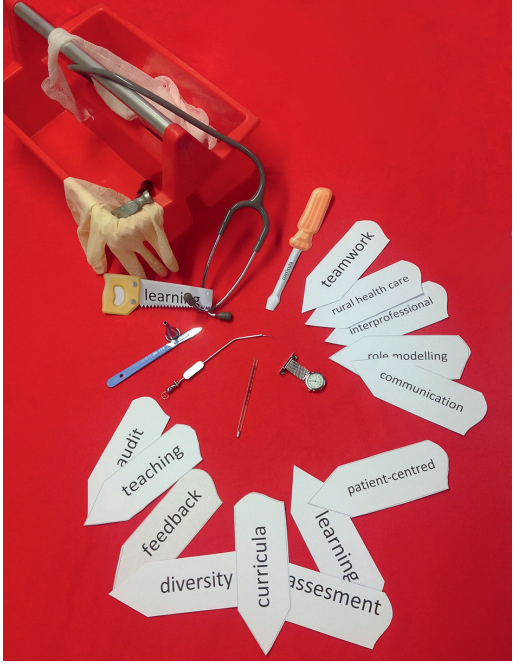
The Clinical Teacher's Toolbox



Developing interprofessional education: putting theory into practice

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Editors' note: The lead author of this toolbox article was the recipient of The Clinical Teacher travelling fellowship award, which he undertook on the Gold Coast in Australia with Griffith University School of Medicine. Despite its now long history, interprofessional education (IPE) is still not a routine component of health professional education. Although there are challenges when introducing IPE, as noted here, these may be overcome with careful planning and consideration of the learning outcomes for all of the students involved. Using Griffith's three-phase interprofessional curriculum as an example, the authors offer a practical guide to implementation as well as the rationale for IPE. The concept of 'CAIPE compliance' is an interesting one, where CAIPE is the Centre for the Advancement of Interprofessional Education and compliance relates to the three-preposition definition of IPE: with, from and about. Students move from knowledge building to simulation, and then to working in clinical situations, although the authors do admit that clinical experience is difficult given the logistics.

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INTRODUCTION

Approaches to teaching where different professions learn together are increasingly being encouraged. The assumption being that, if undertaken successfully, these instructional methods will lead to desirable outcomes.

However, distinguishing between terms such as interprofessional education (IPE), interprofessional learning (IPL) and multiprofessional education (MPE), let alone determining how theoretical understanding can be translated into practice, continue to present some challenges for clinical teachers.[1]

WHAT IS IPE?

Interprofessional education (IPE) has been defined by the Centre for the Advancement of Interprofessional Education (CAIPE), UK, as occurring when 'two or more professions learn with, from and about each other to improve collaboration and the quality of care'.[2] All three of the prepositions in the definition (with, from and about) have traditionally been taken to be required if an IPE activity is to meet this definition (a requirement that the Griffith University team has called 'CAIPE compliance'). In contrast, stand-alone educational activities involving multiple professions that do not include all of these interactive elements are sometimes described as 'multiprofessional', and tend to contribute less to the achievement of interprofessional learning outcomes. The central goal of IPE is improved teamworking through learning arising from the interaction between professions (interprofessional learning).

WHY UNDERTAKE IPE?

In recent years, there has been increasing momentum for IPE that incorporates shared interprofessional learning outcomes for health care students.[3] The impetus has been driven by coherent theoretical, policy, demographic and empirical arguments for IPE. Unfortunately, however, real and perceived barriers present teachers new to IPE with numerous challenges, and therefore the temptation is to continue with uniprofessional or educationally isolated activities.

At a theoretical level, IPE is associated with the notion that knowledge involves the co-construction of experience. By learning together, and improving the understanding of team roles specifically, health care professionals will gain the capacity to manage the complexity posed by patients, especially those with multiple chronic diseases, more effectively through enhanced collaboration.[4,5] Furthermore, as professional roles have changed over time, it is important to create a space for the consideration of practice, professional boundaries and reflection around issues of interdependence.[6] Ultimately this has the potential to reduce the likelihood of role conflict, increase professional satisfaction, and improve patient and carer outcomes.[7]

