Emergency decision making: an exploration of tensions between communities of practice

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Abstract: Through the lens of ‘communities of practice’ (Wenger, 2000) we examined decision-making boundaries and tensions in multiagency settings. Sixteen semi-structured interviews were conducted with operational decision makers from services across Australia. Data analysis was contextual and narrative, focusing on meanings signifying cultures and practices. Results indicate that protocols and guidelines which provide boundaries for a community of practice, could at times become an obstacle. Participants reported difficulties in sharing a ‘common level of understanding’ and ‘getting the bigger picture’. The strongest theme was the importance placed on building relationships between services prior to emergency events. We found capability of multiagency decision making is enhanced when informal multiagency networks are already in place. These networks contribute to building a shared understanding. We propose that multiagency communities of practice could be enhanced if services increased their level of formal multiagency engagement and promoted the informal multiagency networking of their members and teams.

Keywords: decision making; emergency; multiagency; practice; collaboration; communication; communities of practice; formal; informal.

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Stephen Loftus was originally a dentist who moved into the education of health professionals. He has been involved in the scholarship and research of decision making for several years. He has a particular interest in applying the theoretical lenses of the humanities and social sciences to professional reasoning and decision making.

1 Introduction

By using ‘communities of practice’ as a lens through which to examine boundaries between emergency services we intend to highlight how services function in relation to one another in multiagency contexts and to show the value of the lens itself in accounting for processes and practices in emergency services. The data analysis demonstrated the play between formal structures and the flexibility and negotiation that can be required in many situations, and how decisions are made in these contexts. Considering emergency services as communities of practice allows core processes and the more flexible, less certain aspects to emerge while capturing the range of positions in which individuals place themselves in relation to the core processes.

The paper outlines four discussion points. While formal processes help to define boundaries through protocols and standard operating guidelines, informal processes such as social events attempt to breach the divide between services and the difficulties encountered in coming to shared understandings in multiagency situations. A deeper understanding of the operations of services and the potential for understanding how the processes work to encourage learning and reflection on practice is possible using the community of practice lens.
2 Communities of practice and social learning literature

The concept of communities of practice developed by Wenger (1998) and Lave and Wenger (1991) has been explored within a range of organisational contexts. Roberts (2011) applied the communities of practice approach to the dissemination of management knowledge. Fuller and Unwin (2003) explored workplace learning in the UK steel industry focusing on apprenticeships. The concept has also been applied to emergency workers, particularly fire fighters (Taber et al., 2008). In this paper the concept of communities of practice is applied to emergency services to explore multiagency interaction in emergency decision making.

Learning and knowing are inseparably framed by the social, according to Lave and Wenger (1991), and this theme is common throughout the social sciences. Extrapolated to emergency services, each participant can be seen as operating out of a clearly defined profession where many skill levels are involved. In their studies of apprenticeships in the steel industry, companies were considered as communities of practice by Fuller and Unwin (2003) each having discrete identifiable practices and processes and unique characteristics, allowing them to be considered in some depth. Emergency services such as police, fire and ambulance have their own defined rules of operating, resourcing and tools to work with, therefore forming distinctive and separate communities of practice with clear boundaries separating each service one from another.

When these services come together there may not be a perceived common purpose to which all are working as each service is working from within their own structures and paradigms. The need to build stronger teamwork practices (as distinct from team building) to enhance team effectiveness, in addition to the need for enhancements in interactions between teams, is noted by Owen (2011). Emerging evidence suggests that in complex multi-team interactions, it is not just effective teamwork that makes the difference. The ways in which boundaries between teams are managed also contributes (De Church and Zacarro, 2010). This paper explores the tensions created through using protocols to define communities of practice.

