Social Support Network and Received Support at Stressful Events

Valentina Hlebec[1], Maja Mrzel[2], and Tina Kogovšek[3]

Abstract

Many studies in the field of social support (e.g., Hobfoll, 1985; Thoits, 1985; Cutrona and Russell, 1990; Kienan, 1997) show that the effectiveness of a certain type of provided support and mechanisms by which the support works are often highly dependent on a specific situation, where support is needed. For instance, emotional support may be provided in a situation (e.g., an accident), where an affected person needs or expects help of a more practical kind. The provided unsuitable type of support may thus cause additional stress, dissatisfaction, feelings of being misunderstood, controlled or alienated. The context of a specific situation therefore conditions how effective a certain type of support can be.

When selecting a measurement instrument presumed to be the best for assessing social support networks and social support functions we have to consider whether to ask a lot of questions about the social support network, the received social support and the perception of social support using complex items, such as name generators, or whether there are simpler ways at our disposal to correctly assess the social support provision, such as role relationship items. We should also decide whether to measure only the perception of social support or the actually received support at particular occasions as well.

In this paper we compare and analyze the composition of the social support network assessed by the Antonucci's hierarchical approach, the perceived social support within social support network, and the role relation approach based on received support during 15 major life changes as they have occurred within the last three years. The composition of the social support network (overall and partial across four types of social support) is compared to the overall composition of received support.

[1] University of Ljubljana, Faculty of Social Sciences, Kardeljeva pl. 5, 1000 Ljubljana, Slovenia.

[2] University of Ljubljana, Faculty of Social Sciences, Kardeljeva pl. 5, 1000 Ljubljana, Slovenia.

[3] University of Ljubljana, Faculty of Arts, Aškerčeva 2 and Faculty of Social Sciences, Kardeljeva pl. 5, 1000 Ljubljana, Slovenia.

1   Introduction

Authors that address the question of conceptualization of social support usually emphasize the difference between the actually received (enacted) social support and the subjective appraisal of the social support or perceived[4] support (Vaux, 1988: 15-16; 1992; Sarason, Pierce, and Sarason, 1990; Sarason, Sarason and Pierce, 1990; 1990a; 1994a; 1994b; Dunkel-Schetter and Bennett, 1990; Knipscheer and Antonucci, 1990; Veiel and Baumann, 1992; Laireiter and Baumann, 1992; Burleson et al., 1994). Some of the most appreciated models of social support (Vaux, 1988; Sarason, Sarason and Pierce,1990a, 1994a; 1994b; Sarason, Pierce, and Sarason, 1990; Veiel and Baumann, 1992; Burleson et al. 1994) additionally describe also social support resources or social support network. Vaux (1988) also distinguishes three components, one of them being the *social support network* as a source of social support. Vaux (1988: 28-29) defines the social support network as a subset of a larger social network to which an ego turns or could turn for assistance. Support networks, i.e., social support network resources, are assumed to be stable in terms of size and composition, except in times of developmental transitions or non-normative life changes. *Support behaviors*, on the other hand are specific acts generally recognized as intentional efforts to help a person. Not every supportive behavior is helpful. Helpfulness depends on the proper timing and mode of support as well as on the relationship with the support provider. *Support appraisals* are subjective evaluative assessments of support resources and behaviors. They are primary indicators of how effectively support functions are fulfilled.

   Sarason et al. (1990; 1990a; 1994a; Sarason, Pierce, and Sarason, 1990) define the received social support as the support that people get from others, or the enacted support (1990a: 15-16). The received support is supposed to depend on the availability of support, the individual coping skills and the degree of severity of stress others perceive to be experienced by a subject. The perceived support, however, refers to a person's belief that some social support is available if needed. The authors distinguish between measures of availability of support and adequacy of available support on one hand, and between global and specific measures of the perceived support on the other. The third dimension (Sarason et al., 1990a: 12-15) of social support is referred to as network measures labeling individual social integration into society (i.e. network structure and quality of measured relationships). Events that stimulate provision of social support are divided along several dimensions such as minor-major, simple-complex, and stressful-

---

[4] Perceived support is a part of support appraisal. It refers to perception that social support is available when needed – it refers to availability of support, whereas the social support appraisal may include several other evaluative dimensions.

nonstressful (Sarason et al., 1994a: 93-95). When referring to the distinction between stressful and nonstressful situations two main hypotheses regarding the role of social support can be made. The hypothesis about the buffering effects of social support states that social support is effective only during stressful events. The *main effect* hypothesis maintains that the social support influences behavior and well-being in nonstressful situations as well. Similarly, three-dimensional models of the social support concepts have also been proposed by Veiel and Baumann (1992), and Burleson et al. (1994).

