

Research Narrative

Section I:

Inclusion of curricular content relating to LGBTQIA+ populations in healthcare training programs is becoming a major priority.¹ Health disparities are rampant within these populations, resulting in both poor mental and physical health.² One of the major reasons for these disparities is from healthcare avoidance behaviours that result from the actual or perceived presence of stigma or discrimination within healthcare settings.^{3,4} For example, a patient who has previously received negative treatment due to their sexuality or gender identity in a healthcare setting may choose to avoid or delay non-essential care.⁵ This may result in poor uptake of screening or prevention services, such as for vaccinations, cancer prevention, or screening for sexual health needs.⁴ As healthcare professionals are known to be a major source of the stigma and discrimination encountered by these patients, healthcare professional training programs are actively implementing curricular content to better prepare graduates to provide inclusive and affirmative care for all people.^{1,6}

The Doctor of Pharmacy (PharmD) program at Dalhousie University (DU) (Halifax, Canada) successfully implemented a core, integrated, and longitudinal curriculum for LGBTQIA+ health over the previous three years. The first cohort of students (Class of 2024) will have received all on-campus curricular components (Appendix 1) by April 2023 and will be entering their Advanced Pharmacy Practice Experiences (APPEs) in May 2023. The on-campus curriculum was designed to instill knowledge, develop skills, and support professional growth across numerous learning events. Learning events included topics such as introducing LGBTQIA+ related definitions and terminology, inclusive communication strategies, population-based literature evaluation, gender-affirming care therapeutics, sexual health, introduction to systemic oppression and minority stress, and cumulated with discussions of lived experiences from LGBTQIA+ community members. As per Appendix 1, learning events were strategically placed across the three years of on-campus study and addressed all Educational Outcomes published by the Association of Faculties of Pharmacy of Canada.⁷ The PharmD program at the University of Alberta (UA) (Edmonton, Canada) includes content and learning outcomes that are similar to those at DU, however, implementation is less structured and relies on external expertise.

Feedback on the LGBTQIA+ curricular content has been obtained through regular course evaluations at both universities, but the impact of the curriculum on student learning and practice within experiential settings is unknown. **Formal evaluation of this curriculum is therefore necessary to determine whether each curricular model is effective and impactful for future sharing and uptake across other member institutions and to identify professional development needs for faculty members and preceptors related to LGBTQIA+ health.**

This project will directly support Strategic Priority #2 by addressing Goal Statement 2.1 (Stimulate Innovative Curricula), Goal Statement 2.2 (Cultivate Innovative Faculty), and Goal Statement 2.3 (Enhance Workforce Development). The results of this project will result in resources for the academy to adapt impactful learning events into their own programs (Objective 2.1.4). The project results will support member institutions by offering a model for educational programming for a state-of-the-art core curriculum for LGBTQIA+ health (Objective 2.2.1). Engaging faculty members and preceptors as part of the evaluation process will identify future areas to promote and advance preceptor and faculty development (Objective 2.3.1).

This study will answer the following research questions:

1. How does a core, integrated, and longitudinal curriculum for LGBTQIA+ health impact pharmacy students' knowledge, skills, and practice-based experiences? 2. How does impact differ between a structured approach (DU) versus on that relies on external

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expertise (UA)? We hypothesize that the curriculum will show impact through course-based assessments and student feedback from experiential training. We also hypothesize that this project will identify areas for learning improvement, as well as faculty and preceptor development needs for effective curricular implementation. We hypothesize that impact statements will be more descriptive and aligned with curricular objectives from DU students, as compared to UA students.

Specific Aim #1: To determine student performance across embedded assessments within the core, integrated, and longitudinal LGBTQIA+ curriculum at DU

Specific Aim #2: To determine impact of the core, integrated, and longitudinal curriculum (DU) and the less structured LGBTQIA+ curriculum (UA) on practice-based experiences

Specific Aim #3: To determine faculty member and preceptor professional development needs for instructing and assessing students according to LGBTQIA+ curricular outcomes

Section II:

Study Design: This is a multi-site, mixed-methods evaluation project that will occur over three phases according to each specific objective. Mixing of data from all three phases will occur during data interpretation, in order to effectively answer the overarching research questions.

