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Abstract In the present paper we aim at analysing the characteristics of single mothers social support networks. Social support, and the degree of embeddedness of women into their networks –social anchorage, represent key assets for defining successful coping strategies, reducing hardships of everyday life. Social network analysis and, specifically, ego-centred network approach is chosen to describe the relationship patterns of women personal networks. Logistic multilevel models, that include ego and alteri characteristics as well as network structure and compositional measures, are estimated to discover factors influencing social anchorage, defined according to the feeling of closeness and importance of ego-alter relationships. In addition, opportunities stemming from qualitative data are exploited by means of women narratives to understand the content, the meaning and the significance that different kinds of support have for egos.

Keywords Ego-centred networks · multilevel regression models · social support · narratives · single motherhood

1 Introduction

Social support can be defined as a commodity arising from interactions between people that can be activated when necessary, mainly in adverse conditions. It is rooted within personal networks and accessible through social relationships (Lin, 2002). Social support has been proved to acts as facilitator in the access to material and/or symbolic goods laying, in enhancing both physical and mental health and wellbeing (Smith and Christakis, 2008) and/or in promoting upward mobility by permitting access to education, training, and connections to labor markets (Wellman and Gulia, 1999). It may

also to be thought as a major mediating function of personal networks providing cohesion, feelings of belongingness, and forms of “bounded solidarity” (de Jong Gierveld and Van Tilburg, 1995; Portes, 1995) based on trust among members but also acting as forms of social control (de Jong Gierveld and Van Tilburg, 1995; Portes, 2000) by placing restrictions on individual freedom and enhancing mutual expectations and conformity between attitudes and in-group oriented behaviors.

Social support is most often conceptualized in terms of close and enduring relationships, which tend to be made of kin, neighbors, and intimate friends. Close ties are only a subset of a person’s complete networks that also includes an array of weaker, more distant relationships (Granovetter, 1973). Both strong and weak ties need to be taken into account as contributors to social support (Sarason and Sarason, 2009). These ties generally provide emotional and expressive support as well as certain kind of instrumental help for the fulfilment of ordinary responsibilities (childcare, household related obligations, help for shopping, borrowing money), and informational assistance related to the provision of advice and information for particular needs (job opportunities, available services, etc.).

Changes in societal and cultural conditions might have significant influences on needs for support, how it is provided, and satisfaction with the outcomes provided by supportive transactions. Specifying when, why, and how personal relationships play a significant role in individual lives is a common concern at the core of the studies on social support. Implicit condition in these studies is the link between social support and social networks, even though this link is not always formalized or analysed in details (Berkman et al., 2000) by using the methodological instruments of Social Network Analysis –SNA (Wasserman and Faust, 1994). Actually this approach affords an advantage point for providing information about the structural properties of social relationships, involving the quantitative account of connections in terms of the numbers of ties, their density or interconnectedness and other measures of linkage between people. As suggested by (Sarason and Sarason, 2009), understanding social support requires a full appreciation of associations and mechanisms underpinning supportive transactions, shedding light on the process that begins with social ties and perceptions of support and ends with outcomes.

In this scenario, in the present paper we aim at analysing the case of single mothers, where the provision of social support through personal networks is, for them, more relevant than for other types of families given that they are more exposed to hardship and social exclusion. The interest is in describing how the condition of single motherhood is absorbed and metabolized by different types of social support networks, which types of resources are exchanged and which characteristics of support networks are more effective in terms of social anchorage (Hanson, 1994), i.e. to what extend people feel integrated into their personal networks and it reflects the involvement of individuals into formal and informal groups to which they belong. We have chosen the SNA perspective and, specifically, an ego-centred network approach (Wellman, 2007), in order to describe the pattern of relationships on which their social support

networks are based. In addition, we have used a case study approach, focusing on the narrative accounts of networks from the egos point of view. In such a way, we combine the strength of SNA approach for exploration of personal networks characteristics with the opportunities stemming from qualitative data for understanding the content, the meaning and the significance that social relationships with alteri have for egos (Crossley et al., 2015).

The paper is organized as follow: Section 2 presents the theoretical framework. Section 3 offers details on the case study with a focus on participants, research instruments and ego-centred network measures definition. Section 4 reports the main results obtained through the analysis of ego-centred networks of social support by combining network analysis techniques, logistic multilevel regression models and narratives. Section 5 concludes with a discussion and future lines of research.

