Developing an inter-organizational community-based health network: an Australian investigation

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SUMMARY

Networks in health care typically involve services delivered by a defined set of organizations. However, networked associations between the healthcare system and consumers or consumer organizations tend to be open, fragmented and are fraught with difficulties. Understanding the role and activities of consumers and consumer groups in a formally initiated inter-organizational health network, and the impacts of the network, is a timely endeavour. This study addresses this aim in three ways. First, the Unbounded Network Inter-organizational Collaborative Impact Model, a purpose-designed framework developed from existing literature, is used to investigate the process and products of inter-organizational network development. Second, the impact of a network artefact is explored. Third, the lessons learned in inter-organizational network development are considered. Data collection methods were: 16 h of ethnographic observation; 10 h of document analysis; six interviews with key informants and a survey (n = 60). Findings suggested that in developing the network, members used common aims, inter-professional collaboration, the power and trust engendered by their participation, and their leadership and management structures in a positive manner. These elements and activities underpinned the inter-organizational network to collaboratively produce the Health Expo network artefact. This event brought together healthcare providers, community groups and consumers to share information. The Health Expo demonstrated and reinforced inter-organizational working and community outreach, providing consumers with community-based information and linkages. Support and resources need to be offered for developing community inter-organizational networks, thereby building consumer capacity for self-management in the community.

Key words: inter-organizational networks; inter-organizational collaboration; community impact; consumer self-management

INTRODUCTION

The idea of a networked society has emerged as a new concept to explain influences and interactions of economic, social, political and health activity (Castells and Cardoso, 2005; Bang and Esmark, 2009). Networks serve to couple managerial and supervisory processes with ‘reflexive expert citizens and everyday makers’ (Bang and Esmark, 2009, p. 8). In doing so, this concept promotes a vision of network governance as serving a public purpose (Bang and Esmark, 2009). Although a wide range of formal networks exist between professionals within the health system (Cunningham et al., 2012), evidence about the way networks develop, which includes consumer and community perspectives, is currently limited. Initiatives to foreground the voices of consumers,
and promote empowerment of choices, do not fit easily within existing healthcare policy due to inequities of social, economic and political resources (Tomes, 2006). Thus, networked associations between the healthcare system and consumers or consumer organisations tend to be fragmented and are fraught with difficulties (Bernstein, 2006). This study addresses this issue via three aims. First, it investigates the development of a community-based open-ended self-management health network in the light of a model developed from the literature, that is, the Unbounded Network Inter-organizational Collaborative Impact Model (UNICIM). Second, it explores an artefact of the network for impact on the community via consumer responses. Third, it derives lessons learned in Inter-organizational network development.

The network concept
Networking has increasingly been recognized as an important activity in our society (Castells and Cardoso, 2005). Knowledge, technology, social, political, special interest groups and industry networks are all part of the societal landscape (Ozman, 2006). There is a prevailing view that the integration of activities and services via networks will reduce fragmentation and provide greater coordination of public services (Perri et al., 2006; Ferlie, 2010), in turn ensuring that public programmes meet community needs (Turrini et al., 2010). However, despite these optimistic views, limited and fragmented literature exists about the determinants of network effectiveness (Turrini et al., 2010). Exploring the workings and contributions of networks and associated inter-organizational collaborations is a complicated endeavour, and inherent power relationships need to be addressed (Martin et al., 2005; Peckham et al., 2005). Network analysis is shaped by a wide variety of terminology, disciplines, research paradigms, theoretical perspectives, and sector viewpoints (Huxham, 2003).

A synthesized network definition is as follows (O’Toole, 1997; Porter and Powell, 2006; Best and Holmes, 2010; Sheaff et al., 2010a; Turrini et al., 2010). A network is a group of multiple entities which are tied together with some form of structural peer-to-peer interdependence and common interest. They jointly coordinate their activities without subordination and form relatively stable, flexible working relationships. A network is characterized by open-ended relationships and distributed tasks requiring input from several members. Networks typically help with knowledge translation and promote diffusion and sharing of information and resources.

