The role of informal networks in creating knowledge among health-care managers: a prospective case study

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Scientific summary

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Background

Health and well-being services, in common with many public services, cannot be delivered by a single organisation. Weight loss, exercise, smoking cessation and other programmes require the co-ordination of services delivered by several organisations in a locality. There is some evidence, mostly from other sectors, that middle managers play pivotal roles in this co-ordination. They have to find ways of co-ordinating services such that organisations are able to meet their own objectives while working together, and issues raised by cultural and other differences can be overcome. In doing so, they have to find ways of explaining what they do, and what they need to get done, to one another. This study focuses on the knowledge creation processes that underpin these activities, in the context of health and well-being services.

Aims

The study addressed two main questions:

1. How do health-care managers exchange knowledge to bring about changes in health-care delivery and organisation?
2. What role is played by the connections between the managers who are responsible for bringing about those changes?

Methods

A case study was undertaken in health and well-being services in three sites in northern England. The field methods used were landscape mapping, structured data collection for quantitative network analysis and semi-structured interviews for qualitative analysis.

The landscape mapping involved interviews with senior managers in each site, who were in a position to tell us which organisations, and which key individuals, were involved in health and well-being services. The network modelling used the concepts of latent position network models and latent position cluster models. We used these models to identify clusters of people within networks, and people who acted as bridgers between clusters.

We interviewed middle managers who – on the evidence of our cluster models – occupied similar positions in our graphs (i.e. were located in a single cluster). We focused on accounts of projects and programmes that managers had been involved in, and used these to characterise the knowledge creation processes underpinning them.

We also fed back our provisional findings at interactive events, and used the responses to inform our thinking about the value of the findings to managers in similar services in other localities.

Results

Our qualitative interview results showed that:

- Middle managers are synthesisers, in three different senses of the term. First, they draw on different types of information, from a range of sources – quantitative routine data about populations and services, reports on progress against contractual targets, research evidence and intelligence from colleagues in other localities. Second, middle managers are able to link national policies and local priorities, and reconcile them with local operational realities. They are not always successful, but can integrate the different approaches and working practices of NHS, local authority, private and voluntary organisations. Third, middle managers are able to link ideas, negotiation and action.
- Organising ideas – for example 'tobacco is everybody's business' and 'healthy communities' – can play an important role in collective knowledge creation. By their nature, organising ideas do not develop over short periods of time. Relatively small numbers of managers had acted as advocates for particular, collective, ways of thinking about services over a number of years.
- Knowledge creation is embedded in institutional contexts, and cannot be separated from other phenomena. Our results emphasised the importance of trust and reciprocity between managers working in different organisations.
- Formal meetings play a role in maintaining some interorganisational relationships over time, but many managers did not attend any of the same meetings, and maintained informal relationships with one another. Moreover, those relationships appeared to be simultaneously stable and fluid. Stable relationships included those based on 'old primary care trust' relationships, outlasting the commissioner–provider split. More fluid, or tactical, relationships were established for particular projects.

Our network analyses showed that:

- At the individual level, we observed that the 'Talks With' network involved different actors to the 'goes to' network. Although the networks were of similar sizes, the individuals included in them differed substantially.
- The networks changed markedly over time. Both the actors in the networks and the configuration of links between them differed between the two time periods when data were collected.
- We found that the data produced more meaningful representations when we used *clusters* to explain the relationships between actors. That is, the clusters corresponded to activities at the sites that we observed in the qualitative interviews.
- Actors within clusters had common attributes, and as a result we were able to interpret the broad purpose of each of the clusters in the graphs for each site.

The most useful number of clusters was three or four for both network types, and for both sampling periods, at each of the three sites. This may reflect the mathematical formulation of our models, or may relate to something more fundamental, for example the numbers of people who can effectively co-ordinate with one another for a given activity. Clusters typically included around 20–40 people; too many to manage at regular, formal meetings, but perhaps a realistic number of people who can maintain informal relationships with one another.

The clusters, at all three sites, all had a mix of organisations represented within them. The results hint at a *distributed*, but *multiorganisational*, pattern of co-ordination of health and well-being services. It is possible that the three study sites had developed arrangements with the capacity to respond to opportunities and new challenges – new projects or good ideas – as they came up.

There was a mix of seniorities in all clusters. In the 'Talks With' networks the more senior participants tended to group together, but in general there was a marked mixing of seniorities. The knowledge creation literature emphasises the important role that middle managers play in many organisational

contexts. In our three sites, in contrast, the cluster arrangements suggest that co-ordination between people at different levels of organisations is important.

Conclusions

Managers of health and well-being services do not exchange knowledge, but do develop and maintain it collectively. Their collective efforts are typically manifested either in projects requiring multiorganisational inputs or in taking ideas from genesis to the delivery of a new service.

The cluster modelling suggests that networks of managers are able to maintain relationships, and hence conserve technical and prudential knowledge, over months and years.

Implications for research

Our findings suggest four priorities for further research:

1. The dynamics of networks with respect to knowledge mobilisation.
2. Establishing the value of latent cluster modelling in understanding the work of groups and teams in other health and social care settings.
3. Knowledge mobilisation in the context of the interorganisational co-ordination of services by clinicians, as opposed to co-ordination by managers.
4. The nature of knowledge. Where is the common ground between the scientific and narrative paradigms?

Implications for managers

Our research highlights four implications for managers:

1. Middle managers play important co-ordinating roles in health and well-being services. They are able to absorb and synthesise many competing priorities, secure resources and work out how to allocate them. It is difficult to imagine how health and well-being services could be co-ordinated without them.
2. Managers working in health and well-being services are able to co-ordinate work across boundaries – across public, private and voluntary organisations, and across geographical areas. In doing so, informal relationships play a vital role. While formal meetings are clearly important, the extensive relationships required to co-ordinate health and well-being services could not be co-ordinated through meetings alone.
3. It is helpful to think about services as being co-ordinated clusters. Managers at the feedback events were struck by the idea that separate clusters may have important advantages: distributed arrangements make sense, given the project-driven nature of much health and well-being work. The importance of one or two people within a site was also noted: it was appreciated that this was a potential source of fragility, and if those people left then clusters might lose their links with one another.
4. Knowledge creation requires those involved to trust one another. In this regard, formal instruments – contracts and targets – are double-edged. Used constructively they can encourage collective working, but they can also discourage it, with organisations retreating into silos when their viability is perceived to be threatened.

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