2 Social support and social anchorage in personal networks. The case of single mothers

Social support is a multidimensional construct, widely exploited by social scientists since 1970 (e.g., Vaux, 1988). As noted by (Henly et al., 2005), its multidimensional nature includes: *i*) the structural apparatus under which supportive transactions take place according to the number and the type of individuals involved, the frequency of contacts among them, their strength and duration; *ii*) the content of support exchanges, that is, the kind of resources (emotional, instrumental, informative and so on) flowing through social relationships; and *iii*) the subjective appraisal of support, the so called “perceived support”. These elements are not mutually exclusive; they overlap and mutually influence each other.

There is strong research evidence showing that social support represents a key asset for defining successful coping strategies, reducing hardships of everyday life. Especially in absence of a reliable support offered to individuals by institutions or professional supporters, as in most Mediterranean countries, the social support provided by informal groups and intimate relationships represents an often unique safely net providing protection against social risks.

A relevant dimension for the efficacy of such support is represented by the *social anchorage*. This concept describes to what extend people feel integrated into their personal networks (Hanson, 1994) and it reflects the involvement of individuals into formal and informal groups to which they belong. The literature on Mediterranean model of welfare state has frequently emphasized the key role played by forms of solidarity and integration developed amongst informal groups, base on kinship, friendship and neighborhood networks, guaranteeing social integration and protection against social disadvantages. The Mediterranean welfare model appears to be characterized by a reduced development of social policies and the absence of income support schemes or employment opportunities. Within this model personal networks are mobilized as survival strategy in order to deal with discomforts of daily life and

containing material deprivation. These networks present a high level of social anchorage able to guarantee an even precarious social integration, even though they are less effective for providing emancipation and upward social mobility opportunities. This depends on the persistence of high rate of poverty and low labor market participation that, especially among the most disadvantages groups, makes informal networks highly homogeneous in their socio-economic profile. This shapes the kind of social support provided, affecting both the quality and quantity of resources. It implies a prevalence of forms of bonding solidarity providing an even precarious social integration rather than bridging ones, facilitating exposure to new and better opportunities for advancement (Lin, 2002; Morlicchio, 2005). In such a scenario, single mothers represent one of the most disadvantages groups, especially in Southern countries, where persist high levels of gender inequalities in the labor market. In the meanwhile the main source of social rights, also within family policies, is derived from paid work. Accordingly, personal networks are often the major source of support to deal with daily life, seize opportunities, and reduce uncertainty (Tietjen, 1985). Even if being a lone mother does not in itself predicate a condition of need, several studies have commonly highlighted the low living standard of single mothers and their difficult access to social and economic resources.

A potential deficit in their ability to mobilize opportunities for networks building has been also pointed out (Dominguez and Watkins, 2003). This happens especially in presence of inadequate childcare and of traditional household division of labor, as in Mediterranean area. Here, the family is characterized by the persistence of mutual intergenerational obligations among members and unbalanced care workloads. The primary responsibility for domestic tasks as well as for childcare and elder-care are assigned to women, in particular within low income families. As a result, the family is a burden that women tend to shoulder on their own. Given this heavy workload, tensions between the fulfillment of domestic responsibilities and cultivating relationships outside family may arise, independently by personal goals and ambitions. On the one hand, the family represents a main coping option in adverse conditions, on the other hand, it risks to become a trap from which is difficult to escape.

3 The present study

If the redistributive role of the family has been particularly important in all Mediterranean countries, the Southern Italy represents an extreme case. In particular, looking at some provinces in Campania region, we notice that they are characterised historically by a chronic inability of the local welfare system to satisfy residents' needs. In the absence of an adequate welfare system, income support schemes or adequate employment opportunities, kinship networks are forcedly mobilized to deal with daily problems (Gambardella and Morlicchio, 2005) even when networks members have little to offer (Morlicchio, 2005). Here, the family acts as the primary welfare unit in which the members are able to solve their daily problems through a combination of kinship and

family support and odd jobs, in order to maintain a precarious equilibrium (Morlicchio, 2005). Accordingly, single mothers living in this area (equal to 5.10% from the 2011 Census of the National Institute for Statistics) can rely on informal resources as a result of family solidarity, not present elsewhere.