In the health sector, networks have come under increased scrutiny, with a view to investigating their capacity to assist, or hinder, practice developments, service delivery, policy and research (Lemieux-Charles et al., 2005; Bernier et al., 2006; Hoeijmakers et al., 2007). The problem of fragmented services has been addressed though ‘a network of integrated provider organisations’ [(Provan et al., 2003), p. 648]. Health networks show promise in improving quality and safety in health care (Cunningham et al., 2012). Networks improve patient care via integration of health and supporting human services in order to better meet the needs of consumers, reduce overlap and waste, and improve chronic disease service delivery (Provan et al., 2003). In addition, interprofessional collaboration (IPC), itself a form of networking, may enhance learning and practice in health delivery (Greenfield et al., 2011a, b). While offering positive benefits, tension exists over the idea of open and bounded networks, which may be informal or officially mandated. Public policy and clinician-driven mandated health networks exist (Kegler et al., 2008; Ferlie et al., 2011). However, non-mandated networks may be created voluntarily and beyond official control (Walker, 1992; Sheaff et al., 2010a). Multi-organizational community networks are acknowledged as being difficult to establish and sustain (Provan et al., 2005), with tensions existing between individual and composite interests (Bernier et al., 2006; Hoeijmakers et al., 2007). Active community resistance to engagement may occur (Popay et al., 2007). The development and implementation of network initiatives in the health sector remains complex and under-studied (Braithwaite et al., 2009a,b; Best and Holmes, 2010). Typically, existing health network research has focused on describing the network and the relationships between participants at organizational levels [see, for example (Provan et al., 2005; Luke and Harris, 2007)]. Investigating the driving factors and hindrances to network emergence and formation are topics requiring attention.

The consumer perspective
Existing research about health networks has typically taken a health-provider perspective, rather than the viewpoint of the consumer and their representatives. A need to increase mutual
awareness, to reduce barriers and to enhance resource sharing between health service and community organizations has been identified (Milne et al., 2004). Professionals may learn from the interactive behaviour of consumers, who often appear to move seamlessly between formal and informal health services. Consumers transitioning from acute hospital care to community living express a need for more resources to manage in the community, and are reluctant to bother health providers with their problems (Gage et al., 1997). For example, the life world of the consumer with chronic pain has been described as ‘shrunk’en, with their freedom greatly constricted by a daily focus on overwhelming bodily pain (Thomas, 2000). This leaves the consumer in a vulnerable position and requiring assistance within their community. Community organizations have the potential to access and support consumers and in turn to represent their self-management networking needs. There have been calls for active support of consumers and representative consumer groups in network development, and recognition of their fundamental importance (Germann and Wilson, 2004; Gold et al., 2005; Swan, 2009). Studies linking community engagement to successful health outcomes are scarce (Popay et al., 2007). Demonstrating the impact of the intersection of community and professional health networks on population or client outcomes is not well established (Provan et al., 2005). As Luke and Harris [(Luke and Harris, 2007), p. 86] state, ‘we know very little about how social networks shape health communication among family members, friends, health professionals, and community organizations’. Consequently, incorporating the role and activities of consumers and consumer groups into an understanding of inter-organizational health networks, and the impacts of networks, is a timely endeavour.

