Making interprofessional education real: a university clinic model

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Abstract
Interprofessional education (IPE) is an emerging focus in the professional training of allied health students. To date, IPE has occurred in classroom teaching or case simulations, rather than in the provision of client services. At the University of Queensland, students in occupational therapy, speech pathology and music therapy participate in both on-campus and community-based IPE clinics conducted by university staff. These clinics are planned and implemented to promote interprofessional learning for students, and to provide integrated service provision for children and young people in the community. An adapted version of Bronstein’s model of interdisciplinary collaboration is used to guide IPE processes, including team orientation, joint goal-setting and intervention planning, and integrated delivery of therapy sessions. The development and implementation of these IPE clinics is described, together with challenges to clinical IPE in the university context.

What is known about the topic?
Interprofessional education (IPE) is an emerging focus in health education but there are limited opportunities for pre-registration health professional students to have authentic and integrated IPE clinical experience.

What does this paper add?
This paper describes a series of innovative community-based clinics that provide IPE opportunities for students of occupational therapy, speech–language pathology and music therapy. An adaptation of the Bronstein Model is used to describe the educational processes used in these clinics to promote best practice in interprofessional therapy provision.

What are the implications for practitioners?
This model provides a template for how a group of practitioners from different disciplines can create opportunities for authentic interprofessional student education, while providing an innovative and cost neutral service with community partners.
sionals, learning from peers, problem-solving activities conducted in IP groups7,9 and clinical learning in IP teams3,10.

Positive outcomes of IPE and learning in both academic and clinical education have been documented1,3,10. These include students developing an increased understanding of and respect for other professionals’ work practices and of their own professions in a broader context, and teamwork skills such as IP communication, resulting in enhanced client service. These student outcomes have been described by Harris et al as “mirroring what their future practices would entail”.11 (p. 13) Several recent studies describe how universities have sought to provide a variety of IPE experiences for students across health care professions1,9. However, a challenge remains to move IPE experiences out of the classroom and into the clinical setting where students are required to provide actual client service in an interprofessional milieu, thus allowing more authentic learning to occur.

Clinical education is an integral component of allied health training programs; the increasing difficulties in securing sufficient clinical placements for growing student numbers have led to the development of alternative models of placement. Such models include peer placements or paired learning placements where two or more students of the same professional background are supported by one clinical educator.12,13 A further challenge in creating alternative placements models is to ensure student exposure to authentic IP learning in real life settings and experiences. Clinical placements that allow workplace-based exposure to valued attributes of interprofessional practice offer a valid alternative to traditional single-discipline models of student clinical learning1,10,14.

This paper reports on the development of university-conducted clinical services that provide students with the opportunity for authentic IP clinical education.

Objectives

This paper describes two interprofessional university-conducted clinics for occupational therapy, speech pathology and music therapy students and the model and teaching strategies developed to support interprofessional learning and practice. The paper also outlines the challenges of interprofessional education.

Background

The University of Queensland’s School of Health and Rehabilitation Sciences (UQSHRS) provides professional training for students of physiotherapy (PT), occupational therapy (OT), speech pathology (SP) and audiology (Aud). Clinical fieldwork is an essential component of all these training programs. While students undertake fieldwork placements in health services outside the university, the creation of university clinics has been necessary to ensure that a sufficient number of quality fieldwork experiences can be provided to meet increased demand. Models of service delivery vary among clinics, with some providing outpatient-style service provision and others developing outreach services.

Over the past 8 years the OT and SP clinics collaborated for three reasons. First, they both provided paediatric services, with cross referral occurring regularly and a proportion of common clients attending both clinics. Second, these common clients often had complex needs that would be best addressed using an integrated approach rather than attendance at separate OT and SP sessions. Third, it was considered that university clinics should provide clinical training that was both reflective of, and promoted, IP practice.

The first IP clinic was an early intervention service based on campus and involved SP and OT only (termed the “SPOT” clinic). Five years later, the second IP clinic (using SP and OT) was established in partnership with a local secondary school which had a high proportion of students with significant learning needs. The following year, the University of Queensland’s music therapy (MT) program entered the mix in both settings, creating the early intervention service “M-SPOT” (Music, Speech and Occupational Therapy), and the secondary school service, MOST (Music, Occupational and Speech Thera-
apy). Music therapy is a professional course run outside of UQSHRS, but this collaboration is effective in the IP clinics because music therapists are often called upon to support the goals of other allied health professions students. The music therapy department uses this collaboration to provide their students with quality fieldwork placements.

Developing these clinical IP learning opportunities has involved creating a model of service provision and clinical teaching that aims to accommodate and complement university structures and multiple curricula, while maintaining quality client services.

**Students and staffing**

OT, SP and MT students are regularly placed within M-SPOT and MOST clinics. Each clinic is conducted for two 10-week blocks per year, each block occurring within a university semester. Twenty OT students and 16 SP students complete fieldwork placements in the M-SPOT and MOST clinics each year, with about 10 music therapy students involved in the clinics to date. The IP clinics include a clinical educator from each of the three divisions. These positions are either academically funded or generated through client fees. Each clinic runs for a half-day session per week during university semesters, with OT and SP clinical educators present for the entirety of each clinic and the MT clinical educator visiting clinics periodically. Clinical educators also provide supervision outside clinic hours, assisting students with clinic planning and documentation.

