

## Taking stock of interprofessional learning in Australia

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Health care is now delivered in the main by teams of professionals rather than by independent practitioners working in isolation. An understanding of team dynamics and the importance of communication between team members is believed by many to be fundamental to maximising patient outcomes. Within Australia, however, interprofessional learning (IPL) and interprofessional education (IPE) (Box 1) are debated topics in health professional education and in health workforce research literature. Those who champion IPL believe that this approach leads to collaborative practice and positive outcomes for students, health professionals and patients. There are also those who question whether IPL can influence professional practice and provide clear outcome benefits for patients in the long term.

Here, we will look at the factors driving interprofessional practice; the ways IPL could be incorporated into medical curricula; how interprofessional skills can be learned and taught; how IPL should be assessed; the effectiveness of IPL; and the barriers to Australia-wide implementation.

### Factors driving interprofessional practice

#### Changes in health service delivery

In Australia and other comparable countries, population growth and ageing, the high incidence of chronic diseases, shortages of health professionals, particularly in rural and remote areas, and rapidly increasing costs have put a strain on health care provision.<sup>5</sup> These factors have led to a need for complex but more efficient models of service delivery (eg, team-based care supported by care coordinators)<sup>6</sup> and more effective care in the community (eg, self-management support for chronic disease).<sup>7-9</sup> This has brought with it workforce issues, and the challenges of adapting to the changing roles of health professionals working in different locations.<sup>7</sup> Health care can no longer be delivered solely by independent practitioners, but requires teams of professionals linked into the broader health system. All of these contextual issues are drivers for health professionals to adopt collaborative approaches to practice.<sup>10</sup>

#### The quality and safety agenda

Adverse health care outcomes and medical errors are powerful catalysts for action to close the gaps in health care provision so that patients experience a higher quality service.<sup>11</sup> The quality and safety agenda has strengthened the argument that team-based models of care provide a workforce solution that is cost-effective and safe.<sup>12</sup> Although

### Summary

- Changes in health service delivery and issues of quality of care and safety are driving interprofessional practice, and interprofessional learning (IPL) is now a requirement for medical school accreditation.
- There is international agreement that learning outcomes frameworks are required for the objectives of IPL to be fully realised, but there is debate about the most appropriate terminology.
- Interprofessional skills can be gained in several ways — from formal educational frameworks, at pre- and post-registration levels to work-based training.
- Research activity suggests that many consider that IPL delivers much-needed skills to health professionals, but some systematic reviews show that evidence of a link to patient outcomes is lacking.
- Australian efforts to develop an evidence base to support IPL have progressed, with new research drawing on recommendations of experts in the area. The focus has now shifted to curriculum development.
- The extent to which IPL is rolled out in Australian universities will depend on engagement and endorsement from curriculum managers and the broader faculty.

many agree with this argument in principle, obtaining evidence has proved methodologically challenging.<sup>13</sup>

### Incorporating IPL into the medical curriculum

The requirements for medical school accreditation set out by the Australian Medical Council (AMC) include interprofessional skills. The AMC states that “students should

#### 1 Definitions

- **Interprofessional practice (IPP)** “... occurs when all members of the health service delivery team participate in the team’s activities and rely on one another to accomplish common goals and improve health care delivery ...”<sup>1</sup>
- **Interprofessional learning (IPL)\*** “... learning arising from interaction between members (or students) of two or more professions ...”<sup>2</sup>
- **Interprofessional education (IPE)** “... occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care”<sup>3</sup>

\* **Interprofessional learning** implies learning from and about other professions to improve collaboration. This is in contrast to **multiprofessional learning**, which implies learning together with common content,<sup>4</sup> or **multidisciplinary learning**, which simply means more than one profession is involved.<sup>1</sup> ◆

have opportunities to appreciate the roles and function of all health care providers and to learn how to work effectively in a health care team".<sup>14</sup> To teach collaborative practice, interdisciplinary knowledge, skills and attitudes need to be included in the curriculum.<sup>15</sup> Just how this is best done is still the subject of research. Moreover, exactly what students need to learn to become effective in inter-professional practice is yet to be delineated and is the subject of debate.<sup>11</sup>

In Canada, uniform collaborative competencies and learning outcomes developed by the Canadian Interprofessional Health Collaborative have been used to inform curriculum development.<sup>16</sup> In addition, one Canadian university study identified a slightly different set of six key competencies for developing IPL programs and tools for related assessment.<sup>17</sup> These competencies are:

