

Social Support Networks of Italian Couples

Viviana Amati*, Danya Facchinetti**, Giulia Rivellini**, Silvia Meggiolaro***,
Susanna Zaccarin****

*Department of Computer and Information Science, University of Konstanz, Germany

**Department of Statistical Sciences, Catholic University, Italy

***Department of Statistical Sciences, University of Padua, Italy

****Department of Economics, Business, Mathematics and Statistics,
University of Trieste, Italy

1. Introduction

During the last decades, researchers have shown great interest in the topic of social support and international literature has illustrated the importance of the network of relationships that bind an individual to the people who are close to him in his everyday life. This set of people represents the “social space” surrounding individuals (Pattison *et al.*, 2004).

The social space can take shape in the (immediate or extended) family and the circles of friends, workmates, or neighbors; it can generate strong or weak ties that interact with individual choices, and it can take the form of emotional support, instrumental support, or social companionship.

According to this line of research, we intend: *i*) to analyze the Potential Support Ego (PSE)-centered networks of Italian couples along the different phases of family formation; *ii*) to extract structurally similar groups (*PSE-network typologies*) from partners' ego-networks by means of multivariate techniques for categorical data.

More specifically, our research questions concern: the characteristics of partners' ego-social support networks; the types of help couples receive from people outside the immediate family; the effect of network typologies on the probability of receiving help in the household life course.

2. Theoretical focus

People generally interact when they feel well, but the need for support is stronger when they have problems or live in critical situations. In recent years, also due to the economic crisis, men and women are confronted with complexities and uncertainty which are unprecedented. In this situation of pressure, uncertainty and overload, the need for support may increase.

As a result, the network's role can be substantial particularly in those countries characterized by strong family ties (e.g., Italy), where the welfare system and the national agencies are weak and unable to suitably support people facing difficulties, such as finding employment, becoming financially independent, managing children, or living with illness or disability. In this context social networks provide a range of supports (including money, care and assistance, emotional guidance, and information), and can reduce family hardship and buffer the stressors of everyday life.

As recognized in recent literature focusing on young adults, the relational dimension in the transition into adulthood can involve different ambits: 1) parental family; 2) friends; 3) social and professional experiences.

Parental resources matter less to union formation for those living away from their parents than for those still living in the parental home (Aasve *et al.*, 2007). In Mediterranean countries, living in the parental home is a form of instrumental support and of intergenerational transfer as a means to avoiding economic hardship. The supporting role of the parental family can be as strong for young adults living the first phases of their family life (Holdsworth and Irazoqui Solda, 2002). In several developed countries, a significant proportion of children are being cared for by relatives or grandparents - particularly maternal grandmothers. In Italy the role of the grandparents is linked to residential proximity to their grandchildren (Santarelli and Cottone, 2009) and to the fact that grandparents are willing to help out. Only 14.4% of grandparents who have grandchildren up to 13 years of age that are not part of the same household never take care of them (ISTAT, 2006). Among the Italian grandparents taking care of at least one grandchild, about 50% do it on a daily basis, which is the highest percentage when compared to other European countries. A clear North-Centre-South pattern within Europe emerges, with the Mediterranean grandparents reporting higher percentages of daily care to grandchildren than Northern grandparents (Bordone *et al.*, 2012).

Friends are an important source of emotional, social, and material support especially for single people (Agnessens *et al.*, 2006; Bellotti, 2008). At the same time, according to the *spillover hypothesis*, successful professional ties can lead to success in familiar behavior (Tölke and Diewald, 2003).