All these models distinguish the same basic dimensions along which social support is conceptualized: support resources or support networks, supportive behavior, interactions or received support and support appraisals. For researchers the social support is interesting mostly because of its relations with various health-related outcomes and possible interventions. Therefore, the most frequent criterion for selecting a particular conceptualization of the social support was its predictive power in explaining outcome variables. The lack of predictive power of the early concepts of social support, such as simple indices of network size and density, redirected researchers' attention to those measures of perceived support that showed stronger associations with well-being. Measures of perceived support were exhaustively analyzed with regard to their measurement properties and associations with related constructs and health-related outcome variables (e.g., Vaux, 1988, 1992, Sarason et al. 1987a, b). However, research on perceived support mainly included specific sub-populations. Measures of support networks received more attention in the framework of sociological approaches where network measures were also applied to the general population, revealing some specific supportive interactions and affective contents within particular relationships (Hlebec, 1999).

A variety of measures of perceived support (Vaux, 1988: 33-59) was developed on the premises of theoretical models. However, these measures focus on individual perceptions of support availability and adequacy. Furthermore, measures developed after Weiss's (1974) and Cobb's (1976) theoretical models focus primarily on the affective aspects of the social support, such as the perception of being loved and accepted by others, the sense of belonging, enhancing of self-esteem, etc. Although several of these measures were presented as general measures of social support, which are relatively independent of measures of received support, a thorough reexamination of reported analyses revealed their primarily affective focus (Procidano and Heller, 1983; Cohen and Tobes, 1988; Bolger and Eckenrode, 1991; Sarason et al. 1983). They demonstrated that not every social interaction is stress buffering; some of these may even increase or induce stress. Many social support instruments that presumably measure the general social support and the enacted social support actually measure a specific, usually emotional social support.

The social context factors (Vaux, 1988: 76-87) such as stressors, family, social roles and settings, housing and community, social network stressors and network

vulnerability mediate the transactional processing of social support. Stressors can diminish social support in several ways, i.e., by removing members of a social network who create social obstacles to maintaining network relationships and build psychological barriers to the relationships by stigma or alter the context of network relationships. Certain stressors may temporarily disable supportive relationships, such as a terminal illness or a tragic loss. Sometimes individuals are contributors to the stress as well as its victims. Stressors may also enhance and mobilize social support, and also promote positive appraisal of support by initiating support resources that an individual was unaware of. Family, on one hand, provides the background (Vaux, 1988: 76-87) for the ways in which the social support network of an individual will be developed and maintained. On the other hand, it is an important source of social support. It can contribute to an individual's well-being as well as to his/her distress by providing harmonious or conflicting ties. Social roles, such as parenthood or working roles can influence an individual's opportunities to meet new people, to interact, and to develop relationships to an extreme extent. Housing type and characteristics of a residential community determine the nature of social interactions. Lack of control over an individual's living conditions and possible social interactions may reduce his/her willingness to communicate. Social ties are often a source of stress but also of support. There is empirical evidence (ibid.) available that stressful aspects of social relationships have a stronger association with distress than supportive aspects. Network resources may also be vulnerable to the same type of stressors and thus unable to provide the needed social support. A list of stressful events was given to respondents (Holmes and Rahe, 1967) and received social support was assessed in a very simple way using the role relation approach. We wanted to find out whether the providers of received support are the same as given in Antonucci's social network, using composition measures as indicators.

2   The aim of the paper

There are several different approaches to measuring social support networks, such as the interaction approach (e.g., Bernard et al., 1982), the affective approach (e.g., Antonucci, 1986), the exchange approach (e.g., McCallister and Fischer, 1978; Burt, 1984; van der Poel, 1993), or the role relation(ship) approach (International Social Survey Programme 1987 and 2001). Some of these instruments measure the exchange of social support at the same time as they asses social support sources, for instance exchanges of social support (e.g., McCallister and Fischer, 1978; Burt, 1984). Antonucci's instrument (Antonucci, 1986), however, separates elicitation of social support sources from evaluation of social support exchange. Is it possible that the separation of two steps (1) eliciting network members by criteria of closeness and (2) the evaluation of social support exchange within the listed pool of network sources would give us a pool of support providers limited to emotional

support providers? Is it plausible that a list of support providers given by Antonucci's instrument is not a complete list of social support providers and therefore the received support in case of stressful events would be drawn from a broader pool of support providers?

In this paper we evaluate the Antonucci's (1986) measurement instrument from two points of view. We evaluate the size and composition of social support network elicited by this approach against the size and compositions of social support providers for a particular type of social support (perceived support), where we added several support components not included in the original questionnaire, which assessed mainly the emotional support. Finally, we compare both, the compositions of the total social network and compositions of subnetworks (that give a particular type of social support) of social support providers at 15 several stressful events (received support) that actually occurred in the last three years (Holmes and Rahe, 1967). In this respect there are several research questions we would like to address.

