BEÁTA DÁVID[*]

SOCIAL NETWORK ANALYSIS

Applied Tool to Enhance Effective Collaboration between Child Protection Organisations by Revealing and Strengthening Work Relationships

> 'Cooperation is not evident.
> Cooperation is a skill that should and can be acquired.'
> (*GYJSZ,[1]* 2010, 11)

In 2009, an organizational research was led by the Social Work department of the Veszprém College of Theology on how the child protection system of children actually operates. Mixed methodology was used. In-depth interviews were conducted (N = 58) among the different actors of the child protection system. The qualitative approach was complemented by social network analysis. Revealing the mechanism based on the actors' perception on how the child protection network operates, we identified and named the strengths and weaknesses of its structure. We also enumerated the interviewees' propositions that can be the pillars of a future co-operation. Our conclusion is slightly bit atypical in the sense that in our study we could report positive changes implemented since 2009. The aim of our study is to show how social network analysis can be a useful tool to help professionals' collaboration in the social field.

Keywords: social network analysis, organizational networks, safeguarding system of children, effectiveness, applied research

Netzwerkanalyse: Eine angewandte Methode für die effektive Zusammenarbeit von Kinderschutzorganisationen: Am Lehrstuhl für Sozialarbeit der Erzbischöflichen Theologischen Hoch-

---

[*]   Beáta Dávid, Institute of Sociology, Centre for Social Sciences, Hungarian Academy of Sciences, H-1014 Budapest, Országház u. 30., Hungary; pet5639@mail.iif.hu.
[1]   *Gyermekjóléti szolgáltatás* (2010).

schule Veszprém wurde 2009 eine Erhebung zum Funktionieren des Erkennungs- und Melde-systems für Kindeswohlgefährdungen durchgeführt. Die Untersuchung bestand aus zwei Teilen. Mit ausgewählten Akteuren des Meldesystems wurden strukturierte Tiefeninterviews geführt (N = 58). Als Ergänzung des qualitativen Ansatzes erfolgte außerdem eine sogenannte vollständige Erfassung des Netzwerkes der Befragten. Ziel war die Benennung und Beschreibung von Stärken und Schwächen im Funktionieren des Systems aus der Sicht der Akteure des Meldesystems. Zu-dem wurde eine Liste der in den Interviews formulierten Vorschläge erstellt, die bei der weiteren Zusammenarbeit als Eckpfeiler dienen können. Der Schlussteil der Studie ist etwas ungewöhn-lich, hier wird über die seit Abschluss der Untersuchung erzielten Ergebnisse berichtet. Neben der Veröffentlichung der Forschungsergebnisse soll der Artikel auch die Aufmerksamkeit der Fachleute darauf lenken, welche neuen Möglichkeiten der Ansatz der sozialen Netzwerkanalyse als Forschungsmethode für den sozialen Bereich in sich birgt und wie die Analyse von sozialen Netzwerken die praktische Arbeit unterstützen kann.

Schlüsselbegriffe: Netzwerkforschung, Netzwerke von Organisationen, Erkennungs- und Melde-system des Kindesschutzes, Effizienz, angewandte Forschung

1. Introduction

While editing the special issue of *Esély*,[2] the Hungarian journal of social policy, I encountered the surprising fact that network theory as a conceptual framework had hardly been present in the social sector, only where social ties rather than market- or interest-oriented relationships comprise the system. When browsing through articles in foreign languages, I found that no relevant foreign journal[3] had published a the-matic issue on the topic, and only few scientific publications had applied social net-work analysis in the social area, especially at an organisational level – the emphasis is on application, since studies describing or criticising this methodology are plenty (RAEYMAECKERS 2010).

 The unbroken popularity and paradigmatic use of the network approach has otherwise been integrated into the social and natural sciences, both independently and in an interdisciplinary way. Good examples are two books by Albert-László BARABÁSI, an author of Hungarian origin: the titles *Linked* (2002) and *Bursts* (2010) have been on international bestseller lists in the recent years. These come to the con-clusion that biological, physical, economical, social, or internet networks all operate on the basis of the same principle, the so-called *scale-free distribution* (BARABÁSI et al. 1999, 2000).

 The society of the 21st century is undoubtedly a 'network society', considering that its operation is based on creating, processing and transferring information, and is supported by a network of modern information and communication technologies

---

[2] A special issue in *Esély* (http://www.esely.org/kiadvanyok/2011_5/CONTENTS.pdf), the Hungarian Journal for Social Policy, on how social network approach is or can be applied to the different fields in social work/ social policy.

[3] E.g.: *International Journal of Sociology and Social Policy*, *International Social Work*, *European Journal of Social Work*.

(CASTELLS 2005). Although network has become a basic concept in the daily life of today's world, and members of society – both at an individual and organisational level – are linked as a matter of course, we still have to admit as a sad fact, as measured by numerous research projects, the isolation of the individuals (or families) and the increasing distrust between members of society. Ironically, it seems that people today live in networks, but are still lacking real personal relationships (MCPHERSON et al. 2006; ALBERT & DÁVID 2007).

On one hand, this study attempts to add to the scientific publications that apply social network analysis in the social sector by describing how a local child protection network works from a systematic approach. On the other hand, the study, in a rather exceptional way, reports some positive achievements that, thanks to the successful feedback of the applied research results, have been able to increase primarily the effectiveness of the organisational network examined. In this case, the increased effectiveness means stronger collaboration among colleagues across the entire child protection system which is important primarily from the aspect of maintaining their mental health. Within each of the organisations of the system, the actors are more open and more willing to cooperate; they have more trust in the system and feel more comfortable.

2. Theoretical background

2.1. Social network research at the organisational/institutional level: collaboration and effectiveness

The growing popularity of social network analysis is due to the wide scientific horizon[4] as well as to the openness and receptivity deriving thereof. A detailed historic description of the method can be found in FREEMAN's book (2004), and dozens of other books are available on the application of this method (including e.g. SCOTT 1991; WASSERMAN & FAUST 1994; or HANNEMAN & RIDDLE 2005).

Network research enabling individual, group- and system-level analyses became popular in organisational sociology right from the beginning (1970s). The most frequently used (most preferred) theoretical framework of the research into intra- and interorganisational social networks is social capital: that is, understanding the importance and meaning a given relationship has for an organisation. Furthermore, investigations also aim at measuring organisational embeddedness, surveying network organisations, examining the effect of board interlocks, exploring the operation of stock companies, interorganisational alliances, and knowledge management (BORGATTI & FOSTER 2003).

The network-oriented approach to the organisations can be observed in the ana-

---

[4] Diversity derives from the fact that social network as a method of analysis is rooted in seven disciplines: anthropology, social psychology, geography, mathematical biology, sociology, political science, and experimental psychology.

lyses of modern public administration, the so-called 'new public management', and has high priority in studies on policy science (KLIJN & KOPPENJAN 2000; AGRANOFF & MCGUIRE 2001). Theories and methods used in organisational sociology can only be applied to a limited extent to human service organisations. Considering the basic assignments of the human sphere, which is to change the problematic situation of an individual (or family) with the help of professionals, collaboration and thinking together, that is, using a network approach seems to be evident. The complexity and diversity of the problem or the situation to be solved implies that in the long run, success can only be achieved if there is harmonised cooperation, or in other words, there is 'networking' between the fields and professions concerned.[5] Compared to the industrial or bureaucratic organisations, human service organisations follow a different operational rationality. These organisations – according to HASENFELD's definition (1983) – primarily aim at providing services that contribute to the well-being of their clients: they help to recognise, improve and, if necessary, change the clients' individual potentials. To achieve this goal (i.e. the well-being of the client), one approach is that effectiveness should be assessed at the network level, since client well-being depends on the integrated and coordinated actions of the different agencies (PROVAN & MILWARD 1995). Since everyday operation is determined by interpersonal relationships, the attempt to outline a uniform structure might be unsuccessful even for organisations with a very similar clientele. A typical example is the system of Community Mental Health Centres: apart from attending to patients suffering from similar mental diseases, each centre operates as a fully independent, autonomous unit with different individual motivations, interests, using different knowledge and different kinds of resources (HASENFELD 1985).