Information on the social support networks of a set of single mothers living in different areas in Campania region was gathered. The interest is in describing how the condition of single motherhood is absorbed and metabolized by different types of social support networks, which types of resources are exchanged and which characteristics of support networks are more effective in terms of social anchorage. Specifically, we aimed at analysing the degree of embeddedness of single mothers in their supportive relationships, focusing on the following aspects: *i*) types of support across emotional, informational, instrumental, and financial domains; *ii*) types of alteri (parents, relatives, friends, co-workers, and social workers) who provide support; and *iii*) their association with social anchorage function, given the level of closeness and importance of the relationship between ego and alteri.

3.1 Participants

Thanks to assistance from social services offices as well as non-profit organisations, an initial list of single mothers was obtained. In a second step, through a snow ball sampling design, we were able to reach other women, pointed out by the first women we interviewed¹. Women were recruited by considering the following selection criteria: *i*) to have been a single parent for at least two years, *ii*) to be the legal guardian of at least one child under the age of majority (18 years), and *iii*) to have a low income.

A total of 60 women living in Campania region were interviewed during the years 2013 and 2014. In general, the survey participants share a similar family and economic background, characterised by low skill levels obtaining in most cases the final grade of compulsory school, irregular jobs and inadequate income. They have on average around 39 years (with a standard deviation equal to 8.13 years), with a prevalence of women aged between 35 and 55 years (53.03%). Regarding marital status, 58.47% mothers are separated, 15.65% widowed and the remaining 25.88% unmarried. Only 10.22% of the women live with a new partner. The duration of single parenthood is 14.21 years, on average. A percentage of 37.70% of the women live with their parents, while 49.20% live alone with their children. They have around 2 children on average, and the 21.09% of the mothers have more than two children. The youngest child is around 9.38 years old on average, ranging from one year to 17. The women has a job in the 74.76% of cases, even if the declared job is in half cases irregular (38.02%).

¹ The data obtained from the different single mothers are mutually independent, keeping one of the main condition for applying specific regression models for personal network data (Snijders et al., 1995, p.87).

3.2 Research instrument

The research instrument for conducting the survey was based on in-depth interviews, together with a questionnaire including a network generator approach to reconstruct single mothers' personal networks (Marsden, 2011).

The in-depth interviews gave to the women the opportunity to furnish details of their personal experiences as single mothers. We collected data on both ego characteristics (i.e., socio-demographic features, family characteristics and form and duration of single parenthood) and different forms of support, consisting of *institutional* support, *perceived* support, and *received social* support.

An ego-centred network approach was adopted to describe the social support patterns embedded in the single mothers' networks (Hlebec and Kogovšek, 2013). The received social support was measured by means of a multiple name generator including five questions related to: instrumental, informational, social companionship and emotional support (Kogovšek et al., 2002). Given the poverty condition of single mothers, we decided to separately investigate the financial aid aspect, which is usually included within instrumental support. Thus, we administrated two questions: one specific for pure instrumental support, consisting of the fulfilment of ordinary tasks, and one regarding financial support, related to the lending/borrowing of small amounts of money.

For each name generator, the respondent could point out five people (referred to as alteri). A name interpreter was then used to define the characteristics of each alter in terms of sex, age, educational level and job position as well as the ties' properties of ego-alter relations and alter-by-alter connections. Each single mother (referred to as ego) was asked to report on the following for each alter: the type of relationship (i.e. parents, siblings, etc.), the duration of the relationship in years, the frequency of contact on a 6-point scale (from "every day" to "less than once a year"), the feelings of closeness on a 4-point scale (from 1 "very far" to 4 "very close") and the feelings of importance on a 4-point scale (from 1 "not important" to 4 "very important"). Finally, in order to reconstruct the alter-by-alter network, we required single mothers to indicate the relationships among alteri.

3.3 Ego-centred network analysis

Starting from the information collected from name generators, name interpreter and alter-by-alter relationships, we compute network measures for the analysis of ego-centred network size, composition and structure and we estimate logistic multilevel models (de Jong Gierveld and Van Tilburg, 1995) including network measures.

