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Integrating a community paramedicine program with local health, aged care and social services: An observational ethnographic study

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Research

Integrating a community paramedicine program with local health, aged care and social services: An observational ethnographic study

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Abstract

We used an observational, ethnographic research approach to identify the nature of the relationship between public engagement and the successful integration of a community paramedicine program with local health, aged care and social services in rural Ontario, Canada. Data were collected through a combination of direct observations of practice, informal discussions, interviews and focus groups. We found evidence of public engagement during the planning and implementation stages of the program, with strong participatory processes evident. There was some evidence of a culture of inclusiveness, despite the strength of the command and control heritage in emergency health services. The community paramedicine model is well placed to facilitate greater integration between paramedic services and health, aged and social services. Public engagement incorporating both participation and inclusiveness can lead to a closer alignment and integration between paramedic services and other services. This 'grass-roots' approach to interacting with local communities has the potential to better integrate paramedic services as part of a less-fragmented system across the health, aged care and social service sectors.

Keywords:
research, rural; ethnography; health care administration; health care, interprofessional; qualitative research; health care, remote/rural

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Introduction

Community paramedicine (CP) is an emerging model of health care where paramedics apply their training and skills in 'non-traditional' community-based environments (1-3). The genesis of the CP model is generally credited to the long established and well evaluated Long and Brier Island project in Nova Scotia, Canada (4,5) where inspiration was drawn from the 1996 EMS Agenda for the Future from the United States (6). Since then, a broad range of locally-led paramedic projects have emerged to fill service gaps and produce systems that are more responsive to changing demographics (7,8).

A feature of CP programs is their potential to integrate existing paramedicine models with other health care agencies and health professionals. In Ontario, there are at least 48 CP programs in operation, with more programs planned and supported by the Ontario Ministry of Health and Long-Term Care (9). The organisation of paramedic services in the Province of Ontario is based on local government areas, making the system open to the concept of engaging local communities in the planning and delivery of paramedic services (10). An Australian conceptual model sees paramedics undertaking activities within four broad domains of practice: community engagement, emergency response, situated practice, and primary health care (1,11). This model encompasses extended roles for paramedics in health and emergency service planning and development, along with a more active community role for paramedics in primary health care. For these enriched roles to succeed, paramedics require enhanced knowledge and broader understanding of health issues while still having the skills to deal with specific paramedic service challenges, including the leadership, management and support of volunteers (12).

The specific domain of paramedic practice relevant to this case study was community or public engagement. While there is anecdotal evidence of paramedic service and paramedic engagement with communities, few instances have been reported in the literature (13-17). Our intent was to identify and describe the nature of the relationship between public engagement and the integration of CP with local health, aged care and social services. These observations have the potential to inform other paramedic services who are considering the use of community or public engagement strategies to integrate and work more closely with other agencies and professional providers.

Methods

We undertook this observational ethnographic case study in Ontario, Canada where a number of CP programs have emerged in response to demographic changes and broader health system reform. The paramedic service selected for the study has operated a CP program since 2010 (18) and was therefore able to provide strong and consistent information related to the research question (19). Ethnographic research methods were used because of their ability to explore social phenomenon through a small number of cases with unstructured data. Analysis of those data involved explicit interpretation of the meanings and functions of human actions, with the product of this analysis primarily taking the form of verbal descriptions and explanations (20).

We collected data through a combination of focus groups, interviews, direct observation of practice and informal discussions, during the summers of 2012 and 2013. This qualitative approach was adopted because of its capacity to capture the richness and diversity of the community paramedic role within a natural setting that allowed issues to be studied in depth. It placed paramedic practice within the wider community context (21). Three focus groups of between 10 and 20 participants and 34 interviews were conducted using purposive sampling to draw in a range of expert informants, including paramedic service managers, paramedics, educators, physicians, nurses, other health professionals, patients and community members. Roughly half the participants were employed within the case study organisation in one rural county, with the remainder employed in a wide range of other organisations. Focus groups and interviews were used because of their ability to encourage detailed, emotive responses, unconstrained by the specific questions of a survey.

