Primary health care in New Zealand: the impact of organisational factors on teamwork
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ABSTRACT
Background
Although teamwork is known to optimise good health care, organisational arrangements and funding models can foster, discourage, or preclude functional teamwork. Despite a new, enhanced population-based funding system for primary care in New Zealand, bringing new opportunities for more collaborative practice, fully implemented healthcare teamwork remains elusive.

Aim
To explore perceptions of interprofessional relationships, teamwork, and collaborative patient care in New Zealand primary care practice.

Design of study
Qualitative.

Setting
Eighteen nurses and doctors working in primary care, Wellington, New Zealand.

Method
Data were collected using in-depth interviews with individual nurses and doctors working in primary care settings. Perceptions of, and attitudes about, interprofessional relationships, teamwork, and collaborative patient care were explored, using an interactive process of content analysis and principles of naturalistic enquiry.

Results
Nurses and doctors working in New Zealand primary care perceive funding models that include fee-for-service, task-based components as strongly discouraging collaborative patient care. In contrast, teamwork was seen to be promoted when health services, not individual practitioners, were bulk-funded for capitated healthcare provision. In well-organised practices, where priority was placed on uninterrupted time for meetings, open communication, and interprofessional respect, good teamwork was more often observed. Salaried practices, where doctors and nurses alike were employees, were considered by some interviewees to be particularly supportive of good teamwork. Few interviewees had received, or knew of, any training to work in teams.

Conclusion
Health system, funding, and organisational factors still act as significant barriers to the successful implementation of, and training for, effective teamwork in New Zealand primary care settings, despite new opportunities for more collaborative ways of working.

Keywords
primary health care; New Zealand; teamwork.
Collaborative practice is an important principle underpinning good primary health care, but effective teamwork to achieve it is not always easy. Prerequisites for good teamwork (including training for nurses and doctors to work together) are well-known in other contexts, but often not supported or funded within health systems. Despite widespread expectations for collaborative teamwork in primary care-led health systems, political, organisational, educational, and cultural barriers exist. The current health service funding model introduced as part of New Zealand’s 2001 Primary Health Care Strategy is only partially supportive of teamwork. Fee-for-service funding streams—where payments come from different sources, are task-based, and linked to type of practitioner—act as a barrier to collaborative working. However, excellent business practice, where priority is placed on uninterrupted time for open communication with participative safety, and where the most appropriate skill-mix for best patient care can be respectfully negotiated at practice level, helps foster and maintain fully collaborative practice.

Along with a number of other developed countries, New Zealand has a publicly funded health system. The Primary Health Care Strategy was introduced in 2001 as New Zealand’s official response to evidence promulgating primary care-led health systems for developed countries. The strategy placed an increased emphasis on greater provision and funding of primary health care, and anticipated expanded and more collaborative ways of working for health professionals within the sector.

Although the new primary care system is modelled in part on other capitated population-based funding systems, direct patient charges (as fees-for-services) and other, smaller, fee-for-service funding streams continue to apply to the provision of primary care services in New Zealand.

The success of this new primary care-led system is heavily dependent on the quality and commitment of the primary care workforce, with a clear expectation of closer interprofessional working and collaborative practice. Capitated population-based funding (where a health service is paid in bulk for care provision, regardless of which clinical practitioner undertakes the care) creates potential for different ways of working in this new primary care-led environment. It creates more employment choices for doctors and nurses, including increased opportunities for negotiated and renegotiated skill-mix. Despite these opportunities, relatively little is known about how nurses and doctors (the two largest health professional groups working in primary care settings) relate to each other in everyday practice, or how the current health system affects the way they work together.

This paper presents findings about organisational factors that affect the ability (or otherwise) of primary healthcare professionals to work in effective teams. The study aimed to explore attitudes about and perceptions of interprofessional relationships, teamwork, and collaborative patient care in New Zealand primary healthcare practice.

**METHOD**

This qualitative study was undertaken with a series of individual in-depth interviews using principles of naturalistic enquiry and an analytic process of immersion-crystallisation. Further details about the study method have been previously described. The data were collected 3 years after the implementation of the Primary Health Care Strategy through the formation of 21 district health boards, emergence of primary health organisations, and introduction of the associated population-based funding model. From the outset, an underlying study assumption was made that both disciplinary groups be regarded with equal respect and equal involvement in all stages of the research process.