Specifically, some descriptive analyses are reported to explore the ego network structure, such as the network size (i.e. the number of alteri mentioned by egos) and the density (i.e. the number of ties in the ego network –not counting ties involving ego– divided by the number of pairs among alters in the ego network (Borgatti et al., 2013)). In addition, some composition mea-

asures are considered to summarise the characteristics of ego-alter ties in terms of homogeneity of alteri and similarity between ego and alteri (i.e. homophily effect). Starting from ego and alteri attributes, the normalised version of the Blau's heterogeneity index proposed by Agresti, i.e. the index of qualitative variation –IQV (Borgatti and Halgin, 2012), is considered. The propensity of a single mothers to interact with others with similar personal characteristics (i.e., homophily behaviour) is evaluated by computing the E-I index (Krackhardt and Stern, 1988), a measure of the group embeddedness based on the comparison of number of ties within groups (internal–I) and between groups (external –E).

According to the structural holes theory (Burt, 2009), in which actor's utility varies in relation to his/her position in the network, some structural characteristics of personal networks²) are considered to highlight the ego's brokerage opportunities in an open structure with multiple structural holes (i.e., in the presence of disconnected alteri). This set of measures is concerned with the notion of redundancy, the extent of networks ties leads egos to the same people providing the same resources or information benefits. In contrast, non redundant links with disconnected alteri are influential sources of benefits and opportunities of upward mobility.

4 Results

In the following section, social support networks of single mothers are described by means of composition and structural measures. The ego and alteri characteristics as well as the network-derived measures are then included as explanatory variables in logistic multilevel regression models in order to analyze the relationship between supportive networks properties and social anchorage concept. Finally, narratives based on single mothers point of view on received support are presented for understanding the content, the meaning and the significance that social relationships have for egos.

4.1 Composition and structure of ego-centred single mother networks

Ego-centered networks are very dense, small in size (around 6 alteri on average) and mainly formed by women (-0.40), by alteri with different age (0.25), and covering a different job position (0.24) (Table 1). According to the structural holes measures, these networks shows redundant links with high value on average of the constraint index (0.56). However, the nature of the constraint on mothers results equally distributed in different relationships, indeed the hierarchy index is equal to .02 on average.

² More specifically, we refer to the *effective size* –the number of alteri that the ego has (degree) minus the average number of ties that each alter has to other alteri–, the *efficiency* –the normalised version of the effective size obtained by dividing the latter by the network size–, the *constraint* –the extent to which ego contacts are redundant–, and *hierarchy* –the extent to which constraint on ego is concentrated in a relationship with a single alter.

With respect to support dimensions, it should be noted that the range of resources exchanged is fairly poor both in quantity and in quality: 50.80% of alteri offer mostly companionship support. Specifically instrumental and economic supports are provided essentially by kinship relations, whereas friends, workmates and social workers represent the main source of emotional and informative support. Single mothers are rarely supported by other professional caregivers, such as the parishes or volunteers in non-profit organisations. Little more than a fifth of the alteri provide informational support. The support received by kinship is slightly broader than which offered by non-kin alteri, combining different types of support. When this happens the types of support more frequently associated are represented by: social companionship and economic support or social companionship and instrumental aid.

For a more detailed analysis of these aspects we refer to the reader (Lumino et al., 2014).

Table 1 about here

4.2 Logistic multilevel model results

Starting from the traditional approach of multilevel model represented by the random intercept model, with alteri (level 1) $i = 1, \dots, M$, $M = 313$, nested in ego-networks (level 2) $j = 1, \dots, N$, $N = 60$, with $M = \sum_{j=1}^N n_j$, we estimate logistic regression models considering as response variable a binary one. In particular, the joint distribution of two variables, feeling of closeness and feeling of importance (both measured on a 4-points scale), we code with 1 the maximum level of social anchorage (when both closeness and importance are equal to 4), and with 0 for all the other categories combination.