Studying non-profit human services, the two main issues where network perspective is 'unavoidable' are the collaboration of organisations and the effectiveness of organisations as a whole. Recognising the need for building a network across human service organisations – initiated either organically (locally) and instinctively, or as a result of legal regulation – is an important step toward efficient and successful helping. This requires collaboration and cooperation across organisations, even if it entails professional rivalry or resistance (UDVARI 2011). In non-profit organisational literature focusing on collaboration between organisations, the two most widely known theoretical frameworks are resource dependency and transaction cost theory (PROVAN & MILWARD 1995). Resource dependency is where a 'collaborative strategy is the result of organisational efforts to manage external dependencies and uncertainties in their resource environment' whereas transaction cost theory 'emphasises collaboration as a mechanism to reduce transaction costs and thereby maximise economic or psychological benefits' (GUO & ACAR 2005, 341). Guo and Acar draw attention to the limitations of these two theories when trying to understand collaboration among human service organisations because these interorganisational

---

5   It rarely occurs that an anomaly (e.g. alcoholism) has only one negative factor in the background. It is much
     more frequent that a case comprises several problems that are sometimes impossible to solve at once.

relations are often mandated by law and cooperation is often explained primarily by these mandates. Unless the two theories are complemented by a network perspective where the social aspects of both formal and informal collaboration are studied and emphasised, the underlying mechanisms of the system cannot be explored.

In publicly funded sectors (health care, social services), efficient operation and the financing of human service organisations are persisting and complex issues. It is important to measure network effectiveness of service provider organisations in order to determine whether services of a given network structure are provided to the target audience in need in an appropriate manner. The efficient operation of an entire[6] organisational network can be interpreted and examined at three different levels: community, network and organisational/participant level (PROVAN & MILWARD 2001).

From the community level perspective, effectiveness is measured by the aggregated data of the clientele concerned: cost-benefit ratio of the service costs, clients' satisfaction and well-being as well as the extent to which the organisations representing their interests and the population concerned are aware of the problems and the opinion they have about the actions taken to solve these problems (e.g. the presence of homeless people in the street). From the aspect of the community, the network works properly if, besides the people concerned, a wider public also feels satisfied about the way their taxes are utilised by the responsible persons – in other words, effective and smooth operation in this sense means lack of problems.

At the second, network level the effectiveness of the organisations is determined by measuring how the members (service providers) concerned are functioning as a network and how the emerging organisational and transactional costs are distributed. In case of informal collaboration, these costs are distributed among the network members. As for networks financed from a central budget, the so-called network administrative organisation (NAO) is responsible for management and coordination. Several studies emphasise that NAOs play an important role regarding transparency, accountability and common fulfilment of the objectives, as well as the officers with operating and monitoring tasks (PROVAN et al. 2005; HUANG & PROVAN 2006).

The third, organisational/participant level is the closest to the classical network approach, since here effectiveness is measured by examining the strength of the relationships between the actors across the whole network. These relationships, their role, strength and content include both intra- and inter-organisational work relationships. (For a summary table of the three levels see: PROVAN & MILWARD 2001, 416.) The three levels of the human service organisations' network have to meet – obviously – totally different efficiency requirements, thus, what is useful and beneficent for one level might not be equally advantageous for the other two levels: for example, less state expenditure is useful for the *community* level, but implies more effort and stress at the *organisational/participant* level, which might eventually undermine the relationships between colleagues (PROVAN & MILWARD 2001).

There are no more than a few studies that render account of the practical utilisa-

---

6   Instead of the individual organisations, the entire system covering all organisations should be examined.

tion of the network results and of attempts to build real networks, taking into account theoretical knowledge. RAEYMAECKERS' (2010) research notes report the preparations of such an empirical research in Belgium that planned to measure the network efficiency of the social service providers by examining the intra-organisational integration of the network members, and later implementing the results. In their study, PROVAN and his co-authors (2005) compiled an assistance tool that took into account the network aspects as well. It contained a block of 8 questions and a survey form to gather information that would help community managers' work in areas like building community resources, and maintaining and reinforcing relationships between non-profit and civil organisations. Obviously, good intention alone is never sufficient; effective cooperation requires appropriate techniques to support network and personal relationships.

2.2. Child protection: safeguarding systems

Neither the objective nor the scope of this study allows giving a comprehensive insight into the current situation and organisational structure of child protection in Europe. Therefore it is limited to a summary of the information relevant for our thesis. On the European horizon, child protection has different roots, but the practices show great similarities. Similar solutions are facilitated by several international agreements; the *Convention of the Rights of the Child* (General Assembly of the United Nations 1989) is a fundamental document approved by all member states. It is a common European objective to keep the child in his/her own family as long as possible. In recent years, children have needed protection mainly due to negligence within the family and/or abuse by their parents (SCHWEPPE 2002).

Very few scientifically founded studies have been written so far on the actions to provide protection for children, states SCHWEPPE (2002) in his already quoted work. In a brief consulting report of the European Social Network (2010) – a network of independent social organisations[7] –, a group of European experts emphasised the priority of a systematic collection of information and an interorganisational cooperation as the main challenge. From this document, the Czech example – similar to the Hungarian safeguarding system – is worth mentioning. In the Czech Republic, children's services are regulated in the framework of 'sociolegal protection'. They should be alerted when a child seems to be in an emergency situation. Sociolegal protection services are free, they include shelters for mothers and children, accommodation for children in case of an emergency, counselling, probation programmes for young offenders and leisure and educational activities such as family planning. Children with special needs are also assisted by social workers who work in partnership with teachers, judges, probation officers, policemen, psychologists, etc. Social

---

[7]   Members of the network include directors of welfare and social service provider and supplier organisations grouped at the level of local governments, countries and civil organisations.

workers also assist parents in order to guarantee a positive environment for children. In the UK, child protection was based on the *Children Act* (1989). However, numerous child abuse cases over the previous two decades have prompted a series of overhauls to child protection procedures, and after a fatal case in 2004 a new *Children Act* was put into force.

> The changes it put in place included scrapping child protection registers in favour of child protection plans and creating an integrated children's computer system (ICS) to ensure information was more routinely and robustly collected. Structural changes included creating the post of a director of children's services in each council who would ultimately be accountable for the safety of all children in their area. A common assessment framework was created so practitioners within health, education and the police could instigate better support for families not deemed to reach child protection thresholds. Local safeguarding children boards were also set up taking on the responsibility for multi-agency child protection training and investigating the causes of deaths and incidents of serious harm which may have been preventable in their area.   ('Child Protection' 2011)

In Ireland, the *Children First Guidance* (Department of Children and Youth Affairs 2011), launched on 15 July 2011, is the National Guidance that promotes the protection of children from abuse and neglect. It states what organisations need to do to keep children safe, and what different bodies and the general public should do if they are concerned about a child's safety and welfare. The Guidance sets out specific protocols for HSE (Health Service Executive) social workers, Gardaí (police force) and other front-line staff in dealing with suspected abuse and neglect. This national guidance sets out the particular statutory responsibility of the HSE Children and Family Services and An Garda Síochána (Guardians of the Peace of Ireland) when they are alerted to concerns about the welfare and safety of a child.