“Communities of practice are the basic building blocks of a social learning system because they are the social ‘containers’ of the competencies that make up such a system.” (Wenger, 2000, p.229)

As social containers, communities of practice are comprised of both formal and informal processes and practices. Wenger (2000) proposes three elements which combine in varying ways in communities of practice. Firstly, a collectively developed understanding binds members together and holds each accountable to the joint enterprise. This does not mean that there is total agreement within that understanding or that each is accountable in the same ways. Secondly, the community is built through mutual engagement of members where interactions establish norms and relationships of mutuality that reflect these interactions. Levels of engagement by members are varied however, and members belong to a range of communities of practice whose values may clash at times (Handley et al., 2006). Thirdly, communities will have a shared repertoire of communal resources such as language, routines, tools and stories. To have competency is to have access to this repertoire and be able to use it appropriately. There will nevertheless be some variation in how the tools are applied in different contexts and by different members.

There can be an overemphasis on compliance and standards on the part of emergency management agencies and little emphasis on how organisational resilience may be
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developed to support adaptation to emergent contingencies not covered by protocols, and this is particularly important in the context of collaboration between teams (Owen, 2011). Others have emphasised building organisational resilience and the active and emergent process of crisis management and recovery (Elliott and Macpherson, 2010). Emergent, creative, and autonomous actions are often required of individual emergency personnel in crisis situations and the concept of community of practice is unable to account for these according to Taber et al. (2008, p.273). These latter authors understand rules and protocols as defining communities of practice, and regard thinking or action beyond this as requiring explanation beyond the community of practice. The aim of this paper is to show how the community of practice operates from both formal and informal processes and practices that can facilitate or inhibit creative and autonomous actions and that can go beyond rules and protocols.

Much learning occurs at the boundaries of communities of practice (Wenger, 2000). There are opportunities for learning within communities of practice as they are not entirely comprised of homogenous and inflexible sets of rules and standards of operating. Although there are clearly central core processes, this should not mean that communities are restricted to these, or that there are no other processes operating that could challenge or provide flexibility in operating beyond the core procedures. This paper argues that these other processes may need to be promoted and elevated.

A key theme arising from the research on workplace learning in emergency situations is the role that storytelling plays in communities of practice. This is consistent with the dialogical turn in clinical reasoning advocated by Loftus (2012) where meaning is generated through narrative.

Storytelling forms an important part of all workplaces, particularly in times of stress or upheaval (Law, 2009) and is also used on a regular basis as a way for more experienced professionals to introduce younger members to the community of practice. Although often informal, storytelling may also be actively practised within a profession. It is, for example, how medical students are taught to present information to other professionals (Haber and Lingard, 2001).

Storytelling allows experts to analyse and improve on their own experiences. Recounting a riot experience, for example, a police commander was able to reflect upon how better to practically prepare for such an event, as well as how to accommodate different skill levels on the scene (Moore, 2002). This provided further insight into what skills are valuable, and what qualities make up a professional in the police force. It can be argued that protocols and guidelines are attempts to provide formal narrative formats that people are expected to use. We argue that while these are useful they do not provide for every eventuality. There is a need for emergency personnel to interpret situations and go beyond protocols and improvise so that a particular emergency situation/story can come to a satisfactory ending. Such stories indicate the tensions between the practical limitations of the job and the way decisions are made. A fire commander recounting a fire at a chemical plant highlighted the political and public pressures that influenced his decision making (Davis, 2002). Often, the recommendations that result are two-fold. The issues for example, with wilderness rescue experienced by a paramedic and later recounted for research (Ingham, 2006), inspired changes in both equipment and training. Such storytelling facilitates changes that directly target current problems, primarily because accurately recounting events is already an integral part of the profession.

As Fuller highlighted, experiences of a workplace are shaped by the organisational structures and power dynamics of that workplace, and these are informed by broader
formal and informal social and cultural characteristics (Fuller et al., 2005). This is particularly important in the field of emergency decision-making, where decision makers from different professions and fields must collaborate and coordinate.

3 Method

Ethics approval for the study was obtained from the Charles Sturt University Human Ethics Committee. Participants were drawn from a wide variety of emergency services across Australia, including various police, fire and medical services as well as a number of government departments. All had completed a postgraduate qualification in emergency management. They responded to a request for interview sent through CSU Alumni.

