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ABSTRACTS

Oral Presentations

TABLE OF CONTENTS

1OP1

A Blended Learning Instructional Design Model for Developing Patients Care Skills in a Second Year Skills Lab

Natalie R. Kennie-Kaulbach, College of Pharmacy, Dalhousie University, Halifax Nova Scotia

Goals of the Presentation: This session will describe how a blended learning instructional design can be used to develop patient care skills in junior pharmacy students.

Description of the Project: Blended learning has been described as the thoughtful fusion of face-to-face and online learning experiences. Principles of blended learning and the Cognitive Apprenticeship Model were used to inform the learning design for teaching patient assessment and communication skills including over-the-counter, new prescription and monitoring consultations in a Second Year Skills Lab Course. The blended instructional design model is comprised of (1) online pre-work containing sequenced audio presentations, videos modelling skills, and quizzes; and (2) an in-class workshop where students in their assigned lab groups role play patient scenarios in multiple rounds with increasing level of case complexity, with peer and lab demonstrator feedback. Following the workshop, students complete in-lab activities to further apply the skills and receive formative and summative feedback. The learning design includes *modelling* with online videos, *coaching* by lab demonstrators, checklist tools for instructional *scaffolding*, activities for *articulation* of clinical reasoning processes and an online self-assessment journal for r*eflection.* Overall student reaction on course evaluations over the past three years while delivering the model have been positive for this learning approach.

Relevance to Pharmacy Education: Current learning designs should consider new teaching methods and the new generation of learners who are less engaged in lecture formats and value group work, collaborative learning and learning by doing. The pedagogical concepts and methods used for developing patient care skills in this course may be useful for other pharmacy programs.

Session Summary: This session presents a blended learning instructional design model for developing patient care skills in junior learners. The model is comprised of carefully sequenced online introductory content, followed by an in-class workshop involving multiple rounds of role play scenarios. The pedagogical concepts and methods used for developing patient care skills in this course may be useful for other pharmacy programs.

1OP2

Value-Reasoning: a Case Study in Pharmacy Education

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Critical thinking skills are fundamental for pharmacy practice. Looking to promote the development of these skills, faculties of pharmacy integrate, therefore, evidence-based practice as a core component of their care model. However, to our knowledge, few educational programs take into account the effect of a student's values and beliefs on his ability to reason or on his critical thinking skills development.

By a case study technique, this project explores the effects of a pedagogical intervention (PI) aimed at explicitly recognizing the influence of values on the reasoning and decision-making of pharmacy students at the Université de Montréal. The PI was offered to second year students (N=193) as an optional extracurricular activity. During the PI, participants (n=7) were asked to first complete a value survey, second, attend an interactive workshop, third, participate actively in a group think-aloud session, fourth, self-reflect on a metacognitive questionnaire, and finally, write a personal case-related critical thinking analysis. Researchers analyzed the collected data from the angle of reasoning strategies, their implementation and by the cognitive and affective nature of core objects guiding student's reasoning and decision-making.

Preliminary results show that explicitly recognizing the influence of values on reasoning and decision-making represents a useful educational intervention by acting as an efficient short term incentive into combining reasoning strategies. PI design was effective in attaining that effect. Likewise, the conceptual framework backing our case study and its corresponding analysis methodology appear to be promising approaches and tools to study the interaction between values and reasoning/decision making strategies.

Ongoing analysis with current data may reveal links between participants' personal value framework and their use of specific reasoning and decision-making strategies. However, further studies are needed to show if the PI's benefits will lead students, in the long term, to become more assertive professionals, fully conscious of the biases and limits of their arguments and decisions.

1OP3

Development and evaluation of a mental health first aid and cognitive impairment simulated patient lab

Kimberly A. Sponagle, College of Pharmacy, Faculty of Health Professions, Dalhousie University

Goals of the Presentation: To describe the development, implementation and evaluation of a standardized patient (SP) lab experience for third year pharmacy students that provided opportunities for students to apply communication strategies for mental health first aid and interactions with cognitively impaired individuals.