**Studying networks**

Our unique approach to studying networks is to simultaneously draw upon theories of inter-organizational culture (Schein, 2004; Porter and Powell, 2006) and collaborative advantage (Huxham, 2003). Organizational culture itself encompasses a rich literature crossing many fields including health care [for example (Bellou, 2007; Braithwaite et al., 2010; Greenfield, 2010; Kirkley et al., 2011; Hunt et al., 2012)]. Organizational culture may be characterized as having three levels: artefacts; espoused values and basic underlying assumptions (Schein, 2004), and this is the approach which we have taken for this study. In this schema, artefacts are understood as being anything produced by the group, and every facet of a group’s life is seen to produce artefacts. Artefacts provide empirical evidence of the network (Schein, 2004; Sheaff et al., 2010a,b). Artefacts may include both physical items produced by the group and social artefacts, such as a skill swap scheme, organized talks and events leading to increased uptake of a service (Sheaff et al., 2010a,b). Espoused values relate to a sense of ‘what ought to be’, whereas basic underlying assumptions are the consensus reached about preferred solutions or ‘theories in use’ [Schein, 2004], p. 31]. A network where member organizations have different cultures, but share goals or tasks, can lead to ‘cultural blending’ or a ‘cultural mosaic’ [(Sheaff et al., 2010a), p. 140]. The production of an artefact from a blended organizational network is least well understood, and this research seeks to illuminate this issue. Such an artefact needs to represent and demonstrate the culture and effect of the blended network. The theory of collaborative advantage (Huxham, 2003), or inter-organizational collaboration, explains how different entities interact and the difficulties of doing so effectively. Five key themes in this theory are considered: common aims; power; trust; membership structures and leadership. Clear sets of common aims form a starting point in the collaborative agenda. The enactment of power influences ways in which collaborative activities are negotiated and carried out. Building a trusting relationship between organizations involves expectations about the future of the collaboration based either on reputation or past behaviour. Collaborative arrangements in practice are reflected in membership structures, which remain complex and dynamic due to the changing focus of an ongoing collaborative agenda. Leadership is the mechanism to ‘make things happen’ in a collaboration, and relates to the formation and implementation of the collaboration’s policy and activity agenda (Huxham, 2003).

The theoretical constructs of organizational culture and collaborative advantage are synthesized in this paper to create a purpose-designed model, named UNICIM, which was developed by the current research group from theoretical constructs and subsequently applied to the empirical data of this study. This model represents how a network and its artefacts emerge from the
collaboration of multiple entities, which themselves are comprised of individual organizational cultures (see Figure 1). The community organizations exist to support individuals with the self-management of their diseases. Some organizations do this through the provision of information and advice, others organize support meetings for community members, and some provide advocacy and support for individuals when dealing with the health system. The UNICIM model will be used to investigate the development of a community-based open-ended self-management health network. This network brought together organizations such as healthcare providers, community organizations and self-help groups, with a view to supporting self-management of chronic disease in the community. Central to the UNICIM conceptualization of an inter-organizational collaborative network are its values and assumptions, and the production of artefacts as a result of functioning of the network, indicating its impact in the community. The network is described by functional dimensions of common aims, IPC, power, trust, leadership and membership structures. Finally, the inter-organizational network as an entity is built from community groups with individual organizational cultures, who may engage in multiple ways at different times both formally and informally, and hence the network remains flexible and open to a range of community input and

Fig. 1: The Unbounded Network Inter-organizational Collaborative Impact Model (UNICIM).
influences. Organizations were engaged in the network in both the virtual and real dimensions, the details of which are explained in the next section.

**METHOD**

**Research setting**

We researched a community-based project that strove to integrate primary healthcare providers and consumers, termed ‘patients-as-professionals’, in IPC activities aimed at encouraging active patient self-management of chronic disease. The project was undertaken from January 2009 to July 2010 in Canberra, ACT, Australia. The project aims were to develop an education package to enact self-management of chronic disease and an associated consumer/community organization network. The package development was achieved through four phases involving 10 activities and over 170 participants, that is: initial consultations (two activities with 35 participants); topic development sessions (two activities with 54 participants); curriculum planning workshops (three activities with 69 participants) and self-reflection events (three activities with 56 participants). In parallel, the project supported the evolution of a consumer/community organization network, comprising activities in virtual and real dimensions. This is the focus of the current study. The network undertook over 44 activities with representatives from community organizations participating >121 times. For example, in the virtual dimension, an email discussion group served to advertise and promote a cross section of support group interests; advocate on behalf of the member organizations and feedback information to community members. Members also used the system to post-information about activities from other community sector networks and agencies. Activities in the real domain were training programmes; education seminars; skills forums and workshops; interagency meetings and a Health Expo. The later activity is a defining network artefact. The need for the event arose from feedback given at network activities. The purpose of the Health Expo was for healthcare providers, community organizations and self-help groups to come together and provide information about their activities to the community. A Health Expo entitled ‘Living A Healthy Life – See, Feel, Touch, Do’ was held in April 2010, with over 40 organizations participating and >180 people attending. Together, the two network dimensions, the virtual and real, worked as an effective, low-cost strategy to distribute information and encourage patient self-management of chronic disease and involvement in community activities.