- communication;
- strength in one's professional role;
- knowledge of professional role of others;
- leadership;
- team function; and
- negotiation for conflict resolution.<sup>17</sup>

Behavioural indicators for the competency "knowledge of professional role of others", which are lacking in other competency frameworks, were also given.<sup>17</sup>

Researchers in the United Kingdom prefer the term capability as an alternative to competency. They define capability as an integrated application of knowledge that goes beyond competence.<sup>18</sup> The interprofessional capability framework categorised interprofessional capabilities into four domains:

- knowledge in practice;
- ethical practice;
- interprofessional working; and
- reflection (learning).<sup>18</sup>

The commonalities between the Canadian competencies and the UK capability domains provide some basis for developing an IPL curriculum and related assessment tools; however, there is not yet consensus about where elements of interprofessional programs should be placed in the medical curriculum.

### Teaching and learning interprofessional skills

Although how to best train medical students to work in an interprofessional manner has not yet been established, interprofessional skills can be gained in a number of ways — from formal educational frameworks, at pre- and post-registration levels, to work-based training experiences.

A prevailing belief is that exposure to other professions through IPE will produce better collaboration.<sup>9</sup> Coming together to learn, whether in person or virtually, is increasingly being recognised as an essential part of improving patients' access to collaborative, consistent and continuous care delivery.<sup>12,19,20</sup> This suggests that educators need to increase the opportunities for IPL, but currently medical students receive relatively little preparation for working interprofessionally, or in teams, in the full range of practice environments.

Shared lectures are occasionally used to foster interprofessional communication, but these can create challenges

with curriculum sequencing problems and with the varying depth of knowledge required by different health care disciplines. More effective and useful are problem-based learning exercises involving students from a number of disciplines, who complete real-life collaborative tasks during clinical placements.

The role of simulation in IPL has also been explored. Role-play, in particular, has been examined as a useful learning and teaching tool, with importance placed on scenario realism and the role of the facilitator as indicators of the likelihood of positive learning outcomes for students.<sup>21</sup>

A further consideration of IPL is how to acknowledge and involve patients as part of therapeutic teams, and use patients as teachers to a greater extent than is currently done. This would likely have significant benefits over and above increasing the cohort of potential teachers. Informed and involved patients will have better health outcomes and a positive influence on the whole health system.

The Leicester model of IPE in the UK is an example of an established interprofessional program. Using the Leicester model framework, 3000 students each year are given the opportunity to collaborate with students from other programs of study in a combination of community-based fieldwork and placements, face-to-face teaching and online interaction.<sup>22</sup>

### Assessment of IPL

It is important to have defined outcomes for all good assessment (ie, curriculum content must align with assessment). In Canada and the UK (where IPL frameworks have been published), assessment has been integrated into IPE programs. Students in Canada are expected to demonstrate each of the six collaborative competencies through self-assessment worksheets, formative and summative assessment, and using standardised tools appropriate to learning outcomes.

The Leicester IPE model assesses learning outcomes at three levels of study. Students at the pre-registration level are required to complete an interprofessional case study; and at Masters level, students complete assessed case studies, reflective work, and competency-based problem solving. The third level falls under the heading of continual professional development for health professionals and constitutes a 4-day module of self-directed learning. Assessment is of a portfolio of work, including case studies and demonstration of learning outcomes.<sup>22</sup>

### Effectiveness of IPL initiatives

Systematic reviews of the research literature in IPL have often concluded that there is a lack of evidence of a link to patient outcomes. At the same time, the widespread enthusiasm and research activity on this topic suggest that researchers and members of the health workforce believe IPL delivers a much-needed set of skills to health professionals. There is evidence to support attitudinal change across the disciplines as a direct result of IPL.<sup>19</sup>

**2 Kirkpatrick's hierarchy of educational outcomes\*<sup>24</sup>**

- 1 Participation — covers learners' views on the learning experience, its organisation, presentation, content, teaching methods, and aspects of the instructional organisation, materials, quality of instruction
- 2a Modification of attitudes/perceptions — outcomes here relate to changes in the reciprocal attitudes or perceptions between participant groups toward intervention/simulation
- 2b Modification of knowledge/skills — for knowledge, this relates to the acquisition of concepts, procedures and principles; for skills, this relates to the acquisition of thinking/problem-solving, psychomotor and social skills
- 3 Behavioural change — documents the transfer of learning to the workplace or willingness of learners to apply new knowledge and skills
- 4a Change in organisational practice — wider changes in the organisational delivery of care attributable to an educational program
- 4b Patient/client care — any improvement in the health and wellbeing of patients/clients as a direct result of an educational program