We used the Australian paramedic domains of practice to locate the elements of the CP program within a conceptual framework and to develop the focus group and interview questions (13). Focus group discussions and the expert informant interviews were recorded and transcribed, with each transcript being coded and analysed using classic thematic analysis techniques through manual methods (22). This approach enabled identification of common themes within the data, without the constraint of having to establish how these themes link together or explain all facets of the data.

Complementing the focus groups and interviews were the researchers' field observations of community paramedics in this county. This involved two external research team members accompanying community paramedics on calls and talking with other health professionals, patients, families and carers one year apart. This provided the opportunity to observe the nature and authenticity of the paramedics' engagement and integration with the local health and aged care and social services (23).

Informal discussions with participants formed an important component of this observational phase of the data collection process and helped establish the general pattern of perception of the CP program in this county (21). The advantage of using this observational approach was that it shone a light on any discrepancies between rhetoric and reality, while validating

those data that had been gathered from other sources. During the field observation phases, two researchers independently noted a record of community paramedics' practice, along with their own feelings and responses. These notes were recorded during or immediately after events occurred (23). Our analysis of the field notes was commenced during the respective data collection phases through content analysis, an iterative process of developing categories from the notes, testing them against concepts and other data, and refining them.

Ethics

Latrobe University Ethics Committee granted institutional ethics approval (FHEC12/8) and the participating paramedic service accepted this approval.

Results

The CP model that we investigated has emerged from existing structures and local needs, with some of our participants describing a population in need, or at a near crisis status. According to one participant, the leaders of the paramedic service 'saw the opportunity to take ideas and programs that exist around the world … and tailor them to this community's needs.' The resulting program was built on strong partnerships between the paramedic service and other health, aged care and social services with a wide range of disparate community health initiatives evolving into a program consisting of four key elements: Aging at Home Program; Paramedic Wellness Clinics; Ad hoc Home Visiting Program; and Community Paramedic Response Unit Program. Each of these elements include some level of direct engagement with local community members, health, aged care and social services.

We found evidence of community and public engagement during the planning and implementation stages of the program, with strong participatory processes evident. Participants linked this engagement with the successful integration of the CP program with other services. An associated issue identified was the need to avoid service duplication and any unnecessarily damaging professional boundary issues that could undermine the potential success and sustainability of the CP program. It was evident that the future self-regulation of the paramedic profession in Canada and elsewhere has the potential to re-draw professional boundaries between paramedics, medical officers and other professions (24,25).

Many of the participants noted that the longer term sustainability of the CP program is highly reliant on strong integration with existing services. Within the provincial regulatory and funding system the objective of achieving greater integration with other services is challenging. In Ontario, paramedic services are accountable to and funded by both provincial and local government, with service delivery and clinical standards being regulated through the provincial health system. Despite this regulatory link, paramedic services are separated from most of the health system. For example, they are not members of the Local Integrated Health Networks that are responsible for the delivery of almost all health care in the province (26).

'Around 20 years ago there was downloading of paramedic services to the communities, so there was a complete divorce between the rest of healthcare and paramedics. Paramedics belong to a city or region, the rest of healthcare belongs to the Ministry of Health and because of that it is difficult to break down those barriers to get them to work together, the major barriers as you can see are not the interest or prejudice or whatever it's more the structure, the infrastructure that we are working with right now.'

For many in the health system, paramedic services are outside their immediate point of reference unless they are facing a medical emergency. An example of this 'blind spot' is a recent report from the Ontario Hospital Association showcasing innovations in small, rural and northern hospitals to enhance access through integration. Despite some of these showcased hospitals having formal partnerships with the paramedic service we studied, there is no mention of their CP program in the report (27). At a grass-roots level there was considerable evidence of engagement during the planning and implementation stages of the CP program, with the paramedic service conducting 'town hall' meetings and participating in numerous activities with other agencies. They recognised the value of 'networking' within the health, aged care and social service networks.

'The benefit is that we were invited to participate; the networking that I have been able to forge there has been tremendous from the perspective of learning what is already in the community and what services are provided.'

