



Mapping current health professional curricula: Identifying common topics for an integrated interprofessional education curriculum



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ABSTRACT

Background: Student response to the development of interprofessional competencies is enhanced when embedded in curricular content that appears to be relevant to their program and future practice.

Purpose: This paper will address the outcomes of a curriculum mapping project across eleven health professions at one university to determine potential common content for collaborative longitudinal learning.

Method: Course outlines, a curriculum map and a program accreditation outline were reviewed to identify topics, course objectives, year and semester taught, time allotted and method of assessment. Topics were analyzed and categorized to determine common themes.

Discussion: Ethics, communication with patients/clients and teams, collaboration, and quality and safety are among the common themes identified. Although these topics are currently taught in uniprofessional programs, they would have enhanced relevancy in an interprofessional context.

Conclusions: Universities choosing topics for interprofessional curricula can use themes identified as a reference point to explore further in their context.

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Introduction

In their seminal article, Frenk and co-authors¹ call for a transformation of health profession education to address the global health challenges of the 21st century. A system-based education, where competencies for effective teamwork are highlighted, is one of several recommendations. To achieve this goal, health profession education must move from the traditional approach of siloed, uniprofessional education to a harmonized system emphasizing collaborative non-hierarchical interactions. In an effort to develop a collaborative practice-ready workforce, health profession educators have explored interprofessional education (IPE) approaches, where students from “two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.”² Although there has been considerable growth in the field of IPE and effective pedagogic approaches, the most relevant content areas that serve as a vector for collaborative learning are not clearly understood. This paper will address the outcomes of a curriculum mapping project across eleven health professions at one

large university to determine the most relevant content for collaborative longitudinal learning across health professional education.

Background

The University of Toronto has a rich history in IPE and is widely recognized for curriculum aimed to develop collaborative competencies, pedagogic approaches enhancing appreciation of collaboration in practice and corresponding faculty development. Additionally, the partnership between the university and local hospitals (Toronto Academic Health Science Network), has been instrumental in establishing a shared understanding of collaborative practice and excellent educational opportunities for students in both university and practice settings.³ The IPE curriculum is currently built on student completion of a combination of core and elective learning activities. The development of core competencies in the domains of foundational values and ethics, communication (including interprofessional conflict resolution) and collaboration (including role clarification, team functioning, and collaborative leadership) are identified in the *Framework for the Development of Interprofessional Education Values and Core Competencies*⁴ and the *Canadian National Interprofessional Competency Framework*⁵; these domains are central to the design and evaluation of all IPE learning activities at the university.

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Table 1
Topics and sub-topics.

Topic	Sub-topics	Programs teaching topics
Ethics	Conflict of interest, ethical principles and values, code of ethics and ethical decision-making.	Taught by ten programs: Dentistry (Dent), Medical Radiation Sciences (MRS), Medicine (Med), Nursing (Nurs), Occupational Therapy (OT), Pharmacy (Pharm), Physician Assistant (PA), Physiotherapy (PT), Speech-Language Pathology (SL-P) and Social Work (SW).
Professional values and responsibilities	Advocacy Patient/client and family-centered care Professionalism and professional behavior (professional boundaries and professional etiquette), professional self-care, Self-regulation, self-directed learning and reflection	Kinesiology (Kin), MRS, OT, PT and Nurs Dent, Med, MRS, Nurs, OT, Pharm, PT, PA, SL-P and SW Taught by eleven programs
Communication with patients/clients	Skills/behaviors related to communication (empathic communication, non-verbal communication, strategies to deal with emotions) Communication with specific populations (older adults and individuals with aphasia)	Taught by eleven programs Dent, Kin, MRS, Med, Nurs, OT, Pharm, PT and SW Kin, OT, Pharm and SL-P
Communication with the team	Interview skills and building of rapport Foundations of interprofessional collaboration (working effectively in teams, fostering opening communication and shared decision-making) Conflict management Documentation and feedback	Dent, OT, Med, Nurs, Pharm, PT, PA and SW Taught by eleven programs (current IPE curriculum covers these topics and is integrated into many programs) Taught by eleven programs Med, Nurs, OT, PT and SL-P
Social aspects of health	Cultural competence Health promotion Social determinants of health	MRS, Med, Nurs, OT, Pharm, PA, PT, SL-P and SW Med, Nurs, OT, Pharm, PA and PT MRS, Med, Nurs, OT, PT and SW
Quality	Topics varied among professions and touched on areas like disclosure and debriefing, strategies for patient safety and specific college quality assurance programs	Dent, MRS, Med, Nurs, OT, Pharm and SW
Safety	Patient/client safety, management of medication, errors, infection control and managing the transmission of disease	Dent, MRS, Med, Nurs, OT, PT and Pharm
Policy and law	Consent Capacity Privacy and confidentiality	Dent, MRS, Med, Nurs, OT, PA, PT and SW Dent, MRS, Med, Nurs, OT, PA and SW Dent, MRS, Med, Nurs, OT, PA and SW
Core science and clinical conditions	E.g. anatomy, diseases and impairments	Degree of depth of content is specific to the various programs and clinical knowledge is taught in a manner relevant to the profession
Research strategies	Variation among programs, where some students are taught the skills needed to be consumers of research and others engage in research	Dent, MRS, Med, Nurs, OT, PA, Pharm, PT, SW and SL-P

Educators, however, have recognized that student response to the topics covered appears to be enhanced when they are embedded in the context of curricular content that is perceived to be more relevant to their program curriculum and future practice. Although the benefits of the current approach are evident, university faculty have increasingly identified the need to build learning opportunities that foster longitudinal relationships within a curriculum that is fully integrated into each of the professional programs. Identification of common curriculum topics is challenging within a context of terms/modules of varying lengths across programs, topics covered at different times and in degrees of depth appropriate to the program models and experiential practice components not aligned among faculties. Yet, clearly, an integrated IPE curriculum should be built on what is both common and applicable across programs.