Encouragingly, there is growing evidence that IPE can bring about changes in health care delivery and outcomes.[8] A Cochrane Review by Reeves and colleagues examined 15 studies of the effects of IPE interventions on objectively measured, or self-reported (by validated instrument), patient/client or health care process outcomes. The review identified eight randomised control trials, five controlled before-and-after studies and two interrupted time series studies.[8] Of the 15 studies reviewed, seven, all of which were IPE interventions undertaken post-qualification, indicated that IPE led to positive outcomes. Interventions covered the following clinical areas: diabetes care, emergency department culture and patient satisfaction; collaborative team behaviour and reduction of clinical error rates for emergency department teams; collaborative team behaviour in operating rooms; management of care delivered in cases of domestic violence; and mental health practitioner competencies related to the delivery of patient care. Four studies showed no impact and four studies had mixed outcomes (positive and neutral). More rigorous research focusing on teamwork, collaboration and patient outcomes, and conducted in a variety of practice settings, is called for; however, definitive patient or client benefit arising from educational interventions much earlier during practitioner training will always be difficult to prove.

CHALLENGES OF IPE

A recent review of undergraduate practice in the UK found that two-thirds of universities include elements of pre-qualifying IPE, but that various areas were flagged as needing development.[9] Areas of consideration include patient engagement in the development and implementation of IPE activities, a need for cultural change away from uniprofessional practice, and greater executive support to embed IPE within institutions. Other challenges that deter implementation beyond finding space within curricula include cost of interprofessional activities, logistical issues with classrooms, timetabling and sustainability, as well as important concerns that such activities could inadvertently reinforce negative stereotypes.[10]

THE GRIFFITH UNIVERSITY IPE CURRICULUM MODEL

At Griffith University, Queensland, Australia, a programmatic approach to IPE has been developed. Based on the World Health Organization IPE recommendations,[11] a framework

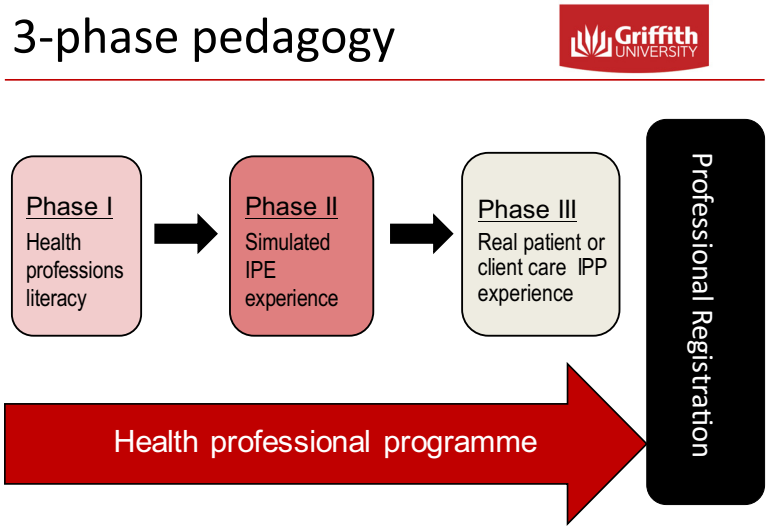

Fig. 1. Griffith University framework of interprofessional education (IPE) activity

has been designed that includes IPE activities across the whole curriculum for each health profession in a strategic, structured manner.[12] This process is led by an advisory committee that oversees IPE and also, crucially, simulation-based learning across the health care faculty. The committee includes representatives from all health professional programmes, and subgroups are formed to work on specific tasks that are then presented and discussed with the larger committee. Interprofessional education activities within the framework are organised in three pedagogical phases (Figure 1). Activities with a high level of 'CAIPE compliance' are strategically placed somewhere around the middle of health professional programmes, scaffolded and augmented by less resource-intensive activities in the earlier and later phases. This ensures that students are not over-challenged in early years when their professional identity may be less well formed.

Phase 1 activities seek to establish health professions literacy. This is defined as 'an understanding of the history, theoretical underpinnings, roles and contributions of the major health professions including the participant's own'.[13] By such an approach professional stereotypes are challenged at an early stage.

The second phase of the Griffith University curriculum includes: communication skills workshops; day-long interprofessional student workshops to prepare students for mental health practice;[10] and multi-methods simulation by means of a program called CLEIMS (clinical learning through extended immersion in multi-method simulation; Box 1).[14] These three diverse activities build on the foundations laid in phase 1.

Finally, in phase 3 activities, the principles of IPE are applied in real patient-care settings. Ideally, this would be fully CAIPE compliant and would involve interprofessional student service teams. Unfortunately, this approach has proven to be difficult to maintain on a larger scale, but individually-based activities, where learners actively appreciate the function and challenges of the interprofessional practitioner teams in which they have been placed, can still contribute to consolidating the IPE learning outcomes primarily met in phase 2.