The broader group of health, educational and other professionals and organisations including voluntary groups whose work brings them into contact with children and families also have a responsibility to be aware of the signs, symptoms and possibilities of neglect and abuse. They need to share their concerns or seek advice from the HSE, file a formal report and cooperate in whatever way possible, including attending meetings, in order to share information and contribute to good decision making. In an emergency situation, the Gardaí should be informed of children at risk. The wider community of relatives, friends, and neighbours are well placed to be aware of a child's welfare and need to know how to respond to ensure the most effective steps are taken to protect a child.

The Hungarian Safeguarding System is based upon Act XXXI of 1997[8] on Child Protection and Child Welfare Administration, which enumerates the responsibilities of child welfare services and members of the detection and alert system. According to the Child Protection Act, partners of the safeguarding system are obliged to cooperate and share information in order to help children grow up in their own family, as well as to prevent and eliminate risks that might affect them. Effective-

---

[8]   *1997. évi XXXI. törvény.*

ness of the safeguarding system is guaranteed not only by the coordination of child welfare services but also by the cooperation of the partners.

Members of the safeguarding system include health care service providers, especially childcare officers, general practitioners, paediatricians, family support services, educational and training institutions, pedagogical advisors, policemen, probation supervision officers, judges, crown counsels, victim assistance officers, refugee stations as well as social organisations, churches and foundations. The above-listed organisations and individuals are obliged to inform the child welfare service of children at risk and initiate an official procedure in case of abuse, serious negligence or any other circumstance that causes serious exposure of the child or the child's own self-endangering behaviour. Any citizen or social organisation representing the child's interests can report or take such initiative. According to an amendment in effect from 1 September 2009, should a person defined in the Child Protection Act as member of the safeguarding system fail to fulfil their obligation of reporting or cooperating, the child protection office – upon being reported or taking an authoritative action – notifies the person of disciplinary powers, and proposes to initiate a disciplinary action against the person in concern. In case a crime committed against the child is suspected, the guardianship authority will prosecute an action.

3. Method

3.1. Background

In 2009, the Faculty of Social Work of the Veszprém Archiepiscopal College of Theology carried out a survey on the safeguarding system of children (DÁVID & MAGVAS 2011) on behalf of the Municipality of the City of Veszprém,[9] in collaboration with the Family Support Service, Child Welfare Centre and Temporary Family Care Home of Veszprém. Similarly to the Belgian approach (RAEYMAECKERS 2010), our main aim was to provide the Municipality with a final report on which implementations such as increasing the effectiveness of the safeguarding network system can be based on.

The survey consisted of two parts: structured in-depth interviews[10] with selected members of the safeguarding system and the social network analysis based on the respondents' work relationship network. Out of the 120 persons who could be identified as a member of the safeguarding system in accordance with the Hungarian Child Protection Act, 58 persons were chosen from the different professional groups

---

[9]   Approximately 64,000 inhabitants.
[10] The in-depth interviews were structured around five topics: work description, position in the child safeguarding system, contact with the Child Welfare Service, detailed account of one case and suggestions on how to improve the system.

(institutions).[11] We made sure that the respondents in our sample worked in numerous organisations and held different positions unlike in most inter-organisational network studies where usually key informants or leaders of the chosen organisations are asked about the relations/collaboration between the agencies (PROVAN & MILWARD 1995; PROVAN & SEBASTIAN 1998; GUO & ACAR 2005; PROVAN et al. 2005). For data analysis we used the most common network software package UCINET (BORGATTI et al. 2002). For visual representation of network participants and the links among them we used NetDraw, the plotting feature of UCINET (BORGATTI 2002).

3.2. Child Welfare Service as a Network Administrative Organisation (NOA)

In Hungary, based on Act XXXI of 1997, Child Welfare Services could be considered as network administrative organisations (NAOs), assigned by law to be the competent organiser and coordinator of the child protection system and also mandated to train other members with no or little knowledge about the social and child protection systems (PROVAN & MILWARD 2001). Since effective coordination cannot be achieved by simply following the rules and regulations, neither is it assured that individuals will automatically possess the basic abilities and skills needed to cooperate; there are big differences in how effective human service systems are on the network level (PROVAN & MILWARD 2001; *GYJSZ* 2010). Based on his investigations, the parliamentary commissioner for civil rights reported that in many cases the functioning of the safeguarding systems is primarily based on the personal and rather informal relationships of the workers (SZABÓ 2010).

In Veszprém, the partner organisations of the safeguarding system had initiated the establishment of a more efficient and effective network, and coordinated their activities in a more targeted and conscious way. They seemed to realise that cooperation cannot be taken for granted, and as a skill, it can and has to be acquired by the members in the child protection network. In 2003 the Child Welfare Service of Veszprém, the administrative organisation, started to set up an inter-organisational network system by holding multidisciplinary meetings, creating teams for case discussions, calling together conferences on incidents, and holding child protection consultations. The Centre gradually involved the representatives from different professions. They made rather spontaneous attempts to reach and coordinate members of this system comprising more than 100 people in a more efficient way. The Centre occasionally invited a health visitor, a youth protection officer and a paediatrician. Often, less than half of the invitees attended these occasions so the members of the system did not meet. Other times, based on the needs claimed by the partners of the safeguarding system,

---

[11] Namely: 12 workers from the Child Welfare Service; 11 health visitors; 9 paediatricians; youth care officers from educational institutions: 3 from nurseries, 3 from preschools, 4 from primary schools and 3 from high schools; 6 people who are heads of educational and pedagogical institutes; the director of Child and Adolescent Psychiatry; director of the Pedagogical Service and that of the Office of Justice; 2 probation supervision officers; one worker of the victim support office; and one worker of a charity organisation.

representatives of professions related to a similar age group – nursery, kindergarten – were invited. Mobilising the members of the system was troublesome right from the beginning: usually the same members were attending the meetings, and the rest of them were passive. This kind of disinterest and lack of motivation[12] are problems that the social sector had detected and reported for years, and no significant improvement had been achieved in the country (SZABÓ 2010). As a general experience, cooperation of the partners remained problematic due to the different terminologies used by each profession: the concept of risk or the question of competency boundaries had always been subject to disputes. It is clear for all professionals that the elimination of hindrances in several areas is not possible simply on a local basis, by local effort. But at the same time, several tools and methods are available to strengthen integration and increase effectiveness within the frame of the given organisational network.

Apart from some statutory changes in 2009,[13] statistical data in *Table 1* demonstrate that the Child Welfare Service of Veszprém successfully managed to transform the safeguarding system into an organisational network: from 2004 through 2010, both the number of reports and that of the organisations reporting were continuously growing. In the period examined, the number of reports multiplied almost threefold: the majority of the reports registered were received from public educational institutions, which was also due to the regulation effective from September 2010 that obliged schools to report absences without leave.

Table 1
Number of signals/reports in Veszprém between 2004 and 2010

Safeguarding partners (Veszprém)	2004[*]	2006	2007	2008	2009	2010
Health care service providers (health visitors, clinical doctors and paediatricians)		15 (14)[**]	2 (2)	44 (12)	52 (34)	38 (36)
Social services providing personal care		14	15	34	86	18
Public educational institutions		32	36	59	58	135
Police		19	4	18	18	24
Probation supervision officers		7	12	13	9	5

[*] For this year, no broken-down statistics are available.
[**] Includes reports from health visitors only.

[12] This typically applies to medical professionals. There is a matter of prestige in the background: social professions represent a relatively new field, with young workers who are not easily accepted as supervisory authority in the safeguarding system. A positive achievement was that in 2006, the ombudsman called upon the president of the Hungarian Medical Chamber to observe their obligation related to the operation of the safeguarding system of children during medical training and development.
[13] From 2009, partners who miss reporting are prosecutable.

