., Cambois, E., Van Oyen, H., Nusselder, W., Robine, J.M. and the EHLEIS Team (2010). The Global Activity Limitation Index measured function and disability similarly across European countries. *Journal of Clinical Epidemiology* 63, 892-899.

Lesthaeghe, R. and van de Kaa, D.J. (1986). Twee demografische transities? Lesthaeghe,R. and van de Kaa, D.J. (eds). *Bevolking: Groei en Krimp*. Deventer: Van Loghum-Slaterus, 9-24.

Lesthaeghe, R.J. and Neels, K. (2002). From the First to the Second Demographic Transition: An Interpretation of the Spatial Continuity of Demographic Innovation in France, Belgium and Switzerland. *European Journal of Population*, 18 (4), 325-260.

Oishi, S., Kesebir, S., Miao, F., Talhelm, T., Endo, Y., Uchida, Y., Shibanai, Y. and Norasakkunkit, V. (2013). Residential mobility increases motivation to expand social network: but why? *Journal of Experimental Social Psychology* 49, p. 217–223.

Robine, J.M., Cambois, E., Mormiche, P. and Vandelbaum, J. (2007). Did the prevalence of disability in France really fall sharply in the 1990s? Discussion of questions asked in the French Health Survey. *Population,* Vol. 62 (2), 315-337 (English edition).

Sakkeus, L. (2007). Rahvastiku areng sidusrühmade kaudu. In: Purju, A. (Ed.). *Sotsiaaltrendid 4*. Statistics Estonia, Tallinn, 10-38.

Sakkeus, L. & Karelson, K. (2012). The Health Transition in Estonia: Breaking Away from the Soviet Legacy. In: N.Hoque, D.A.Swanson (Eds.) *Opportunities and Challenges for Applied Demography in the 21st Century.* Applied Demography Series, Vol 2., 227-262.

Stoeckel, K.J. and Litwin, H. (2013). Personal social networks in Europe: do people from different countries have different interpersonal solidarities? In: Börsch-Supan, A.; Brandt, M.; Litwin, H.;Weber, G. (Eds.). *Active Ageing and Solidarity between Generations in Europe. First results of SHARE after the Economic Crisis*, 277 – 287, De Gruyter.

Verbrugge, M. L. (1997): A Global Disability Indicator. *Journal of Aging Studies*, 11(4), 337-362.