

PHARMPATH: VIRTUAL IMMERSIVE SIMULATIONS AND IN-PERSON EXPERIENTIAL OPPORTUNITY IN PHARMACY EDUCATION FOR SECONDARY AND POST-SECONDARY STUDENTS FROM UNDERREPRESENTED COMMUNITIES

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Abstract

Pharmacy professionals have a critical role in health promotion and acute/chronic disease prevention and management. There is a need for greater diversity among pharmacists and pharmacy technicians as Black and Indigenous communities continue to be underrepresented in these professions. To foster a more diverse field of pharmacy professionals and to provide equitable and culturally competent care to the communities they serve, Equity, Diversity, and Inclusion (EDI) initiatives must be incorporated in the pharmacy education recruitment process. The PharmPath project prioritized underrepresented communities in all stages of development and delivery of the on-site experiential day for aspiring students who identify with these groups. This poster illustrates findings after deployment of 3 new simulation videos and the second, expanded PharmPath experiential day for underrepresented students.

Keywords: *Pharmacy, inclusion, experiential, underrepresented, health sciences.*

1. Introduction

Pharmacy professionals have a critical role in health promotion and acute/chronic disease prevention and management. In Canada, pharmacists' scopes of practice have expanded allowing them to prescribe treatment for several minor ailments (Government of Ontario, 2024). Pharmacists are sometimes the only accessible health care provider patients have access to (University of Waterloo, 2022) so ensuring high quality care is important. One driver of quality care is the diversity of the healthcare team (Gomez & Bernet, 2019; Jackson & Gracia, 2014). In Canada, for example, Black and Indigenous communities continue to be underrepresented in Canadian PharmD graduating classes (Association of Faculties of Pharmacy of Canada, 2023). There is a need for greater diversity among pharmacists and pharmacy technicians and this project aimed at increasing interest in the professions among typically underrepresented students.

2. Project design

To foster a more diverse field of pharmacy professionals and to provide equitable and culturally competent care to the communities they serve, Equity, Diversity, and Inclusion (EDI) initiatives must be incorporated in the pharmacy education recruitment process. The PharmPath project was created to inspire interest in pharmacy and pharmacy technician programs among historically underrepresented students. The project uses a three-pronged approach: 1) video testimonials from pharmacy professionals and pharmacy students, from diverse backgrounds, sharing their pathways to the career; 2) six pharmacy virtual simulations showcasing the work of diverse patients, pharmacists, and pharmacy technicians; and 3) an in-person experiential day at the University of Toronto's Leslie Dan Faculty of Pharmacy (LDFP). All aspects of the PharmPath program are free of charge and the project team provides transit passes to/from the university for those indicating need for financial support to travel.

The virtual simulations were collaborative effort between colleagues from the University of Toronto Leslie Dan Faculty of Pharmacy, the University of Waterloo School of Pharmacy, and Centennial College's Pharmacy Technician program. Cases for the simulations were designed by pharmacy professionals and the team further collaborated with students from Seneca College's course called Design

for Social Change who were responsible for a number of creative elements. The completed virtual simulations have been made available to anyone wishing to use them. Further, all associated media assets have been uploaded to a repository to allow broad access. Instructors are also welcomed to modify the simulations to suit their needs and the code to do so has been made available on GitHub.

The virtual simulations touch on entry-to-practice competencies for pharmacists and pharmacy technicians such as collaboration and decision making which illustrates to potential students some aspects of the work one might expect as a pharmacy professional. The simulations were also created with diversity in mind showing both pharmacy professionals and patients from a broad range of backgrounds.

The virtual simulations acted as an introduction to pharmacy, and students who completed the virtual scenarios (n=130) were then invited to the experiential day at LDFP in March, 2024. Throughout the experiential day, students (n=39) heard from a keynote speaker, participated in hands-on pharmacy lab activities, and had tours of LDFP and the University of Toronto led by PharmD students from the Black Pharmacy Students Association.

3. Methods

To understand the influence the virtual simulations and the experiential day on participants' understanding of pharmacy professions, we conducted both a post-event survey and invited students to participate in focus groups. Of the 39 experiential day participants, 13 completed the survey and 15 chose to participate in a focus group. Four focus groups were created from the 15 participants and semi-structured interview-style questions were asked (e.g., How did the experiential learning day affect your knowledge about pharmacy professions?; How did the experiential learning day affect your perceptions, attitudes, and interest in pursuing a pharmacy career?; What factors or influences play a role in shaping your decision to pursue a career in pharmacy?).

Findings from the survey participants (n=13) indicated that 92% of respondents strongly agreed they were more familiar with the roles and responsibilities of pharmacists after the experiential day. Eighty-five percent of respondents agreed or strongly agreed they learned a lot from the experiential day and 77% indicated they agreed or strongly agreed that they knew more about PharmD admission requirements because of the experiential day.

Two members of the research team conducted thematic analysis on the focus group transcripts (n=15) using NVivo14 and consensus on the findings was reached in conversation with the research team.

4. Findings

Four main themes emerged from the focus groups: Engagement, changed perspectives, financial considerations, and the need for more experiential opportunities. In terms of engagement, students enjoyed the experiential day and liked the smaller group setting and supportive environment which made the learning activities effective. They found engaging with the activities, volunteers, PharmD students, and faculty to be both fun and educational. Students' perspectives about pharmacy changed and they indicated that pharmacists and pharmacy technicians do much more than dispense medications. They found pharmacy to be impactful, collaborative, and more attainable as a career than previously thought. Financial barriers to pharmacy were raised as an issue during focus groups. Students suggested additional financial support in the form of both scholarships and paid practical experience placements could help mitigate financial issues somewhat. Finally, students suggested more experiential opportunities would be helpful in terms of preparing them for a future in pharmacy.

5. Discussion & conclusion

Based on the success of PharmPath Experiential Day 2024, a second annual event has been planned for March 2025 following a similar path to entry (e.g., virtual simulations, registration for the event, financial support through transit passes). Further, the virtual simulations proved important not only to PharmPath but they were also used in LDFP's Medication Therapy Management 2 course and by the Ontario College of Pharmacists in an online learning module. As such, three additional simulations have been created and deployed for this year. At the time of writing (February, 2025), 35 students are registered for the 2025 Experiential Day and we will cap the event at 60 participants to ensure students are in small enough groups to engage fully in the lab and other activities. We will refine the survey and focus group questions this year to understand more about students' motivations for participating and their thoughts about pursuing careers in health sciences broadly, and within pharmacy specifically. Like many teams, we are challenged to continue providing relevant virtual scenarios and hosting the Experiential Day given the dual constraints of time and finances. Fortunately, the virtual scenarios are an asset that can be used in perpetuity and are available to other educators wishing to use or adapt them.

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