Safeguarding partners (Veszprém)	2004*	2006	2007	2008	2009	2010
Citizens		13	21	15	16	49
Social organisations, churches, foundations (from 2007)			19	17		2
Local government, notary (2007)			17	8	32	44
Public prosecution, law court (2009)					2	2
Victim assistance (2010)						2
Nursery (2010)						2
Temporary care providers/ temporary family care home (2010)						16
Total number of signals/reports	124	104	126	214	273	336

* For this year, no broken-down statistics are available.

3.3. Operation of the safeguarding system

We use social network analysis to explore the work relationship structure of the members of the safeguarding system and the organisational environment where the safeguarding system functions as a whole. We compiled the individuals' interactions with each other into two datasets, actually in two matrices, where each matrix outlines the patterns of the kinds of collaborations the 58 participants have with each other. We asked each person in the sample to choose those people from the list of the other 57 names with whom they have work relations. The collaboration network data allow us to make an analysis on the organisational level as well, since the persons involved in the research represent and interact on behalf of the organisations they work for. Based on the subject of collaboration, literature distinguishes two types of relationships: administrative and client-level relationships. Administrative relationships include dealing with financial issues (for example, tenders and applications), organising common programmes and having a position in the committee. On the other hand, client-based relationships include personal ties established by members of an organisation via exchange of information, client reports or case coordination (LEMIEUX-CHARLES et al. 2005; RAEYMAECKERS 2010). In our research we focused on client-based relationships, we studied the work relation contacts (ties) between members of the safeguard-

ing system from two different aspects: advice sought and advice given.[14] Although these two types of situations (relations) may seem to be redundant[15] in view of the results of our pilot study[16] that had preceded this research, we decided to use and analyse the two situations separately.

In both situations we defined the contacts as directed ties. We did not handle the direction of the relations as automatically reciprocal, i.e. it is not necessarily true that if person A mentions person B, then person B would also mention person A in the same context. In literature, directed ties are sometimes defined as non-confirmed ties. A tie is not confirmed and the relation between two persons (nodes) is asymmetric and probably weaker since it is only one person naming the other, rather than both naming each other. Conversely, a tie is confirmed if the persons both name each other and are in a symmetrical relationship. 'Confirmed links are generally viewed as more reliable indicators of network activity, but nonconfirmed links can be quite useful in pointing out the existence of weak ties and areas that a network might want to strengthen' (PROVAN et al. 2005, 606). In our analysis, to avoid any further misunderstandings, we only use the terms directed and non-directed ties.

There are different network measures to indicate how compact a network structure is[17] (PROVAN & MILWARD 1995). The most frequently used indicators are: density, degree (in-degree and out-degree), centrality, centralisation (this method is applied by several studies in the book). Density refers to cohesiveness of the network, and to the level how people/organisations are interconnected. It is the ratio of all possible and actual relations, and its value ranges from 0 to 1. A higher value means a network of higher density. Regarding their direction, relations can point to an actor (in-degree): if mentioned by a significant number of people, the actor can be considered of high prestige. He/she typically gathers and absorbs information – the latter when he/she does not have outbound relations. As an opposite, if it is the actor who names numerous other persons and has many outbound relations (out-degree) then he/she can be considered as an influential actor in the network. The opinion leaders, communicators or facilitators of a network are those actors who have a high number of both in-degree and out-degree ties. Centralisation shows the power and control structure of the network. Centrality measures refer to the positions occupied in the network, and their value ranges from 0 to 1. Higher values indicate people of central roles. There are three different indicators of centrality. Degree centrality indicates the number of direct relationships; closeness centrality refers to the number of steps the actor needs to access other indirectly related persons. Betweenness shows actors that are between many other persons: these actors play a role of mediator, and have

---

[14]   Two separate questions were asked from the participants: 'From whom have you sought advice/help during your work in the safeguarding system?' and 'Whom have you given advice/help during your work in the safeguarding system?'

[15]   If person A seeks advice from person B, then from person B's aspect it is advice given to person A.

[16]   In the pilot study, respondents handled the two types of questions independently and gave different, incompatible answers to them.

[17]   For more details, see any of the handbooks listed in the introduction.

power to control the resources of the network. Note that people considered central based on their betweenness measures do not necessarily have many direct connections. And finally, centralisation measures the strength of the position of those who are in the centre of special groups.

When analysing networks, one of the most sensitive tasks is to disclose the results to the people concerned. It is easy to imagine how a professional, possibly the head of an organisation reacts when facing the fact that the central position is occupied by other people who have actually turned out to be influential and dominant figures of the network. In order to prevent such inconveniences, names are never displayed on the graphs; however, according to our experiences, it is worth mentioning the names of people in key positions during workshops. To rethink their roles enables future collaboration for the benefit of the social organisation system or subsystems (professional groups).

4. Results

The partners of the safeguarding system surveyed have been distributed into 6 professional groups indicated herein with the symbols below (*Table 2*).

Table 2
Legend

Members of the Safeguarding System by profession	
Social worker in the Child Welfare Centre[*]	■
Paediatrician	●
Health visitor	▲
Other professionals (probation officers, etc.)	+
Head of organisation *(nursery, preschool, school)*	▼
Child and youth care officer	◆

[*] At the time of data recording, it was already called Child Welfare Centre.

For the two situations represented in *Figure*s *1* and *2*, the sizes of the symbols indicate respondents in central positions across the network. From the three centrality measures, betweenness is used to explore the individuals who are the main communicators in the network. Analyses have demonstrated that those with a strong communicator role within the safeguarding network have important positions by

other network indicators as well: they have extensive connections and easy access to the other members of the safeguarding system.

In the figures, the direction of the lines linking the individuals can be of two types:

1. Directed ties (grey) – here the relation is asymmetric, there is no reciprocity.

2. Un-directed ties (black) – in this case the relation is symmetric, there is reciprocity.

The spatial position of the individuals within the network can be examined from different aspects. We have used the MDS (Multidimensional Scaling) method where actors of similar relationship structures are placed close to each other.
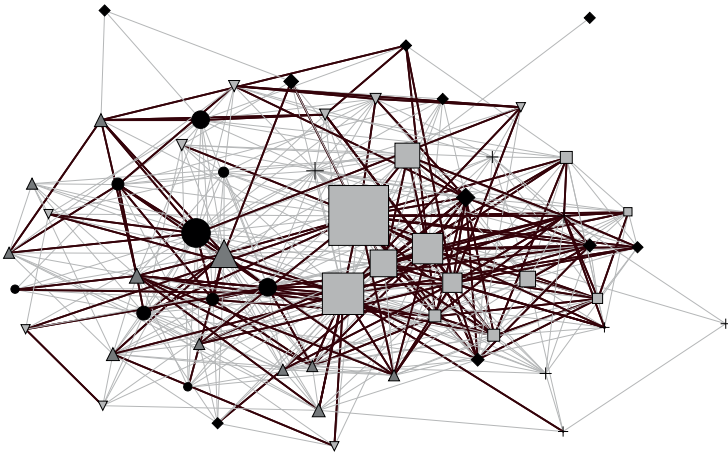
Figure 1

Social network of the safeguarding system when *advice was sought*

The social networks shown in the two *Figure*s (*1* and *2*) have in common that *there are no isolated individuals*; everybody has at least one link to someone else. The density of the network, especially in the situation of *seeking advice*, is relatively high, 0.18. This means that 18% of all possible links in the total network are active. As for *giving advice*, the density of the network is lower (the activity rate is lower), the value of the density ratio is 0.11 (11% of all possible ties are active). Our results are similar to the ones of the survey lead by HUANG and PROVAN (2006) where the density indicator of the network of mental health organisations – based on a wider range of situations – was between 0.05 and 0.16.

