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Interprofessional learning in medical education in New Zealand

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Abstract

This article considers interprofessional learning initiatives in the context of undergraduate and postgraduate education and the continuing professional development of doctors and other health professionals. The evidence for and challenges to delivering interprofessional education are discussed along with current interprofessional education initiatives in Aotearoa/New Zealand and Australia.

Many opportunities exist for health professionals to work together more effectively. We all want the best outcomes for our patients and good working relationships, but often we work and learn in professional silos. This paper explores the policy drivers for interprofessional learning (IPL), provides evidence for what works, identifies some of the challenges and shares examples of how health professionals in New Zealand are implementing IPL initiatives: aimed at improving health outcomes and facilitating well-functioning workplaces for all members of the health care team.

What is interprofessional learning?

The literature uses a number of terms relating to interprofessional interactions. Box 1 clarifies some of these terms.

Box 1. Some definitions

- Interprofessional Education (IPE): occasions when members (or students) of two or more professions learn with, from and about one another to improve collaboration and the quality of care.[1]
- Interprofessional Learning (IPL) is often used interchangeably with IPE, but is not such a prescriptive definition, referring both to planned interprofessional education / learning activities and those that arise more spontaneously in the workplace or in education.[2–4]
- Multiprofessional education or shared learning may involve different professions learning material together but not necessarily learning from or about one another.
- Interprofessional collaboration, (IPC) occurs when multiple health workers from different professions work together to provide comprehensive services to deliver high quality health care.
- An Interprofessional (IP) Team comprises different professionals who deliver services and coordinate care / improvement programmes. An IP team:
- Sets goals collaboratively through consensual decision making
- Has activities that result in an individualised care plan / service / programme delivered by one or more team members
- Maximises the value of shared expertise
- Minimises barriers of professional autonomy. [5]

Successful IP teams understand where professional boundaries intersect and end, respect all members of the health workforce, disrupt hierarchies and activate all members of the health care team. [6, 7] IPL is just one of many educational approaches that can contribute to improved teamwork and collaboration and improved patient care. A powerful way to learn about IPC is through experiences gained by working in teams in the workplace. However, much of this learning is serendipitous and role models may not always be ideal. Consequently, such opportunistic learning may not produce learners who are of a benchmark standard or who have had similar core learning experiences that meet defined educational outcomes. [8]

If we want to ensure that our future health professionals are equipped to work in integrated services, function effectively across professional and organisational boundaries and genuinely work collaboratively with other health workers, then we need to formally educate them to do so. Some of this formal education is best delivered by IPL but there are also other modalities such as debriefing sessions by mentors and team building exercises for individual clinical teams. The advantage of IPL is that it requires the learners to work in teams or groups to explore similarities and differences between professions and to learn from one another about health care with the aim of functioning more effectively in IP work-based teams.

Why IPL?

Since the late 1970s, interprofessional learning has had high level policy impetus from international bodies, such as the World Health Organisation (WHO) and governments, emphasising the need for health workers to work together for effective health care. Two key international political drivers were the WHO report [9] that revealed an urgent need to enhance human resources for health and the WHO 5th World Assembly Resolution calling for rapid scaling up of health workforce production and the use of innovative approaches to teaching.[10]

As one innovation to help tackle this problem, the WHO launched a study group on Interprofessional Learning and Collaborative Practice. This group conducted an international 'environmental scan' and an assessment of the current research in this area and synthesised it within an international context. [11]

The group collated the evidence from six systematic reviews on IPE, six systematic reviews related to collaborative practice plus collaborative practice case studies from ten countries. The major strength of the WHO Framework is that it was a study carried out by international experts, based on a wider international consultation than any previous studies.

The study group concluded that "*After almost 50 years of inquiry, there is now sufficient evidence to indicate that interprofessional education enables effective collaborative practice, which in turn optimizes health services, strengthens health, and improves health outcomes*."[11(p18)]

This is not a direct causal relationship and IPL is clearly not the only factor in IPC but the WHO report highlights the link between IPL and IPC through the development of *collaborative, practice-ready health care professionals*; stating that interprofessional education can be a key contributor in the development of a collaborative practice-ready health workforce. This relationship is represented in Figure 1.[11(p13)])

Figure 1. IPL and collaborative practice: the links

Independent of the IPL agenda, standards defined by professional and statutory bodies responsible for medical students, trainees and practising doctors are increasingly emphasising the need for team-working skills, collaboration and communication skills.[12–15] Health professional education programmes have introduced a range of IPL initiatives, from single projects through to major curriculum interventions. They involve students as champions and leaders, university and health service teachers, and managers and practitioners working in shared health contexts.[2,11,12,16] Outcomes from these initiatives are discussed in the following section.