3. Data and research methods

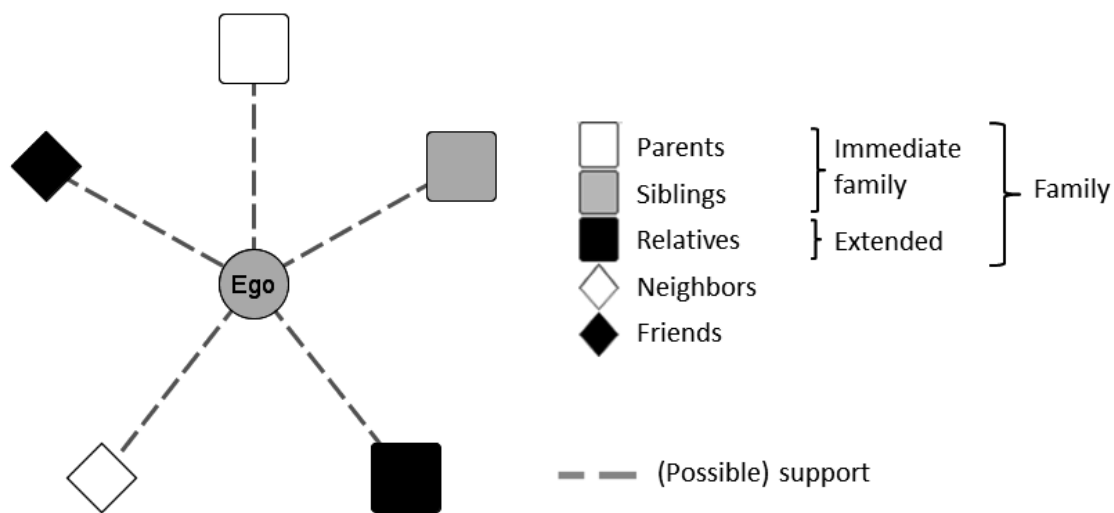
The survey “Family and Social Subject (FSS) carried out by National Statistical Institute in 2009 as Italian Gender and Generation Survey (GGS) offers a challenge of analyzing the social support related to “the existence or availability of people on whom we can rely, people who let us know that they care about, value, and love us” (Sarason *et al.* 1983). Even if the goals of the survey are not specifically oriented to networks analysis, it is possible to construct the PSE-network for female and male partners of married/unmarried couples in mononuclear families (without other members) with both partners aged 18-34 and/or 35-44 years living at the beginning of their co-residence (probably the former) or in a subsequent stage (the latter group) of their life course. We focus on these two contingents, because, according to the existing literature, they witnessed the most significant change in their demographic behavior due to the negative effects of globalization and to the on-going transformation of the Italian welfare system. An ego-centered network constitutes of a focal actor (Ego) and the others (Alters) to whom he/she is connected to by a certain relation. Therefore, the construction of the PSE-network requires the specification of three elements: Ego, the Alters and the relationship among them. In the previous lines we have already stated that Ego is each partner in a couple and the relationship is defined by the fact that Alter might provide social support to Ego. The specification of the Alters is strongly constrained by the FSS questionnaire format since it does not follow the usual format for support network data collection.

On the basis of the available information, we define five possible Alters categories: parents, siblings, relatives, friends and neighbors. Combining items from the individual

questionnaire, we assume that parents and siblings are a possible source of social support if they have frequent face to face contacts (“at least once in a week”) with Ego and if they live close nearby him (“not far more than 16Km, even if living in a different municipality”). Concerning relatives (except for grandparents), friends and neighbors there were not questions related to contacts or residential proximity, but there were information on size of other relatives respondent “cares” or “to whom respondent can rely on”; friends respondent “can rely on if need be”, and neighbors respondent “can rely on by necessity”.

The resulting PSE-network is depicted by a star-like graph in which Ego is the central node and he/she could be related to none, some or all the Alters (Figure 1).

Figure 1: *Ego and five Alters categories in a PSE-network*



The different patterns of ties between Ego and Alters define up to 32 distinct PSE-networks, which range between the empty PSE-network (when Ego is isolated and none of the Alters can potentially provide social support) to the complete PSE-network (when Ego is connected to all the Alters). In order to reduce the cardinality of the set of PSE-networks we define network typologies by means of multivariate techniques. Furthermore, we characterize them according to Ego attributes, such as education, working condition, number of children, and place of residence.

