

Interprofessional student-run primary health care clinics: Educational experiences for pharmacy students

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STUDENT-RUN PRIMARY HEALTH CARE CLINICS (SRPHCCs) are prevalent in the United States and have reported benefits not only by providing medical care for underserved patients but also by acting as a valuable learning experience for medical students.¹ There are currently 7 SRPHCCs in Canada.² The Community Health Initiative by University Students (CHIUS) in Vancouver, British Columbia, was the first to open its doors in April 2000. Subsequently, 6 additional SRPHCCs have opened in Alberta, Saskatchewan, Manitoba and Ontario.³ These Canadian student-run primary health care clinics offer medical services that are similar to those available in typical family doctors' offices; however, most patients of the SRPHCCs seek care on a walk-in basis, in contrast to appointment-based encounters. What makes these SRPHCCs unique (in addition to the fact that they are operated by students) is that they use a collaborative, interprofessional approach and that patients can access a wide variety of educational and social services at the clinics, not exclusively medical care.

The purpose of this article is to describe the function of interprofessional SRPHCCs in Canada and to discuss potential benefits of the model for educating undergraduate pharmacy students.

Description of student-run clinics in Canada

As the name suggests, SRPHCCs are operated largely by student volunteers, the majority of whom are undergraduates. The clinics employ a limited number of paid staff who fulfill day-to-day administrative roles (e.g., an executive director) and who ensure continuity of the program

from year to year, as the Boards of Directors generally consist of undergraduate students who usually move on and graduate. The SRPHCCs also tend to operate outside of regular business hours (i.e., evenings and weekends) and are typically located in neighbourhoods where the population is underserved by primary care services, as well as in communities that are disproportionately negatively affected by health and social disparities such as poverty, inadequate housing and lack of education.

To meet the often complex and multifactorial health care needs of their patients, these clinics are staffed by student volunteers from numerous different health professions. The interprofessional approach that is used by most of the SRPHCCs in Canada differentiates them from many of their American counterparts. Students from many different health science disciplines work together (supervised by a multidisciplinary team of licensed professionals who act as mentors) to provide direct patient care to patients with a holistic, patient-centred approach. A typical clinical team can include students and/or mentors from the following disciplines: medicine, nursing, pharmacy, social work, clinical psychology, physiotherapy, occupational therapy, nutrition and chiropractic (among others).

Although each clinic operates differently, most employ a triage process to identify the optimal interprofessional team that will work together to provide care to patients during each individual clinic visit. The end result is often the development of a care plan that deals with not only the patient's acute or chronic medical needs but one that also addresses multiple social determinants



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of health through consultations with students from the various disciplines on the team. This type of interprofessional care planning is useful in optimizing patient health outcomes and is gaining popularity in Canada. Research has indicated that the level of care provided at student-run clinics is similar to that of typical primary care clinics,^{3,4} and patient satisfaction with care is high.⁵

Another unique feature of these SRPHCCs is that, in addition to offering medical services, many provide a wide variety of social and educational programming for patients. Nonmedical programs are typically offered at the same time and in the same building as the walk-in medical consultations. Examples of nonmedical programming include homework help for kids, financial planning education, parenting advice, exercise classes and cooking classes. Community kitchens engage patients in cooking healthy and affordable meals and then provide the participants with leftovers to take home for their families. Nonmedical programs, such as those described above, may not traditionally be integrated into

typical primary care clinics in Canada; however, in the spirit of holistic care, these activities are meant to increase social well-being in addition to nonmedical aspects of patients' health. Patients in the clinic, whether they are accessing medical care or not, are often offered free nutritious snacks or meals, which are cooked on site during operating hours. As with most activities at the clinics, these programs are also coordinated and run by the student volunteers.

Impact on pharmacy student education

SRPHCCs provide a unique learning opportunity for pharmacy students. The collaborative and interprofessional environments within these clinics not only allow for peer-to-peer, cross-discipline teaching and mentorship (where students teach and learn from each other) but also provide an opportunity for pharmacy students to learn from a variety of licensed health care practitioners. Although literature describing the educational impact of SRPHCCs, specifically related to pharmacy students, is lacking, one American study included pharmacy students in the evaluation of a student-run homeless shelter. Clark et al.⁶ reviewed thousands of student reflections (pharmacy, medicine, public health) and identified 4 competency themes that were improved by student activity in the clinic: social awareness, compassion and empathy, teamwork, and confidence building. Similar themes are identified elsewhere in the literature⁷ and indicate that SRPHCCs are a beneficial educational experience for students. Other studies have found that the experiences of students who participate in SRPHCCs may positively influence their future decisions to work in a primary care setting or an environment that serves the underprivileged members of society.^{8,9}

Canadian pharmacy schools are now mandated by the most recent accreditation standards from the Canadian Council for Accreditation of Pharmacy Programs to formally integrate interprofessional collaboration and education into their curricula.¹⁰ In addition, many existing experiential opportunities for Canadian pharmacy students do not expose students to communities that struggle with poverty and those who are disproportionately affected by health inequities. SRPHCCs represent an opportunity to fulfill the interprofessional educational goals of pharmacy student training in Canada, in addition to offering students an opportunity to

apply their skills through interactions with real patients (as opposed to relying on role-playing and simulated patient actors).