1. Does the separation of network members elicitation using affective criteria, provide us with an exhaustive pool of social support providers or mainly with providers of multiple support functions (partner, close family, close friends) or emotional support?
2. A lot of social support instruments, which presumably measure the general social support and the enacted social support actually measure a specific, usually emotional, social support. In many cases only the perceived support is assessed. Is this the case also with the Antonucci's measurement instrument, even after several social support items along the original, mainly emotional social support items have been added?
3. Is it likely, that a list of support providers given by the Antonucci's instrument is not a complete list of social support providers and therefore the received support in case of stressful events is drawn from a broader pool of support providers?
4. Are the providers of actually received support the same as given in the Antonucci's name generator, using composition measures as indicators?
5. Nevertheless, we claim that these questions measure the perceived social support rather than measure the received support. Furthermore, as the support providers are listed by affective criteria, composition of social network is biased towards the close others.

3   Data

Data were collected in November 2007 by 80 students of the Faculty of Social Sciences, University of Ljubljana as their field work in two courses (Social Network Analysis and Personal Networks). Each student interviewed 6 people

using a quota sampling (3M/3F, 2 aged 20-34, 2 aged 35 – 49 and 2 aged 50+), and personal interviewing with the PAPI questionnaire. Altogether there were 480 respondents that named[5] 5844 alters. Among 480 respondents, 53% were female, 47% male; aged on average 41,3 years; 56% were married and 36% single (only a very small proportion of respondents were widowed or divorced). Social network was assessed by the affective approach (e.g., Antonucci, 1986) for two reasons. Only one generator is used to elicit network members and compared to other single generator measures, the measured network size is relatively large and the network composition heterogeneous. In the Antonucci's approach emotional criteria are used for selecting alters from the respondent's global network and placing them into three hierarchical circles that are graphically presented to the respondent. The respondent (ego) is at the center of the three circles. Respondents are told that the three circles should be thought of as including »people who are important in your life right now« but who are not necessarily equally close. Individuals in the (1) inner circle: are »those people to whom you feel so close that it is hard to imagine life without them.«, (2) the middle circle: are »people to whom you may not feel quite that close but who are still important to you.«, (3) the outer-circle: are »people whom you haven't mentioned as yet but are close enough and important enough in your life that they should be placed in your personal network.« (Antonucci, 1986). In our next step we assessed support functions (perceived support) provided by people from the Antonucci network. However, to assess specific support functions, several additional support questions were added to a few other questions assessing primarily the emotional support. The questions do not inquire about the hypothetical support providers but about the typical social support providers. These we could, with some reserve, consider as perceived support indicators since the typical providers are usually those, whom respondents over a longer period of time and in many situations have started to perceive as the more or less reliable support providers. The questions assessing social support are presented in the Table 1. In our third step the characteristics of the people enlisted were assessed, such as their gender, role to respondents, age, etc.

In addition, 15 stressful events were listed (Holmes and Rahe, 1967) and respondents were asked to mark the events that happened to them within the last 3 years and to describe who were the most helpful group in particular situations (family and relatives, friends, neighbors, co-workers or "no one"). These items we consider to be measuring the received or the enacted support. The 15 stressful events are shown in Table 3.

---

[5] The number of listed alters was not limited, respondents could name as many alter as they wanted.

Table 1: Network generator and social support assessment.

*Are there people you confide in about things that are important to you?

*Are there people who reassure you when you're feeling uncertain about something?

*Are there people who make you feel respected?

*Are there people who you talk to when you're upset, nervous, or depressed?

*Are there people who you talk to about your health?

Are there people who you ask for advice in important life changes (such as changing jobs, or place to live)?

*Are there people who would make sure that you were cared for if you were ill?

Are there people who would lend you things, such as tools, or who you could ask to help you with small household tasks?

Are there people who would help you with larger household tasks such as building a house or renovating an apartment or work in the garden?

Are there people who you socialize with, visit, have diner together or go to vacation together?

Are there people who would lend you a larger sum of money in case of emergency (about 1000 EUR)?

*support functions in original questionnaire

4   Results

4.1 Examining the perceived and the received support networks separately

First, the composition[6] of the Antonucci support network was estimated. Composition[7] was collapsed into four groups: family and relatives, friends, neighbors and co-workers to be comparable to the composition of the 15 stressful events. On the average an ego's network consists of twelve alters, from which 59% are family, 32% friends, 2% neighbors and 4% co-workers. Even though the estimated support network is large given the fact that only one network generator was used, the assessed support network comprises of a large proportion of close support providers and of only a small proportion of support providers that are not very close to an ego.