Curriculum mapping, first introduced by English,⁶ is a systematic process used to create an inventory of what is being taught, learning outcomes, pedagogic methods, time allotted to identified concepts and assessment strategies.⁷ Although typically conducted within a program, a scan of topics taught across professional program curricula and time allotted to each can serve as a preliminary guide to support selection of relevant topics to build developmental collaborative competencies in an interprofessional curriculum.

Methods

The research assistant employed by the Centre for Interprofessional Education conducted a curriculum scan of the eleven health science professions (Dentistry [DDS], Kinesiology [BKIn], Medical Radiation Sciences [BSc], Medicine [DM], Nursing [BScN], Occupational Therapy [MSc], Pharmacy [DDS], Physician Assistant [BScPA], Physical Therapy [MSc], Social Work MSW] and Speech-Language Pathology [MSc]). All course outlines from nine programs, one program curriculum map and one program accreditation outline were reviewed. Since the focus of this project was the identification of common topics for campus-based teaching of collaboration, content covered throughout experiential learning components in each program were not included in the scan. Curricular content was extracted by reading week-by-week sections, or course objectives if week-by-week were not available, and then labeled to identify the topic(s) addressed. Course number, curricular content (specific topic of class), year and semester taught and time allotted to the topic were tracked. Each topic was identified as specific to the profession (e.g. development of the tooth and supporting tissues specific to Dentistry), mixed professional value (e.g. anatomy) or not profession-specific (e.g. ethics). As well, the method of assessment (assignment, exam or unknown) was listed. Data was entered

into an Excel spreadsheet and color-coded by program for easier identification during the sorting phase.

The research assistant and author sorted, categorized and analyzed data to create topic areas. They decided that categories of content covered should occur in at least four professional program curricula to be identified as a common topic. Within these broader topics, they developed a list of sub-topics that also occurred within at least four professional programs. Based on the timing of the content delivery, the research assistant determined if the topic was taught at an introductory, intermediate or senior level within the program. Finally, a visual layout was created to consider potentially common topics for an integrated longitudinal interprofessional education curriculum.

Results

Key broader topics and sub-topics identified by the curriculum map of the programs are summarized in the table above. Programs teaching the identified sub-topics are listed.

Discussion

The curriculum mapping of the eleven health profession programs represents an essential step in considering topics that could form the foundation of an integrated IPE curriculum relevant to professional programs. Although the focus of interprofessional learning is the development of competencies needed for collaborative-ready practitioners,^{8,9} common topics and an appreciation of when they are taught in the individual programs will foster faculty and student support and integration. Topics related to communication and collaboration could be taught in program silos, as reflected in the program scan, but experience of educators in IPE suggests that students are more receptive and see the value of learning these skills when they are embedded within clinical contexts or learned with multiple team members. As well, programs are more receptive to incorporating interprofessional learning opportunities when the topics are relevant to their own curricular objectives.

Although the scan is specific to one large university with eleven health profession programs represented, the emerging overall topics did not reveal any surprises. There may be variation in topics generally taught in various educational settings, however, professional accreditation standards and/or licensing/certification examinations will likely create some uniformity among programs of the same profession. Thus, the topics identified in this curriculum scan could be used to guide choices for interprofessional education endeavors in other institutions. As such, these topics could provide the platform for further exploration at other academic institutions, preventing them from engaging in a similar time-consuming and tedious process of reviewing multiple course outlines across all programs of interest. Once potential topics are selected (see Table 1), universities and colleges could determine their own program specific details of when and how the material is taught and assessed to yield points of relevancy and intersection.

At the University of Toronto the curriculum scan was used as a foundation for planning an integrated longitudinal IPE curriculum. The scan provided a rationale for the selection of key topics to be addressed accompanied by some consideration of when they should occur. Although each of the programs continues to teach topics at a time that is most relevant for the professional development of their students, the scan and visual mapping provided a

starting point for discussion. Theoretical foundations of material taught and approaches to teaching each of the topics in individual programs were not explored, as this information was not available in course outlines. Faculty members from the University of Toronto health profession programs and the Centre for Interprofessional Education co-create material for the IPE curriculum. In doing so, greater detail about what is taught in individual programs and corresponding pedagogic approaches are represented in curricular discussions.

Limitations: The curriculum scan represented a snapshot of the programs in the fall of 2013. These will be impacted by curriculum renewal of programs or changes in course material taught. Consistency in the layout and content of course outlines across programs was a significant challenge. Only nine programs had specific course outlines, whereas the two remaining programs offered accreditation documentation on courses or a program curriculum map. The curriculum scan and identification of common themes were influenced by decisions made by the research team.

Conclusion

The themes that emerged from this scan highlight the potential context/topics where the development of collaborative competencies could be embedded. Ideally, these competencies should be aligned with and responsive to uniprofessional curricular plans and objectives yet provide opportunities for students from various health professions to explore the topics in an interprofessional context. Although not all identified topics lend themselves to interprofessional learning, the list offers a potential reference point to what is common to all programs and could be applied to a developmental curriculum. The identification of these themes will support universities/colleges to continue exploration of best intersection points within their educational setting.

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