**The sample**

Purposeful sampling was undertaken with doctors and nurses in the Wellington region of New Zealand. While not intending to be representative, other than to alternately interview nurses and doctors in equal numbers, every attempt was made to include a range of doctors and nurses working in different types of primary care settings. The Wellington region is similar to other urban and suburban localities in New Zealand with respect to income levels, older age groups, and ethnicity demographics (principal factors influencing the work environment for nurses and doctors in primary care settings).

The sampling process resulted in 18 interviews: nine nurses and nine doctors. Interviewees included male and female doctors (but only female nurses since no male nurses working in primary care were located in the study area), and Māori and those in other ethnic groups (including New Zealand European and Samoan). It included nurses and doctors either more or less recently qualified, and with either more or less length of time worked in primary care. Concurrent iterative analysis informed the sampling process.

**Data collection**

Each potential participant was initially approached...
by phone and then sent a letter of invitation and an information sheet about the study, before formally consenting to participate at a later date. Care was taken to ensure the approach and interview process was acceptable to all participants.

A flexible question guide was used to guide the interviews; key areas of initial enquiry were to do with the interviewee’s own current professional work and role either as a nurse or a doctor in primary care, previous work and experiences, and perceptions about the work and roles of others (nurses about doctors, doctors about nurses). Participants were easily able to digress from the initial questions to talk about other relevant aspects of primary care practice that concerned them. Interviews were between 1 to 1.5 hours in length, conducted by one interviewer on a peer-to-peer basis in workplaces or at interviewees’ homes, and audiotaped and transcribed.

**Analysis**

The software package NVivo was used to manage and account for all the data. Categories were developed and then continually tested as interviews were completed and data coded. An iterative back-and-forth flow, such as that described by Crabtree and Miller, developed between a structured content analysis and deeper inductive enquiry. Topics worthy of further reflection were identified, considered, and re-considered. Critical review of the data at each of the deeper enquiry stages, as well as peer debriefing and consideration of outlier and negative cases, promoted internal consistency and data corroboration.

**RESULTS**

The analysis identified two contrasting types of factors affecting teamwork — intrinsic and extrinsic factors. Intrinsic components of nurse–doctor interprofessional relationships affected the ability or otherwise of nurses and doctors to work together in teams. Extrinsic factors external to those relationships dictated the success or otherwise of good teamwork. The findings about these extrinsic factors are reported in this paper.

Of the intrinsic factors, interprofessional respect and the subsequent development of trust were found to be key characteristics of successful and enduring nurse–doctor relationships, as previously described. However, while interprofessional respect and the development of interprofessional trust are important and essential prerequisites for participative safety in teams, and participative safety is a necessary component of effective teamwork, it is not seen as sufficient on its own to result in fully effective teamwork.

Interviewees in this study repeatedly referred to a number of factors external to individual relationships that had the potential to generally affect the ongoing quality of nurse–doctor teamwork and the ability to undertake and maintain fully collaborative practice. Interviewees commented on these extrinsic factors in relation to the following three key areas: current health system policy and funding models for primary care; organisation within practices; and education for health professionals.

**Health systems**

At the health systems level, current funding models for primary care services were seen as problematic, even though practices of all types were receiving increased population-based funding by the time of the study. Population-based funding was described as potentially supporting teamwork, because, if adequate, it was seen to support all practice activity, not just patient contact time. However, the population-based funding only applied to a proportion of practice income, with the rest either coming directly from patients as a fee-for-service, or from other task-based funding streams such as the Accident Compensation Corporation (ACC — New Zealand’s no-fault accident insurance system).

These other funding structures were identified as a barrier to effective teamwork and the most appropriate skill-mix. This contributed to inefficient use of both nurse and doctor time, particularly in a fee-for-service structure based around higher remuneration for doctor–patient contact than nurse–patient contact.

Interviewees described how this directly affected workload:

‘if they [the nurses] were to do that [task] autonomously we wouldn’t get funded as much whereas if we do it we get to claim [more] ACC funding for it which is ridiculous … the same job but done by different people but that is the way the system works.’ (Interview C, paragraph 106, doctor self-employed in private practice)

In salaried situations, even though the immediate business responsibilities were reduced, ‘it’s a huge relief [to be salaried]’ (Interview K, doctor, paragraph 455). Doctors were still under pressure to consult with as many patients as possible, since the funding to the organisation was still, in some cases, dependent on the number of doctor–patient contacts.

