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Optimising the community-based approach to healthcare improvement: Comparative case studies of the clinical community model in practice

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ABSTRACT

Community-based approaches to healthcare improvement are receiving increasing attention. Such approaches could offer an infrastructure for efficient knowledge-sharing and a potent means of influencing behaviours, but their potential is yet to be optimised. After briefly reviewing challenges to community-based approaches, we describe in detail the clinical community model. Through exploring clinical communities in practice, we seek to identify practical lessons for optimising this community-based approach to healthcare improvement. Through comparative case studies based on secondary analysis, we examine two contrasting examples of clinical communities in practice – the USA-based Michigan Keystone ICU programme, and the UK-based Improving Lung Cancer Outcomes Project. We focus on three main issues. First, both cases were successful in *mobilising diverse communities*: favourable starting conditions, core teams with personal credibility, reputable institutional backing and embeddedness in wider networks were important. Second, top-down input to organise regular meetings, minimise conflict and empower those at risk of marginalisation helped establish *a strong sense of community and reciprocal ties*, while intervention components and measures common to the whole community strengthened peer-norming effects. Third, to *drive implementation*, technical expertise and responsiveness from the core team were important, but so too were 'hard tactics' (e.g. strict limits on local customisation); these were more easily deployed where the intervention was standardised across the community and a strong evidence-base existed. Contrary to the idea of self-organising communities, our cases make clear that vertical and horizontal forces depend on each other synergistically for their effectiveness. We offer practical lessons for establishing an effective balance of horizontal and vertical influences, and for identifying the types of quality problems most amenable to community-based improvement.

1. Introduction

Securing improvements in healthcare quality is challenging (Powell et al., 2009). Even where interventions prove successful in one context, attempts to replicate positive impacts elsewhere are variable in their results (Dixon-Woods et al., 2013), and often disappointing (Lomas, 2005). Context is now recognised as a crucial mediator of efforts to improve healthcare quality, not just an inert backdrop, and furthermore one that can interact with interventions and implementation in unpredictable ways (Bamber, 2014). Accordingly, recognition has grown of the need to approach improvement interventions from a broader cultural and institutional perspective, accounting for the role of organisational structures and social processes (Aveling et al., 2013) and developing approaches to implementation that can adapt to contextual modifiers in more dynamic ways. In this context, the potential of community-based approaches is receiving increasing attention (Greenhalgh et al., 2010).

One potentially valuable feature of communities is an efficient, low-cost infrastructure for transmitting knowledge and innovation,

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including tacit knowledge or 'know-how' (Powell, 1990). A second is their power to shape behaviour through peer influence and normative pressures. Communities typically display strong shared identity and interdependence between members and may be especially powerful as 'economies of regard' (Offer, 1997), where peer sanctions and endorsements form a valuable currency. Evidence suggests threats to peer esteem and reputation in such communities may be more effective than formal hierarchical or legalistic efforts (Freidson, 1984). Thus, in contrast to legal or hierarchical-bureaucratic approaches, community-based approaches foreground the value of 'horizontal' links among peers, and the power of 'bottom-up' social processes driven by those peers rather than by leaders or managers at the apex of a hierarchy (Aveling et al., 2012a). Communities therefore offer an infrastructure for efficient knowledge-sharing and a potent means of influencing behaviours. Empirical studies suggest, however, that community-based approaches to healthcare improvement have yet to be optimised (Gabbay et al., 2003; Li et al., 2009; Nadeem et al., 2013).

We begin by reviewing some of the challenges encountered using community-based approaches to healthcare improvement, focusing on two prominent models: communities of practice and quality improvement collaboratives. We then describe a third model: the clinical community (Aveling et al., 2012a). This model builds on many of the principles of the first two, but also has distinctive features which, we argue, may address some of the challenges that have dogged community-based approaches thus far. Following this, we present a comparative analysis of two case-study clinical communities: the Michigan Keystone programme (USA) and the Improving Lung Cancer Outcomes Project (UK). In so doing, we identify practical lessons for optimising the clinical community approach.

