

Rethinking Our Annual Congress—Meeting the Needs of Specialist Physicians by Partnering With Provincial Simulation Centers

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Abstract: Canada's maintenance of certification programs for physicians has evolved to emphasize assessment activities. Our organization recognized the importance of offering more practice assessment opportunities to our members to enhance their practice and help them comply with a regulation from our provincial professional body related to ongoing continuing education. This led us to rethink our annual congress and enrich the program with a curriculum of interdisciplinary simulation sessions tailored to meet the needs of a broad audience of specialists. Our challenges are similar to those of many national specialty societies having limited access to simulation facilities, instructors, and simulation teams that can cover the breadth and scope of perceived and unperceived simulation needs for their specialty. Our innovative solution was to partner with local experts to develop 22 simulation sessions over the past three years. The response was very positive, drawing 867 participants. Over 95% of participants either agreed or strongly agreed that their simulation session (1) met their learning objectives, (2) was relevant for their practice, and (3) encouraged them to modify their practice. Narrative comments from a survey sent to the 2018 participants four months after their activity indicated several self-reported changes in their practice or patient outcomes. We were able to centralize offers from organizations that had previously worked in silo to develop simulation sessions meeting the needs of our members. Proposing simulation sessions allowed our organization to establish long-term partnerships and to expend our "educational toolbox" to address skill gaps not usually addressed during annual meetings.

Keywords: CPD, annual meeting, simulations, partnership

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PROBLEM STATEMENT—LACK OF PRACTICE ASSESSMENT OPPORTUNITIES FOR QUEBEC SPECIALIST PHYSICIANS

Over the years, continuing professional development (CPD) requirements for specialist physicians in Canada have evolved to emphasize more assessment programs. The Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada requires physicians to complete 25 credits (three credits per hour) of practice assessment activities over a cycle of 5 years.¹ Furthermore, as of January 1, 2019, every physician in Québec must accumulate 250 CPD hours over a period of five years as established by the provincial professional body. Of those, physicians are required to accumulate 10 hours of recognized practice assessment activities.²

As of 2016, our CPD office recognized the necessity to offer more practice assessment opportunities to our members to comply with this upcoming regulation, as well as to enhance the practice of our members. The Royal College of Physicians and Surgeons of

Canada has grouped assessment activities³ under seven broad categories: chart audit and feedback,^{4,5} multisource feedback,^{6,7} annual performance reviews or appraisal,⁸ accredited simulation activities,⁹ accredited self-assessment programs,¹⁰ direct observation,^{11,12} and feedback on teaching.¹³⁻¹⁵ Among these categories, simulations present the distinct opportunity for learners to evaluate their performance from experimentation, errors, or potential suboptimal performance, without affecting patient care. Because our organization already offers various accredited self-assessment during our annual meeting and on our learning management system, we decided to enrich our congress program with a curriculum of interdisciplinary simulation sessions tailored to meet the needs of a broad audience of specialists.

Despite the challenges associated with attending annual meetings (such as limited time and cost), physicians often rely on these congresses to maintain and improve their clinical knowledge.¹⁶ It offers a unique attractiveness for participants to attend a variety of educational programs geared to their needs. Over the past decade, we have seen a constant increase in participation at our annual interdisciplinary congress. With over 1400 registrations in 2019, this congress is now the largest medical specialists' event in Canada. Given the popularity and reach of our annual interdisciplinary congress, we hypothesized that participants might be inclined to attend simulation sessions if they were part of our official program. Indeed, medical specialists have limited opportunities to participate in simulation sessions. Québec simulation centers' offerings were not publicized outside their own sites and many programs were not developed to fit the needs of specialist physicians. Furthermore, specialist physicians practicing in rural regions did not have access to simulation facilities.

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Many questions emerged when we proposed simulation programming to our board of directors.

1. Would specialist physicians attend simulation sessions during our annual meeting?
2. Because our organization is the umbrella for 35 distinct affiliated medical associations representing 59 different medical specialties, could we propose an interdisciplinary simulation program that would meet the needs of a broad audience?
3. Considering this novel approach for our organization, could we partner with local experts to ensure the success of this simulation program?

SOLUTION—ENRICHING OUR ANNUAL MEETING WITH SIMULATION SESSIONS

Partnering With Local Experts for Simulation Programming

During our 2016 annual meeting, we surveyed our attendees regarding their interest to participating in simulation sessions the following year. Of the 951 respondents, 56% indicated interest in participating, and we received a strong commitment from our organization’s board to cover the time and costs associated with simulation programming. Throughout the first quarter of 2017, we conducted extensive consultations to identify perceived needs (through surveys of our members) and unperceived needs (through advisor committees with our provincial regulatory body, Canadian Medical Protective Association, Canadian Patient Safety Institute, representatives from our four medical schools, patients, etc.) to develop our 2017 simulation program. This exercise was then repeated each year to identify simulation sessions to develop for our upcoming annual meeting.