Two different sequential clustering methods for categorical variables are explored and compared to validate network typology results: ADDATI (Lebart et al., 1984; Griguolo, 2008) and Two-Steps cluster analysis (Bacher et al. 2013; Mooi et al. 2011).

ADDATI is a classification strategy that suitably combines a sequence of multivariate descriptive statistical analysis techniques in several steps requiring: a) the generation of h non-hierarchical partitions from the MCA factor scores of the original data matrix; b) the determination of stable groups by cross-tabulation of the best partitions; c) the generation of successive optimal partitions by gradually aggregating the two most similar stable groups; d) the choice of the final partition according to the explained inertia of the partitions generated in point c). The classification process has been performed by ADDAWIN package..

The Two-Steps cluster analysis is a sequential clustering approach. The first step clusters the cases into many small sub-clusters using an algorithm similar to that of the

k-means routine, but based on a log-likelihood distance measure. The second step, conducts a modified hierarchical agglomerative clustering that sequentially combines the sub-clusters to form homogenous clusters. Compared to the k-means routine, the Two-Steps procedure deals with categorical data and is more flexible with respect to the choice of the number of groups. Indeed, the algorithm of the Two-Steps procedure allows the specification of either the cluster numbers or the maximum number of clusters.

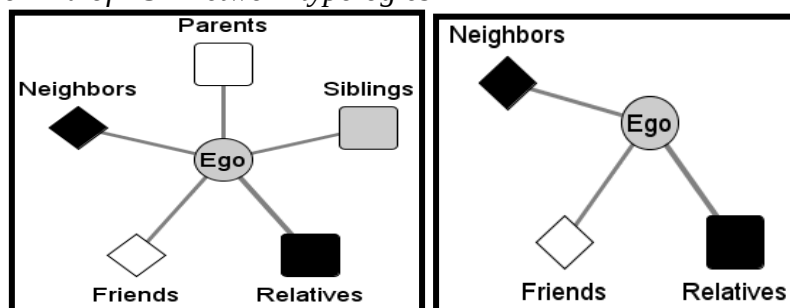
4. Main findings

The first group (with partners aged 18-34 years) is characterized mainly by couples with one child ($\approx 39\%$) and a quite short union duration (less than 4 ys. in $\approx 50\%$); the partners are both working full time (35%) or the female partner is employed part time (15.7%); they have a medium or low education, are living in South and Islands (40%) or in North (45%). The 31% received support in the last four weeks mostly for child assistance (46%), financial assistance (24.%); food and clothes (13%).

The second group (with partners aged 35-44 years), differently from the first, is formed mainly by couples with two children (61%) and with a longer union duration (less than 10 ys. in 33%); the partners are both working full time (38.6%) or the female partner is employed part time (18.4%). The 32% received support in the last four weeks mostly for child assistance (72%) and financial assistance (12%).

Both clustering methods identified six structurally similar groups, according to partners' and ego-PS networks in the two groups of couples. We observe that the conformity between the two methods is higher for the couples with partners aged 18-34 years. A more similar interpretation for female network typologies appeared following ADDATI and TWO-STEPS procedures. Moreover, the two network typologies "*Complete*" and "*No immediate family*" (Figure 2) are constantly present in the two groups of analysis, albeit with differences in their percentage distribution.

Figure 2: Two kind of PSE-network typologies



While ADDATI showed a good clustering overall goodness-of-fit, TWO-STEPS represented a fair solution for clustering qualitative data (with a silhouette measure between 0.2 and 0.5).

Finally we evaluated the effect of networks' typologies on the probability of receiving support controlling for couple characteristics. Results from the logistic model show that the lack of a PSE-network decreases the probability of receiving support for both male and female partners in each group of couples. Friends/neighbors/relatives are potentially more effective alters than the members of immediate family in the youngest female

network. In the 35-44 ys. group of couples the probability increases with the couple's network size. We then observed similar effects associated to the two common typologies between the two procedures.