The links among the actors are not evenly distributed;[18] they are apparently clustered around two groups. The network centrality has especially high values, 43% and 46% respectively, for the influencing (out-degree) relations. This means that

---

[18]   Density indicators are associated with high standard deviation values (0.38 and 0.32).

there are a few key persons in both networks who seek advice from or give advice to many other partners. This kind of centrality is less in prestige (in-degree) relations. In this case the network is less centralised.

Comparison of dynamics in the two figures: As for the situation when advice was sought (*Figure 1*), the network seems to be a *diverging system* where two influential cores can be seen. Apparently, colleagues of the Child Care Centre form a coherent, strong and dominant group (grey squares), they can rely on each other, are open to the other groups, have great influence, have direct access to all groups, and are a kind of bridge (for example toward the group of Other Professionals). So the safeguarding system is operated in an open-minded, efficient way as a proper NAO. The other core is based on the strong network of general practitioners and health visitors: a coherent, sovereign team that has weak work relationships with other organisations. It has significant influence only on other paediatricians and health visitors. In this sub-network, respondents marked plenty of mutual (reciprocal) ties, which is the sign of trust and sustainability.

As for the situation when advice was given (*Figure 2*), the network dynamics are different: this is a rather convergent network with a central core that is relatively extended, significant, but less dense and less cohesive. Just like in the previous situation, key figures of the core are the social workers of the Child Welfare Centre, plus one paediatrician and one health visitor. The graphs show quite clearly the – natural – cohesion between people of similar professions and their isolation from other groups. It is even more obvious from *Table 3* where the density measures of each group are calculated in the two situations examined.
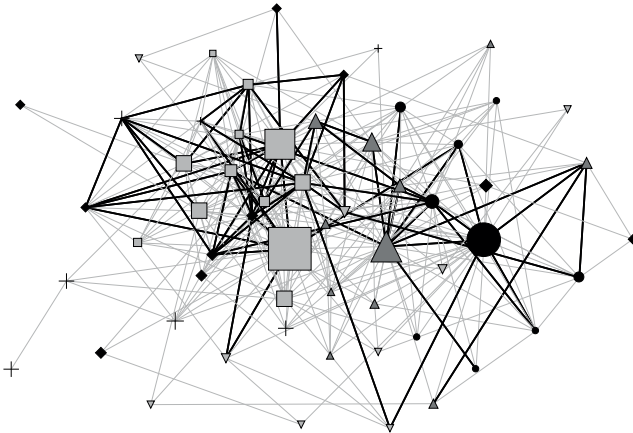

Figure 2

Social network of the safeguarding system when *advice was given*

Table 3
Inner cohesion (density) of the groups (%)

		Seeking advice	Giving advice
Child Welfare Centre	■	59	42
Paediatrician	●	44	34
Health visitor	▲	38	29
Other professionals (probation officer, civil organisation)	+	19	7
Head of organisation (nursery, preschool, school)	▼	16	5
Child and youth care officer	◆	10	4

In addition to the Child Welfare Centre as a group, paediatricians and health visitors also have groups of strong inner cohesion: in these three groups there are high numbers of mutual (reciprocal) relations. Regarding the other three groups, there is significantly weaker cohesion between their members, and they hardly have any relations in the situation of giving advice. This is due to the fact that people listed in the group of 'other professionals' have very diverse jobs (like a probation officer and a director of a civil organisation). These data again clearly show that the colleagues of the Child Welfare Centre play the role of communicators or bridges between these groups. In the case of the other two groups (directors of organisations, child and youth care officers), the lack of inner cohesion is rather due to the physical distance. (We suggest paying special attention to this aspect of these two groups.) Density indicators – at group level – can be calculated for connections between groups as well. *Figure 3* shows the direction and strength of the relations between the groups based on the indicator values.[19]

The group-level comparison shows that the network is much more active when it comes to seeking advice, and giving advice activates partners to a lesser extent. This result supports our decision to handle the two situations separately; underlying reasons of this phenomenon will be described later. Groups are frequently and intensively seeking each other's advice. Therefore it is extremely important to call attention to some unbalanced aspects. The most striking phenomenon – also experienced by the Child Welfare Centre – is the one-sided relationship between health practitioners and the Child Welfare Centre. Health professionals very rarely

[19] Arrows indicate relations with density values < 0.1 only. Thickness of the arrows represents the degree of density. The size of the circles shows the degree of cohesion (density) inside the groups.

contact the colleagues of the Centre, and almost only by phone. This one-sided relationship between the two organisations is most likely due to a matter of prestige: the medical community (especially older practitioners) is reluctant to accept a new, young discipline (sociology, social work) playing a leading role against a profession of long history and high prestige. The Welfare Centre, however, maintains strong mutual relationships with the other groups (including health visitors). In the case of giving advice, willingness to cooperate is much weaker in all cases. Although with less intensity, workers of the welfare centre have connections with all other groups, to the least degree with general health practitioners: the density of the relation does not reach 10%, as shown in *Figure 3*.
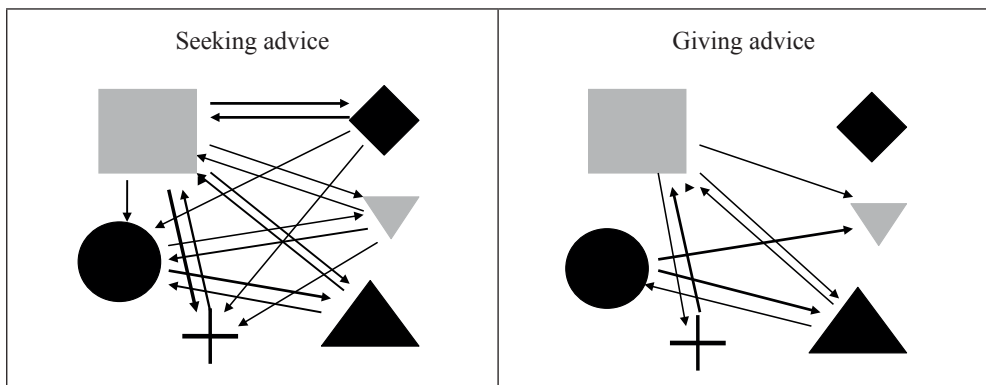
Figure 3

Relations between groups in the two situations examined

Persons that have an important, opinion-leading position across the whole social network do not necessarily play the same central role in their own professional group. That is why it is essential to examine these groups separately. Analyses shed light on those workers who are able to help strengthen cohesion inside and between the groups, and thus make the safeguarding system more effective in the future. Social workers of the Child Welfare Centre maintain a close and mutual relationship with each other. As for giving advice, 4 workers play important roles: one lady having one of the most important positions in the whole network, but losing its importance in her own professional group (*Figure 4*).[20]

---

[20]   The following six graphs represent special network structures of six professional groups in two situations. Women are indicated by circles, men by squares. Reciprocal, mutual relations are indicated by thick black lines, unilateral relations by grey lines. The size of the circles and the squares indicate the degree of centrality.
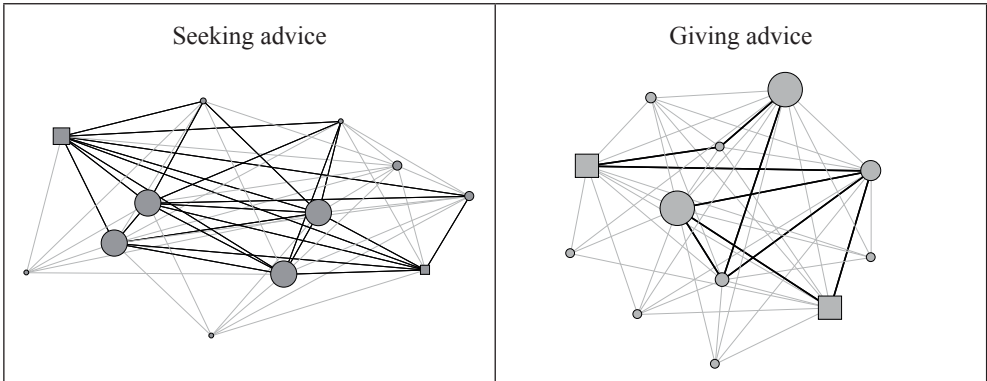
Figure 4
Social workers' network in the Child Welfare Centre

