Are Pharmacy Students Learning To Be Effective Collaborators and To Work within Health Care Teams through Our Interprofessional Education Initiatives?

THE "PRO" SIDE

The drivers for both interprofessional education and interprofessional collaboration are compelling, and they exemplify the magnitude and complexity of the issues relevant to interprofessional working relationships. However, before we debate whether pharmacy has sufficiently embraced and advanced the "interprofessional education for interprofessional collaboration" movement, it is important to examine the global and Canadian health care delivery contexts. Avoidable adverse events—known markers of health care quality and patient safety—are estimated to be the eighth leading cause of death in the United States.[1] The global shortage of health care providers is at a point of crisis: as long ago as 2006, the World Health Organization estimated a worldwide shortage of about 4.3 million health workers.[2] In 2003, the government of Canada acknowledged that its health care delivery system was no longer affordable or sustainable and that dramatic health care reform was required.[3]

Worldwide, interprofessional education and interprofessional collaboration have been identified as innovative strategies that can, at a minimum, mitigate these concerns. Mounting evidence suggests that these strategies improve patient safety, access to care, lengths of hospital stay, and quality of life for patients and families.[4] Other studies have noted improved job satisfaction and better recruitment and retention of health care providers working on interprofessional collaborative teams.[5-7] In 2005, the Canadian government responded by allocating more than $20 million over 3 years, mostly to postsecondary institutions, to the Interprofessional Education for Collaborative Person-Centred Practice Initiative (www.hc-sc.gc.ca/hcs-sss/pubs/hhrhs/2008-ar-ra/index-eng.php#iecppc).

As a consequence of this strategic Health Canada investment, there have been tremendous advances toward this form of education and practice within pharmacy in Canada. For example, the Association of Faculties of Pharmacy of Canada has explicitly identified "Collaborator Role" as 1 of 7 educational outcome categories.[8] Similarly, the National Association of Pharmacy Regulatory Authorities has identified "intra and inter-professional collaboration" as 1 of 9 competency categories.[9] The Pharmacy Examining Board of Canada's revised qualifying examination blueprint (parts I and II) specifies that 6% of the overall exam be allocated to the assessment of intra- and inter-professional collaboration.[10] Similar educational and licensing requirements are in place for registered and licensed practical nurses, occupational therapists, physical therapists, and family physicians, who are therefore significant enablers and drivers of interprofessional learning.

As a partner in a pivotal Health Canada–funded project entitled Accreditation of Interprofessional Health Education, the Canadian Council for Accreditation of Pharmacy Programs has recently dedicated one entire standard (Standard 3) to interprofessional education.[11-13] Again, pharmacy is not alone in this effort, with an additional 7 accrediting organizations for 5 other health professions participating in and making a commitment to the project. When accreditation, regulatory, licensing, and assessment organizations are all looking for evidence of interprofessional education for collaborative person-centred practice in the structures, processes, and outcomes of health professional education, academic institutions, including colleges and faculties of pharmacy, must respond.

And indeed they have. Looking for evidence that pharmacy students are learning to become effective interprofessional collaborators through their prelicensure training, I undertook a quick web-based search to locate relevant information about interprofessional education coordinated through the home universities of the 10 colleges and faculties of pharmacy in Canada. To more specifically address the question under debate, I followed 2 key learning principles during this web search: first, that explicitly stated educational outcomes should inform the progression of learning and second, that the progression of learning should be intentionally structured along a continuum or a scaffolded curriculum, to allow for transfer of learning across increasingly complex tasks.[14] In keeping with these principles, my search involved an examination of whether interprofessional collaborative competencies were specified and whether interprofessional learning opportunities were offered along a learning continuum to achieve those competencies. The sources were also searched to confirm pharmacy students' involvement in any interprofessional learning opportunities that were offered. Finally, recognizing the importance of faculty as "ambassadors" of interprofessional education, to advance the cause within and between stakeholder organizations, I examined the sources to determine whether faculty development was offered in this area.

The results provide convincing evidence that students from all 10 colleges and faculties of pharmacy across Canada are given opportunities to participate in interprofessional learning within their respective institutions (Table 1). All institutions have either a specific website or an interfaculty committee (or both) to serve as the "hub" of information on interprofessional education and interprofessional collaboration. All institutions have developed interprofessional learning outcomes to guide development of their interprofessional curriculum, with 7 of the 10 colleges using or adapting the 6 collaborative competency domains specified in the national competency framework of the Canadian Interprofessional Health Collaborative.[29] All institutions have articulated or illustrated a learning continuum to achieve competence in the stated interprofessional learning outcomes. When noted in the sources, the diversity of professions involved in program planning was impressive, with between 9 and 15 health professional programs participating. Finally, the websites of 6 of the 10 universities noted faculty development in interprofessional education.