**The model of interprofessional practice**

The ethos of the IP clinics provided by UQSHRS is that integrated services are more effective than single discipline services for the clients referred to the clinic and their families. To this end, every aspect of service provision is required to be jointly undertaken by the students. In seeking to conceptualise the IP clinical learning process undertaken by students during these clinics, clinic staff started with Bronstein’s model of interdisciplinary collaboration. This model provided an initial framework for describing the IPP components in the clinics. Key components in Bronstein’s model include interdependence (a reliance on others to accomplish goals); newly created professional activities (collaborative acts which together amount to more than could have been achieved individually); flexibility (described as “deliberate occurrence of role blurring” [p. 114]); collective ownership of goals; and reflection on process (being sure that the collaborators maintain their focus on working together).
In order to more effectively describe the components of the UQ framework of IP learning, Bronstein’s model was adapted (see Box 1). This adapted model includes additional components, orders them in a temporal manner and reflects the cyclical manner in which these components frequently occur.

**Exposure to IP process**

Exposure to other disciplines is vital to IP collaboration, where students are introduced to the other disciplines and learn from each other about the focus of each discipline’s interest and expertise. It is valuable for students to discuss each other’s professional jargon, ask questions and demystify other areas of practice.

**Collective ownership of goals**

Following initial introductory processes, the students are encouraged to collaborate in the development of goals for their clients. Rather than pooling goals from each discipline, students are encouraged to consider joint, related goals. Goals are prioritised according to how important they are to the client’s overall functioning and to the primary concerns of the family, as well as how “connected” they are to other goals. This process helps students understand that goals may be shared or interdependent, highlighting students’ common responsibility for addressing each goal.

**Newly-created professional activities**

Having established joint goals, students are asked to plan assessment and intervention activities for the clients that reflect two or more of the goals. The clinical educators challenge students to think beyond typical intervention approaches for their discipline, and to combine these with approaches from other disciplines. For example, SP students, who typically sit clients at a table to listen to and identify sounds, may utilise alternative seating methods or have the client complete the task while standing or moving.

**Reflection on IP process**

With the support of clinical educators, students are encouraged to reflect on the process of IP collaboration, to ask questions, confront fears and misunderstandings and feel more comfortable with aspects of intervention that are not typical to their discipline. They are encouraged to consciously expand their professional knowledge and boundaries.

These four processes happen in a cyclic manner. On each occasion of service, when students reflect on their performance, they are encouraged to ask questions, consider more options for joint activities and commence the process again. The outcomes of this cycle, and the ultimate goals of the IP experience, are greater understanding, flexibility and interdependence. Greater understanding manifests as understanding how one’s own professional role can be expanded through collaboration with other professionals. Flexibility is seen in willingness to alter goals and/or activities in keeping with IP outcomes, while interdependence is demonstrated by understanding the impact of intervention in one area on the achievement of stated goals in another.

**Operationalisation of the model**

At the commencement of each clinic block, OT, SP and MT students attend a 2-hour joint team orientation which emphasises the importance of IPP and details the processes they will use to jointly deliver therapy. The first part of this orientation includes the element of “exposure to IP process”. Initially, each group of students (OT, SP and MT) is asked to state their understanding of the other professions, and any misconceptions are discussed. Following this, the clinical educators present a summary of the practice frameworks and “core business” of each profession. Students are then encouraged to explore their perceptions and concerns regarding IP teamwork, including concepts such as infringing professional boundaries and role conflict. During these discussions the clinical educators aim to raise students’ awareness of profession-specific jargon and ways to retain open communication within teams. The clinical education team also models ways to improve communication and understanding.
In the second part of the team orientation session, students are grouped into therapy teams and provided with a caseload of clients. The element of “collective ownership of goals” occurs when each student team develops a set of therapy goals for each client which reflects the family’s concerns and incorporates the therapy aims of more than one profession. For example, an occupational therapy goal may be to improve a child’s trunk posture for more stable sitting during schoolwork, while a speech pathology goal may relate to improving voice quality and volume. The interdependence of these goals means that achieving the posture goal provides the basis for achievement of the voice goal.

After the initial team orientation, and for the duration of their clinic involvement, students are required to plan therapy sessions together on a weekly basis. Clinical educators insist on this process occurring in a face-to-face meeting, as this allows a free exchange of ideas and appears to be a critical contributor to development of the team relationship. Face-to-face meetings also appear to result in better-integrated therapy plans than when students communicate electronically.