EVALUATION

The meaningful evaluation of educational interventions, let alone whole curricula, is notoriously difficult to achieve.[15] Data available suggest that students find the mental health workshops very useful, extending their understanding of both team processes and the value of interprofessional practice (IPP). Furthermore, the CLEIMS week is effective in terms of reducing prescribing errors for medical students,[14] a key element of preparing for practice.[10,14] The benefit to other non-medical students was also impressive. For example, 31 clinical psychology trainees participated in CLEIMS in 2015 and, overwhelmingly, the response and feedback from these students was positive. Comments from the psychology students included 'by the 3rd station, the medical students looked to me for an opinion…we began to work in harmony with each other' and '… one of the most memorable experiences of my clinical psychology training'.

A more relevant question to answer in terms of developing teacher practice is 'what are the essential ingredients that have allowed establishment of an effective educational programme and how have the traditional barriers to IPE been overcome?' The first author (AT) completed an observation of the Griffith University IPE programme, supported by a *Clinical Teacher* Travelling Fellowship, and concluded that four reasons emerge as being contributory, although not sufficient alone, to the success of the Griffith University IPE framework.

Firstly, the approach is programmatic in nature. Individual IPE activities, both CAIPE compliant and non-compliant, are joined together in a coherent strand, supported by an explicit framework. Secondly, respect between professions is built from an early stage and is present throughout

Individual IPE activities are joined together in a coherent strand, supported by an explicit framework

A process of reflective journaling enables learners to recognise these errors

Box 1. Example interprofessional education (IPE) activities from Griffith University

- Preparation for Multidisciplinary Mental Health Practice Workshop

Students from disciplines such as nursing, clinical psychology, medicine and social work learn together to understand the contribution of their own discipline, and that of their peers, in the mental health setting. The initial activity in this workshop intentionally highlights stereotypes that students may already hold with respect to the different health care providers, which is followed by facilitated group discussion and learning about the philosophies, epistemologies, training and professional practice in each discipline. Teaching materials to further guide learning include a DVD of a patient's journey through the mental health environment and a placement workbook to aid reflection on team practices.

- Clinical learning through extended immersion in multimethod simulation (CLEIMS)

Third-year medical students work with students from other health professions, including pharmacy, occupational therapy, exercise physiology, speech pathology and dietetics. They undertake a full-week scenario in a simulated health care environment, based on the hospital journey of an authentic single patient admitted initially to the emergency department with a head injury.[13] Trained simulated patients and simulated carers are used extensively. Activities undertaken over the week include writing referrals to other disciplines and managing distressed relatives and interprofessional dynamics. The week culminates in an extensive discharge planning meeting, requiring input from all professions.

all activities. This is likely to be due to the influence of an effective IPE leadership faculty structure through the steering group. Furthermore, the organisation of activities fosters respect; IPE activities that seek to explore the practice philosophies of different disciplines are introduced at an early stage. A third key element is the close relationship between simulation (in the broadest sense of the word) and IPE, allowing for the contextualisation of learning in the real world. Additionally, throughout these simulation activities, the focus is not only on developing technical efficiency but also on adjusting to the uncertainty that characterises clinical practice. The final reason for programme success is the emphasis on the affective learning domain. As a result of exposure to and immersion in active learning, trainees tend to replicate the suboptimal practices that are often seen in real clinical settings. Mirroring clinical realities, learning can be highly emotional as students are subjected to finding themselves in the 'deep end'. For example, within simulated settings where patient safety is not at risk, they are deliberately led, by means of incomplete information in the carefully controlled script, into making clinical mistakes such as prescribing errors. A process of reflective journaling enables learners to recognise these errors, learn from their emotional impact at a deeper level and thus modify their future practice. This approach also aims to build the foundations for life-long professional learning and personal resilience.

OVERCOMING CHALLENGES

Challenges encountered include those that are common to many programmes: timetabling; having mandatory activities in some programmes but relying on volunteer students in others; the difficulties associated with ensuring large-scale and equitable access to the various activities; as well as specific challenges for Griffith University, such as having students located on four different campuses up to 70 km apart. In addition, in order to ensure sustainability, the university, faculty members and disciplines all need to make a commitment to the resources required for the

continuing implementation and evaluation of the activities.