This case study investigates an emerging network (Stake, 2005; Liamputtong, 2009) using a pragmatic mixed-method approach (Andrew and Halcomb, 2007; Sosulski and Lawrence, 2008). Within this project, we investigated the development of the consumer/community organization network, in both its virtual and real domain activities. Four data collection methods were used. First, ethnographic observation (Tedlock, 2000) of network development activities, including meetings and the Health Expo. Second, document analysis (Hodder, 2000) of quarterly network project reports. Third, interviews with key informants (Patton, 1990). Key informants were people who were involved in the development and implementation of the network, representing community organizations, self-help groups and healthcare providers. Fourth, a survey (Hartley, 2004) of all participants at a key network activity (the Health Expo). Ethnographic observations and document analysis were undertaken using a framework comprising settings, participants, artefacts and interactions (Bradley, 1993; Greenfield, 2009). Interviews were conducted using a semi-structured interview guide. The interview guide and purpose-designed survey, developed from a review of the literature, contained questions covering: demographic characteristics of respondents; participation and role in the network; individual experiences and benefits gained; facilitators and barriers and community outcomes and impact. We adopted a non-participant role, undertaking 16 h observing network development activities. Six key informant interviews, or field interviews, each between 45 and 60 min, were also conducted, and 60 questionnaires were returned. Additionally, we spent 10 h analysing network documents. Hand-written notes from observations and interviews were transcribed and collated with survey responses into the one data document. The resulting text was subject to thematic analysis (Braun and Clarke, 2006). The textual data were chunked into single idea units; each unit was tagged by a code which consisted of a shortened paraphrase of the idea. These codes were then used to group similar ideas in a thematic category. This involved a lengthy iterative process in which thematic codes were checked against the data to ensure they had adequately captured the meaning of the idea unit. Within each of the
themes issues from the ethnographic observations and document analysis were used to structure and guide the description provided, which in turn was illuminated with participant quotes. Survey data from the key network activity were analysed using descriptive statistics. Five strategies were employed to ensure rigour and trustworthiness of the data and analysis, that is: semi-structured questioning techniques; on-the-spot member checking; an iterative analysis process; a decision-making audit trail and five reflective discussion by the research team to review the emerging ideas, refine and resolve differences through negotiation (Patton, 1990; Shenton, 2004).

RESULTS

The results are presented using the key themes from UNICIM, which shape IPC and network participation. Following presentation of the themes of the model, we examine the network artefact for evidence of its impact.

Common aims

Participants reflected on the nature and values of the network. Key stakeholders described the network in the following terms: 'amorphous, not an actual structure' (Interview 1); 'wobbly—both the members and the structure’ (Interview 2); and as ‘the shape is unclear’ (Interview 4). One participant explained that the network had no explicitly stated aim, that is, 'we were “just seeing what happened”, with no clear idea of what exactly we wanted to achieve. It was a “morphed network”’ (Interview 5). In these expressions, the diverse perspectives and interests of the different members are being tentatively negotiated. Nevertheless, most participants viewed the network in a similar way. They described the common aims of the network in these terms: ‘an organisation and people who are concerned with those things that affect living with a chronic health condition. This is what links them all together’ (Interview 3); ‘an overarching support group for people with chronic problems that don’t have a local support group’ (Interview 6); ‘focused on self-management, rather than just management’ (Interview 1) and ‘an organisation for sharing concerns, ideas, experiences’ (Interview 4). The similarity in views reflects the members search for commonality and legitimacy to participate.