Pharmacy students who become involved in these student-run primary care clinics are regularly exposed to health care professionals and students of other disciplines who they would otherwise be unlikely to work and learn with during their traditional undergraduate education. This exposure responds to the current call for more widespread interprofessional education.¹¹ It can provide a basis for understanding other professionals' scopes of practice¹² and promotes enhanced communication skills between professions. Interprofessional education also gives students the benefit of learning how other health professionals think, what procedures and processes occur during different stages of the patient journey and how interdisciplinary care might be optimally provided. This is a vital aspect of any health professional's learning and something that should enhance the training of Canadian pharmacy students.

Integration of pharmacy students into student-run clinics in Canada

At SWITCH (Student Wellness Initiative Toward Community Health) in Saskatoon, Saskatchewan, pharmacy students are an integral part of the clinical team. Pharmacy students perform medication reconciliation and comprehensive medication assessments, as well as provide medication education to patients and health providers, among other activities. Anecdotally, these services and the presence of pharmacy students at the clinic have been very well received. Despite

the active presence of pharmacy students at SWITCH, many shifts still operate without pharmacy students, and a very small percentage of pharmacy students in Saskatoon volunteers at SWITCH. Unfortunately, to our knowledge, no formal evaluation of pharmacy student-delivered services has been completed at SWITCH or any of the other Canadian student-run clinics. Pharmacy student involvement is highly variable at the other student-run primary health care clinics in Canada, and consequently, there is a significant opportunity to expand pharmacy student involvement in all of the existing student-run primary care clinics in Canada.

Conclusion

The existing 7 interdisciplinary student-run primary health care clinics in Canada offer a myriad of benefits to patients, preceptors and students in training. Services that the clinics offer to patients are holistic, valuable and directly linked to their health and well-being. Students gain valuable insight into the working worlds and skills of their future colleagues and further develop their clinical skills with real patients. With the increased level of importance being placed on interdisciplinary pharmacy education programs across the country, these clinics should be considered valuable educational opportunities for students of all health disciplines. The expansion of interdisciplinary SRPHCCs in Canada and abroad, as well as an increased level of involvement of pharmacy students within these clinics, should be strongly considered by pharmacy educators and health policy decision makers. ■

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References

1. Simpson SA, Long JA. Medical student-run health clinics: important contributors to patient care and medical education. *J Gen Intern Med* 2007;22:352-6.
2. Holmqvist M, Courtney C, Meili R, Dick A. Student-run clinics: opportunities for interprofessional education and increasing social accountability. *J Res Interprofessional Pract Educ* 2012;2(3). Available: www.jripe.org/index.php/journal/article/view/80 (accessed Dec. 4, 2014).
3. Ryskina KL, Meah YS, Thomas DC. Quality of diabetes care at a student-run free clinic. *J Health Care Poor Underserved* 2009;20:969-81.
4. Zucker J, Gillen J, Ackrivo J, et al. Hypertension management in a student-run free clinic: meeting national standards? *Acad Med* 2011;86:239-45.
5. Ellett JD, Campbell JA, Gonsalves WC. Patient satisfaction in a student-run free medical clinic. *Fam Med* 2010;42:16-18.
6. Clark DL, Melillo A, Wallace D, et al. A multidisciplinary, learner-centered, student-run clinic for the homeless. *Fam Med* 2003;35:394-7.
7. Proctor P, Lake D, Jewell L, et al. Influencing student beliefs about poverty and health through interprofessional community-based educational experiences. *J Res Interprofessional Pract Educ* 2010;1(2). Available: www.jripe.org/index.php/journal/article/view/24 (accessed Dec. 4, 2014).
8. Campos-Outcalt DE. Specialties chosen by medical students who participated in a student-run, community-based free clinic. *Am J Prev Med* 1985;1:50-51.
9. Tavernier LA, Connor PD, Gates D, Wan JY. Does exposure to medically underserved areas during training influence eventual choice of practice location? *Med Educ* 2003;37:299-304.
10. The Canadian Council for Accreditation of Pharmacy Programs. Accreditation standards for the first professional degree in pharmacy programs. Available: www.ccapp-accredit.ca/site/pdfs/university/CCAPP_accred_standards_degree_2014.pdf (accessed Dec. 4, 2014).
11. Cook DA. Models of interprofessional learning in Canada. *J Interprof Care* 2005;19(s1):107-15.
12. Harward DH, Tresolini CP, Davis WA. Can participation in a health affairs interdisciplinary case conference improve medical students' knowledge and attitudes? *Acad Med J Assoc Am Med Coll* 2006;81:257-61.