As next we assessed, which people from the initial Antonucci network provide 11 support functions or the perceived support. For the eleven social support

---

[6] Only the first listed role of ego's role relation toward alters was taken into account. Characteristics of alters were assessed for the first 20 named alters and not only for the first 10 as in Antonucci (1986). About 93% measured networks was comprised of 20 alters or less.

[7] Composition of the network can be more elaborated, for example, one can calculate the percentage of the network represented by siblings, children, parents etc.

functions the network structure and composition were estimated and the results obtained are shown in Table 2. In these questions respondents could name as many alters from the Antonucci network as they wanted. New alters, however, were not allowed. On the average family and relatives present from 55% on the lowest and up to 85% of an ego's social support network, friends represents from 12 to 40% of support network, neighbors from 0,3 to 3% and co-workers from 0,6 to 3%. It can be seen that family and relatives are the largest group providing any kind of support even though friends are the second most often selected group. However, friends do not exceed 40% of the network composition as seen for socializing.

Table 2: Composition of perceived support providers (%).

	Family, relatives	Friends	Neighbors	Co-workers	Size
Are there people you confide in about things that are important to you?	72.62	25.57	0.26	1.29	4.46
Are there people who reassure you when you're feeling uncertain about something?	65.62	30.56	0.98	2.34	4.01
Are there people who make you feel respected?	63.87	29.91	1.17	3.03	8.13
Are there people who you talk to when you're upset, nervous, or depressed?	64.32	32.39	0.88	1.79	3.31
Are there people who you talk to about your health?	75.05	21.99	0.69	1.54	4.36
Are there people who you ask for advice in important life changes (such as changing jobs, or place to live)?	76.08	20.97	0.57	1.95	3.68
Are there people who would make sure that you were cared for if you were ill?	85.55	11.64	0.51	1.60	4.26
Are there people who would lend you things, such as tools, or who you could ask to help you with small household tasks?	69.57	25.07	2.89	1.47	4.67
Are there people who would help you with larger household tasks such as building a house or renovating an apartment or work in the garden?	76.08	20.29	1.87	0.65	3.83
Are there people who you socialize with, visit, have diner together or go to vacation together?	55.14	39.82	1.86	2.02	7.84
Are there people who would lend you a larger sum of money in the case of emergency (about 1000 EUR)?	84.97	13.07	0.57	1.05	2.23
Composition of the Antonucci network (average network size = 12 alters)	59.24	32.29	2.08	3.79	12

Finally, 15 stressful events were listed and each respondent indicated which segment of the social network was the most helpful in actual events that occurred within the last 3 years. For every event that occurred respondents were allowed to name only one group that they had found to be the most helpful. Since there was time limitation and since these events do not occur on every day basis, the problem we faced was a low count for these events. Received support (Table 3)

composition shows quite different structure from the Antonucci support network composition and perceived support composition. Therefore, for the received support, family and friends represents from 30% to 97% of an ego's network, friends represent up to 40%, neighbors up to 10% and co-workers up to 36%[8].

Table 3: Composition of received support (%).

	Family, relatives	Friends	Neighbors	Co-workers	No one	n
Wedding	93.33	0.00	0.00	0.00	6.67	30
Difficulties with a boss	29.63	14.81	0.00	33.33	22.22	81
Death of a close family member	96.88	2.08	0.00	0.00	1.04	96
Change of personal habits	50.43	27.35	0.00	2.56	19.66	117
Death of a close friend	40.43	42.55	2.13	0.00	14.89	47
Pregnancy	73.33	13.33	6.67	0.00	6.67	15
Great changes in health / behavior of family members	75.53	13.83	2.13	1.06	7.45	94
Great changes in finance state	67.21	8.20	0.00	4.92	19.67	61
Birth of a new family member	91.67	2.08	0.00	0.00	6.25	48
Living changes (moving, renewal of a home)	78.15	14.29	3.36	0.00	4.20	119
Great changes in a religious activity	40.00	40.00	10.00	0.00	10.00	10
Change at a workplace	31.19	13.76	0.92	35.78	18.35	109
Great personal injustice or disease	73.91	15.22	2.17	2.17	6.52	46
Great changes in living conditions	47.22	25.00	2.78	0.00	25.00	36
Retirement	59.09	9.09	0.00	13.64	18.18	22

The descriptive comparison shows differences in network composition for the Antonucci support network, perceived support and received support, the latter showing a much larger variability in the network composition. In our next step we wanted to map the received and perceived networks in their relation to each other and see to what extent their composition overlaps. Since mapping 11 perceived support types[9] onto 15 received support types is rather cumbersome and confusing, we decided to collapse them into fewer but more meaningful groups. For further comparisons of network compositions groups of the perceived support and groups of the received support were formed using hierarchical clustering without standardization, using the Ward method and the Euclidian distance as measures of dissimilarity. The units of clustering were not individuals but variables. The input data were compositions of perceived support (Table 2) and received support (Table 3), variables used for clustering were five indicators of social network composition

---

[8] The category "no one" was explicitly offered to respondents in the questions assessing the received supoort. For the received support, the frequency of the category "no one" varies from 1 up to 25 percent.