The group of paediatricians is characterised by fewer reciprocal connections. As for the situation of seeking advice, there is a strong axis (two ladies and a man) who hold together the network. It is their influence (out-degree ties) that unifies the group. As for the situation of giving advice, one doctor among the paediatricians can be pointed out as playing a central role in the network (*Figure 5*).
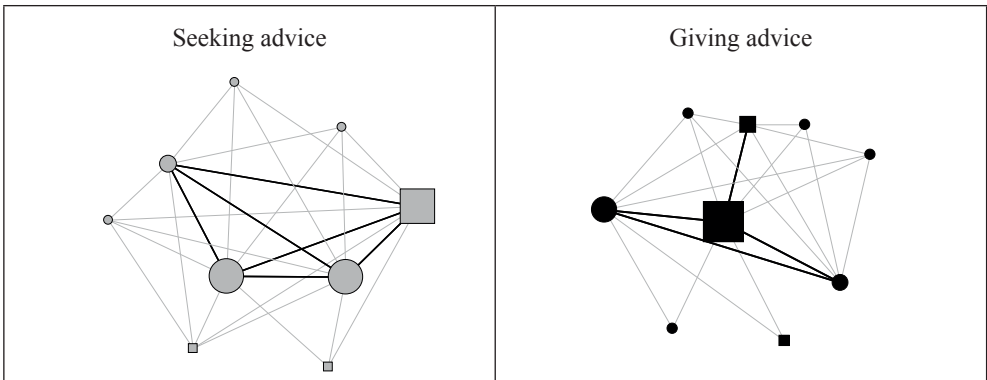

Figure 5
Paediatricians' network

Regarding health visitors, their network is also denser in the situation of seek-ing advice. Two ladies are central opinion leaders in both situations. Considering the three less active groups of the whole network, it is easy to see how many people remain isolated from the rest of their group (*Figure 6*).
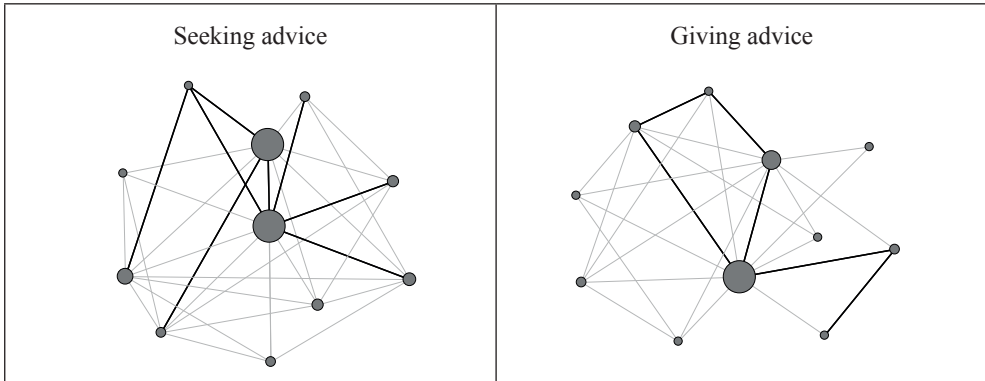

Figure 6
Health visitors' network

In the group of other professionals, it is important and interesting to note that there is one professional playing a central role: this person is worth paying attention to. In opposition to this, it is puzzling to see the obvious isolation of the child and youth care officers and the lack of communication within the group (*Figures 7* and *8*).
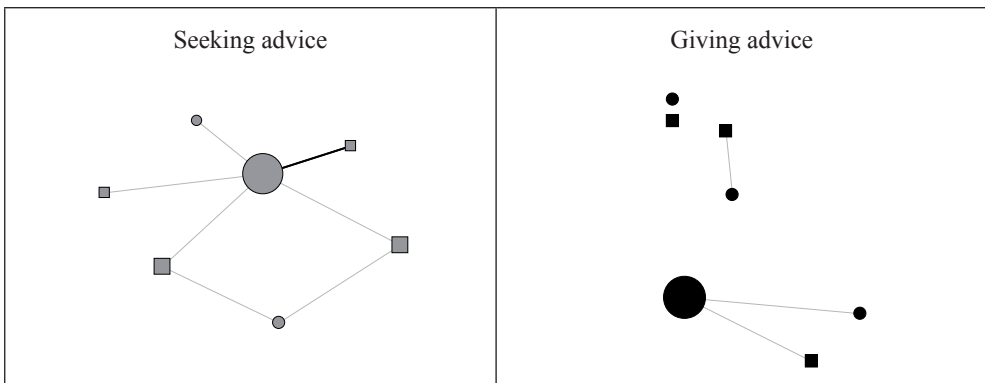

Figure 7
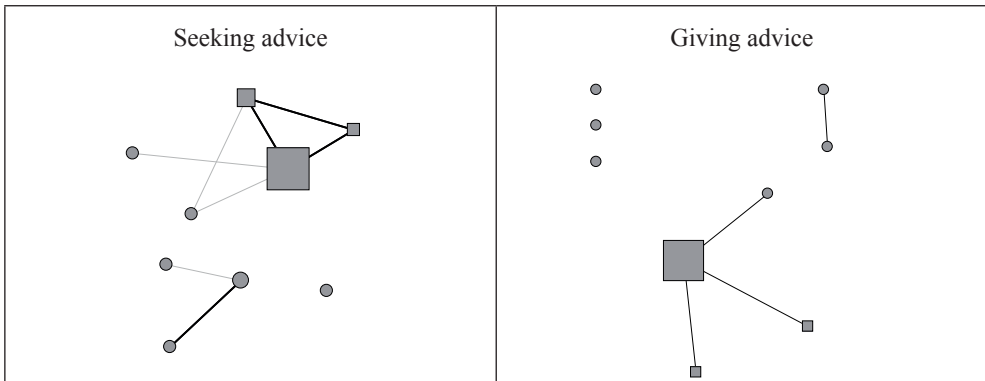Network of other professionals

Figure 8
Child and youth care officers' network

Supporting the statistical data shown previously in *Table 1*, the analysis of the safeguarding system has confirmed that the safeguarding activity carried out by the Child Welfare Centre for almost 10 years, especially the intensive efforts taken in recent years, have proved to be successful. The workers of the Child Welfare Centre have been operating the safeguarding system properly and efficiently as an NAO. They are well integrated into the system, having strong influence both when seeking and giving advice. The inner group cohesion of the Centre is high. Interviews have also shown that the majority of the safeguarding partners themselves have been satisfied with the safeguarding system, and based on their reports, the system has been developing and working in a better and more efficient way.

5. The future has begun: implementing the results of the survey

Most of the surveys finish at this point, or if not, the author gives some suggestions and outlines questions for further research (PROVAN et al. 2005). In our case, as a rare and lucky turn, after disclosing the results of the social network analysis, the director of the Child Welfare Centre introduced some changes in order to further improve the effectiveness of the safeguarding system. As a conclusion, aside from reporting the new steps taken during the structural transformation, we can also give account of some tangible results.

As researchers, we were interested in two questions:
1. How can research results be used, focusing primarily on the patterns shown by the social network analysis? What is the key of the success of an applied research?