Table 1: *Effects of PSE-network typologies of female partner on the probability of receiving support*

	1) 18-34				2) 35-44			
	ADDATI		TWO-STEPS		ADDATI		TWO-STEPS	
	Effect	O.R.	Effect	O.R.	Effect	O.R.	Effect	O.R.
PSE-Network typologies female p. (baseline 1 and 2 = complete)								
Extended family	n.s.		n.s.		--	0.7		
Immediate + Extended family	n.s.				n.s.			
No immediate family	+++	2.0	+++	2.1	n.s.		n.s.	
Empty	--	0.3	--	0.3	n.s.			
Immediate family	-	0.6	n.s.		n.s.		n.s.	
Siblings + neighbors			n.s.					
Siblings + friends							--	0.6
Friends + neighbors							n.s.	
No neighbors							++	1.4

Table 2: *Effects of PSE-network typologies of male partner on the probability of receiving support*

	1) 18-34				2) 35-44			
	ADDATI		TWO-STEPS		ADDATI		TWO-STEPS	
	Effect	O.R.	Effect	O.R.	Effect	O.R.	Effect	O.R.
PSE-Network typologies male p. (baseline 1 and 2 = complete)								
Immediate + Extended	n.s.		+	1.4	+	1.3		
Extended family	n.s.							
Extended family + friends							--	0,7
Empty	--	0.5	--	0.5	--	0.5		
No extended family							n.s.	
No immediate family	n.s.		n.s.		n.s.		n.s.	
Siblings	n.s.		n.s.					
No Siblings			n.s.					
Friends + Neighbors					n.s.			
Siblings + friends							n.s.	
Immediate family					n.s.		n.s.	
Network size (male/female)	n.s.		n.s.		+	1.0	n.s.	

References

- Aasve A., Davia M.A., Iacovou M., Mazzuco S. (2007), Does leaving home make you poor? Evidence from 13 European Countries, *European Journal of Population*, 23: 315-338.
- Agneessens, F., Waeye, H., Lievens, J. (2006), Diversity in social support by role relations: A typology, *Social Networks*, 28: 427-441.
- Bacher J., Wenzig K., Vogler M., SPSS TwoStep Cluster – A First Evaluation, available at <http://www.statisticalinnovations.com/products/twostep.pdf> , [accessed on 20 July 2013].
- Belotti E. (2008), *Le reti sociali dei giovani single*, Franco Angeli, Milano.
- Bordone V., Arpino B., Aasve A. (2012), Policy perspectives of grandparenting in Europe, Dondena Working Paper, No. 51, www.dondena.unibocconi.it/wp51.
- Griguolo S. (2008), ADDATI per Windows. Un pacchetto per l'analisi esplorativa dei dati, Università IUAV di Venezia - Dipartimento di Pianificazione.
- Holdsworth C., Irazoqui Solda M. (2002), First Housing Moves in Spain: An Analysis of Leaving Home and First Housing, *European Journal of Population*, 18: 1-19.
- Istat (2006), *Parentela e reti di solidarietà*, Roma.
- Lebart L., Marineau A., Warwick K.M. (1984), *Multivariate Descriptive Statistical Analysis. Correspondance analysis and Related Techniques for Large Matrices*, Wiley, New York.
- Mooi E., Sarstedt M. (2011), A Concise Guide to Market Research. The Process, Data, and Methods Using IBM SPSS Statistics, Springer.
- Pattison P., Robbins G. (2004), Building models for social space: neighbourhood-based models for social networks and affiliation structures, *Mathematics and Social Sciences*, 4: 11-29.
- Santarelli E., Cottone F. (2009), Leaving home, family support and intergenerational ties in Italy: Some regional differences, *Demographic Research*, 21: 1-22.
- Sarason, I.G., Levine, H.M., Basham, R.B., Sarason, B.R. (1983), Assessing social support: *The social support questionnaire*, *Journal of Personality and Social Psychology*, 44: 127-39.
- Tölke A., Diewald M. (2003), Insecurities in employment and occupation careers and their impact on the transition to fatherhood in western Germany, *Demographic Research*, 9: 41-68.