[9] Socializing was excluded from clustering as it was repeatedly placed in a separate group ouwing to specific network composition.

(% of family, % of friends, % neighbors, % of co-workers, % no-one). As a result we were able to form four groups of received support (Table 4) and three groups of perceived support (Table 5).

Table 4: Classification of events.

Group of events 1	Pregnancy
	Great changes in finance state
	Living changes (moving, renewal of a home)
	Retirement
	Great personal injustice or disease
	Great changes in health / behavior of family members
Group of events 2	Wedding
	Birth of a new family member
	Death of a close family member
Group of events 3	Difficulties with a boss
	Change at workplace
Group of events 4	Change of personal habits
	Great changes in a religious activity
	Great changes in living conditions
	Death of a close friend

Clustering was done on the basis of network composition. It is, however, possible to find common characteristics of support functions (perceived support) and listed events (received support) joined in different groups. The first group of events can be described as changes in life that are major, may require practical help and are visible on the outside. The second group of events is a group of major family changes. The third group is comprised of stress, related to workplace, and the fourth group of events can be described as major changes that are more intimate or personal in character.

The three groups of perceived support can be described as instrumental or practical support, support in the case of illness and financial support and the third group is comprised of emotional support.

Table 5: Classification of perceived social support.

Group of support 1	Are there people you confide in about things that are important to you?
	Are there people who you talk to about your health?
	Are there people who you ask for advice in important life changes (such as changing jobs, or place to live)?
	Are there people who would lend you things, such as tools, or who you could ask to help you with small household tasks?
	Are there people who would help you with larger household tasks such as building a house or renovating an apartment or work in the garden?
Group of support 2	Are there people who would make sure that you were cared for if you were ill?
	Are there people who would lend you a larger sum of money in case of emergency (about 1000 EUR)?
Group of support 3	Are there people who reassure you when you're feeling uncertain about something?
	Are there people who make you feel respected?
	Are there people who you talk to when you're upset, nervous, or depressed?

4.2   Examining the perceived and the received support together

For these seven groups (4 of events and 3 of support) again the network composition was examined. This time the prediction was that the difference between groups as to the received support and the perceived support would be the highest possible (Figure 1). For the perceived support average percentages of network composition were calculated across grouped support types. For the received support, where a simple frequency distribution was the starting point, counts of support providers (family, friends, neighbors, co-workers, "no-one") were calculated and transformed into percentages across groups of events.

We can observe a larger variability in the network composition for the received support as compared to the network composition of the perceived support. It seems that the assumption about specific network composition of the Antonucci network is correct (the column on the far right side of the figure). Similarly, this assumption is correct for the network composition for the perceived support types when compared to the received support. But visible differences in the network composition within the received support itself have also been noted. The group of events 1 is comprised almost only of family, the group of events 2 and 4 resembles the composition of the Antonucci network composition and the group of events 3 is a very specific group (changes in workplace) and differs the most from all the other (other groups of events as well as groups of support). If we look at the groups of the perceived support, the network composition for the group 3 (emotional support) is the one that resembles the total network composition the

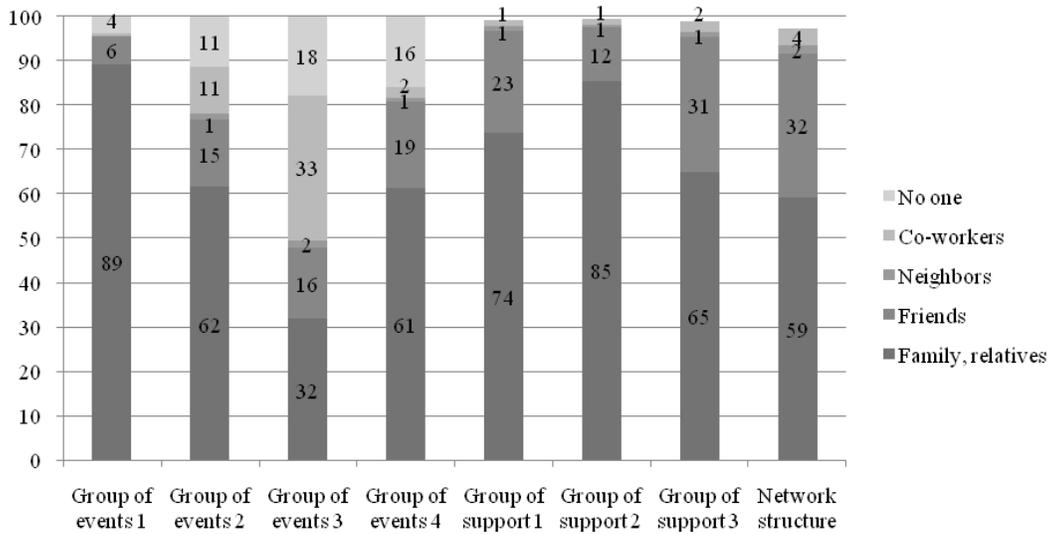most. Other two groups are comprised mostly of family members (especially the group 2).