What IPL works?

As Hammick et al[16] point out in the BEME systematic review of the IPE literature, the wide range of IPL interventions use different educational methods, involve different professional groups and employ different evaluation methods. Most of the published reports are descriptive and evaluative, and some report mixed results on the impact of IPL on improved practice, rather than providing robust research-based evidence on the effectiveness—or not—of IPL.[17,18] However, emerging empirical evidence cited by recent reports indicates the positive benefits of IPL on learner satisfaction, increased knowledge and skills about collaborative practice and changed perceptions of others in the health care team.[11,12]

Drawing from the wide range of published literature, IPL that contributes effectively to improving collaborative practice should include:

- An authentic, realistic IPL experience linked to the needs of all professionals involved in the learning;[19,20]
- IPL activities customised to meet the needs of learners and the educational and health context; [21]
- Expert and specifically trained staff to facilitate IPL activities, drawn from a range of professional backgrounds [22, 23, 24]
- IPL as a core learning modality within the curricula and not as a bolt-on;[11,25,26]
- Clear learning outcomes around content and process;[27–29]
- A shared vision of IPL and how it should be implemented in the organisation;[12,25]
- Resources (rooms, equipment, teachers) to enable IPL to occur;[25,30]
- Leadership for IPL through champions and educational strategies.[25,31,32]

What is happening in New Zealand?

In New Zealand, planning for improved integrated family health centres and restructuring of secondary and tertiary health organisations requires acknowledging that interprofessional teams are a key plank of the health workforce. [33] Many IPL initiatives exist, involving a range of health professionals, in undergraduate, postgraduate and continuing education settings. Examples include the first international IPE conference in Australasia in 2010; the Australasian Interprofessional Practice and Education Network (AIPPEN) and the NZ National Centre for Interprofessional Education and Collaborative Practice Consultative Group.

In this article, we focus on some specific examples involving medical students, trainees and qualified doctors. However it is first important to distinguish between multidisciplinary learning and IPL. The Universities of Auckland and Otago undergraduate medical programmes both offer a common first year to prospective medical students. Students learn in class sizes of over 1000, and include those aiming for physiotherapy, pharmacy, medicine, dentistry, nursing and health science programmes. Although these students learn alongside and with one another, this is not structured IPL: IPL means "learning about" and "from" rather than simply "learning in the same room as" other future health care professionals. In addition, the majority of these students have not yet even entered an identified health professional programme.

The undergraduate context—During the "Early Learning in Medicine" phase of the Otago medical curriculum, students work as carers in residential care facilities. This initiative is currently the subject of extensive evaluation but the hope is that valuable lessons around the roles of other health professionals will be learnt during these experiences. A recent new development at the Dunedin School of Medicine happens during ambulatory care learning for fourth year medical students which involves a simulation session with new graduate nurses with a view to benefiting both professions. The medical students work through a clinical scenario with a "patient" (SIM Man™) that involves the nurse in making an initial assessment. An example of a smaller-scale initiative at the University of Otago, Christchurch, asks students during the Health Care of the Elderly module to work with and document the skills and attributes that other health professionals bring to their older patients. [34]

Since 2000, the Faculty of Medical and Health Sciences (FMHS) at the University of Auckland has offered two core IPL modules for medicine, nursing and pharmacy students: Māori Health Week runs in year 2 and a two-day quality and safety activity runs in year 3.[35] Where possible, the IP group membership remains the same for the year 3 activity to build on the relationships developed in year 2. [36]

The learning outcomes for Māori Health Week include IPL components as well as those of improving Māori healthcare. Seminars and case-based scenarios provide triggers for facilitated group learning about health disparities between Māori and other New Zealanders. Trained facilitators from a range of professions work with the groups to facilitate the sharing of experience from various professional backgrounds.

This approach fosters students from the different programmes working in pairs or small groups on projects, and generates shared group learning around Māori Health. Changing perspectives and any resulting tensions are actively managed by the facilitators and the groups themselves.