A clear focus for the network was important to participants. They commented on the need for an explicit purpose so that it would not become another version of a support group. Additionally, a clear focus was needed to integrate individuals beyond the boundaries of their existing support groups. As one participant stated:

If there is no clear reason to get together and no agenda, it will be a few mates linking together, so it will be a support group, not a network. How do you define a network? A network is information sharing. A support group is, ‘This really sucks, I went to the doctor and . . . .’. There is a need for suspending one’s own agenda to be a facilitator and to join in a network (Interview 3).

Inter-professional collaboration

IPC was discussed by participants as taking place between consumers, health professionals and support organizations. The resulting learning was understood as informal, valued and arising from the interactions:

I’m sure it’s happening in an informal way; it’s important, and it could be a great forum for that (Interview 4).

However, not all respondents held the same views, with differences in status and interests shaping understandings. There was a contested perception about the homogeneity of the experience, as explained by one member:

I’m not sure if members of the network have had any increased shared understandings (Interview 2).

In the view of the above participant, the interactions did not translate into shared learnings.

Whether participants understood or recognized inter-professional learnings were openly questioned. Integration was a contested process requiring negotiating and compromise. For example, interactions and language used by members surrounding IPC was an issue that required consideration. A participant discussed the issue as follows:

It’s not formal. I don’t think they’d name it as IPC. They’d call it ‘multidisciplinary’ – and that’s the way we do it! (Interview 1).

Some participants saw an opportunity to be more interventionist in the network development; they were more explicit in voicing their interests. To directly shape the network and improve explicit use of IPC this suggestion was offered:
I would use the interprofessional [collaboration] words sooner – but used in the language they know and understand, such as ‘working together’ or ‘sharing information’ (Interview 1).

**Power**

The issue of power within an inter-organizational network was closely allied to ownership of the entity. Members had to consider and negotiate how they worked together and for what purpose. For the network to develop, individual personalities, interests and involvement needed to be accommodated side by side. As stated by one respondent:

We had to consider personalities working together – including being upfront about where the ownership lies, and what is being owned (Interview 4).

The establishment of the network was seen as increasing power for its constituent organizations and was motivation for overcoming individual differences. This was experienced in the way that the network could give input to government policy. The network could influence the health sector for the benefit of its members, as reflected in the words of one of them:

In relation to influencing policy, [it’s important to be] able to band together organisations from different aspects – more power in numbers. If you have several different organisations with the same issue about a policy or service – it’s more powerful! (Interview 3).

The emergence of the network placed the views of the consumers in contrast to those of the health and policy professionals. That is, being a member of a ‘network’, rather than an ‘individual’ transformed the status and legitimacy for participants. They could make a claim to be heard in contrast to those in the health services and bureaucracy. One participant articulated the power challenge in these terms:

We present a challenge to the current government agenda. There was [in the past] a focus on prevention, and there isn’t from now on (Participant 1).

Challenging professional and policy views brought a vulnerability to the network. Members discussed how the network relied on government funding for sustainability. Participants were concerned about the future of the network, uncertain as they were about the funding commitment of the government. Paradoxically, the network development and continuation resided as much in the hands of the bureaucracy, through funding, as it did in the members, through participating. They explained the vulnerability of the network as follows:

What concerns me about the network is funding. And then it goes ‘phhht’ – gone! (Participant 2).

Participants said issues of sustainability and funding also depended on investment of effort by members. As the network was nominally owned by everyone but no one specifically, this left it internally vulnerable. A member voiced their concern in this way:

I don’t know whether it will continue and it worries me, because we’ve taken a long time to build the network. I fear that they will fall over – because there’s not one person or several people driving the interest (Interview 1).

**Trust**

The credibility and reliability of the organizational representatives working for the network were seen as important to build trust between members. Representatives needed to be seen to be representing the interests of the network, not the individual community organizations they also belonged to. This was described in terms of ‘credibility of the people putting it together – reliability’ (Interview 2). Put another way, the representatives’ trust was founded on legitimacy, which itself was multi-dimensional, incorporating that from their community organization and that of the network.