To overcome these challenges, the Griffith University team has found that having a steering group to oversee activity, planning well in advance with excellent administrative support, and starting small and building incrementally are all essential for logistical success. Furthermore, evaluating the programme robustly and showcasing its value has helped to secure resources to ensure sustainability. Lastly, by designing the programme collaboratively they have ensured that the programme is not dependent on any one individual or profession, and that a shared vision and purpose have developed.

PRACTICAL GUIDE FOR IPE CURRICULUM DEVELOPMENT

Based on the analysis of this IPE programme, we present a pragmatic eight-step guide for clinical teachers and education leaders to develop their own IPE programmes within teaching settings (Box 2). The guide is not intended to be adopted as a template but rather to allow educators to consider what might work in which circumstances within their own teaching environments.

CONCLUSIONS

Interprofessional education (IPE) can no longer be considered as a luxury for curriculum planners, as it is clear that this aspect of health professional education is crucial to linking good teaching with good clinical practice. By adopting a programmatic, structured and contextually based authentic approach, as developed at Griffith University, it is possible to challenge traditional barriers and provide clinical teams with IPE experiences to better prepare for practice. We propose that the four central ingredients behind the success of the programme are arguably transferrable across other health care faculties and are relevant to teachers who seek to enhance their IPE toolbox.

Box 2. Practical guide to assist in developing an interprofessional education (IPE) curriculum

1. **Form an interprofessional collaborative steering group or advisory committee within the faculty**
   The Griffith group is formed by representatives from each of the schools and disciplines in the Health Group, as well as invited stakeholders from the co-located Gold Coast University Hospital, led by Professor Rogers, Lead for Interprofessional and Simulation-Based Learning. The Griffith Advisory Group meets at least four times a year.
2. **Adopt a programmatic approach to IPE that uses appropriate activities at different points in the curriculum of each profession**
   Augment the effectiveness of the most resource-intensive, 'CAIPE compliant', activities with simpler ones before (to establish foundational 'health professions literacy') and after (to enable critical application of what has been learned). This will help to join and align IPE activities across curricula in order to maximise the impact on student learning.
3. **Develop and agree threshold learning outcomes that all health professional students should meet**
   These should be developed collaboratively and adopt perspectives that transcend disciplines. Examples include:
   a. work effectively in a team, both in the role of team member and of team leader.
   b. recognise and challenge stereotypical views in relation to the roles, practices and expertise of particular health professions in their own thinking, and in the communication of others.
4. **Design IPE activities collaboratively that are authentic and linked to clinical practice**
   Activities should allow the building of respect as a result of the deeper understanding of roles within professions. They focus on broader aspects of care, relevant to all professions, such as patient safety and managing chronic illness.
5. **Couple IPE activities with simulation and e–learning**
   Where possible, align simulation and IPE to maximise the effectiveness in developing the skills of teamwork and collaboration. Ensure that activities are authentic and relevant to all professions.
6. **Train the trainers in IPE facilitation**
   The role of the interprofessional educator is less focused on knowledge transmission and more on facilitation between learners from different professions. Facilitators should be skilled and briefed in maximising the effectiveness of strategies, focusing both on learning content and process. The typical skills required include being effective communicators, flexible, team focused, energetic and collaborative.[16]
7. **Assess IPE across multiple domains, including learning, competence and performance**
   Assessment should be undertaken by faculty members from multiple disciplines to afford greater perspectives on learning. To emphasise its importance the final clinical examination should include questions relating to the competencies acquired from the IPE.
8. **Evaluate, review and update the curriculum regularly**
   Programmes should be evaluated in terms of effectiveness and, where possible, cost effectiveness, and patient and community health outcomes. They should showcase evidence of effectiveness and adapt the programme accordingly, in an iterative manner.

[IPE] is crucial to linking good teaching with good clinical practice

It is possible to challenge traditional barriers and provide clinical teams with IPE experience to better prepare for practice

ADDITIONAL RESOURCES

National Centre for Interprofessional Education and Practice (NEXUS; http://nexusipe.org)

Core competencies for interprofessional collaborative practice (IPEC; http://www.aacn.nche.edu/education-resources/ipecreport.pdf)

Centre for Advancement of Interprofessional Education (http://caipe.org.uk)

The Griffith University implementation framework for IPL (http://www.griffith.edu.au/health/griffith-health/health-ideas/program-interprofessional-education-scholarship)

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