Project Description: Third year students at the Dalhousie College of Pharmacy study clinical conditions including anxiety, depression, bipolar disorder, schizophrenia, and dementia in their Pharmacy courses. This new lab was developed to allow the students to interact with a patient living with these conditions when they are in a state of poor control. An online lecture was developed to provide an overview of communication strategies. This lecture and additional resource materials were uploaded to the learning management system. Students were instructed to review these materials prior to the lab. Standardized patient cases were created that demonstrated acute psychosis, suicidality, confusion, and agitation. Students were provided an opportunity to self-disclose if they felt uncomfortable with any of the proposed scenarios. The lab was administered for the first time in February 2017. After completion of the interaction with the SP, students were provided formative feedback on their interaction by the SP and a pharmacist lab demonstrator. An online evaluation and reflection activity were created for completion by the students following the lab.

Relevance to Pharmacy Education: Community pharmacists in Canada have been identified as an underutilized resource in assessing suicide risk in Canada. Mental health first aid training has been shown to reduce stigma and improve confidence in providing services to clients. This novel experience proposes a model for further assessment of mental health first aid training in a pharmacy curriculum in Canada.

Session Summary: This presentation will describe a model for implementing mental health first aid training into a pharmacy curriculum.   Planning and implementation will be discussed as well as preliminary findings of student and instructor feedback on the experience.

1OP4

Development and Implementation of an Interprofessional Simulation Experience with Pharmacy and Nursing: Challenges and Successes

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Session Description: The focus of this concurrent session will be on the development of interprofessional (IP) simulation activities in the entry to practice program. The literature regarding simulation learning will be reviewed, and the core aspects of IP education will be highlighted. Challenges, barriers, successes, and lessons learned will be featured based on a 5-year nursing/pharmacy IP simulation integration at the University of Alberta.

Goals of the presentation: The intent of this presentation is to engage pharmacy educators on approaches they can take to working with other health professions on developing innovative methods of simulation learning.
After attending this presentation the attendee will be able to:
1. Describe necessary contextual factors for successful IP simulation
2. Identify effective implementation strategies for IP simulation

Description of the project: The pharmacy/nursing research team began a pilot project in 2012, involving a small group of selected pharmacy and nursing students in interprofessional simulation learning, where each discipline acted as the lead in a simulation, but the students had to work together. In 2015 the decision was made to scale the pilot project into a full course-based activity. The simulations were updated by nursing to include bedside assessment post-surgery with a manikin, and pharmacy simulations included standardized patients with a focus on deprescribing. Students, lab facilitators, and instructors were all surveyed regarding their experience with the simulations and the feasibility of integrating the other health discipline. Overall the response was very positive from all parties involved regarding the experience. However, the scale-up of a pilot project to a the entire class of over 120 students was challenging, primarily due to scheduling, availability of learning space, and lack of prioritization by some curriculum decision makers for this innovative activity.

Relevance to pharmacy education and research: The effectiveness of simulation learning has been demonstrated within a single profession, and many faculties are investing heavily in simulation resources. However, there is little research on IP simulations, and educators should be aware of these unique challenges before attempting a full scale integration in the curriculum.

Summary: The scale up of an IP simulation is possible for pharmacy curriculum, but involves extensive planning, network, and advocacy to overcome the hurdles.

1OP5

Simulation-based education: Crisis resource management in pharmacy education

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Description of the session: Crisis resource management (CRM) in healthcare is the articulation of the principles of individual and crew behaviours in ordinary and crisis situations that focuses on the skills of dynamic decision-making, interpersonal behaviour, and team management. Simulation-based CRM training is increasingly used in health professions education to promote effective collaboration and patient safety. The goal of this session is to present the key principles in designing and implementing simulation-based training on CRM in pharmacy education.

Over the past five years, second and third-year undergraduate Doctor of Pharmacy Program (Pharm.D.) students at Laval University have experienced a collaborative simulation-based team training with pharmacy technician students targeting CRM basic principles (e.g. team management, resource allocation and environmental awareness, and dynamic decision-making). To our knowledge, Laval University is the first institution to have integrated simulation-based CRM training in their Pharm.D. curriculum.

The session will start by situating the origins of CRM and provide an overview of the core CRM principles. Examples of scenarios used at Laval University will be presented by making connections with Pharm.D. learning objectives. Instructional design features in CRM, such as task complexity and curriculum integration, as well as debriefing techniques will be discussed. Data on students' appreciation of the activity will also be provided.

Logistical issues regarding the implementation of CRM simulation-based training, such as recruiting actors, collaboration with pharmacy technician students, and financial and human resources will be presented. In conclusion, challenges and tips for implementing a similar activity will be provided.