We should also not underestimate the power of students as positive catalysts for change and the importance of socialization in their developing interprofessional collaborative relationships. The National Health Sciences Students' Association is a student-inspired organization established in Canada in 2005 as a network of university- and college-based chapters with a mandate to promote interprofessional education for interprofessional collaboration, facilitate opportunities for interprofessional interactions, and foster student champions to lead interprofessional efforts. The group has survived the test of time and is now in its 11th year of existence. Notably, leaders from the national health care student associations, including the Canadian Association of Pharmacy Students and Interns, are working through the National Health Sciences Students' Association to achieve greater collaboration at the national level (https://www.facebook.com/NaHSSA/).

In conclusion, the university health sciences faculties that are home to the 10 colleges of pharmacy across the country have responded to the demand for health system transformation through the Interprofessional Education for Collaborative Person-Centred Practice Initiative. Within all 10 universities, the colleges of pharmacy are actively involved in this process. With a grounding in sound educational theory, pharmacy students are being offered interprofessional learning opportunities along the learning continuum to achieve competence in interprofessional collaboration

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Table 1. Interprofessional Education at the 10 Colleges and Faculties of Pharmacy in Canada*

Institution	Educational Outcomes	No. of Professions	Faculty Development
University of British Columbia[15,16]	CIHC national competency framework	15 health and human service programs, including pharmacy	Yes
University of Alberta[17]	Communication, collaboration, role clarification, reflection, patient-centred care	14 health sciences programs, including pharmacy	Yes
University of Saskatchewan[18]	CIHC national competency framework	10 health professions, including pharmacy	Not specified
University of Manitoba†[19,20]	CIHC national competency framework	13 academic units, including pharmacy	Yes
University of Toronto[21]	Values and ethics, communication, collaboration	11 health sciences programs, including pharmacy	Yes
University of Waterloo[22]	CIHC national competency framework	Not specified	Not specified
Université Laval[23,24]	CIHC national competency framework	Mandatory for 9 professions (including pharmacy), optional for 1 profession	Yes
Université de Montréal[25,26]	Adapted from CIHC national competency framework	10 health sciences and psychosocial sciences training programs, including pharmacy	Not specified patients-as-trainers program
Memorial University of Newfoundland[27]	Roles, teamwork, patient-centred care, collaborative work	10 schools, centres, and faculties, including pharmacy	Yes
Dalhousie University[28]	CIHC national competency framework	Not specified	Facilitator's guide

CIHC = Canadian Interprofessional Health Collaborative.[29]
*All colleges and faculties use a learning continuum.
†As of March 31, 2015, five faculties and schools at the University of Manitoba were amalgamated into one Faculty of Health Science. At that time, the university's Interprofessional Education Initiative ended, and an Office of Interprofessional Collaboration was created. Data presented in the table are based on information that was available at the website (www.umanitoba.ca/programs/interprofessional) on May 11, 2016.

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Ruby Grymonpre, PharmD, FCSHP
Professor, College of Pharmacy
University of Manitoba
Winnipeg, Manitoba

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THE "CON" SIDE

Although health care has arguably always been delivered by multiple professions, the rise of collaboration as a means to improve patient care outcomes is a relatively new yet increasingly widespread phenomenon.[1,2] This understanding of care delivery as a "team sport" has led to massive investment in one specific approach to improving teamwork: interprofessional education.[3] In this article, I discuss 4 key reasons why interprofessional education is not likely to help pharmacy students learn to be effective collaborators, and suggest a better way forward.

First, after 3 decades of scientific inquiry, it is still unclear whether interprofessional education should be implemented at the undergraduate, postgraduate, or practice level.[4,5] Many scholars believe that we should socialize students early into a more collaborative, "health care team" identity, but others argue that it is impossible for preclinical students to engage in interprofessional education activities—including role discussion and negotiation—when they do not know their future clinical role. Interprofessional education might thus be developmentally inappropriate. Moreover, as noted elsewhere, it is unfair to task students with changing the health care system, as interprofessional education does.[6] Undergraduate-level models train students to expect collaborative work environments, yet students and graduates often confront a reality that is disenchantingly otherwise, despite undeniable improvements in collaborative practice over the past decades.[7-9] As newcomers in an inertial system, they are rarely in positions to confront harmful and unsafe professional hierarchies. Consequently, the impact of undergraduate-level interprofessional education on the system is likely lower than approaches aimed at changing collaborative practice in situ.