In depth, semi-structured interviews were conducted and participants were asked to recount a multiagency response in which they had been a key decision maker. They were asked to reflect on how collaborative decisions were made, the contributing factors and any tensions between communities of practice. Important insights are to be gained when analysing how participants talk about their processes and practices. The research in no way evaluated the efficacy of the various decisions described.

Interviews were transcribed verbatim and transcripts were read through and responses to questions gathered together. These were analysed for themes relating to each question area and took into account the variation in responses. Twenty-six themes resulted from this process. These themes were further analysed into seven major themes with 16 subthemes.

Analysis followed a socio-cultural narrative approach (Grbich, 2007) with a focus on how meanings and concepts were expressed by participants, how the stories were told and what they revealed of the cultures and ideologies informing their accounts.

4 Results

Seven themes and 16 subthemes were developed from the interviews. The themes and subthemes to be discussed in this paper are shown in Table 1.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of interviews</th>
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<tbody>
<tr>
<td>Protocols and guidelines</td>
<td>17</td>
</tr>
<tr>
<td>Limitations of policy and procedure</td>
<td>6</td>
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<tr>
<td>Delineation of roles and responsibilities</td>
<td>11</td>
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<tr>
<td>Negotiation and collaboration</td>
<td>11</td>
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<tr>
<td>Bigger picture</td>
<td>9</td>
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<td>Common level of understanding</td>
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<tr>
<td>Background knowledge</td>
<td></td>
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<tr>
<td>Knowing people/building relationships</td>
<td>15</td>
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<tr>
<td>Leadership</td>
<td>8</td>
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In applying the lens of ‘Communities of practice’ to the three major themes, Protocols and guidelines will be discussed as providing boundaries for emergency services. The struggle to find a common level of understanding between services is highlighted in the theme Negotiation and collaboration. Finally, within the theme Background knowledge, leadership is considered as boundary work.

4.1 Protocols and guidelines: emergency services as ‘communities of practice’

Each emergency service has evolved and established informal discourses, stories and ways of being in addition to formal protocols and guidelines. The boundaries of each service are referred to in the interviews through issues such as jurisdiction and the scope of legislation, who is legislated to take charge of rescue, body retrieval, traffic and so on, and interpretation of legislation:

“Essentially standing orders are things that you have to comply with and they’re normally a direct interpretation of legislation.” (EDM8)

Eight participants discussed protocols and three talked about following protocols (EDM5, 6) and the lack of established protocols (EDM13 and 14). Protocols were perceived as clarifying the roles and boundaries of services although the importance of breaking down barriers between services was also recognised:

“Now slowly these barriers are being broken down … everybody has their own little patch of dirt and they’re very protective of those patches of dirt … Well it’s really one big dirt patch now, with everybody playing on the one area because that’s what the community is.” (EDM11)

The boundaries of each service are important in that they define the different operations of the services operating within the ‘patch of dirt’. At the same time the idea that it is ‘one big dirt patch now’ presents challenges. Where roles and responsibilities are clear between services, incidents and decisions are well handled. Knowing the legislation that different agencies can enact helps to provide clear delineations (EDM3) and knowing the boundaries between agencies is important (EDM4). Defining territories is part of that delineation:

“It’s usually something that goes on well but it’s something we always do right at the start. We just confirm that it’s their area, that we are here for hazmat and for the rescue and if they could supply water to us for fire protection for that, or even man the hose as well if required, that’ll be fine, that’s all, and they were happy to do that.” (EDM5)

Having one incident commander (EDM3) and a structure to work under such as an incident management team (EDM8) were noted as providing clarity. It was clear that protocols play an important part in knowing who needs to do what and how the situation needs to operate.

At times it was noted that protocols and procedures needed to be stated and enforced, especially when a situation could make them ambiguous or open to interpretation, or when rules and standards were being picked and chosen to suit individuals (EDM8 and 10).