Community paramedics in the field are encouraged to 'drop in' on patients, community facilities and businesses to determine local health care needs and identify service gaps.

'We have what [a named community paramedic] does. Drive around and drink tea and be nice to people … there's a whole lot more to that obviously, but the general sentiment is about increasing people's well-being, their sense of safety and security and educating them at the same time.'

These and other observed activities demonstrate a strong commitment to public engagement and a desire for stronger and more sustainable integration, while we acknowledge that the initial establishment of CP programs is the first step in sustained community engagement and health system integration. One participant made the point that the Paramedic Wellness Clinics might have been even more successful if a formal referral system for sub-acute and chronic patients had been established at the onset. Others highlighted the value of inclusive teamwork.

'If we are going to talk about patient centred care then it is a team event and we need to bring everybody in … from the physician all the way to the paramedic and everybody in-between. We all have to play together to make sure that this patient is dealt with in the most cost effective way, in the most appropriate way to get them into the hospital healthy enough to be discharged back home and make sure that home support is there for them.'

Participants recognised the important role that the paramedic service has in integrating different services for patients and helping them and their families navigate through the health, aged care and social service systems. The community paramedic participants particularly understood that part of their role was to connect patients and families to the resources they need in order to avoid medical emergencies in the future. Many participants expressed concern that patients and clients would fall through the gaps if services were not integrated and people became caught up in professional boundary issues.

'Because resources are getting much more limited in the community, there's lots of people that have fallen through the cracks just because they don't have a real acute situation and maybe they don't qualify for the support that they actually need. They are in that grey zone.'

The paramedic service has worked closely with the Local Integrated Health Network to ensure that the Ad hoc Home Visiting Program uses the skills and availability of paramedics to assess and monitor patients in their own homes without running into conflict with other agencies or health professionals. This network is organised and mandated by the Province of Ontario to coordinate all of the activities in the health system within the area to identify different initiatives that would allow the elderly to remain in the community if possible and decrease the impact on long term and acute care services. Despite these efforts, it was not always obvious to some participants how the CP program is integrated with the local health system. For instance, one participant noted the integration of the Aging at Home Program, while being unaware that the Wellness Clinics had linkages with the Regional Diabetes Network.

'It depends on which particular piece that you are looking at ... the Aging at Home Program is very well integrated as it was designed that way, it was a partnership between the long term care facility and the paramedic service ... I believe that the community paramedic program works very, very closely with homecare in that situation as well, so they are part of a team for the individual who is remaining in their home. … As far as the Wellness Clinics go it's a service that is offered in communities so it is not particularly integrated into anything.'

One of the hallmarks of the county's CP program is the willingness of the paramedic service to play a variety of roles. While willing to offer services to meet local needs, such as the Paramedic Wellness Clinics, they are not insistent on always taking the lead role. An example of this is the Aging at Home program, which is a sub-component of a much larger program. It was cited as an example where the CP program had knitted programs together through a willingness and capacity to engage with the community and integrate with other health, aged care and social services.

'At least in part, one of the strengths of the community paramedic program is that because it's sometimes rightly or wrongly not seen as part of the traditional health system, people see them as non-traditional partners and you can actually consider doing things that are a bit more innovative. So it is sort of the flip side to being outside the system.'

There was a demonstrated awareness that expanding paramedic services could duplicate existing services and lead to conflict with other health professionals unless integration was well managed. To this end, Canadian paramedicine leaders have undertaken high level discussions with medicine and nursing bodies, and made a presentation to the Nation's Standing Committee on Health outlining the role of community paramedics (28). While aware of the danger of duplication and the associated professional boundary sensitivities, most participants had few concerns about duplication of services in a region with limited health care resources.

'It's funny you know, there is always this mythology that nurses will be afraid that their jobs will be taken away from them. Well there is a huge shortage of nurses and we are not going to get any more nurses coming in. [Paramedics] ... scope of practice is similar to nurses but not identical. Therefore there are some areas where paramedics would do a fantastic job and would be perfectly suited, it is just a matter of moving the behemoth of infrastructure, administration and alliances.'

Some participants expressed the view that physicians would be the most likely group to impede the integration of paramedic services into the health system.

