A pharmacist-led interprofessional learning experience for family practice medical residents specializing in HIV care

Séance d’apprentissage interprofessionnel animée par un pharmacien pour les résidents en médecine familiale spécialisés dans les soins liés au VIH

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Implication Statement

We developed a pharmacist-led one-month teaching rotation for medical residents to learn HIV pharmacotherapy. The postgraduate-year-3 residents found this interprofessional learning experience extremely valuable to their future practice in HIV care. The overarching concept of this rotation was for the medical trainee to “become-the-pharmacist”, learning to recognize, prevent, and manage drug-related issues in HIV patients. To support medical training in other highly specialized pharmacotherapeutic areas we suggest considering a pharmacist-led interprofessional learning experience.

Introduction

Interprofessional learning has become an important component in the delivery of health care education. In 2010, the Canadian Interprofessional Health Collaborative (CIHC) published a six-point competency framework to support interprofessional learning, collaborative practice, and improve health outcomes. Interprofessional education (IPE) is the process of preparing people for collaborative practice and defined as occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care.

In recent years pharmacology training has been diminishing from medical school curriculums. Standardized assessment demonstrated that curriculums providing limited pharmacology training were associated with lower prescribing competency. In contrast, medical residency programs have increasingly incorporated pharmacists. A 2015 study reported 52% of 396 responding U.S.-based family residency programs reported having included a clinical pharmacist, with nearly a third of their time spent teaching. Pharmacists receive formal training in therapeutics, routinely apply this knowledge in clinical practice, and are thus well-positioned to provide pharmacotherapeutic education to their medical colleagues.

In 2010, the Ontario HIV Treatment Network partnered with the University of Toronto Department of Family & Community Medicine and introduced a postgraduate
residency program to support the development of HIV primary care physicians. This six-month enhanced skills program consisted of monthly blocks in the following HIV care settings: specialty clinic, inpatient ward, primary care, hospice, psychiatry and addictions medicine. In 2013, we incorporated a pharmacist-led rotation because the provision of HIV care requires specialized drug knowledge.

Innovation
We developed an interprofessional learning experience tailored to the goals of the resident but with the fundamental objectives to: 1) provide a collaborative teaching model incorporating a pharmacist-led rotation for medical residents, 2) develop a curriculum to teach specialized HIV pharmacotherapy, and 3) evaluate the learners’ confidence in their knowledge of HIV therapeutics, 3) observed whether the learner made a behavioural change through application of this knowledge in clinical practice, and 4) observed whether the training improved the residents’ clinical performance. Finally, our program capitalized on the knowledge of three experienced pharmacists with collectively over 50 years of practice in HIV care.

Outcomes
From 2013-2021, thirteen family medicine postgraduate-year-3 residents completed their HIV residency with the pharmacy rotation. The majority received their medical education in Ontario, reported a median of four prior rotations with focused training in HIV care, a median of one rotation with pharmacology training, while half reported that their medical education did not include a course on pharmacology.

The learners provided written feedback which strongly endorsed the HIV-pharmacy rotation as being valuable to their future practice. The residents felt the nature of activities and rotation duration met their learning needs. Pre- and post-rotation surveys of confidence in knowledge are presented in Figure 1. Some of the observed behavioural changes included gathering full medication histories, use of HIV pharmacotherapy-specific resources, and patient assessments focused on identifying drug-therapy problems. Over the course of each rotation, the pharmacist-preceptor along with their physician colleagues noted improvement in the residents’ pharmacotherapy assessments and therapeutic skills.

Next steps
Survey results demonstrate that this pharmacist-led interprofessional learning experience improved the medical residents’ confidence in their knowledge of antiretroviral therapy and providing HIV care. A future direction to help advance this program into a true IPE intervention may include pairing a pharmacy residency rotation concurrently with the HIV medical resident. By coordinating the two, we could assess how well this program supports these two professions in learning with and from each other while aiming to improve collaborative care. The success of this IPE intervention should be evaluated on how well it delivered upon the six collaborative competency domains outlined by the CIHC. Lastly, other applications of this interprofessional learning experience could capitalize on the skills of pharmacists in other specialized pharmacotherapeutic areas.
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