It was also maintained that policy should be designed so that it does not impede in complex situations and that it was necessary to think beyond procedures:
“Emergency management decision making doesn’t happen in a glass jar that’s controlled. (EDM2)

Procedures don’t fix everything. There can be a bit of a gap in terms of extending their thinking so that they can think outside of the organisation’s dogma and procedures, that they can come up with new and innovative responses to incidents.” (EDM8)

Standard operating procedures were spoken of by some as guidelines that could be bent:

“We work under standard operational guidelines, so while they’re very descriptive they are guidelines. So if they are bent for safety’s sake, that happens all the time.” (EDM7)

In other cases there may not be any established procedures or protocols or the situation makes urgent demands which might not allow time for some procedures. There is often a need for interpretation of procedures:

“It’s not so much breaking or bending, it’s more likely to be that you’re working sometimes in a policy free zone or a policy area which gives a whole lot of scope to the people to make judgements on the ground.” (EDM10)

Formal guidelines, protocols and procedures, and the experiences and competencies of senior members, are central to the formation and operation of emergency services as communities of practice. That being said, formal guidelines, protocols and procedures do not cover all eventualities and can present problematic limitations at times. Individual informal (‘informal’ meaning there is no protocol for how this happens) experiences may be drawn on in time pressured decision making and are an important contributor to the resolution of the incident, but just how this occurs is more difficult to map and determine.

Being able to bend the rules to the context for the benefit of resolving the event is actioned within certain parameters of what is perceived as right, necessary and relevant in the moment and can represent learning for the community. For Wenger (2000), learning occurs when competencies and experience do not match, where they are even at odds with one another. Communities of practice can review and change their approaches as they learn and weigh up the benefits and consequences of formal guidelines and protocols and changing social circumstances.

4.2 Shared understanding

In multiagency contexts each service relies on both its established community of practice and boundaries, and then has to go beyond these in their multiagency interactions. It was evident in the interviews that developing a shared understanding between services has its difficulties. There was a perception that it was challenging to contract ‘a common level of understanding of the threat’ (EDM8) owing to ‘competing priorities and agendas between agencies, time and difficulty getting together’ (EDM4) and different approaches (EDM7). Even when roles and responsibilities are clear on one level, there is often a need for negotiation and collaboration between services as to how to proceed towards the resolution of an incident. The approach between fire, ambulance and police was described as ‘collegiate’ (EDM1) though a collaborative approach still involves discussions between agencies:
“It was a discussion of what are we going to achieve, what are we doing, what pathway, like where are we going to, what are we up to, how are we doing this, who’s going to be doing what duties for the days in the different areas we’re working in. Who’s going to be a safety officer… search and rescue … electrical safety … gas examiners … (EDM3)

Strategically there was a lot of consultation, a lot of discussion, so I think the strategic decision making was very consultative, very collaborative.” (EDM9)

Decisions about when to enact legislation, such as public protection, require consultation between agencies (EDM3) and cooperative agreement reached about how to manage the situation. The consultation process is described as ‘not ordering, talking to other agency officers’ because ‘two heads are better than one’. Consultation needs to be constant:

“You’ve got to look at what do you want to achieve here, what’s the outcomes and what’s the best way to do it. (EDM3)

“You’ve got to empathise and you’ve got to understand. You’ve got to understand the mindset of the [other] organisation.” (EDM9)

Conflicts between services related to areas where priorities clashed or the way that one service operated was viewed as problematic by the others, or where there had been bad decisions made and corrections were required.

There was some dispute evident between police, ambulance and fire over managing traffic situations (EDM1 and EDM7). Other disputes between police and fire centred around body retrieval. Typically a rescue is initially the responsibility of the fire service and when it becomes apparent that it is a body retrieval the police assume responsibility. Even though this is known there were two situations recounted where the fire service wanted to continue with their operation to ‘see it through’ and were unhappy that police took over.

These are boundary issues, where the boundaries of services as communities of practice overlap to some extent or merge into the next one. Boundary issues can draw out opportunities for learning about the handling of the task. Where the rescue team of one service want to see the event through to get some conclusion for their efforts, rather than relinquish the situation to another service (or team), there is room to extend the informal boundaries of the community of practice through challenging the concept that having to walk away means ‘failure’.