The enactment of trust was simultaneously a display of the ownership and ability to exercise power, that is, influence the future network direction and its particular activities. This was expressed as a sense of commitment to the network, as explained by a participant:

I’m willing to verbalise and document my commitment . . . Being here for the long-haul is important (Interview 1).

**Leadership**

Leadership within the emergent and diffuse inter-organizational network was an ongoing challenge, particularly as its display had to be credible and not an expression of power in a negative manner. Credible leadership, or being a legitimate network representative, was seen as the ability to promote the network to its members, the broader health and social sectors, including
government policy officers they hoped to influence. As one respondent explained: ‘unless you have experience, [the network is] not going to be promoted’ (Interview 1). Participants believed that the network leaders contained the experience required to make the network internally and externally credible as stated by one member, ‘People need to see how much shared experience there is’ (Interview 2). This positive perception reinforced community organizations’ and individual’s willingness to be a part of the network; which, in turn, confirmed the legitimacy of the network. However, harnessing this experience and diverse individual and organizational interests for the benefit of the network was the ongoing challenge. Consequently, the issue of who was ‘driving’ the network came up repeatedly and the need for the right people to be in the right roles. As explained by a participant, a leadership challenge was:

I’m not really clear how the network runs, the structure of it really. I think chairing of meetings is a huge challenge. To find good quality chairs – it’s very rare – in any organisation. So I’m not being critical, but the first meetings were a bit chaotic (Interview 4).

Similarly, another participant noted the work of maintaining motivation and engaging network members was an ongoing activity. That there were people employed in such a role was noted as critical:

[Names of two project staff members] are great – they supply leadership, getting people enthused, offering support (Interview 6).

Further reflections about leadership within and for the sustainability of the network identified that a reference group would have been helpful and that the ‘managing of personalities – and factions’ (Interview 2) was a requirement. In other words, the integration process and network development were continuous activities. In a similar vein, a number of interviewees indicated the need for a clearer focus and structure of the network, as an exercise of leadership. One member suggested:

Sometimes it’s good having things that are fairly fluid, to make up as you go along. But sometimes you need more definite parameters about what we’re trying to do, so that we can tell people. What would you talk about when you tell people? Need to be more concrete about: This is what we want it to do or not do, what it should achieve. Even within that you can be flexible, but you need an endpoint to say ‘Yes, we’re doing that now’ (Interview 3).

In time, the members’ understanding of each other’s perspectives and aims for the network were negotiated, clarified and consolidated. In doing so they exercised leadership, created their network and changed their community, as reflected by the following statement:

It is community development – a ‘light-bulb moment’ – that we have developed a different community (Interview 1).

Membership structures
The capacity for inter-organizational linkage was demonstrated by inclusive network membership structures. Participants viewed the network as a catalyst for all sorts of people [organisations] to get together (Interview 1) and a great opportunity to get together, to toss around ideas, to see what we can improve (Interview 6).

Recognizing that network credibility resided in an inclusive approach, deliberate attempts were made by network leaders to engage with organizations representing consumers. A further advantage was that the collaboration worked to reduce overlap of effort:

I was also quite strong in having the Health Care Consumers [HCCA] involved because I am often asked for consumer representatives. They may already be having input into that policy, to know that they’re involved in, what’s in process, and not doubling up (Interview 3).

However, ongoing engagement and participation in the network could not be taken for granted. Despite a stated desire to include consumers in the membership structures, there was limited involvement and intermittent attendance by consumers representing specific community support groups at network meetings. This may be due to the inherent health problems of consumer representatives, as it was often the case that representatives of consumers support groups had the health condition of the consumer group they represent. In addition, they needed to feel connected and motivated with the membership structures:

People with chronic disease are often difficult to tap into. Maybe they are not motivated – due to depression. So once they’re in the door – making them feel important (Interview 2).
It may be useful to engage more with areas [organisations] that have consumer input, for example Health Care Consumers. The Health Care Consumers have been included in the alliance but haven’t made any moves to be involved (Interview 5).