Interviewee K explained that in his practice the funder had eventually agreed to look at team–patient contacts, rather than doctor–patient contacts, as a measure of access to the service, and that this supported much better teamwork:
‘The motivation is that the patient gets looked after; it doesn’t matter who [does the work] … as long as they get looked after.’ (Interview K, paragraph 517, doctor employed in salaried practice)

**Organisation within practices**

At practice level both doctors and nurses identified many of the stresses and challenges inherent in running a healthcare business (whether by individual doctors, nurses, or an organisation). Those working in salaried practices in high-need areas (where the service is often wholly bulk-funded with little or no expectation of a patient part-fee) spoke of the need to maximise access for patients. In contrast, those working in private businesses (where capitated funding is only partial and patients pay part charges on a fee-for-service basis) talked of the difficulties in running a successful business for primary healthcare provision.

The concerns of these two interviewees working in private practice, one in a nurse-led and owned practice and the other in a doctor-led and owned practice, reflected the need to run a healthcare business efficiently:

‘It’s generally very hard for practices to make money these days, isn’t it, so in fact one way of turning that around is maybe utilising the nurses more effectively, but then at the same time I think … the overall job satisfaction then for a doctor might not be quite so good, because [when they are there] they would perhaps be seeing way more patients.’ (Interview I, paragraph 406, nurse employed in nurse-owned and led private practice)

‘Financial viability in [New Zealand] general practice is something that underpins everything you do … if you’re not in front of the patient, you’re not earning money … you need to maximise contact time, maximise charging, leave off other things that we are not going to be reimbursed for.’ (Interview J, paragraphs 112, 583, 602, doctor, independent contractor)

At practice level the following were mentioned repeatedly: good systems for patient flow-through; adequate space in which to work (especially for nurses); uninterrupted and dedicated time for meetings; open communication; and valuing of all points of view regardless of professional discipline or employment status. These were seen not only as essential for good teamwork and interprofessional practice but also for running a good business:

‘We have the doctors’ and nurses’ meetings every second month; we have all-staff-right-across-the-board meetings every other month. We have strategic planning once a year, everyone is very approachable. [In our practice] I think everyone feels they can say … about things that are worrying them. We have a stress monitor that we fill in at our staff meetings … red is the danger area so the practice manager monitors that … and she can start putting things in place.’ (Interview N, paragraphs 85–88, 92, nurse employed in private practice)

In comparison, effective teamwork was precluded in practices with inefficient work spaces, no commitment to regular meetings, and no opportunity for sharing of ideas and common goals:

‘In some practices I think that you just don’t have that team scene at all … some practices don’t have staff meetings full stop … so how can you have collaboration if people are not communicating?’ (Interview A, paragraph 55, nurse employed in private practice)

A doctor interviewee identified lack of attention to practice systems as a constant source of stress at a past workplace:

‘So you have this patient who is half sorted and you have got nowhere to put them, and … they’ve got their bandages down … and I think a lot of the stress came from the fact that … not enough attention had been paid to … basic systems … you get your systems right, everything works, everything works without you thinking about it.’ (Interview J, paragraph 528, doctor, independent contractor)

In New Zealand doctors often own general practices with nurses being employees. Salaried practices, whether in high-needs areas or not, where both nurses and doctors are employed alongside each other, removed this direct employer/employee relationship. This factor was sometimes perceived to be a barrier to effective teamwork. Whether the barrier is perceived or actual, the effect can be significant, as this nurse who worked with several practices described:

‘When nurses are employed [by the doctor], that dynamic within a relationship is quite hierarchical, whether implied, perceived, or actual … [when we are all salaried] it puts people on a level playing field so “it’s not I’m working for the doctor but we are working for the patient”,’ (Interview P, paragraphs 316, 332, nurse employed by a primary health organisation)
Several interviewees in the study worked in practices where everyone was salaried, and some described this employment arrangement as promoting teamwork. This in turn supported and enhanced the development of better working relationships.