The random variable $SocAnch_{ij}$ is a function of the individual probability π_{ij} and of the level-one errors $Alter_{ij}$:

$$SocAnch_{ij} = \pi_{ij} + Alter_{ij} \quad (1)$$

In the empty model (Model 0), the logistic transformation of the individual probability π_{ij} of a social anchorage equal to 1, $logit(\pi_{ij}) = \log(\frac{\pi_{ij}}{1-\pi_{ij}})$, can be expressed as:

$$logit(\pi_{ij}) = \gamma_0 + EgoNet_{0j}. \quad (2)$$

This measure depends only on the population average transformed probability γ_0 and on the random deviation for the j group $EgoNet_{0j}$. The random variables $EgoNet_{0j}$ have expected value equal to zero and equal to the variance σ^2 .

The empty model (Model 0) is compared with a random intercept model (Model 1) that includes $p = 22$ explanatory variables. The explanatory variables are related to alter and ego characteristics, and ego-centred networks

measures. More specifically, we consider: the age of ego coded in four classes (*ClassAgeEgo*), the number of children (*NChild*) and the number of children with age less than 14 (*NChild_{until14}*) of egos, if the single mother lives alone with children (*AlonewithChild*) and she is employed (*EgoEmployed*). We also consider the sex (*SexAlter*) and age of alteri (*ClassAgeAlter*), their employment status (*AlterEmployed*) and if alter has a kinship relation with ego (*Kinship*), as well as which kind of supports alter provides to ego (each support has been coded through a dummy variable: *Instr*, *Inform*, *Social*, *Emot*, and *Econ*). Finally, we include variables derived from ego-centred network analysis (degree *SHDegree*, effective size *SHEffsize* and efficiency *SHEfficiency*), as well as variables related to the network composition (E-I index) in terms of job position (*JobPositionEI*), age (*ClassAgeEI*), and sex (*SexEI*), and variables related to relationships heterogeneity type (*RelativesIqv*).

$$\text{logit}(\pi_{ij}) = \gamma_0 + \gamma_1 x_{ij1} + \dots + \gamma_{19} x_{ij20} + \text{EgoNet}_{0j}. \quad (3)$$

Note that the level-1 errors Alter_{ij} are still included in Eq. 1.

We started by estimating the empty model (Model 0), containing only the intercept and the two uncorrelated error terms for both levels, for which two variances are estimated, between-ego (level-2) and between-alteri-within-ego (level-1). From the full Model 1, that includes all selected explanatory variables, we delete variables with no significant effects via a backward selection obtaining the final model (Model 2).

Table 2 reports the estimated coefficients for the three models.

Looking just at the final model coefficients, we notice that ego characteristics do not affect the probability that an alter provides a strong social anchorage. On the other side, the alter job position and the type of relationship present significant effects. Indeed, alteri that are employed and that have kinship relation with ego (usually parents and siblings) have a greater probability to provide a strong social anchorage. They have more resources to share with the single mothers and are more close to them. This could be seen as the consequence of that family acts as the primary welfare unit. Also the type of support provided affects the probability of a high social anchorage. In particular, instrumental and emotional supports increase such a probability. These kinds of support are more crucial for single mothers survival strategies and, consequently, alteri providing these two supports are more strictly linked to egos. Economic support presents no significant effect.

With respect to the ego-centred network measures, the structural measures (*SHDegree*, *SHEffsize*, and *SHEfficiency*) appear have slightly significant effects in *Model1*; whereas, in *Model2* they do not exert any significant effects. On the contrary, some measures related to network composition in terms of job position, age, and kind of relationship, affect positively the probability of a high social anchorage. It seems that this probability depends more on networks composition than their structure, due to the low variability of networks structure that are very dense, strongly connected with a lot of redundant ties. In particular, the higher the variability of kinds of relationship between ego and

alteri, the higher the probability that alteri provide a high social anchorage. This depends on the limited multiplexity of ties within ego-centred networks, the most part of alteri provides a specialized support, meeting specific single mothers needs. The kind of support provided varies according to the type of relationship between ego and alteri. This implies that the presence in the ego networks of different kind of network members increases the number and the kind of supports received by single mothers, enhancing their anchorage in the personal network. By the same token, heterogeneity in alteri age played a significant positive effect because it is related to the different kind of ego-alter relationships.