Methods:

Specific Aim #1: To determine student performance across embedded assessments within the core, integrated, and longitudinal LGBTQIA+ curriculum at DU

This phase will consist of a cross-sectional analysis of student performance data across all three years of the on-campus curricular implementation in 2022-2023 academic year. We have decided to include data from one academic year (three cohorts of students) as the assessment framework for the LGBTQIA+ curriculum was fully implemented during this academic year. Student performance data for each of the assessments listed in Appendix 1 will be analyzed. Specific measures will include pass rates, mean scores, standard deviations, and discrimination indices for specific questions or rubric domains within an assessment, when applicable.

Specific Aim #2: To determine impact of the core, integrated, and longitudinal curriculum (DU) and the less structured LGBTQIA+ curriculum (UA) on practice-based experiences

This phase will consist of a cross-sectional survey of fourth year pharmacy students (n=72 at DU and n=130 at UA) during their APPEs in 2023. Students will also be able to self-identify for inclusion in a focus group, if desired. A total of 3 focus groups are planned at each institution with 6 to 8 students participating in each.

The survey will be designed according to the following sections:

1. Demographic information
2. Likert-type item responses for items based on overall curricular objectives
3. Open-ended responses for sharing specific examples related to the LGBTQIA+ curriculum during experiential training
4. Open-ended responses for suggestions on improving the LGBTQIA+ curriculum as a whole

The survey will be analyzed descriptively. Thematic analysis will be used to analyze open-ended responses.⁸

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The focus groups will follow a topic guide developed based on results of the survey. Each focus group will be facilitated by two study personnel, with one designated to take notes. Focus groups will be recorded. Thematic analysis will be used to analyze focus group transcripts, once produced.⁸

Specific Aim #3: To determine faculty member and preceptor professional development needs for instructing and assessing students according to LGBTQIA+ curriculum outcomes

This phase will consist of a cross-sectional survey to be administered to all faculty and preceptors **at both universities**. The survey will be designed to elicit facilitators, barriers, and suggestions for curriculum improvement. A needs assessment will also be included to identify future professional development needs to build capacity and confidence when instructing and assessing LGBTQIA+ health concepts. The survey will be analyzed descriptively and a thematic analysis will be conducted for open-ended responses.⁸

Budget and Timeline Considerations

The budget has been constructed for successful completion of the project. Two PharmD students will be hired to support the work and to build research capacity within student populations. Audio-recorders are required for focus groups and meeting costs have been budgeted to support the students (preferably) or researchers' attendance at an upcoming Pharmacy Education conference. All other software, supplies, and operational costs are available in-kind to researchers at Dalhousie University and the University of Alberta. The project timeline is below. It is estimated the project will be complete within 12 months from awarding of the proposal.

| Item | Q1 | Q2 | Q3 | Q4 |
|--|----|----|----|----|
| Ethics review board approval | | | | |
| Phase 1: Student performance analysis | | | | |
| Phase 2: Student survey and focus groups | | | | |
| Phase 3: Preceptor and faculty survey | | | | |
| Dissemination through presentation and publication | | | | |

Q = Quarter (3-month periods)

Essential Data and Next Steps:

The data generated for each phase described above will be interpreted as a whole by the research team. The final report for this project will therefore be able to identify areas for improvement in curricular delivery and assessment, reinforced by impact data from experiential training and feedback from faculty and preceptors. Data will also be used to support innovation within this area and determine the curricular structure, types of learning events, and assessments that are most impactful for student learning. Finally, the project will produce a set of recommendations for faculty and preceptor development to support student learning of LGBTQIA+ concepts in both coursework and experiential practice.