During the quality and safety module, interprofessional student groups work with facilitators from the three professional programmes plus hospital-based quality managers. They learn from a range of experts and undertake root cause analyses of real adverse events, exploring actions healthcare teams might take to prevent a recurrence. This highly structured initiative was positively evaluated both for content and for the interdisciplinary approach that provides training for clinical teamwork [37] and complements the more opportunistic learning that occurs in the workplace.

Although evaluations from both modules consistently show that students value IP group learning and state that they learn from and about the other professions, the effectiveness of IPL in improving clinical practice and patient care is yet to be measured.

Since 2008, reflecting an example of a more strategic and systematic approach to IPL which aims to address structural barriers,[21,38] IPL has been formally embedded into the Educational Strategy of the FMHS at the University of Auckland.'. A working party audited activities across the undergraduate health professional programmes and developed an IPL strategy and capabilities framework (see Box 2).

The Framework is used by programme leaders to ensure that activities are in place to facilitate and measure the achievement of the capabilities. As at Otago, educational interventions include mixed models of learning to work interprofessionally, where some groups will learn together or students will learn about the other professions through clinical placements or e-learning activities.

Box 2. FMHS Interprofessional capabilities framework (The University of Auckland)

Interprofessional capabilities
KNOWLEDGE On graduation, students will be able to demonstrate understanding of:
➢ Health services and systems; roles of players and components including changes and the drivers of change
➢ The roles and responsibilities of other health professionals and professions supporting health and social care, including the role of advanced practitioners
➢ The ethical and legal frameworks underpinning healthcare and professional practice
➢ Determinants of health and health inequalities
➢ The concepts and practice of interprofessionalism and integrated care
➢ A range of models and paradigms of health and wellness
➢ Models to improve quality and safety in healthcare, including to reduce error
SKILLS On graduation, students will be able to demonstrate effective collaboration and co-operation with health care team members, professionals, patients and community groups supporting health and social care in a range of contexts and settings. This will incorporate:
➢ An awareness and application of appropriate role boundaries
➢ Verbal and written communication with and referrals to other health professionals and agencies
➢ Cultural understanding, competence and safety
➢ Leading and managing teams
➢ The application of different evidence paradigms to healthcare practice
➢ A proactive approach to ensuring safe healthcare delivery

ATTITUDES/BEHAVIOURS On graduation, students will be able to demonstrate that they:
➢ Value and show respect for a range of health care professions and professionals (and associates—e.g. social workers)
➢ Actively and proactively collaborate with others to improve advocacy and patient care, and improve health outcomes
➢ Articulate and maintain a distinctive and authentic professional identity relative to own role and role in the team
➢ Practice as a constructive and collaborative health care team member with respect for complementary skills and competencies

The postgraduate context—Postgraduate courses across New Zealand, delivered in the tertiary education and clinical setting provide many varied examples of students learning from, about and with one another. To offer just one example, within the Department of Preventive and Social Medicine at Otago, courses in Public Health and Research Methods attract students from wide a range of health disciplines. Students have opportunities to work together in small interprofessional groups which allow pooling of students' rich backgrounds of professional expertise. Learning how to work collaboratively together is an integral part of their learning experience.

Continuing professional development

IPL also occurs in programmes of Continuing Professional Development (CPD), most commonly for practitioners supporting patient pathways involving multidisciplinary teams which cross organisational and professional boundaries, such as family medicine, palliative care, care of the elderly, maternal and child health and mental health. The University of Auckland runs specific modules on IPE in its Masters' programmes in Clinical Education and nursing to support clinical educators in developing and delivering IPE and IPL.

In 2007, Canterbury District Health Board (CDHB) established an Interprofessional forum to promote IP collaboration in clinical postgraduate education with representatives from a range of health and social care disciplines. This was formally supported by Directors of Nursing and Medicine, key allied health professionals across the CDHB and the Training and Development Unit.

In 2008 and 2009, symposium topics included 'supervision models and tools used in different disciplines' which resulted in the establishment of an interprofessional module for clinical supervisors teaching clinical/portfolio assessment within the DHB. The group also hosted expert practitioners from CAIPE (the UK Centre for the Advancement of IPE) to share expertise with national and local groups. In March 2010, the group (including representatives from nursing, medicine, social work, occupational therapy, physiotherapy, speech language therapy, pharmacy and dietetics) piloted an 'interprofessional ward' simulation exercise (see Box 3).