Summary: This goal of the session is to present the experience at Laval University in designing and implementing simulation-based training on crisis resource management in pharmacy education. Examples of scenarios, instructional design features, debriefing techniques, and logistical issues will be discussed. The session will provide tips for successfully implementing a similar activity.

1OP6

A Near-Peer Mentor Activity: Change in First-Year Students' Perceptions of Professionalism

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Goals/Intent: To describe an innovative near-peer learning activity in mentorship of professional attitudes. To present results of a mixed methods evaluation to inform an evidenced based discussion about how to teach professionalism in pharmacy curriculum.

Project Description: Pharmacists are expected to honour their roles as self-regulated professionals. Teaching pharmacy students about professionalism is a challenge in traditional education settings. Experience suggests that the attitudes and behaviors that characterize professionalism are best acquired through a process of professional socialization. A near-peer mentor activity that pairs first- with fourth-year pharmacy students was implemented in the first-year curricula to further enhance first-year development of professionalism traits.

Twenty-three P1 students were split into groups (N=6) and matched with P4 students currently on their community placements. During a 90-minute activity, the P4 students were asked to share an experience from their placement that demonstrated professionalism. P1 students completed a mandatory pre- and post-activity professionalism questionnaire that contained a validated self-assessment tool called the Professionalism Assessment Tool (PAT) and a modified version of a tool called APIPHANI (Assessment of Professionalism in Pharmacy, A Novel Instrument). In addition, students were required to complete a post-activity reflection assignment demonstrating their ability to discuss the domains of professionalism measured with the professional behaviour questionnaire.

Students have already taken the pre-activity questionnaires and are scheduled to complete their reflections and post-activity questionnaire as a mandatory component of the course prior to the meeting. Domains discussed in the self-reflection will be extracted using qualitative analysis. These findings will be compared to results from a pre-post analysis of the questionnaires.

Relevance to Education and Research: Teaching and assessment of professionalism is challenging. This innovative near-peer activity supports current theory on student socialization into the profession. Our findings will contribute to literature on effective ways of teaching and assessing professionalism in the pharmacy curriculum.

Presentation Summary: An innovative near-peer activity on mentorship of professionalism is described and results from a mixed method evaluation are presented.

2OP1

Conducting a Needs Assessment for the Preceptor Development Program at the Leslie Dan Faculty of Pharmacy

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Description of session: This session will provide an overview of the Needs Assessment conducted prior to the expansion of the Preceptor Development Program (PDP) conducted by the Leslie Dan Faculty of Pharmacy (LDFP) at the University of Toronto (U of T).

Goals / Intention of Presentation: This presentation will provide an overview of the project conducted with discussion of the results and implications for preceptor development programs.

Description of Project: To enhance the Preceptor Development Program (PDP) currently offered, a number of opportunities were under consideration. Prior to developing and offering these programs, the Faculty sought input from current preceptors and students to determine the learning needs of preceptors and their preferred mode of learning. Anonymous online surveys were sent to preceptors and students. Focus groups and semi-structured interviews were conducted with key stakeholders –faculty education coordinators, other faculty members, pharmacist preceptors and pharmacy students.
Overall, participants showed interest in both online learning modules (attractive for the flexibility they offer) and live interactive workshops (valued for the opportunity to interact with colleagues and apply knowledge to cases or scenarios). Education of preceptors regarding expectations and assessment strategies was suggested to address concerns regarding a need for greater standardization of rotations. Other topics of interest included: dealing with challenging situations, supporting the struggling and the exceptional student, questioning skills, etc. Preceptors expressed interest in certificate training in areas of Preceptor Education, Educational Research and Scholarship, and Educational Leadership. They would also like to network with fellow preceptors, in person and virtually.

Relevance to Pharmacy Education / Research: Experiential education is a valuable and substantial portion of the education that pharmacy students receive in the Doctor of Pharmacy program. Pharmacists are interested in further professional development for their role as a preceptor. Enhancing the foundational components of the current program is essential while determining the feasibility of additional educational offerings that include Certificate Programs, and supports such as a Listserv.