Developing the ‘bigger picture’ to take broader considerations into account was considered a task of the decision making process:

“Looking holistically across the whole incident, how it affects the environment and the people and our people … not just tunnel vision … (EDM4)

It’s being strategic – big picture think of obviously risk-based decisions, your resourcing, your resourcing implications, financial implications, safety of all the people on the relevant operation ground.” (EDM12)

This could also be considered a boundary issue as some saw their own service as being concerned with the bigger picture and viewed other services as more concerned with a narrower issue:

“Police need to focus on the bigger picture – keep people moving on the roads. Fire thinking is about ‘officer safety, no one can get past’.” (EDM1)

Consideration of the ‘bigger picture’ could include conceptualising the incident’s impact on communities, other services, and environmental impacts resulting from an incident
such as pollution (EDM4). Impact on the service was also seen as a consideration and involved rising above personal interests (EDM9 and 12). Understanding the focus of other agencies was seen as part of the bigger picture.

Roles where there is scope for planning provide opportunities for some broader thinking (EDM3). A number of personnel interviewed had planning as part of their role and this allowed them to reflect on events and how they were dealt with. There are opportunities for learning at the boundaries and collision points of communities of practice.

Some participants talked about the need for different agencies working together to come to a common level of understanding and a recognition that all are “working for the same thing and in the same direction” even though through different paths (EDM3):

“Everyone’s there for a common purpose and one of your roles as the leader is to ensure that the common purpose and that end state remains the focus of each agency.” (EDM12)

It appeared that a sense of common purpose was sometimes lacking between many of the services, despite being collocated under the umbrella of ‘emergency services’. The effort of developing a larger community of practice, where common norms and understandings were cultivated, had not been actively applied.

4.3 Knowing people and building relationships

In emergency services there is often a sense of camaraderie from having undergone experiences together and there are certainly skills, tools and stories that are shared. For some services, teams get together for informal events such as barbecues and in times between emergencies where they may be waiting together at their stations there are opportunities for sharing stories and discussing mutually agreed issues and themes that relate to their shared enterprise; these experiences help create the sense of a shared community.

A major theme that was strongly emphasised and discussed was the effect of already knowing people when working at an incident, and therefore the importance of building relationships with others. Participants considered that ‘knowing each other’ made things easier through being familiar with each other’s skills (EDM1), and cultivated confidence and trust regarding how things will operate:

“It’s really good if you’ve got some prime knowledge and can put a name to a face of who is that person, what does he do and as I was saying before what legislation, what skills do they bring to a job …” (EDM3)

Once you have a degree of operational experience together there’s that understanding or mindset about the tasks that you’re going to ask them to do.” (EDM7)

Trust between agencies was a common theme and included “trusting us that we will use our common sense and knowledge” (EDM3) and knowing “where the other players from the other agencies are all quite professional, knowledgeable, good communicators, it’s probably going to work” (EDM10). In some situations “it can take a degree of time before the agencies start working together well” (EDM7) or when people are new in a role or unfamiliar with each other “you probably wouldn’t want to delegate that decision-making down too far” (EDM12).
Personal relationships could overcome organisational barriers (EDM9 and 14) and the difficulty of ringing up a service ‘cold’. Some had developed strategies for ensuring they knew as many colleagues as possible or they worked out ways to deal with lack of familiarity quickly by networking at every opportunity (EDM17) and by “looking approachable, smiling, asking open questions, talking to the other commander, bringing everyone together” (EDM8).

Multiagency training was a strong theme and was seen as contributing to ‘understanding inter-agency capability’ such as the capacity of equipment like helicopters (EDM6) and developing greater levels of comfort with equipment not normally used:

“Bringing in some training with the SES, you know doing some boat work with them so the crews were sort of more comfortable doing that. (EDM5)

Incident management team training and developing some common training packages between the fire agencies and the State Emergency Service.” (EDM8)

Generally speaking, the multiagency community of practice is embryonic and underdeveloped, but paradoxically would be highly valued if it was stronger. Participants did not move beyond mentioning training and conducting combined exercises as a possible growth factor in a formal sense. Individuals and teams make informal efforts to connect and network, as they recognise that these connections enable efficient boundary-flexing in a multiagency context.