The evaluation of the ward simulation (developed using the Sheffield University CILASS impact evaluation framework)[38] provided extensive information at a number of levels, from tips for the future on IPL delivery, to running ward simulations and future projects. Although participants' feedback indicated that they felt that they achieved the individual learning outcomes, the facilitators (who may have had higher expectations around IPL) felt that more interprofessional collaboration could have been achieved.

The pilot provided a number of strategies for overcoming this and recommended that an IP learning experience be part of orientation for all new graduates. The simulated

ward experience is a viable and worthwhile approach to introducing IPL and collaborative practice to both undergraduates and new graduates.

Box 3 Interprofessional Ward Simulation

Requires new practitioners from nursing, medicine and allied health disciplines to jointly prioritise the care of simulated patients and compile collaborative patient records. Aims were to:

1. Work collaboratively as an interprofessional (IP) team in a simulated healthcare environment
2. Integrate their clinical skills in this setting
3. Jointly prioritise the care of simulated patients
4. Socialise interprofessionally early in their careers
5. Compile collaborative patient records

Anticipated individual learning outcomes

1 Enhance confidence in working in an IP team

2 Enhance understanding of the roles and responsibilities of each professional group taking part in the scenario

3 Gain realistic expectations of other professionals on the team

Challenges to delivering IPL

The challenges surrounding IPL are not unique to practice in New Zealand, have been highlighted by others, and include:[3,8,11,12,16–18,23,34,39–41]

- Determining the right stage of readiness for students to engage in IPL;
- Being sure that it does no harm. For example, uninformed interactions with other health professionals could, in theory, lead to reinforcement of stereotypes. This may be a particular risk if professional identities are still relatively immature;
- The logistics of timetabling small group sessions with increasing student numbers;
- Managing teaching within timetable constraints, particularly those around differing requirements for clinical placement activities and detailed curriculum requirements from professional bodies;
- Being able to bring together students with varying authentic experiences so that the experience is meaningful to all;
- Identifying appropriate activities (with or without real patients) and learning interventions;
- Willingness of senior management to commit to investment in IPL with increasing pressure on resources and ever-crowded curricula;

- Recruiting, training and supporting expert facilitators and IPL 'champions' who are comfortable with and competent at facilitating interprofessional groups;
- Unhelpful and entrenched stereotypes and attitudes and perceived threats to professional identity;
- Lack of attention to language (different terminology, same terms different meaning).

With scarce resources, some of the challenges can be very difficult to overcome and require commitment throughout the organisation(s), the establishment of IPL champions and attention to ensuring that learning is contextualised for the educational and service environment.[11,16,25]

Summary and conclusions

Drivers and opportunities exist to guide increased local structured IPL, collaborative practice initiatives and research in IPE. These include intensive planning for integrated family health centres and continuing financial pressures in health and education, the publication of international policy guides (such as the WHO Framework[11]) and networking and conference opportunities.

Calls for increased interprofessional collaboration in healthcare are becoming more insistent. The educational and financial drivers to diversify the workforce, to develop new roles and to extend existing roles are gaining more ground in New Zealand. [33] Alongside this, there is an urgent need for rigorous evaluation of any initiatives as we have an incomplete understanding of what works, what does not work and what may do harm.

Although more research is needed to assess the extent to which learning together results in better collaborative practice and improved patient outcomes, the evidence to date shows that students enjoy and value IPL and believe it improves their capacity to work with other professionals. Links between teaching innovations and patient care outcomes may be the 'Holy Grail' of medical education but are very difficult to demonstrate and a challenge not just for IPL but all areas of education; generalised clinical outcomes may not even be a realistic goal given that context is always a dependant variable. [42]

While well planned IPL may lead directly to improved health outcomes, [2,11,12] the evidence from the 2010 WHO study [11] shows that well-planned IPL at all stages of training can help to address the challenges in preparing professionals for an increasingly complex global healthcare environment.

Key points:

- IPL provides opportunities for students and qualified health professionals to learn to work with other professionals collaboratively;
- Key policy drivers around the world emphasise team-working and collaborative practice as key components for improved health care;
- There are many challenges to delivering IPL, especially in undergraduate education;

- Many examples exist, in New Zealand and around the world, of effective IPL;
- More research is needed to evaluate the effectiveness of IPL in improving health outcomes and patient safety.

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