Because our organization had little experience in developing accredited simulation programs, we looked for simulation experts to establish partnerships. As a major city in Canada, Montreal is home to two medical schools and some of the largest hospitals in the country. In 2017 and 2018, therefore, we approached local medical schools (Université de Montreal and McGill), two major hospitals with simulation centers in Montreal (Académie CHUM and CHU Ste-Justine), University of Sherbrooke’s medical school simulation center located on the south shore of Montreal, and a private partner specialized in cardiopulmonary resuscitation training for partnership. In 2019, we extended our collaboration with Université Laval’s simulation center located in Quebec City. Over the course of our discussions and searches to partner with local experts, various barriers and challenges needed to be addressed (Table 1).

Given that our organization is the umbrella for 35 different affiliated medical associations, we prioritized the development of simulation sessions that took into account the needs of physicians from multiple specialties. Therefore, we ensured coverage of a broad range of CanMEDS competencies during simulation programming (Table 2).¹⁷ Ten, 12, and 12 simulation sessions were held in 2017, 2018, and 2019, respectively. Many pre-existing simulation sessions were adapted by simulation centers’ directors, and novel sessions were developed to address identified needs. This led to a direct cost increase for our CPD office. We decided to invest more for the first edition given that some of the costs associated with the first year (2017) could be spread over the next few years (2018 and 2019) because some simulation sessions would be reconducted. To avoid conflict in schedule, we allocated a second day to our annual meeting entirely dedicated to hands-on simulation sessions. Because these were held at the congress center and at various simulation centers, we had to closely coordinate with simulation personnel to monitor the deliverables and ensure a smooth experience for our members.

Simulation Program Evaluation

We used the Moore, Green, and Gilles’ Outcome-based Continuing Medical Education Framework (Table 3) to evaluate the outcomes of our simulation program in 2017, 2018, and 2019.¹⁸ For each year and each session, we kept a registry of participation (Moore’s level 1) and sent an electronic post-simulation session survey to all participants to determine to what extent the delivery of the session met its goal (Moore’s level 2). In an attempt to measure higher-level outcomes, an online survey was sent to the 2018 participants (N = 285) 4 months after their activity to assess any change in practice (Moore’s level 5) and/or in patient outcomes (Moore’s level 6).

Main Outcomes

From 2017 on, the simulation sessions attracted over 270 participants each year (Table 4). Most of these sessions were fully booked months before the annual meeting and waiting lists had to be implemented in the case of last-minute cancellations. Specialists from throughout the province participated in the simulation sessions (56% from regions other than Montreal and its neighborhoods). Most participants indicated that the simulation session they attended met their learning objectives and that the format was appropriate for the topic, as measured in the postintervention electronic surveys. Although these sessions were interdisciplinary, 83% of the respondents strongly agreed that they were pertinent to their practice. Most of the respondents (58%) strongly agreed that attendance at a simulation session encouraged them to modify their practice. Finally, comments collected in the narrative section of the

TABLE 1.
Challenges and Barriers Faced During Development of Simulation Sessions

Challenges and Barriers	Approaches and Solutions
Courses difficult to find on simulation centers’ websites	We listed each center’s resources and expertise to find possible synergies
Limited collaboration between simulation centers	We acted as a facilitator for provincial network to leverage center’s expertise
Skepticism from some simulation center directors about this initiative	We described our needs and objectives in detail
Most of the existing simulation sessions were not developed to meet the needs of specialist physicians	We adapted content with local experts to meet the identified needs

TABLE 2.
Simulation Sessions Developed

Simulation Session	Year(s)	CanMEDS Competency(ies)*
Critical care and emergencies in obstetrics and pediatrics	2017, 2018, and 2019	ME and COL
Ultrasound screening of a pathology of the cuff of the shoulder rotators	2017	ME
Management of terrorist acts and natural disasters	2017 and 2019	COL and COM
Advanced Imaging Life Support	2017 and 2018	ME and HA
Adult and child anaphylaxis management	2017 and 2018	ME and COL
Interprofessional collaboration in crisis management: ensuring the effectiveness of the team	2017 and 2018	COL
Psychological distress in the professional environment	2017 and 2018	P
Targeted ultrasound	2017	ME
Communication with the “difficult” patient	2017, 2018, and 2019	COM
Crisis pacification workshop	2017, 2018, and 2019	COM
Hip pathology ultrasound screening	2018	ME
Echo-Guided Life Support	2018	ME
Cardiopulmonary resuscitation	2018 and 2019	ME
Basic cardiopulmonary life support	2018	ME
Difficult airway management	2018	ME
Modern concepts in electroconvulsive therapy: clinical simulation learning	2019	ME
Targeted bedside ultrasound	2019	ME
Organizing in situ simulations in your clinical setting	2019	S
Adherence to treatment, bringing a change in our patients!	2019	COM
Keeping a cool head in the heat of the moment: An introduction to complex case management	2019	ME and COL
Thoracic ultrasound workshop	2019	ME
Ensuring a safe patient transfer	2019	COM and HA

*Medical expert (ME), communicator (COM), collaborator (COL), leader (L), health advocate (HA), scholar (S), and professional (P).

postintervention electronic surveys were very complimentary (data not shown).