2. What actions can an NAO of the safeguarding system locally take in order to improve the system, being aware that the harmonisation of training and development of the related professions as well as the interdepartmental cooperation at the level of the national professional policy is still oncoming? How far can a leader's personal competence extend in the context of the system?

We decided that, apart from delivering a written documentation of the social network analysis of the safeguarding organisations system, we would give a personal account and explanation of the results to the people concerned (staff of the Child Welfare Service). Based on our experiences, network data and graphs presented without any clarification may seem alarming for professionals who are new to this methodology, but some explanation may make the results absolutely clear and easily used for the system-based approach. When interviewed, the director of the organisation[21] pointed out the importance of disclosing the results and the shift in attitude that they experienced upon the presentation:

Director: 'I will not conceal the fact that there was reluctance on our part: so far, we have only received either direct praise or encountered total refusal. We have never seen a written study of suggestions like this before, supported by facts, justifications and descriptions. Everybody was pleased with the presentation of the research results, I also had an "aha" experience. It seems to have changed my – and I think my colleagues' – attitude. Since then, we have a different approach to the situation of certain actors; we are more supportive, trying to help them in their efforts, or acknowledging that they have made a good job on their own, and we could also build upon the same strengths.'

Social network analysis has made the structure of the entire safeguarding system clear for all. System-based approach has facilitated internal reorganisations and task reassignments with the aim of reinforcing relations operating efficiently and rethinking problematic relations.

Director: 'This survey has been the first to give us some idea of how safeguarding partners are operating here in Veszprém. It was very interesting to see it modelled, from the outside. I am not sure whether the research might have something to do with what we have been experiencing lately: as if partners we have had problems with before were showing signs of changing. They have become more helpful. Perhaps the interviews have made them open their eyes to their responsibilities and to the reasons why we are requesting information from them? Possibly the research has contributed to it, too. The concept of the social network has made it clear for me that effectiveness often depends on some very simple factors, for example, whether someone is able to build and operate his/her personal relationships in a proper way. This research can help us improve our job using our relationships. Social network analysis can be very useful for us to examine human relationships. It can be applied to organisational development at our own workplace. The analysis has also revealed

that some of our colleagues had unsuitable jobs or positions where they have been unable to work effectively, so we have carried out some reorganisation, and they have received new tasks and new opportunities.'

New realisations, new insights on the direction of the change and transformation emerged. Presentation of the research results stimulated people to do a brainstorming session:

Director: 'We read through some parts (of the research material) several times, reinterpreting them repeatedly with the colleagues involved, and each time new ideas, new insights came to us.'

Reorganisations affecting the operation of the safeguarding system have also taken place: during the preparation of the interdisciplinary meetings, key persons of related professional fields marked as important and influential people in the social network have been paid special attention. Since then, interdisciplinary case discussions have been held in a renewed form: these have become reorganised meetings of renewed content and structure. A favourable change concerning work acquaintances can be seen, too. The case discussions have provided opportunity to learn about each other's work, which resulted in the weakening of prejudices to a perceivable degree.

Director: 'We have come to the conclusion that trainings for a large audience are useful, but in addition to that, we will have to train the safeguarding partners in smaller groups. This decision has been made upon learning and understanding the results of social network analysis. We have become aware of the existence of some isolated partners in the town who are simply to be provided with opportunities and to be incorporated into our work through personal relationships, which is quite difficult in a town of nearly 60,000 inhabitants, where there are over 100 active safeguarding partners. A more direct, more personal work environment can only be achieved in small groups.'

Realisation of the problem was followed by action, and the Child Welfare Centre has developed a new method to motivate passive, isolated safeguarding partners:

Director: 'We have developed a new method. We have looked for topics related to the safeguarding of children that partners consider important. This required extra effort and a lot of time. Earlier it was a problem that we could only assign one fixed appointment that many people could not attend. Eventually, we tried to be more open and to make a more flexible time schedule. Safeguarding partners could choose from three topics. We received the research report in the spring of 2010, and in September of the same year we already established teams. We dedicated four days to two topics: temporary guardianship and prevention. In November we organised another four-day session. Youth protection officers, health visitors, probation officers from the notary office, child welfare agency, and nursery formed one team. So we managed to establish mixed groups of 10 to 15 people who discussed the cases. We presented cases that were then processed in an interactive way. It helped partners to learn about each other and each other's views. They even had the chance to try each other's jobs via an exchange of roles. Plenty of misunderstandings, biases and preconceptions were revealed that, interestingly, could be resolved in a second. It seems that with the help

of these teams we have quickly solved problems that had persisted for years. In fact we have chosen this kind of cooperation because research has shown us how many safeguarding partners had been maintaining one-sided relations or had been completely isolated. These teams have been offered opportunities to get to know each other, to intervene in the activities, and to feel really competent. Due to these occasions, they feel at home in our office and they feel more at ease contacting us. And they accept more easily the negative experiences they might face in relation to certain cases. They do not feel personally insulted anymore when they encounter an opposite opinion from our part. This is true vice versa; we are also more open to the different opinions and criticism. Since we have received really positive feedback from safeguarding partners, we continue with this approach in 2011 as well. We already have an agenda for 2011: addiction in the family, placement under guardianship, mental disease in the family, competency boundaries – issues emerged during the research that also need attention. In the meetings, we have also realised the lack of knowledge in certain areas, and we would like to help this by processing the selected topics.'

Based on the model developed, an application has been submitted to the Department of State for Social, Family and Youth Affairs, Ministry of National Resources with the title 'Case Discussion Forum as a Means of Effective Safeguarding of Children'.

Director: 'Our "best practice" has been appreciated by the Ministry. Our organisation has been granted an award for the above-described form of cooperation. As we also mentioned in our application, the research inspired us to change the way the safeguarding system had been operated and to take the direction suggested by the research.'

The social network analysis shed light on the totally isolated situation of the youth care officers. In order to involve them, the Child Welfare Centre took charge of drawing together this team, also providing room for their meetings within the establishment. After an internal reorganisation, one of the child welfare workers[22] received the task of establishing closer relationships with the educational institutions and of arranging regular meetings for the youth care officers until their professional group would become strong enough for self-management.

Director: 'By now they (youth care officers) have become self-sufficient; one of our colleagues now and then intervenes in their activity when we have a programme specifically for schools. They hold meetings on a monthly basis and also on demand. . . . They are not isolated anymore. A new research carried out today would show a different picture. I am sure they are more self-confident, which can be seen in the way they communicate. They contact other professionals more easily, because they already know them. Personal contact makes a difference. It was also promoted by safeguarding teams.'

Finally, the head of the organisation felt motivated by the research documentation to make further changes and plans:

---

[22] This worker was also chosen with the help of the correspondent graph of the social network analysis.

Director: 'Health care is another area of high priority. This research material has made me change my approach. I could imagine launching something new, something better. The research has shown the key physicians who would perhaps be able to motivate the other physicians to think together. This issue is on the agenda. Another important area that was not included in the research, probably with reason, is police services, including policemen and the law court. This must be a prioritised area. Currently we are on separate paths; often we are working side by side, but still not together. Those involved in the research, however, have been willing to follow the same path, in spite of all drawbacks and difficulties. On the other hand, police and courts are more separated from child protection activity and approach than other safeguarding partners. There are several reasons for this; it would be interesting and useful to dedicate a separate research to explore them. Most likely, it would be enough to carry out some small changes and shifts in the system; as we know via some personal acquaintances, children at risk matter to the workers of those bodies, too.'