4.4 Leadership as boundary work

Leadership was considered more than management by the eight who talked about it explicitly in their interviews. Leadership can be strong and directive ‘without rudeness’ (EDM1) and the focus is “directing, coordinating, starting to assemble, get a sense of what has occurred” (EDM2), being able to ‘take action’ and “deal effectively and efficiently with the unknown very very quickly”. Things can go bad when “you’ve got someone who is trying to coordinate and control the situation, when they aren’t leaders”. Leaders should be developed throughout the whole team and at the lowest levels so that when they are placed in these roles they are not just acting like a ‘business unit manager’ (EDM2 and 4).

Having confidence in your decisions and being able to pass that decision on to others “in such a way that they feel like they want to go and do it for you” because they have confidence in your decisions (EDM3). Leadership was seen as involving firm conviction but distinguished from ‘dogmatically stamping authority’ (EDM8).

A leader is described as someone who “even though they don’t have formal control over the incident, they’ve got such strong influence on being able to guide or help guide a team through” (EDM10). Another described leadership as “not just relying on past experience” and “not being isolated, the leader being more resilient because they have to look after the welfare of themselves and their teams during the stressful times” (EDM11).

The leader is seen as someone who knows and is known, who can form the bigger picture and pull actions together into a coherent whole. It was also noted that “leadership training gives you a good understanding of decision-making processes and understanding your own personality in relation to decision-making” through hands-on experience (EDM12). The leader is also someone who has reflective capacity to reflect on themselves as well as decisions and actions within the context as a whole:
“Good commanders are those that get in, sit in the committees and get to know their local people, versus those that go ‘Well I’m in charge, the others will follow and do what I say’, and they’re the ones that are struggling. Because the ones that get on will do anything for them, you know, and it breaks down a lot of barriers, there’s no ‘them’ and ‘us’ or Firies versus the Cops versus the SES versus the RFS. It’s we’ve got an issue, get in, get it fixed.” (EDM11)

Leaders were understood to be people prepared to work at the boundaries and network with other services, for example sitting on committees or developing multiagency gatherings to break down barriers. ‘Getting to know people’ is a significant part of the boundary work between services as this enables the building of trust and common understandings and many of those interviewed valued establishing relationships. Joint activities that are structured to bring together multiple perspectives so that each perspective can be appreciated along with the competencies embodied by each service (Wenger 2000) would take advantage of the boundary work of such emergency service leaders.

5 Discussion

The research illustrates the way protocols and guidelines provide the boundary for each emergency service community of practice. The struggle involved in trying to articulate a shared level of understanding within a multiagency context highlights the extent of individual boundaries.

To enable greater engagement between services an organisational level of learning is required to supplement and build on the networking activities of individuals in positions of command. Whether formal or informal, gatherings within and between services often involve storytelling and storytelling has been shown to be significant in developing skill and understanding (Wenger, 2000; Sommer and Nga, 2011). One way of developing common understandings in a multiagency setting is through storytelling.

In their work with Norwegian fire fighters Sommer and Njå (2011) combine a socio-cultural approach with an individual cognitive approach to account for learning. Interactions between members, particularly in the form of storytelling, are recognised as an important means of learning. According to Sommer and Njå, how situations are understood and resolved in emergencies is, to a large extent, owing to the professional culture and traditions of the emergency organisation. They also recognise that individual cognitive structures have to be challenged as well as the shared understandings and common practices of organisations. Since individual cognition is, in part, formed within the context of the community of practice and other related communities of practice, this paper highlights the need to challenge shared understandings in a group context because it is within the social context of the community of practice that cognitive change is most likely.

Wenger (2000) highlights the role of imagination in enabling members to see themselves as part of communities and to reflect on the communities that they see themselves as participating in. He makes the point that working across community boundaries involves understanding their respective perspectives. Members being able to see themselves as participating in overarching communities of practice requires engagement and negotiation opportunities between services to determine common interests and needs through sharing stories. One way of sharing stories is to develop
documents and models that incorporate the different services. Going beyond the standard response or practice is facilitated by the ability to review and be aware of the context of one’s own thinking.