Second, interprofessional education has been widely criticized for being atheoretical and ahistorical,[6,10-13] yet its model of "learning with, from, and about" other healthcare professional

students[14] hinges implicitly on contact theory. First articulated in 1954 by Allport, in the context of American race relations, this theory suggests that bringing members of different groups together should reduce prejudice and improve intergroup relationships.[15] Although a recent literature review presents evidence in support of contact theory,[16] it also suggests that individuals who are "coerced" into intergroup interactions often experience negative contact, whereby stereotypes are confirmed and prejudice reinforced, and that positive intergroup contact requires equal status among participants,[16] something that even proponents of contact theory agree is hard to achieve during interprofessional education activities.[17]

This is distressing news for the field. Indeed, a growing corpus of critical interprofessional education research from Canada,[18] Australia,[19] New Zealand,[13] and the United States[4,20] hints at both the reinforcement of professional stereotypes among students and widespread frustration with interprofessional education's tacit acceptance of the hierarchy of professions. Moreover, coercing students from different professions to come together might be defeating the intervention's very purpose. Enabling contact among health care professionals is not enough; had it been, their history of delivering care together would arguably have ironed out the kinks of collaborative care. We desperately need a more elaborate view of how the professions come together upon which to anchor education for collaboration,[2,6] and could follow the lead of scholars who have used other social theories to provide more nuanced portraits of interprofessional relationships and interprofessional education.[4,11,21]

Third, the aim of interprofessional education is to improve patient care outcomes by educating collaboration-ready professionals who can transform health care delivery. It is absolutely reasonable to expect an educational intervention such as this to change the attitudes and beliefs of students (although, as noted above, coerced interaction might invite backlash). The larger claim that interprofessional education can actually change health care practices, however, rests on very fragile grounds. A recent systematic review covering 30 years of research found that the results of the mere 15 studies that met the inclusion criteria were so inconsistent that "it is not possible to draw generalisable inferences about the key elements of [interprofessional education] and its effectiveness."[22] Similarly, the World Health Organization's 2013 guidelines for the education of health care professionals found "no practice-level impact assessment" of interprofessional education on patient care, and recommended implementing interprofessional education "only in the context of rigorous research."[14] Of course, lack of evidence about effectiveness is not evidence of ineffectiveness, and educators know that documenting the impact of educational interventions is extremely difficult. But what if we stopped searching for the key to education for collaboration under the interprofessional education lamppost and started looking elsewhere?

Finally, as noted by the World Health Organization, interprofessional education requires a "significant layer of coordination" to be developed and implemented.[14] Anyone who has been involved in interprofessional education knows how difficult it is in many cases to find (qualified) volunteer facilitators and rooms to host the small groups upon which effective interprofessional education is predicated,[5,13,14] how hard it is to motivate students, to track and assess their involvement, and to provide meaningful feedback,[13] and how tedious it is to coordinate student schedules across several faculties while also developing and maintaining organizational buy-in. These challenges explain why interprofessional education often requires the work of several (paid) professionals, who must be wizards of event, space, and people management.

The literature fully acknowledges these pragmatic constraints and their negative impact on interprofessional education, in terms of both the quality of the offerings and the educational experience itself.[4,5,14,23] It rarely, however, considers an alternative model: uniprofessional education for collaboration. Because collaboration is a core competency of the Association of Faculties of Pharmacy of Canada, its teaching is part of the educational mandate of all Canadian faculties of pharmacy. As such, uniprofessional education can likely be integrated much more easily and cheaply into the pharmacy curriculum than can interprofessional education.

In conclusion, we as a community have to recognize that education rarely solves social problems singlehandedly. Until we accept and embrace the complexity of professional interactions, as determined by systemic—that is, sociological, societal, historical, legal, and organizational—factors, we will not be able to transform them. Interprofessional education overpromises and underdelivers. As an expensive, theoretically naive, individual-level solution that might actually reinforce professional stereotypes, interprofessional education at the undergraduate level is likely counterproductive. Merely teaching health care providers that they should listen to each other, know their colleagues' roles, and be good teammates will not transform the structural issues that make patient-centred, collaborative care difficult. Education for collaboration in general and interprofessional education more specifically can go only so far in transforming the health care system, and should thus form only one aspect of our quest to improve patient outcomes.

This being said, what kind of education for collaboration should we embrace? Given the evidence and shortcomings discussed above, it seems that the most productive strategy might be to educate undergraduates uniprofessionally. Instructors could address system-level issues, discuss professional stereotypes, and teach strategies for negotiating power differentials and difficult situations. In doing so, they would lay the groundwork for more effective, reflexive collaborative practice. Furthermore, practice-based interprofessional education could be implemented during clinical rotations and in practice settings, where much change is still needed.

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Elise Paradis, MA, PhD
Assistant Professor
Canada Research Chair in Collaborative Healthcare Practice
Leslie Dan Faculty of Pharmacy
University of Toronto
Toronto, Ontario

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ON THE FRONT COVER

Autumn in Port Carling, Ontario

A highlight of autumn in Ontario is watching the leaves turn red, orange, and yellow. This picture was taken by Heather Kertland (Clinical Pharmacy Specialist/Leader at St Michael's Hospital in Toronto) on the dock at a cottage during Thanksgiving weekend, 2011. Heather took advantage of the calm water to capture reflections of the fall foliage.

The *CJHP* would be pleased to consider photographs featuring Canadian scenery taken by CSHP members for use on the front cover of the journal. If you would like to submit a photograph, please send an electronic copy (minimum resolution 300 dpi) to cjhpedit@cshp.ca.