Figure 1: Network composition by the perceived social support and by the received social support (%).

We further studied the composition of the enacted support against the perceived support. Figures (2-5) show the composition of each group of the perceived support against the composition of groups of the received support (events). Not surprisingly, the groups of events 2 and 4 have the highest similarity to the perceived support (regardless of the group of support). The similarity in the network composition is the strongest for the third group of support.
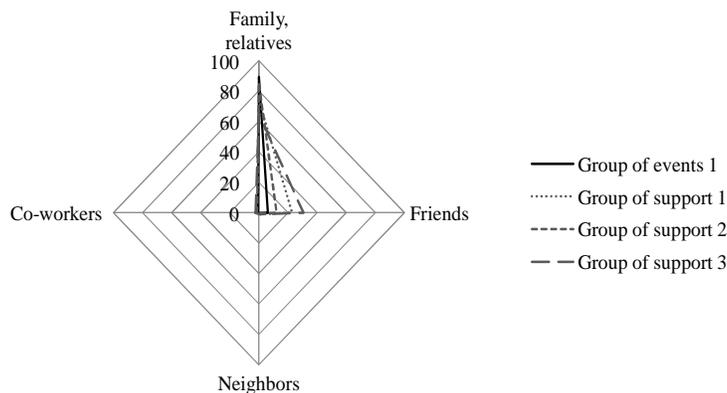
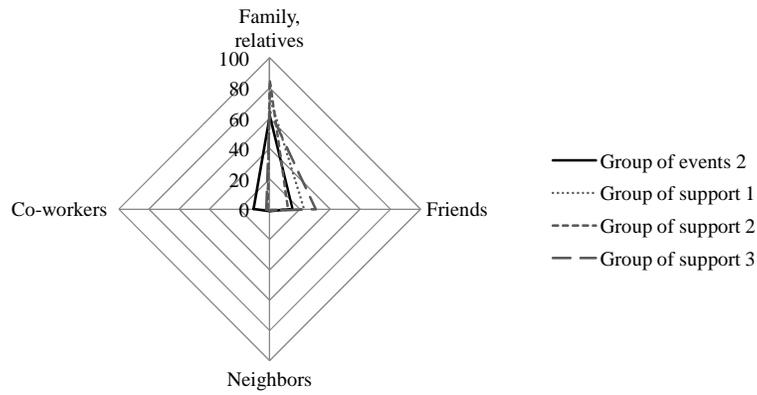**Figure 2:** Group of events 1 againts groups of support.

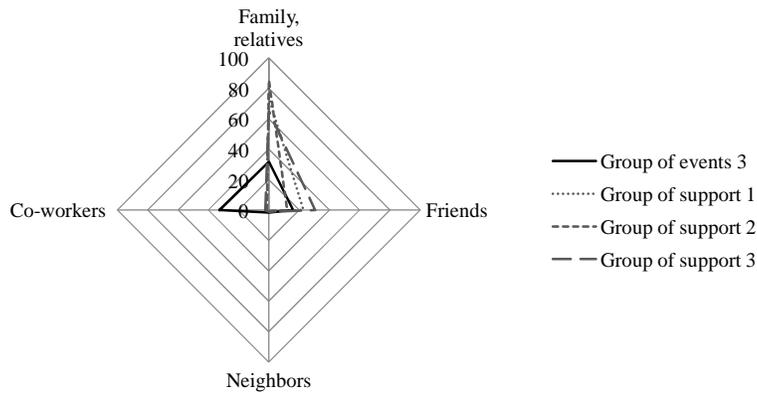**Figure 3:** Group of events 2 againts groups of support.