1.1. Current approaches: communities of practice and quality improvement collaboratives

Two of the most well-developed community-based models for healthcare improvement are the 'community of practice' and the 'quality improvement collaborative'. Communities of practice were first developed in the business sector and, as originally described (Lave and Wenger, 1991), are emergent and self-forming, centre on a shared concern or interest, and emphasise learning through practice—though further iterations since this original formulation have highlighted the role for managerial intervention in 'nurturing' communities of practice (e.g. Smith and McKeen, 2004). The quality improvement (QI) collaborative model developed within healthcare itself, with the Institute for Healthcare Improvement's 'Breakthrough Series Collaborative' model a well-known example. QI collaboratives form around specific, predetermined objectives and are typically time-limited. They characteristically use specific methods (such as PDSA cycles) and regular face-to-face (or sometimes virtual) events for learning and mutual encouragement (Hulscher et al., 2012; Nadeem et al., 2013). The evidence base for both models is somewhat mixed (Gabbay et al., 2003; Iedema et al., 2005; Li et al., 2009; Nadeem et al., 2013; Powell et al., 2009). Evidence reviews suggest that QI collaboratives can have some impact on quality of care processes but with marked variation in effectiveness (Nadeem et al., 2013), and that there is little evidence for the impact of communities of practice, partly because the model has been realised in very diverse ways (Li et al., 2009). Thus while some successes have been reported, these models are not without weaknesses.

First, critiques suggest that mobilising the diverse community of stakeholders needed to make improvements (typically including practitioners, managers and patients) (Aveling and Martin, 2013; Aveling et al., 2012a) can be problematic. Communities of practice assume the existence of a shared concern (a quality gap) around which healthcare practitioners will self-organize. Yet healthcare systems are frequently marked by historically embedded boundaries between professions, disciplines or organisational units, which create obstacles to knowledge sharing and a sense of shared interest (Ferlie et al., 2005). Further, quality gaps are often identified by external groups, and practitioners may disagree over their existence or importance. Collaboratives have also been found wanting in terms of mobilisation: though they may encourage and maintain enthusiasm among a motivated group of individuals, it is less clear that they can engage those less directly affected by change, whose cooperation is nonetheless required (Ayers et al., 2005; Benning et al., 2011; Carter et al., 2014).

A second challenge concerns promoting the shared sense of community and purpose needed to maintain cohesion and momentum (Aveling et al., 2012a). Both models tend to rely on their members' goodwill, assuming that communities are naturally harmonious and egalitarian, when in fact they are typically fragmented and conflicted (Li et al., 2009). Discussion and decision-making can be undermined when professional or individual interests are allowed to dominate (Gabbay et al., 2003). Yet the communities of practice literature says little about how hierarchical or exclusionary dynamics can be avoided (Li et al., 2009).

Finally, current approaches have encountered difficulties generating and sustaining action. Whereas communities of practice are expected to instigate plans for change in the course of their own knowledge-exchange processes (Iedema et al., 2005), QI collaboratives are explicitly goal-focused from the outset, which arguably gives them an advantage in achieving improvement-related outcomes (Ayers et al., 2005). Even so, they still rely primarily on 'volunteerism' and, in a context replete with competing demands, volunteerism alone may prove insufficient to secure sustained action (Aveling et al., 2012a). Even when the energy and motivation of the membership is maintained, communities often struggle to turn plans into action because they lack the necessary resources, expertise, skills or leadership and direction (Li et al., 2009; Øvretveit et al., 2002).

1.2. Clinical communities

The model of the clinical community (Aveling et al., 2012a) is relatively new and was developed through a detailed literature review. While sharing many of the basic principles of communities of practice and QI collaboratives, it also incorporates some distinctive features which seek to tackle the shortcomings just identified (i.e. around mobilisation, sense of community, and sustained action).

A clinical community is formed of interdependent individuals, united by a shared commitment to specific goals, who work collaboratively to achieve these. It has reasonably well-defined boundaries (to mitigate loss of focus or identity), which are porous enough to transcend organisational, disciplinary and professional boundaries to ensure inclusion of the necessary stakeholders. Clinical communities are distinguished by a 'vertical' integrating core to complement reciprocal 'horizontal' relationships between peers. The core leads organisation of the community and its resources, and ensures sustained direction and coordination. The core also plays an important role in mobilising an inclusive community of stakeholders; given the challenges described above, this may mean persuading and engaging skeptics. Recognising the limits of relying on 'volunteerism' in healthcare contexts crowded with competing priorities, sometimes the vertically integrating core may deploy harder tactics, by which we mean those that are more directive, enforcing and even coercive (Vangen and