2OP2

Revaluing and Redefining Grades: One College's Initial Steps in Constructing Pharmacy Learning Community Commitments in Support of Competency Based Assessment and Competency Based Decision Making

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This session elaborates on the successes and challenges associated with collaborative processes utilized during the planning around a renewed assessment framework within a new PharmD program. Through this collaboration, an 'agreed upon in principle' set of pharmacy learning community commitments around assessment and the facilitation of learning were developed. Calls for the renewal of existing assessment frameworks in post-secondary learning communities are not new. Most recently however, there are renewed requirements around assessment from accrediting bodies such as the Canadian Council for Accreditation of Pharmacy Programs and pleas from health profession education research to embark on shifting assessment frameworks to be focused on facilitating improvements in learning and on supporting authentic connections to practice (Eva, Bordage, Campbell, Galbraith, Ginsburg, Holmboe, and Regehr, 2016). Many existing post-secondary assessment frameworks are founded on behavioristic and norm-referenced assessment models not necessarily designed with a primary focus on improving the learning experiences of all learners. These existing frameworks for assessment are reified through a multitude of experiences, technologies, policies, and procedures which are implicitly woven into the identities of not only instructors, but also, students, and institutions. Constructing thoughtfully staged implementation plans to bring forward more learning-centric and criteria-founded assessment frameworks requires a careful attending to the voices of these collective identities. Experiences relevant to instructors and administrative teams will be shared in three areas: a) the processes undertaken to construct community learning commitments in support of a more integrated system of formative/summative assessment and program evaluation; b) the pairing of competency based assessment with competency based decision making; and c) the ongoing development of implementation plans towards a renewed criteria-referenced competency based assessment framework.

2OP3

Strategies for facilitating the adoption of peer assisted learning, a non-traditional preceptorship model, in institutional settings

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Goals of Presentation: This presentation will:
1. Describe Peer-Assisted Learning (PAL) as a preceptorship model.
2. Describe a multi-pronged approach to engaging and supporting leadership and preceptors in implementing and utilizing PAL.
3. Share evaluation findings from various perspectives.

Description: The PAL model is defined as having two or more learners at the same educational level placed in the same clinical area and precepted by one or more preceptors. Various strategies have been utilized to promote, determine interest, educate, support and evaluate implementation efforts. These include:
1. Identification of early adopters of PAL and how they have utilized PAL.
2. Broader introduction of PAL to preceptors and leadership through a presentation delivered at provincial grand rounds and via newsletters.
3. Introduction of bi-monthly webinar series to discuss various facets of using PAL.
4. Surveying pharmacists, including leadership, about the use of, and feedback on, PAL.
5. Disseminating survey results to leaders and preceptors to educate and inform future initiatives.
6. Creation of a preceptor tip sheet and national guidebook to share practical "how to" information with preceptors, including benefits, challenges and considerations for optimizing implementation.
7. Creation and delivery of a workshop for preceptors planning to implement PAL model.

Relevance to Pharmacy Education: The implementation of the entry-to-practice PharmD program will significantly increase placement requirements. Utilizing new models of precepting is one strategy programs can use to advance the practice of precepting and increase placement capacity. Sharing our experience can inform planning by other faculties who may be embarking on a similar initiative.

Summary of Session: As pharmacy programs in Canada are required to increase experiential education with the introduction of the PharmD, utilizing non-traditional preceptorship models that increase capacity represent one mechanism to achieve this. This session will outline change management strategies for facilitating the adoption of a non-traditional preceptorship model, peer-assisted learning (PAL), with practice sites.

2OP4

Use of Recognition of Prior Learning in a PharmD bridging program

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Goals of session: To discuss outcomes of a purpose-built recognition of prior learning (RPL) process in a PharmD bridging program for BScPhm graduates.

Description: Since its launch in January 2015, Waterloo Pharmacy has admitted over 200 students to its PharmD bridging program. Based on Canadian Association of Prior Learning Assessment quality assurance guidelines and best practices in other jurisdictions, a rigorous RPL process was developed to capture students' level of clinical competence and eligibility to receive academic credit for their prior learning.

To date, over 5 terms of offer, 117 students have undertaken the RPL process and the services of 86 assessors have been utilized. There are four possible student outcomes from this RPL process: Level 3 competence (the highest level of achievement), Level 2, Level 1 and Failure (less than 70%). Of those who have completed the process, results are as follows: Level 3 – 49%, Level 2 – 47%, Level 3 – 2%, Failure – 1%. A summary of student and assessor feedback, program challenges and opportunities will be presented. Next steps in the assessment process will also be discussed.