Table 2 about here

4.3 Networks and narratives

The single mothers we interviewed share a similar family and economic background and, in some cases, also other forms of social disadvantages (such as inadequate health and housing conditions or proximity with persons with drug addiction). The trajectories of those women are considerably influenced by the conditions of their families of origin. A downward spiral of disadvantage always arises from an event linked to the family sphere: the absence of the husband, due either to death or separation, the death of parents, and so forth. This event occurs within a pre-existing condition of hardship and makes matters worse. At this point the household income falls, not only because of the loss of sources of earnings but also due the loss of their own earnings, as it may prove difficult to stay in work during what may be traumatic family change. In such circumstances living standards can be vulnerable to “shocks” that other families would be able to better manage.

<<I had several problems but I could get by. My parents helped me, but they are dead, firstly my mother and then my father, since that moment everything worsened. I was desperate, push-down by pain and worried for the survival of me and of my child (case 23)>>.

<<Since my father died I've lost my income support, his pension and now I am in great difficulty (case 10)>>.

<<When my husband was alive we had more money; we were happy. We had our own small business, we were not rich, of course, but we could carry on the family. We worked a lot and earned little as needed. Then, he fell seriously ill, and soon after he died. It was terrible. Since then, everything went upside down (case 32)>>.

Kinship networks continue to play an extremely important role in meeting the basic needs of single mothers including looking after children, giving small

sums of money and so on. However, these networks are unable to give any serious economic help or offer upward mobility opportunities.

<<I have three siblings, but everyone has got their own problems... specifically economic ones. We all are on the same boat, none of us can help the other. At the most, we help each other for little, ordinary things (case 6)>>.
<<Who helps me seriously? Nobody. I have three sister, but they can't help me. No one regularly works. They make do as best they can. Two of them are lone mothers, too. As far as moneys concerned I can't ask them for anything [...] We can only spent our free time all together or let off steam each other (case 12)>>.

<<My family and my children are all I have [...] they give me help in bearing my younger child, they listen me when I have a problem, they give me advices [...] we spend much time together [...] for the rest they can't help me, they know less than me (case 8)>>.

The kind of social support received by single mothers appears to be fragmented and oriented by gender. The persistence of a male breadwinner model based on an unequal sharing out of family functions between genders seems come out. As known, this model assigns to men (fathers, brothers, or sons) the role of family provider and to women, the care-giving burden. The specialization of the kind of support provided according to gender confirms this model.

<< Childcare is a women task. Everyone know. If a problem occurred, my ex partner said it is a your problem, you are the mother, it is a your task (case 54)>>.

<< My brother helps me, he lives nearby. I air his dirty laundry and he help me economically. We support each other as we can do (case 37)>>.

<< I do several odd jobs, combining different source of income with my father's pension [...] I take care of his domestic needs, he is a man - you know - he can't manage such affairs (case 2)>>.

*<< My parents are unable to do for their selves, and I stay with them because I am the only woman within my siblings. It is my duty. My child *** helps me in domestic tasks, but she still goes to school [...] thus I have no time to work outside home, my older brother give me a bit of money as well as my older child, he sell fruit and vegetables at the market (case 1)>>.*

In many cases, friends also share similar conditions of job and economic instability. They offer emotional support and social companionship but not much else.

<<With my friend... we talk each other every day, she often comes to see me; she lives quite near. Sometimes, we go out for a walk with our children. More frequently, I look after the children for her and she does the same when I need (case 7)>>.

<<I have some friends in the neighborhood, but they cannot help me with

money or help me find another job. They are as badly off as me (case 12)>>.

The composition of single mothers personal networks are considerably conditioned by their socio-demographic conditions, namely age, marital status, duration of their condition of loneliness, and specifically the age at which they had their first child. A premature maternity seems to affect significantly single mothers' relational lives, hindering their relationships with friends. In the same vein, becoming a lone mothers in older age can hinder women abilities to know people outside their families in the virtue of their high level of engagement within family.

<<I had my first child when I was 18. Now I have 22 years old. I have some friends, but we don't spend many time together. I am a mum, my friends have no children, we have different scales of priorities (case 21)>>.

<<Friends? Since I became a mother, nothing is the same. I had friends, but I could not see them to go dancing or hanging around all the day. My parents could not look after my children, they were too busy to carry on family [...] My parents have so much survival problems [...] Having a friends is a luxury I can't afford (case 17)>>.