To build stronger teamwork practices, as distinct from team building, and to enhance team effectiveness in addition to enhancing interactions between teams (Owen, 2011), both formal and informal processes and practices need to be worked through. The research indicates that the greater effort in building a multiagency community of practice is currently being facilitated informally through the endeavours of individuals. An increased formal effort on the part of each service would greatly enhance the multiagency community of practice and consolidate these informal activities. It is clear that bridging communities of practice needs to be done carefully and diplomatically. Loftus (2010) discussed well-known instances where different communities were brought together in subtle ways that fostered the emergence of entirely new communities of practice. The bridging of communities of practice involves brokering.

There are four boundary processes discussed by Roberts (2011) based on Wenger (2000) which could be explored in the context of emergency services. Brokering is where specific individuals are assigned to work between communities of practice whether by focusing on one particular boundary or roaming between boundaries creating connections or bringing back knowledge from other communities, or working in pairs with individuals from other communities. A number of participants referred to practices that had a brokering role, such as contact with particular individuals in other services, however they were not a widespread established norm.

Boundary objects that are or can be shared between communities include tools, documents or models as well as a common language and explicit routines and procedures. Learning related to equipment that has to be shared between services on occasions such as helicopters and boats could be formalised in cross training opportunities where the services operating helicopters, for example, provide some basic understanding to services such as police and fire about how they operate and the limitations of aircraft, the need for refuelling and inability to operate at night and so on.

Boundary interactions identified include visits, discussions and sabbaticals, practices developed for crossing boundaries, and opportunities for peripheral connections by outsiders. These could be socialisation events as well as more structured story telling events. This was the place of informal networking activities identified by many participants. Finally, cross-disciplinary projects include cross-functional projects and teams where knowledge and multiple practices are combined to resolve an issue or situation. A number of participants mentioned specific multiagency scenario training as being of great benefit, however their occurrence was infrequent.

For Roberts (2011), positions can be identified in different organisations that are part of the communities of practice and knowledge development that are able to play specific boundary roles. Commanders may be in key positions to network across service boundaries, however it may be important to give service personnel at different levels opportunities to work across boundaries for specific purposes.

Developing a sense of common purpose requires evolving a larger community of practice within which the different services are encompassed, allowing for complementary and not competitive exchange, and thus the building up of shared understandings. Constellations of communities of practice can be sustained through
boundary processes that can support interactions of practices (Wenger, 1998, 2000). Communities of practice need to be imagined and explored as heterogeneous or at least as having the potential for developing heterogeneous practices and processes. In addition, interactions between communities of practice will assist in the reflective process if critical analysis is applied in training and storytelling opportunities.

The networks built through socialising enable people to negotiate the ‘barriers’ or ‘boundaries’ of their individual services when in a multiagency context. Informal networks contribute to the ability to work together within and between services. Informal activities should be supported through formal structures and more formal activities could be developed to enhance multiagency communities of practice.

6 Conclusions

We sought to understand multiagency decision making by a range of professionals who must take responsibility in emergency settings, such as police officers, fire fighters, paramedics and other similar first responders.

The commonalities and principles underlying decision making in emergency settings by personnel who must collaborate with each other and with other services was investigated. The results illustrate an emphasis on the place of protocols and roles as demonstrating the boundaries of a service and the endeavour to find common understandings in emergency situations between services. Storytelling between teams, combined equipment training, and facilitating the development of a broad set of values and norms would potentially assist negotiations between services and contribute to coordination in emergency contexts.

We posit that multiagency communities of practice would be greatly enhanced if emergency services increased their level of formal engagement and support to match the informal activities of their various members and teams. Further in-depth studies of emergency services using the lens of communities of practice would highlight how learning and innovation is managed within them and the norms and informal standards operating that may be beneficial or inhibiting. It would also facilitate understanding barriers and enhancers to engagement between services.

References


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