Students are required to plan activities which have multiple objectives (which equates to the element of “newly-created professional activities”). They must then negotiate the relative importance of each activity and the temporal order in which activities should occur. When the students provide the intervention, they are expected to do so together, switching between leader and co-leader roles when required. Co-leaders are expected to support the learning process, even if the activity is outside of the student’s typical area of expertise. If a client requires assessment before intervention, it is desirable that this happen in an integrated manner. A joint assessment protocol has been estab-

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<td>Broader awareness and understanding of the client's difficulties</td>
<td>“I feel that I will probably be more aware of speech and language issues if seeing a particular child for occupational therapy in the future. I feel that I also have a greater understanding of the range of issues which speech covers.” (OT student)</td>
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<td>Able to use a broader range of therapeutic strategies</td>
<td>“I feel I can integrate successfully into a team environment as I possess specific knowledge on the methods of OT practice. I am able to integrate new strategies into my own practices that I may not have identified in an SP-only clinic.” (SP student)</td>
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<td>Better understanding of others’ professional roles and referral options</td>
<td>“…the speech students will go away with a greatly improved awareness of how the physical status of a child can have a great bearing on their speech outcomes. Similarly, the OT students go away with a new respect for the importance of accurately grading instructions.” (OT clinical educator)</td>
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<td>Development of teamwork skills including negotiation</td>
<td>“Students have the opportunity develop negotiating skills. The SPOT clinic seems to encourage students to use their initiative more than the single discipline clinic.” (SP clinical educator)</td>
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<td>Time for joint goal setting and session planning</td>
<td>“[The clinic] requires a specific time commitment for meetings to ensure sessions are integrated appropriately.” (SP student)</td>
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<td>Flexibility and new learning</td>
<td>“[The clinic] requires exercising of flexibility, a willingness to listen to others’ point of view and to accept beneficial changes to your typical methods of practice.” (SP student)</td>
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OT = occupational therapy. SP = speech pathology.
lished in both clinics, with students working together to carry out assessment tasks while observing relevant behaviours. After each clinic “reflection on IP process” occurs when the students debrief together, receiving supervision from any or all of the clinical educators.

Educational assessment of students is undertaken using the standard fieldwork assessment tools used by each professional division for all placements. However, for students in IPE clinics, emphasis is placed on feedback related to teamwork, communication with co-workers and collaborative service provision.

**Student responses to IP learning**

To date, only informal service evaluation data have been collected for quality improvement purposes, such as refining clinic administration and IPE practices, as well as developing directions for research. One cohort of SP and OT students \((n = 8)\) and two clinical educators completed anonymous questionnaires administered by an independent facilitator. Questionnaires sought information on the perceived benefits and challenges of this model, and perceptions of how experience in the IPE clinics may impact on future IPP. The completed questionnaires were reviewed by two of the authors. Benefits and challenges that were cited by several different students and/or clinical educators are noted in Box 2 with illustrative comments. This initial evaluation data will contribute to the development of formalised research questions and a systematic data collection and analysis process.

**Challenges**

The main challenge relates to the clinics’ budgetary constraints, which limit the amount of supervision time for which clinical educators can be employed, as well as administrative time available for development and refinement of clinic resources, procedures and teaching tools. The children and adolescents serviced by M-SPOT and MOST have complex needs, necessitating skilled clinical reasoning and an individualised approach to intervention planning and delivery. Management of attention and behavioural issues is also a frequent requirement, leading to unpredictable client responses and situations. This is a particular risk when therapy is delivered to groups of clients, as is often the case in MOST. While developing high level clinical skills, students are simultaneously learning IP practice. The complexity of these requirements means that students can not rely on previously learned protocols for particular health conditions. In order for them to take responsibility for the “real” clinical service, close supervision and support is required that allows them to gradually develop skilled practice while the “safety net” of supervision is in place.

Reeves et al’s account of an interprofessional teaching ward suggests that the supervision time required from clinical educators in such services may contribute to rapid staff burn-out if not adequately accounted for. In the UQSHRS clinics, the unaccounted time contributed by clinical educators to uphold the quality of client service and student education appears to affect staff retention and compromise the long-term sustainability of the interprofessional clinics. One solution may be securing external funding specifically for these clinics, allowing expansion of these service models and access to interprofessional clinical learning for greater numbers of allied health students.

Other challenges to current clinic operation and future expansion involve the on-campus space available for interprofessional services and the matching of curriculum structures across different disciplines to allow students to be in the same place at the same time. Space issues can be partially addressed by increasing the interprofessional services provided off-site within primary and high schools. University timetabling issues can only be addressed by academic consideration of current and planned interprofessional clinics when curriculum review processes are conducted.

**Lessons learned**

University-conducted IPE clinics provide a unique opportunity to use planned, explicit IPE
principles and strategies to promote IP learning in the context of actual service provision. Use of an IPE model is important to provide a framework for development and ongoing refinement of effective IP clinical teaching strategies. While it is possible to “blend together” a number of existing profession-specific clinics to create an IP model of service provision, future IPE clinic development would best be considered during the early stages of development or review of health professional training programs. The comparative costs of developing IP clinics in this way should be considered. Sufficient allocation of supervision time in IP clinics is also critical, as significant support is required for students to learn the complex clinical reasoning, negotiation and teamwork skills integral to effective IP service provision. The benefits of university IPE clinics in promoting IP learning and practice should be investigated and compared with other IPE experiences to determine whether the provision of authentic client experience is worth the investment.

Competing interests
The authors declare that they have no competing interests.

References

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