The membership structures of the inter-organizational network served as a conduit from the network to the member organizations. Additionally, there were flow-on effects to constituent consumers attending the community groups:

Hearing feedback from patients [is important]. We’ve given them the tools to talk to GPs. Verbally, they’ve said it, and it’s really made a difference, after they had used the approach they’d been taught (Interview 1).

Being able to make a difference to the material lives of members reinforced their ongoing engagement and participation in the network. The result being that ongoing collaborative linkage via the network membership structures was desired by network participants. They reported valuing the collaborative activity:

I hope we can maintain linkages and do combined things together, rather than separately all the time. Especially around self-management issues – to have more collaborations (Interview 3).

**Artefact as impact: Health Expo**

Members of the inter-organizational network used their common aims, shared understandings of IPC, and the inherent power and trust engendered by such an organization, in conjunction with their exercise of appropriate leadership and management structures, to undertake a range of community-based activities. A defining artefact of the network was a *Health Expo*. Planned and implemented by the network, this well-attended event brought together healthcare providers, community groups and consumers to share information. The *Health Expo* was nominated by network members as one of their most successful activities and, in turn, it was an event that reinforced their collaboration. In the words of the network participants:

The Expo is a great way of highlighting what members of the alliance do… I’d love to see another *Health Expo*, that it could get bigger, and be run every year. It’s one way of networking between people and health professionals (Interview 6).

The *Health Expo* artefact enacted the inter-organizational network related to supporting chronic disease self-management in the community. The embeddedness and reach of the network was indicated by the manner in which attendees heard about the *Health Expo*. Attendees stated that they were informed via: the health service, including the cardiac rehabilitation service and community health centres; independent health professionals (for example, counsellors); support groups, both community and disease-specific groups (for example, Self Help Organisations United Together, Arthritis Australia, or the Sleep Apnoea Association); community health clubs; printed media, including local newspapers and a newsletter for people with disabilities and from colleagues and friends. Stallholders reported that visitors at the *Health Expo* were typically seeking information in the form of pamphlets and brochures. Consumer participants indicated that the most useful activities to them at the *Health Expo* were the information stands (26%), talking with other people (20%) and support groups (14%).

When asked if their knowledge of self-management techniques increased as a result of attending this *Health Expo*, 75% of consumer attendees ‘agreed’ or ‘strongly agreed’. Consumers also ‘agreed’ or ‘strongly agreed’ (82%) that they would be able to use this self-management information. They planned to use information from the *Health Expo* through a wide range of strategies, including the use of increased information \(n = 11\), new tools \(n = 3\), resources and programmes \(n = 10\) and by passing on the information to others such as family, friends and clients \(n = 5\). This last point suggests an ongoing impact of the *Health Expo*, as an artefact of the network, via the further dissemination of information within the social life of the community (family, friends and clients). Consumers reported that the *Health Expo* reflected the impact of the inter-organizational network into the community. This included its ability to function as a conduit for accessing and informing consumers who were self-managing their chronic disease in the community.

By engaging with the broad range of healthcare providers, community groups and consumer organizations present at the *Health Expo*, attendees identified with the common aims of this inter-organizational network in accessing relevant information about chronic disease self-management in the community. Attendees reported that the *Health Expo* was an opportunity for interprofessional learning and collaboration. They
felt a sense of empowerment from information gained via the HealthExpo, leading them towards more affective community-based self-management strategies. By meeting with a wide range of healthcare providers, community groups and consumer organizations, attendees were observed to develop a sense of relationship and trust through personal interaction, leading towards more likely further access of these groups or services supporting chronic disease self-management. Some HealthExpo attendees were in roles whereby they could provide further leadership, such as representatives of aged care providers who brought along bus loads of residents. This augured well for the further development and spread of the network to consumers who were in need of community-based assistance and support. Such embedded leadership engagement suggested the possibility of enhanced and expanded membership structures, and the possibility of further collaborative linkages.