Relevance to pharmacy education: As a high stakes assessment, our lessons learned regarding assessment practices, assessor training and grade norming may be useful to many pharmacy programs. Understanding this well-researched model may allow educators to apply elements in their programs. Outcomes have been shared with other Faculties and Departments at our university, demonstrating pharmacy's leadership in developing and implementing innovative education models.
As more learners with varied experience present to pharmacy programs, RPL may be a mechanism to assess that experience.

Summary: A rigorous and reliable RPL process can be implemented in a PharmD Bridging program to give academic credit for pharmacists' prior learning. Ongoing quality assurance processes are essential to maintaining the credibility of and confidence in RPL assessments.

2OP5

Current landscape of non-direct patient care rotations in Canadian pharmacy schools

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Objectives: Information regarding non-direct patient care (NDPC) rotations in required concluding practice experiences is lacking because few pharmacy schools currently offer these rotations during their students' final practice experiences. The purpose of this pilot study was to gather and share information about the current status of NDPC rotations in Canadian pharmacy school experiential education.

Methods: We administered a 16-item online questionnaire to all 35 members of the Pharmacy Experiential Programs of Canada in February 2017. We analyzed the results quantitatively using descriptive statistics and qualitatively with a deductive, thematic approach.

Results: We collected 20 responses (57% response rate) with at least one response from each Canadian pharmacy school. Five of the 10 Canadian pharmacy schools currently offer an Entry-to-Practice Doctor of Pharmacy (or EPPD) program. NDPC rotations offered in EPPD programs include the following categories: advocacy, administration, and governance; business; drug development and surveillance; and education. Majority of the respondents perceived that learning objectives that are common to all NDPC rotations should align with the Educational Outcomes for First Professional Degree Programs in Pharmacy (Entry to Practice Pharmacy Programs) in Canada (i.e. AFPC Educational Outcomes). Hence, the AFPC Educational Outcomes formed the basis of our deductive, thematic analysis of the qualitative data, from which we were able to develop a concept map linking learning objectives of NPDC rotations with activities that students can be engaged in order to achieve the ultimate goal of diversified learning and success. 70% of the respondents did not agree that NDPC rotations should be mandatory within the required concluding practice experiences of pharmacy students.

Conclusions: NDPC rotations can support pharmacy students in achieving AFPC Educational Outcomes and expose students to diversity in pharmacy practice. However, it may not be necessary to mandate NDPC rotations in the concluding practice experiences of pharmacy students. Instead, having a student-centred approach when structuring required concluding experiential education will likely optimize student learning and experience.

2OP6

Pharmaceutical calculations: diagnosing at-risk students is like finding a needle in a haystack

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Pharmaceutical calculations are a small, but critical competency to acquire by pharmacy students. Indeed, many aspects of their future tasks are based on strong knowledge of pharmaceutical calculations. Therefore, certification-based assessments must reflect the clinical reality of the future pharmacist since daily clinical decisions are based on calculated data. The student should demonstrate his/her ability to extract relevant data and produce a consistent and correct result. Since pharmacy students are selected for their academic performances, most of them do not have any difficulty to carry any kind of pharmaceutical calculations. However, in each cohort, a small number of students present difficulties to achieve the required score of ≥ 85%. This failure raises numerous problems, such as student intensified stress and teacher inability to diagnose precisely the student's needs and difficulties. The cohort size (180 - 200 students) and the limited number of dedicated, face-to-face teaching periods (4h / cohort / year) are obstacles to personalized interventions toward these few students.

In order to stop this vicious circle, we explored a new approach to identify at-risk students before their final assessment using e-learning and dynamic evaluations. From a conventional teaching method, we evolved to a more dynamic strategy, based on the use of ExamSoft (Dallas, TX) not only to assess students but also to provide practice exams throughout the session. A categorization of questions according to the required knowledge or mathematical approach was systematically applied. With the support of the ExamSoft analysis tools, we were able to identify general and particular difficulties of all participating students. Feedback could then either be given to all, with the e-Forum, or individually.

By improving our teaching approach, we were able to increase the assessment complexity to better mimic the clinical reality and identify students at risk before the final assessment. On the other hand, cohort mean results were significantly improved ($p < 0.0073$), as well as our ability to diagnose at-risk students and map their personal difficulties.