\* Kirkpatrick model, as adapted for medical education by the BEME (Best Evidence Medical Education) collaboration group 2. <http://www.facs.org/education/technicalskills/kirkpatrick/kirkpatrick.html>

**3 Implementing interprofessional learning (IPL) in medical schools and health science faculties — challenges and solutions**

Educator attitudes to and concerns about IPL, remaining unconvinced by the evidence, lack of leadership from curriculum managers and academic leaders

- Faculty development: planned programs to prepare academic staff for new roles and to teach new skills<sup>26</sup>

Structural and logistic considerations; curricula, timetabling issues, suitable learning spaces, inadequate opportunities for preparation

- Develop alternatives to co-proximity and synchronous learning; for example, online learning and asynchronous activities, and fictional case studies addressed by virtual interprofessional teams over the internet<sup>27,28</sup>

Variable standards for accreditation and assessment between disciplinary groups

- Competency frameworks grounded in the national context (eg, revised Australian version of the United Kingdom capability framework)<sup>11</sup>

Professional boundaries or silos, professional socialisation, power and status differentials

- Foster interprofessional skills by training students together from the beginning of their program, influencing how professional socialisation develops<sup>19</sup> ◆

This is encouraging for some, but not convincing enough for all.

A 2008 systematic review of the evidence base for IPE outcomes was unable to come to any definite conclusions about its impact on patient outcomes.<sup>23</sup> Only four randomised controlled trials met the inclusion criteria for this review. It has been pointed out, however, that this does not imply a finding of ineffectiveness, but simply a lack of evidence of effectiveness.<sup>23</sup> Evaluations of the impact of IPL initiatives have made use of Kirkpatrick's model (Box 2) for evaluating educational outcomes<sup>24</sup> and have shown a lack of evidence of outcomes at Levels 3, 4a and 4b across heterogeneous studies.<sup>23,25</sup> For example, mainly weak measures of behavioural change (Level 3) were reported in the 2007 systematic review of IPL.<sup>25</sup> A third of the 21 evaluations identified in the latter review reported change in organisational or patient/client care (Levels 4a and 4b).

Apart from the lack of rigorous evidence that they result in lasting improvement in patient outcomes, IPL initiatives are not cost-neutral, and cost-benefit analyses need to be undertaken to justify the use of resources.

**Full implementation and sustainability of IPL**

Champions and challengers of IPL and IPE are well aware of the barriers and enablers to their full implementation in Australia (Box 3), although what full implementation means continues to be debated. There are, however, pockets, growing in size, of IPL initiatives in Australia, many of which have incorporated an evaluation component and aim to collect data on learner outcomes and behavioural change over time. The Australian Learning and Teaching for Interprofessional Practice project outlined eight key recommendations for moving forward with IPL in 2009.<sup>5</sup> Implementing these eight recommendations is one of the aims of a multi-university project funded by the Office of

Learning and Teaching, with the lead institution being the University of Technology, Sydney.<sup>29</sup>

A more practical example of an IPL intervention is the HealthFusion Health Care Team Challenge.<sup>30,31</sup> Interprofessional teams of students from Australian universities compete against each other to develop a patient management plan. The winning Australian team then participates in the international competition.<sup>30</sup>

A key factor in the success of IPL programs and initiatives is leadership within faculties, and the degree of investment in preparing and training the staff involved should not be underestimated.<sup>26</sup> The extent to which IPL is rolled out in Australian universities will depend on engagement and endorsement from curriculum managers and the broader faculty, which varies within and between disciplines and between institutions. The factors that influence working collaboratively in the "real world" cannot be ignored and are, by nature, incredibly complex.

That the AMC has endorsed interprofessional practice as an important attribute of programs for medical school accreditation means that these skills need to be adequately assessed, and their adoption by other health professions encouraged.<sup>12</sup>

**Conclusion**

Strengthening the existing evidence base and taking the interprofessional research agenda forward will depend on long-term studies that follow learners well into their clinical years. Research must explore the transition from learning with, from and about each other in an educational context to outcomes for patients, and the factors that influence working collaboratively in the workplace.

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