DISCUSSION

The study of healthcare networks is typically approached from the clinicians’ viewpoint of health delivery within a bounded system of providers or designated organizations. However, consumers experience an open network of formal and informal health and community groups. Hence, we argue, community organizations need to be included in the inter-organizational health network. By investigating the development of an open network including community groups and consumers using the UNICIM model as a framework, we have demonstrated that such a network can be explained in terms of six key themes, substantially derived from Schein (Schein, 2004) and Huxham (Huxham, 2003). Other researchers have found similar results in the establishment of inter-organizational networks related to building relationships (Luke and Harris, 2007), resources (Luke and Harris, 2007), autonomy (Luke and Harris, 2007), leadership (Luke and Harris, 2007) and the tension between individual organizational and collective interests (Bernier et al., 2006; Hoeijmakers et al., 2007). In addition, this network had the capacity to engage with community groups to achieve and reinforce community impact via the development of a collaborative network artefact (Sheaff et al., 2010a,b). Not only are artefacts essential to a network culture, but they are more likely to promote changes in values and assumptions (Sheaff et al., 2010b). In fact, the information, tools and resources fostered by this network event appeared to be driven deeply into the social fabric of the community via the network, thereby extending and reinforcing the network and its functions. Indications are that resources continue to be passed on beyond constituent members of the initial organizations forming the network, including family and friends. As a strategy supporting self-management initiatives in the community, the Health Expo artefact of this inter-organizational collaborative network provided increased benefits beyond the health service and empowered consumers with choices and information to address their health needs.

The UNICIM provided a means by which to formally categorize and present the interactions and experiences of network participants. The application of the concepts, while foreign to the participants, resonated and represented their ‘lived world’ without distorting their actions or views. This practical real-world study examined the extent of inter-organizational network activities to improve self-management in the community. In taking an open-ended approach, difficulties of defining this inter-organizational collaborative network arose, and this may be typical of the messiness by which networks operate. Concepts taken from inter-organizational culture and collaboration theories were combined into the purpose-designed UNICIM model as a way of seeking to understand the processes involved in the development and reach of the network explored. This in turn provided a framework for examining the development and implementation of the network and the impact of one artefact in the community. The UNICIM model is critical to the endeavour and provided a lens by which actions and behaviours could be viewed, reviewed, interpreted, understood and integrated. In doing so, it has contributed a constructive framework in which to examine a real-world situation. This study demonstrated that within an inter-organizational network, individual organizations with different cultures, such as health and self-help groups, can be blended to form a ‘cultural mosaic’ (Sheaff et al., 2010) artefact, addressing a gap in needs for people with chronic disease who are living in the community.

This study serves as a vehicle for synthesizing advice for those aiming to develop a similar
network, underpinned by the UNICIM model. First, expectations about setting up a similar network need to be flexible and realistic, and common aims are an essential foundation for an inter-organizational network. Network development is not a linear process. Second, in terms of leadership, there needs to be a driver, or driving group, who are credible and respected by potential members. Distributed leadership is essential in order to avoid imbalances in network engagement. Third, the network is stronger with a foundation of IPC, which may also be described as multi-disciplinary working together and sharing of information depending on the language culture of participating organizations. This concept needs to be embraced by all members of an inter-organizational network in order to promote positive working together. Fourth, a network requires adequate resources for its development. Fifth, challenges needing to be addressed include network membership, staffing, financial and policy support, engagement of stakeholders and sustainability. Power and trust need to be negotiated, and the community sector has an important role in helping bind the network together; membership structures need to remain flexible and inclusive. Ongoing financial support is essential. Sixth, an event which forms a cultural artefact of the inter-organizational collaboration maybe used as a vehicle to focus the network and promote networked activity. Concrete artefacts such as collaborative events may also be used to measure the success of the network. Such an artefact which engages the inter-organizational network may then further embed the effects of the network into the community, thereby building consumer capacity for healthcare self-management in the community.

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