6. Conclusion

The main purpose of our study was to prove that applied research projects are necessary inasmuch as they are beneficial to the 'client' as well, who should not only read but also understand the results, and not only request a study but also use its outcome. In the social sector, reducing the gap between research and practice has high priority. In our view, it is an excellent example for the representatives and workers of human professions how the operator of the safeguarding system has rethought relations revealed through, as well as suggestions and possibilities of change inspired by the social network analysis, and has accomplished their goals successfully by following the direction shown by the research. Instead of waiting for instructions from 'superiors' and requesting financial support, the director of the organisation, relying upon local resources, has reinforced her own organisational position (prestige), while enabling the entire organisational network to improve their effectiveness and quality of service. And thanks to the improved cooperation, relations of the safeguarding partners have also strengthened.

References

1997. évi XXXI. törvény: A gyermekek védelméről és a gyámügyi igazgatásról (1997) retrieved 1 April 2010 from *Complex Hatályos Jogszabályok Gyűjteménye*, http://www.complex.hu/jr/ gen/hjegy_doc.cgi?docid=99700031.TV&kif=gyermekek+v%E9delme#xcel.

AGRANOFF, R. & M. McGUIRE (2001) 'Big Questions in Public Network Management Research', *Journal of Public Administration Research and Theory* 11, 295–326.

ALBERT, F. & B. DÁVID (2007) *Embert barátjáról: A barátság szociológiája* (Budapest: Századvég).

BARABÁSI, A.-L. (2002) *Linked: How Everything is Connected to Everything Else and What It Means for Business, Science, and Everyday Life* (Cambridge, MA: Perseus).

BARABÁSI, A.-L. (2010) *Bursts: The Hidden Pattern Behind Everything We Do* (New York: Penguin).

BARABÁSI, A.-L., R. ALBERT & H. JEONG (1999) 'Mean-Field Theory for Scale-Free Random Networks', *Physica A: Statistical Mechanics and Its Applications* 272, 173–87.

BARABÁSI, A.-L., R. ALBERT & H. JEONG (2000) 'Scale-Free Characteristics of Random Networks: The Topology of the World-Wide Web', *Physica A: Statistical Mechanics and Its Applications* 281, 69–77.

BORGATTI, S.P. (2002) *NetDraw: Graph Visualisation Software* (Harvard: Analytic Technologies).

BORGATTI, S.P. & P.C. FOSTER (2003) 'The Network Paradigm in Organizational Research: A Review and Typology', *Journal of Management* 29, 991–1013.

BORGATTI, S.P., M.G. EVERETT & L.C. FREEMAN (2002) *Ucinet for Windows: Software for Social Network Analysis* (Harvard: Analytic Technologies).

CASTELLS, M. (2005) *A hálózati társadalom kialakulása: Az információ kora: Gazdaság, társadalom és kultúra*, trans. A. ROHONYI (Budapest: Gondolat & Infonia).

'Child Protection' (2011) *Community Care* website, retrieved 15 August 2012 from http://www.communitycare.co.uk/Articles/07/01/2011/48564/child-protection.htm.

Children Act (1989) retrieved 1 April 2010 from http://www.legislation.gov.uk/ukpga/1989/41/contents.

DÁVID, B. & M. MAGVAS (2011) 'A munkakapcsolat határozza meg a jelzőrendszert: Az észlelő- és jelzőrendszer működése Veszprémben', *Esély* 5, 11–30.

Department of Children and Youth Affairs (2011) *Children First: National Guidance for the Protection and Welfare of Children*, retrieved 15 August 2012 from http://www.dcya.gov.ie/documents/child_welfare_protection/ChildrenFirst.pdf.

European Social Network (2010) 'Consultation on the European Commission's Communication on the Rights of the Child (2011–2014)', retrieved 15 August 2012 from http://ec.europa.eu/justice/news/consulting_public/news_consulting_0009_en.htm.

FREEMAN, L.C. (2004) *The Development of Social Network Analysis: A Study in the Sociology of Science* (North Charleston: BookSurge).

General Assembly of the United Nations (1989) *Convention on the Rights of the Child*, retrieved 1 April 2010 from http://www.hrweb.org/legal/child.html.

GUO, C. & M. ACAR (2005) 'Understanding Collaboration among Nonprofit Organizations: Combining Resource Dependency, Institutional, and Network Perspectives', *Nonprofit and Voluntary Sector Quarterly* 34, 340–61.

HANNEMAN, R.A. & M. RIDDLE (2005) *Introduction to Social Network Methods* (Riverside: U of California).

HASENFELD, Y. (1983) *Human Service Organizations* (Englewood Cliffs: Prentice Hall).

HASENFELD, Y. (1985) 'Community Mental Health Centers as Human Service Organisations', *American Behavioral Scientist* 28, 655–68.

HUANG, K. & K.G. PROVAN (2006) 'Resource Tangibility and Patterns of Interaction in a Publicly Funded Health and Human Services Network', *Journal of Public Administration Research and Theory* 17, 435–54.

KLIJN, E.-H. & J.F.M. KOPPENJAN (2000) 'Public Management and Policy Networks: Foundations of a Network Approach to Governance', *Public Management* 2, 135–58.

LEMIEUX-CHARLES, L., L.W. CHAMBERS, R. COCKERILL, S. JAGLAL, K. BRAZIL, C. COHEN, K. LECLAIR, B. DALZIEL & B. SCHULMAN (2005) 'Evaluating the Effectiveness of Community-Based Dementia Care Networks: The Dementia Care Networks' Study', *Gerontologist* 45, 456–64.

McPherson, M., L. Smith-Lovin & M.E. Brashears (2006) 'Social Isolation in America: Changes in Core Discussion Networks over Two Decades', *American Sociological Review* 71, 353–75.

Provan, K.G. & H.B. Milward (1995) 'A Preliminary Theory of Interorganisational Network Effectiveness: A Comparative Study of Four Community Mental Health Systems', *Administrative Science Quarterly* 40, 1–33.

Provan, K.G. & H.B. Milward (2001) 'Do Networks Really Work? A Framework for Evaluating Public-Sector Organizational Networks', *Public Administration Review* 61, 414–23.

Provan, K.G. & J.G. Sebastian (1998) 'Networks within Networks: Service Link Overlap, Organisational Cliques, and Network Effectiveness', *Academy of Management Journal* 41, 453–63.

Provan, K.G., M.A. Veazie, L.K. Staten & N.I. Teufel-Shone (2005) 'The Use of Network Analysis to Strengthen Community Partnerships', *Public Administration Review* 65, 603–13.

Raeymaeckers, P. (2010) 'Working Together? Social Integration and the Effectiveness of Networks among Human Service Organizations', *European Journal of Social Work* 13, 561–66.

Schweppe, K. (2002) 'Child Protection in Europe: Different Systems – Common Challenges', *German Law Journal* 3:10 (Oct), retrieved 26 June 2011 from http://www.germanlawjournal.com/article.php?id=196.

Scott, J. (1991) *Social Network Analysis: A Handbook* (London etc.: Sage).

Szabó, M. (2010) *Az állampolgári jogok országgyűlési biztosának jelentése az AJB-2227/2010. számú ügyben*, retrieved 26 June 2011 from http://www.obh.hu/allam /aktualis/pdf/jelentes_201002227.pdf.

Szociálpolitikai és Munkaügyi Intézet (2010) *Gyermekjóléti szolgáltatás (GYJSZ): A jelzőrendszer működtetése*, Working paper, retrieved 26 June 2012 from http://www.modszertanszekszard.hu/szakmai_anyagok/modernizacio_hu%20anyagok/gyjsz_jelzorendszer_2010majus.pdf?page=dokumentum&piller=24&dokid=133.

Udvari, K. (2011) 'Kapcsolathálózati megközelítés a szociális munkában', *Esély* 5, 100–17.

Wasserman, S. & K. Faust (1994) *Social Network Analysis Methods and Applications* (Cambridge etc.: Cambridge UP).