If successful, this project will provide the academy with a curricular blueprint of learning and assessment material evaluated through the lens of impact on practice. The success of this project will also generate new research questions, specifically relating to adaption of the LGBTQIA+ curriculum within new contexts and cultures. Future work will also be required to determine how the LGBTQIA+ curriculum can be integrated with other health equity concepts and lead students towards a career as competent care providers and advocates for all patients.

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Appendix 1: Learning Outcomes and LGBTQIA+ Curricular Overview (DU)

Learning Outcomes:

1. Define and use 2SLGBTQ+ specific terms, including two-spirited, lesbian, gay, bisexual, transgender, queer, questioning, intersexual, asexual, and others
2. Elicit and use a person's pronouns in health care interactions and pharmacist service delivery
3. Describe the roles of discrimination and implicit bias relating to 2SLGBTQ+ health disparities and health care access
4. Explain the Minority Stress Model in terms of distal and proximal minority stress processes, coping strategies, and mental health outcomes
5. Plan care for an 2SLGBTQ+ patient for all conditions but also those specific for gender-affirming hormone therapy, prevention and treatment of HIV and other sexually transmitted infections, and mental health
6. Apply literature when making decisions relating to the medical and social needs for 2SLGBTQ+ patients
7. Propose system and individual-based interventions to improve inclusivity for 2SLGBTQ+ persons in health care and pharmacist service delivery
8. Identify community resources available to optimize health care for 2SLGBTQ+ persons
9. Explain the role of the profession in advocating collectively for 2SLGBTQ+ health

LGBTQIA+ Curriculum Overview (DU)

| Topic | Course Stream | Assessment |
|--|---------------|-------------------------------|
| Year 1 | | |
| Intro Lecture (terminology, pharmacist's role) | SBA | MCQ Exam |
| Communication Exercises | Skills | OSCEs |
| Year 2 | | |
| Gender-Affirming Care | Therapeutics | MCQ + SA Exam |
| Literature Evaluation | CAS | Written Assignment |
| Communication Exercises | Skills | OSCEs |
| Year 3 | | |
| HIV and Sexual Health, Prophylaxis | Therapeutics | MCQ + SA Exam |
| Systemic Oppression, Minority Stress, Intersectionality, Mental Health | SBA | Written Assignment + MCQ Exam |
| Lived Experiences from LGBTQIA+ Community | SBA | Written Assignment + MCQ Exam |
| Community Exercises | Skills | OSCEs |

SBA = Social Behavioural Administration; MCQ = Multiple Choice Questions; OSCEs = Objective Structured Clinical Examinations; SA = Short Answer Questions; CAS = Critical Appraisal Series

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Reference List

1. Bleasdale J, Wilson K, Aidoo-Frompong G, et al. Lesbian, gay, bisexual, and transgender (LGBT) health education in healthcare professional graduate programs: A comparison of medical, nursing, and pharmacy students. *J Homosex* 2022: <http://doi.org/10.1080/00918369.2022.2111535>
2. Hafeez H, Zeshan M, Tahir MA, et al. Health care disparities among lesbian, gay, bisexual, and transgender youth: A literature review. *Cureus* 2017;9(4):e1184.
3. Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol Bull* 2013;129(5):674-697
4. Villemure S, Astle K, Phan T, Wilby KJ. A scoping review of the minority stress processes experienced by sexual and gender minority individuals in pharmacy settings: Implications for health care avoidance. *J Am Pharm Assoc* 2022: <https://doi.org/10.1016/j.japh.2022.10.011>
5. Lewis N, Batra P, Misiolek B, et al. Transgender/gender nonconforming adults' worries and coping actions related to discrimination: relevance to pharmacist care. *Am J Health Syst Pharm* 2019;76(8):512-520.
6. Anson C, Zhong H, Wilby KJ. Advancing the conversation: a review of scholarly activity for curricular interventions for sexually- and gender-diverse patients in pharmacy education. *Curr Pharm Teach Learn* 2021;13:1718-1723.
7. Association of Faculties of Pharmacy of Canada. Educational Outcomes. Cited December 18th, 2022. Available from: <https://www.afpc.info/node/39>
8. Braun V, Clark V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;3(2):77-101.