<<I'm 46 years old. My husband left home three years ago. I was too old to restart to go out with friends. My best friends are all married, they have no time to go out with me. I have no idea of how to enlarge my friendship networks, and I'm too busy to deal with daily life. However I'm not alone, I have my family (case 34)>>.

Such a condition appears to be moderated only within larger families of origins, whose conditions are not so compromised by a condition of need.

<<I had my first child when I was 20 years old. Since my husband left us two years ago, I have re-structured my life but thanks my parents, sisters and relatives, in general, I could not isolate myself, my sisters... they are not so badly off as me, they are married, their husbands work regularly, and thus they can look after my children when I go out with my friends and support me in many ways. My parents help me, encourage me to have a life outside home (case 27)>>.

In general terms, the risk of being entrapped in a condition of hardship is sensitive not only because resources flowing through their networks are poor in quality, but also because the support provided mainly by the immediate family is exchanged with a higher investment by single mothers in domestic tasks and in-kind services. These latter hinder their social relationships and their chances of better employment opportunities, increasing the risk of that their condition in life will decline over time.

<<When I was younger, I didn't have time to find another man. I was always busy. I had to raise my kids, take care of my parents, make house works

and so on... and now it is too late. I have no friends, only my family, and I could not how or where to find new friends. I am still too busy at home (case 10)>>.

<<I have no time to find another job, I have to raise my children, look at my father and my younger sister. Our mother died three years ago, they cannot manage their selves. I have too much things to do (case 42)>>.

However, in the absence of the immediate family, and specifically the mother, the degree of perceived social isolation increases, and life conditions become harder for the single mothers. This overload of care giving tasks places women under enormous pressure, over-burdening them and fueling frustration. The women interviewed are very pessimistic regarding the possibility of improving their conditions finding a better job than their present one, or better their living conditions, in particular amongst the older women.

<<What else can I do besides cleaning? I haven't studied when I was younger and now It is too late (case 29)>>.

<<I'd take a better job, but I had to work all day for surviving (case 6)>>.

The women interviewed perceive themselves as highly supported by their personal networks, given the level of closeness and intimacy experienced towards the networks members. However they are conscious of the paucity of resources at their disposal and worried about the future. Within a context of so high precariousness, the women interviewed complain of the weakening of their relationships outside the family linked mainly to the overall worsening of socio economic conditions due to the economic crisis.

<<My relationships with the neighbourhood are no so supportive as before. Only some years ago, things went better for everybody. We could help each other. At now, we are all in trouble, and when you intercept some opportunities, you do not tell anyone to avoid competition, with the exception of your family members, of course (case 8)>>.

<<The economic crisis has worsened our conditions. Many of my friends have some economic or working problems, thus it is became more difficult to help each other (case 51)>>.

<<It's difficult times and we all need help. There is less solidarity than once (case 57)>>.

In addition, entrusting to small and dense personal networks, mainly composed by family members, increases the potential patterns of social vulnerability that might emerge over time due to the gradual depletion of resources at disposal, i.e. according to parents ageing.

<<Until some years ago, I received a wide support from my family. Now, my parents are old and are unable to give me a great help due their health problems and my sister she has her own family and does not have much time

to devote myself. I am waiting for my children grow up (case 55)>>.

A strong sense of distrust in the social welfare system permeate the single mothers' narratives, they are not confident about available supports and self-assured enough to question their entitlements. They often prefer do their own research into their entitlements and the range of supports available to stand on their own resources.

5 Conclusions

In this paper, we examine personal networks of low-income single mothers, focusing on the social anchorage provided by network members. For this purpose, we combine statistical models, social networks analytics and narratives. This approach provides a worth contribution for both analyzing determinants and characteristics of social support patterns and unveiling the system of meanings generated by actors social ties (Yeung, 2005).

As highlighted above, the social support networks are very small in size and are mainly formed by strong ties that play a crucial role in making adjustments to survive in the context of adverse economic conditions and in absence of an adequate welfare system.

Our analysis bears the key role of kinship relationships in guaranteeing a high level of social integration, by providing a high social anchorage, even though such relationships cannot provide resources for improving single mothers living conditions. This places families under enormous pressure. On the other side, from in-depth interviews an important role of exchange and solidarity within networks appears to be played by friends. This notwithstanding they are in the same vein unable to furnish concrete help for providing upward mobility opportunities.