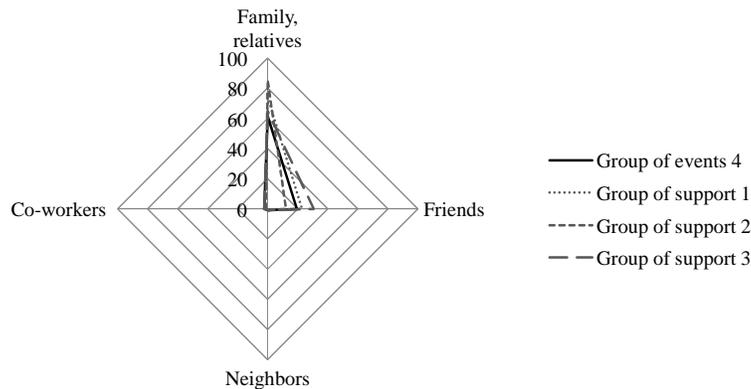**Figure 4:** Group of events 3 againts groups of support.

Figure 5: Group of events 4 againts groups of support.

5 Discussion and conclusions

The results of comparisons between the three components of the social support concept using the Antonucci's (1986) affective name generator, expanded list of perceived support and received support providers show that the three components assessed in the network composition (i.e. percentage of family, friends, neighbors and co-workers) are not identical. Even though the Antonucci's name generator gives us an extensive list of alters (in our case about 12 on average), there is a very small percentage of neighbors, co-workers or other alters that are not very close to ego. The listed alters were mostly family and close friends that are responsible for multiple support functions.

In the original questionnaire only the emotional support was assessed as well as support related to illness because the questionnaire was primarily developed for the older population. As the items in the questionnaire measure typical support we claim that this kind of support assessment is more in the category of perceived support (people we would turn to support if needed). There is a variability in selection of alters from the complete pool of alters (the socializing composition differs most from the whole Antonucci network composition). However, as the pool of alters is defined from the beginning by the criteria of closeness, respondents select potential support givers only from this pool even if there is a person or persons involved apart from those already listed. Respondents are therefore limited by this procedure. We suggest that additional alters are allowed as respondents report about perceived support.

When evaluating the providers of received support at stressful events that actually occurred during the last three years we faced several methodological issues. Firstly, not all respondents encountered all of the events listed; therefore there was a large variability in a number of missing cases. Secondly, the network composition was measured in a very simple way (categorical variable with labels family, friends, neighbors, co-workers and no-one; only one answer possible) due to which the comparison of the network composition was rather difficult. Nevertheless, the results of comparisons show that there is a larger variability in the network composition when the enacted support is assessed as compared to the perceived support, especially when the events in the workplace are assessed. It can be concluded that providers of the enacted support are drawn from a larger pool of support providers than those provided by the Antonucci network and that support providers are actually, as some theories predict, dependent on a specific life situation within which the support need surfaces. The network composition of the received support that can be described as events related to family life is the one that is the most similar to the composition of the perceived support and the Antonucci's network composition.

Apart from allowing for list of alters to expand in the Antonucci's name generator when the support functions are assessed, we suggest that the received support be measured in a more complex way, at least with an extended list of possible provider groups, but perhaps also with name generators included.

References

[1] Antonucci, T.C. (1986): Measuring social support networks: Hierarchical mapping technique. *Generations*, **3**, 10-12.

[2] Bernard, H.R., Killworth, P.D., and Sailer, L. (1982): Informant accuracy in social network data. In An *Experimental Attempt to Predict Actual Communication from Recall Data. Social Science Research*, **11**, 30-66.

[3] Bolger, N. and Eckenrode, J. (1991): Social relationships, personality, and anxiety during a major stressful event. *Journal of Personality and Social Psychology*, **61**, 440-449.

[4] Burleson, B.R., Albrecht, T.L., Goldsmith, D.J., and Sarason, I.G. (1994): The communication of social support. In Burleson, B.R., Albrecht, T.L., and Sarason, I.G.: *Communication of Social Support: Messages, Interactions, Relationships, and Community*, xi-xxx. Thousand Oaks: Sage Publications.

[5] Burt, R.S. (1984): Network items in the general social survey. *Social Networks*, **6**, 293-339.

[6] Cobb, S. (1976): Social support as a moderator of life stress. *Psychosomatic Medicine*, **38**, 300-314.

[7] Cohen, L.H. and Towbes, L.C. (1988): Effects of induced mood on self-reported life events and perceived and received social support. *Journal of Personality and Social Psychology*, **55**, 669-674.

[8] Cutrona, C.E. and Russell, D. (1990): Type of social support and specific stress. Toward a theory of optimal matching. In Sarason, B.R., Sarason, I.G., and Pierce, G.R. (Eds.): *Social Support: An Interactional View*, 319-366. New York: Wiley.

[9] Dunkel-Schetter, C. and Bennett, T. L. (1990): Differentiating the cognitive and behavioral aspects of social support. In Sarason, B.R., Sarason, I.G., and Pierce, G.R. (Eds.): *Social Support: An Interactional View*, 267-296. New York: Wiley.