'Physicians are less open to those kinds of partnerships and anything that they feel might impact on their scope or where they essentially don't have direct control over a situation. It depends on the physician, but sometimes that happens and also the physician having trust on what the paramedic is doing, trust in the skills of the paramedic, being able to rely on what the paramedic's interpretation is. I think that that might be a bit of a barrier.'

This argument seemed of little concern to the paramedic participants who did not raise this as an issue. Perhaps the fact that they conceived and implemented this CP model with the strong support of their local managers and other health professionals had diffused this potential area of conflict. In the same way, the issue of medical oversight or clinical governance was rarely raised. During one of the focus groups one of the three physicians in the group suggested that many emergency

medicine physicians might not have appropriate backgrounds and relevant experience to provide medical oversight of community paramedics who would be dealing with patients suffering from chronic diseases and confronting a wide range of social problems impacting on their health status. One paramedic participant suggested that those undertaking community paramedic roles should be self-regulated through their own professional college, arguing that because the majority of primary care or advanced care paramedics activities and interventions require no medical oversight, only adherence to established standards of practice.

Discussion

In this study we set out to identify and describe the nature of the relationship between public engagement and the integration of a community paramedicine program with other services. The county paramedic service that we examined demonstrated that they used a range of engagement strategies to plan and implement key elements of their CP program and they continue to use them while they develop and seek to sustain a more integrated relationship with their local health, aged care and social services. Our observation that participants rarely discussed public or community engagement strategies during the focus groups or interviews raises the question of how engagement can be understood in this context.

At one level, it can be described as the opportunity to have input into the content and policies of the CP program through public meetings, committee membership, consumer surveys and the like (30). The paramedic service has used a number of these participatory processes to gain the support and trust of key stakeholders during the planning, implementation and ongoing management phases of their CP program. At a another level, public engagement comprises inclusive processes that allow citizens, clients and others the opportunity to coproduce the processes, policies and programs that address their concerns (30). Our field observations and interviews point to the CP program developing elements of inclusiveness thorough community paramedic interactions with clients, families and carers in public and home settings.

These interactions are characterised by more equal power relationships than often found in the health care sector despite calls for patients to be partners instead of passive receivers of care (31). We directly observed examples of inclusive public engagement during the field research, with paramedics, other health and social service professional, clients and carers interacting with each other as equals in ways that are not commonly seen in institutional clinical settings because of the formal settings and power differentials (30).

The relatively early development of this level of inclusiveness was somewhat surprising given the prevalence and strength of the command and control culture in emergency health services that has been cited as an impediment to culture change in paramedic services (32,33). This cultural inheritance might partly account for the lack of discussion from participants directly addressing inclusiveness within the CP program. It may also account for the lack of any suggested strategies to measure inclusiveness as part of the paramedic service performance management system to complement traditional performance measures such as cardiac arrest survival rates (34). Even without clear performance measures in place, we suggest that the CP model is well placed to engage with communities and to facilitate greater integration between paramedic services, their communities and health, aged care and social services.

Limitations of this study

In this study we confronted the limitations of ethnographic research, including the time consuming nature of the research. Despite the relatively large number of participants it remains difficult to generalise the specific findings to other settings because they are based on the cultural responses of participants and the subjective interpretation of the researchers (29). On the other hand, CP programs are by design designed to fill service gaps and respond to community needs in a flexible manner.

Conclusion

The community paramedicine model is well placed to facilitate greater integration between paramedic services and health, aged and social services. Public engagement incorporating both participation and inclusiveness can lead to a closer alignment and integration between paramedic services and other services. This 'grass-roots' approach to interacting with local communities has the potential to better integrate paramedic services as part of a less-fragmented system across the health, aged care and social service sectors.

Conflict of interest

Peter O'Meara and Angela Martin have no financial of other conflicts of interest relating to this manuscript. Michel Ruest is an employee and senior manager of the County of Renfrew Paramedic Services. Peter O'Meara is an Associate Editor of the Australasian Journal of Paramedicine.

Each author has completed the ICMJE conflict of interest statement.

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