Here, a nurse previously employed in salaried practice, now employed in a doctor-owned practice, describes the difference:

‘I think that the personnel there ... were conducive to working as a team, but also the fact that we were all salaried made a huge difference. I mean everybody was on the same sort of level.’
(Interview A, paragraph 55, nurse employed in private practice)

Good teamwork was readily identified by some who worked in private practices, but this nurse considered it far from universal:

‘I think it is very variable actually. I think I work in a really good practice ... in terms of how people get on, how people’s skills are valued ... and where I know I can make a good contribution and where people are appreciative ... doctors and patients and receptionists, everyone, and nursing colleagues too. [But] I’m on the practice section, which is the local practice nurse committee ... I certainly hear a lot of gripes ... I mean some practices don’t probably even have team meetings or anything like that, and so I think ... I do work for a good practice and I think it is probably exceptional rather than the norm.’
(Interview N, paragraphs 188–192, nurse employed in private practice)

Nevertheless, findings in this study pointed towards good overall business practice as the key to successful teamwork, not the contractual arrangement alone, similar to findings in the UK when new Personal Medical Services projects were reviewed.22

However, in privately owned practices, the responsibility for good organisation or otherwise is heavily dependent on the individual owner-doctors (or, very occasionally, owner-nurses). When doctors have both clinical and business roles within a practice, the necessary expertise and time for the work of running a business may be compromised. Until recently, there has been little routine accountability for good business practice in general practice, although since 2005 the Cornerstone practice accreditation programme has provided a now widely accepted voluntary benchmark.23

**DISCUSSION**

**Summary of the findings**

A number of organisational factors affect the ability of New Zealand nurses and doctors to work in fully effective teams in primary care settings. The study demonstrates the need to better support teamwork at health system level.

Despite major changes in the organisation of primary care in New Zealand in the last few years, interviewees in this study report current service provision funding models as only partially supportive of teamwork. Fee-for-service funding models, where payment is task-based and linked to type of practitioner, act as a barrier to collaborative working.

At workplace practice level, employment models where all staff are salaried can foster teamwork, but so can well-run, owner-operated private businesses. Excellent business practice, where priority is placed on uninterrupted meeting time, open communication with participative safety, and the most appropriate skill-mix for high-quality care, was described by participants as key to fully collaborative practice. These nurses and doctors working in primary care acknowledged little or no training to work in teams, describing ongoing professional development as poorly funded and almost wholly unidisciplinary.
Strengths and limitations of the study

These results do not purport to be representative of primary healthcare professionals in New Zealand. Instead, they provide an iterative analysis of data generated by nurse and doctor participants working in a range of urban, suburban, and conurbation primary care practice settings. The study area was not able to include rural communities, an important limitation, since rural practices typically have different funding models and small numbers of health professionals well-known to each other.

Although the study was limited in some ways by the use of a single interviewer, this also ensured consistency between interviews. However, the interviewer was New Zealand European, not Māori, and from a medical, not nursing, background. The study design and process took these factors into account as carefully as possible, with all transcripts being reviewed by the nurse investigator and all authors involved in the analytical process. Advice was incorporated from a Māori researcher.

Comparison with existing literature

Consistent with studies elsewhere, the barriers to collaborative primary care teamwork identified in this study are multiple. Barriers both in New Zealand and other developed countries can be political, organisational, educational, or cultural.

For example, though recent New Zealand health policy has changed to strengthen its primary care-led health system, there has been little re-alignment of training and educational policies to support the workforce in the new environment.

This is despite the increasing international recognition of the need to actively provide support for the fostering of teamwork at policy level. The Enhancing Interdisciplinary Collaboration in Primary Health Care (EICP) initiative in Canada is an excellent example of active promotion of teamwork at the highest level, as is the UK Centre for the Advancement of Interprofessional Learning (CAIPE) in promoting training for teamwork.

Implications for practice

This research has helped identify important health system, workplace practice, and educational factors that have the power to either foster and maintain new interprofessional working, or to preclude it. In many respects New Zealand has greatly strengthened its commitment to a strong primary care-led health system with the introduction of current policy, including the expectation that excellent health professional teamwork will be the norm. However, despite increased resources and the new population-based funding model, there are still many task-based, fee-for-service funding components in place that act as barriers to teamwork.

More interprofessional education and professional development is also needed to promulgate good business practice in general, and training in teamwork in particular. It is essential that primary care nurses and doctors, as well as other primary healthcare professionals including pharmacists, physiotherapists, and midwives, are well-trained to work together, and well-supported to practise in effective teams. Without a supported, committed, and cohesive workforce, the potential of New Zealand’s primary care-led health system to deliver optimal individual patient and community-wide primary health care will be restricted.

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Ethical approval

Granted by the Central Regional Ethics Committee, Wellington, New Zealand (WGT/04/16/CPD)

Competing interests

The authors have stated that there are none.

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