[10] Hlebec, V. (1999): *Evaluation of Survey Measurement Instruments for Measuring Social Networks.* Doctoral dissertation. Ljubljana: University of Ljubljana.

[11] Hobfoll, S.E. (1985): Limitations of social support in the stress process. In Sarason, I.G. and Sarason, B.R. (Eds.): *Social Support: Theory, Research and Applications*, 391-414. Dordrecht: Martinus Nijhoff Publishers.

[12] Holmes, T.H. and Rahe, R.H. (1967): The social readjustment rating scale. *Journal of Psychosomatic Research*, **2**, 213-8.

[13] Keinan, G. (1997): Social support, stress and personality: Do all women benefit from their husband's presence during childbirth? In Pierce, G.R., Lakey, B., Sarason, I.G., and Sarason, B.R. (Eds.): *Sourcebook of Social Support and Personality*, 93-106. New York: Plenum Press.

[14] Knipscheer, C.P.M., and Antonucci, T.C. (1990): *Network Research: Substantive Issues and Methodological Questions.* Amsterdam: Swets & Zeitlinger.

[15] Laireiter, A. and Baumann, U. (1992): Network structures and support functions – Theoretical and empirical analyses. In Veiel, H.O.F. and Baumann, U. (Eds.): *The Meaning and Measurement of Social Support*, 33-56. New York: Hemisphere Publishing Corporation.

[16] McCallister, J.L. and Fischer, C.S. (1978): A procedure for surveying personal networks. *Sociological Methods and Research*, **7**, 131-148.

[17] Sarason, I.G., Levine, H.M., Basham, R.B., and Sarason, B.R. (1983): Assessing social support: The social support questionnaire. *Journal of Personality and Social Psychology*, **44**, 127-39.

[18] Sarason, B.R., Pierce, G.R., and Sarason, I. G. (1990) Social support: The sense of acceptance and the role of relationships. In: Sarason, B.R., Sarason, I.G., and Pierce, G.R. (Eds.): *Social Support: An Interactional View*, 97-128. New York: Wiley.

[19] Sarason, B.R., Sarason, I.G., and Pierce, G.R. (1990): *Social Support: An Interactional View*, 127-139. New York: John Wiley & Sons.

[20] Sarason, B.R., Sarason, I.G., and Pierce, G.R. (1990a): Traditional views of social support and their impact on assessment. In Sarason, B.R., Sarason, I.G., and Pierce, G.R. (Eds.): *Social Support: An Interactional View*, 9-25. New York: Wiley.

[21] Sarason, I.G., Sarason, R.S., and Pierce, G.R. (1994a): Relationship-specific social support: Toward a model for the analysis of supportive interactions. In: Burleson, B.R., Albrecht, T.L., and Sarason, I.G. (Eds.): *Communication of Social Support: Messages, Interactions, Relationships, and Community*, 91-112. Sage Publications: Thousand Oaks.

[22] Sarason, I.G., Sarason, R.S., and Pierce, G.R. (1994b): Social support: Global and relationship-based levels of analysis. *Journal of Social and Personal Relationships*, **11**, 295-312.

[23] Sarason, B.R., Sarason, I.G., Shearin, E.N., and Pierce, G.R. (1987a): A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships*, **4**, 497-510.

[24] Sarason, B.R., Shearin, E.N., Pierce, G.R., and Sarason, I.G. (1987b): Interrelations of social support measures: Theoretical and practical implications. *Journal of Personality and Social Psychology*, **52**, 813-832.

[25] Procidano, M.E. and Heller, K. (1983): Measures of perceived social support from friends and from family: Three validation studies. *American Journal of Community Psychology*, **11**, 1-24.

[26] Thoits, P.A. (1985): Social Support and Psychological Well-Being: Theoretical Possibilities. In Sarason, I.G. and Sarason, B.R. (Eds.): *Social Support: Theory, Research and Applications*, 51-72. Dordrecht: Martinus Nijhoff Publishers.

[27] Van der Poel, M.G.M. (1993): *Personal Networks*. Lisse: Swets and Zeitlinger.

[28] Vaux, A. (1988): *Social Support: Theory, Research, and Intervention*. New York: Praeger.

[29] Vaux, A. (1992): Assessment of social support. In Veiel, H.O.F and Baumann, U. (Eds.): *The Meaning and Measurement of Social Support*, 193-216. New York: Hemisphere.

[30] Veiel, H.O.F and Baumann, U. (1992): *The Meaning and Measurement of Social Support*. New York: Hemisphere.

[31] Weiss, R.S. (1974): The provisions of social relationships. In Rubin, Z. (Ed.): *Doing unto Others*, 17-26. Prentice-Hall: Englewood Cliffs.