In general terms, the higher is the heterogeneity of networks composition, the higher is the level of social anchorage provided by alteri. Less than as could expected by literature is the contribution of network structure (size, density, and so on). This probably depends on the great similarity of the structure of single mothers personal networks.

Albeit issues relating to economic resources are key concerns for low-income mothers, interpersonal dynamics play central roles as these women create and use resources at their disposal for daily survival. The women interviewed use familial ties for social support accordingly to the solidarity model described by the literature about low income survival strategies (Morlicchio, 2005). However, in line with the concerns expressed by single mothers, the worsening of socio-economic conditions risks of compromising over time the resilience of social support networks, and the ability to redistribute resources for the benefit of their members.

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Table 1 Ego and alteri characteristics and ego-centred network indices (mean, dev. std., sken., min and max values).

	Mean (%)	Dev. Std.	Skew.	Min	Max
Ego age	38.63	8.13	-0.45	18	53
Ego living alone with children	49.20				
Ego employed	74.76				
Ego number of children	1.98	0.94	1.46	1	6
Ego number of children < 14	1.19	1.00	0.09	0	3
Alteri kin	49.20				
Alteri employed	57.20				
Social anchorage	59.10				
Instrumental support	36.42				
Informational support	19.49				
Social companionship	50.80				
Emotional support	29.71				
Economic support	25.88				
Number of supports	1.62	0.91	1.53	1	5
Size	6.16	2.38	0.54	2.00	12.00
Density	0.40	0.12	-0.95	0.08	0.50
Effective size	2.15	1.53	1.94	1.00	7.73
Efficiency	0.42	0.19	0.84	0.11	0.87
Constraint	0.56	0.17	0.80	0.29	1.12
Hierarchy	0.02	0.02	0.83	0.00	0.08
Sex_EI	-0.40	0.40	0.50	-1.00	1.00
Age_EI	0.25	0.49	-0.03	-1.00	1.00
Job_EI	0.24	0.52	-0.54	-1.00	1.00
Relation IQV	0.89	0.14	-3.18	0.00	1.00
Time IQV	0.43	0.37	-0.12	0.00	1.00

Table 2 Estimated coefficients for the 2-level random intercept models for alteri (level-1) and egos (level-2). The response variable is the social anchorage index (*SocAnch*). The explanatory variables are related to alter and ego characteristics, and ego-centred networks measures. More specifically, Significant coefficients are marked by: . p \leq 0.1, * p \leq 0.05, ** p \leq 0.01, *** p \leq 0.001).

	Model 0 Coeff.		Model 1 Coeff.		Model 2 Coeff.	
<i>Intercept</i>	0.38	**	-4.53	*	-2.02	*
<i>ClassAgeEgo</i> _{35–45}			-0.11			
<i>ClassAgeEgo</i> _{45–54}			-0.79			
<i>NChild</i>						
<i>NChild</i> _{until14}			-0.03			
<i>AlonewithChild</i> _{Yes}			0.52			
<i>EgoEmployed</i> _{Yes}			-0.19			
<i>AlterSex</i> _M			-0.24			
<i>ClassAgeAlter</i> _{35–45}			0.50			
<i>ClassAgeAlter</i> _{45–55}			-0.08			
<i>ClassAgeAlter</i> _{over65}			0.46			
<i>AlterEmployed</i> _{Yes}			0.84	**	0.61	*
<i>Kinship</i> _{No}			-1.18	***	-1.10	***
<i>Instry</i> _{Yes}			0.90	**	0.83	**
<i>Inform</i> _{Yes}			-0.48			
<i>Social</i> _{Yes}			0.34			
<i>Emot</i> _{Yes}			1.13	***	1.07	***
<i>Econ</i> _{Yes}			0.30			
SHDegree			0.39	*		
SHEffsize			-0.75	*		
SHEfficiency			4.66	*		
SexEI			0.01			
ClassAgeEI			0.59		0.49	.
JobPositionEI			-0.58	.		
RelativesIqv			2.45	*	2.18	*
TimeIqv			-0.73			
<i>var_Int</i> (<i>L2</i>)	0.24		0.00		0.004	
<i>var_Int</i> (<i>L1</i>)	1.00		1.00		1.00	