Our next step was an attempt to assess possible higher-level outcomes to participating in simulation sessions as part of our annual meeting. We surveyed the 2018 simulation session’s participants four months after they attended their activity to assess any performance change (Moore’s level 5) or patient outcomes (Moore’s level 6). Of the 87 respondents, 75% reported making a change to their practice after the simulation session they attended, but only few participants stated a specific example. Table 5 lists explicit examples provided in the narrative section. Some of the 2018 participants reported an improvement in patient safety (IDs: 4, 23, 60, and 70), change in practice (IDs: 35, 36, 65, 83, and 84), and patient outcomes (ID 53). Additional analyses would be required to assess the level of achievement of Moore’s Levels 5 and 6.

Benefits for CPD Providers

In a field of constant evolution, CPD providers have the obligation to develop programs beyond traditional didactic lec-

tures, offering “hands-on” approaches, known to affect physicians’ practice and patient outcomes.^{19,20} It is well-established that CPD activities incorporating interactive methods (such as simulations) tend to be more effective in changing performance.²¹ Indeed, the ultimate goal of CPD is to enhance the quality and safety of patient care and to enhance health outcomes.²² Exposure to high-severity but low-frequency events and suboptimal interaction of the health care team in the clinical setting are potential patient safety issues and a possible source of incidents that simulations can address.²³ Therefore, we believe that offering simulation sessions was a natural next step in enhancing our annual congress.

Before 2017, our annual meeting solely focused on didactic lectures coupled with various knowledge assessment strategies. Simulations can address complementary skills necessary for physician’s lifelong learning, such as clinical skills and crisis resource management skills, usually not addressed during congresses. Indeed, simulation provides learners with experiential learning opportunities in a safe environment and allows time for debriefing where deeper learning can occur.²⁴ Younger

TABLE 3.
Moore et al Expanded Outcome-Based Continuing Medical Education Evaluation Framework

Level	Outcomes	Definition of Outcomes
1	Participation	The number of participants who registered and attended
2	Satisfaction	The degree to which the expectations of the participants about the setting and delivery of the CPD activity were met
3	Learning	Changes in declarative (level 3A) and procedural knowledge (level 3B) of the participants
4	Competence	Demonstration of how to do something in the educational setting
5	Performance	Changes in practice performance in the work setting as the result of the application of what was learned
6	Patient health	Changes in the health status of patients due to changes in practice behavior
7	Population health	Changes in the health status of a population of patients due to changes in practice behavior

TABLE 4.
Moore Level 1 and 2—Participation and Satisfaction

	2017	2018	2019
Number of simulation activities offered	10	12	12
Number of participants	310	285	272
This activity met my learning objectives (%)	99	98	98
Simulation was an appropriate format for this topic (% strongly agree; agree)	92; 7	89; 10	87; 12
This activity was relevant for my practice (% strongly agree; agree)	83; 16	83; 16	83; 16
This activity encourages me to modify my practice (% strongly agree; agree)	57; 38	57; 37	58; 36

TABLE 5.
Moore Level 5 and 6—Performance and Patient Outcomes

ID	Comment	Simulation Session Attended
4	“Verification and addition of missing resuscitation equipment for the Department of Radiology”	Advanced Imaging Life Support
23	“Modify tools available in intensive care to apply laryngeal mask and cricothyrotomy more easily”	Difficult airway management
35	“More mindfulness meditation when I feel tired”	Crisis pacification
36	“Give more time and listening to dissatisfied patients”	Communication with the “difficult” patient
53	“In the following week, we diagnosed massive pulmonary embolism with echo in a cardiopulmonary resuscitation patient. She survived because of this examination”	Echo-Guided Life Support
60	“We ensure that a briefing and task assignment is done before the expected critical situation and that a constructive debriefing is done immediately afterward, which improves the cohesion of the extended team”	Psychological distress in the professional environment
65	“Development of a simulation center in our workplace”	Critical care and emergencies in obstetrics and pediatrics
70	“I changed the content of our first aid kit and encouraged my colleagues to take first aid training”	Basic cardiopulmonary life support
83	“I change my argument when I feel that I cannot reach an agreement on a particular point with a difficult patient”	Communication with the “difficult” patient
84	“I regularly practice mindfulness and read about it in a magazine I subscribe to”	Communication with the “difficult” patient

physicians had multiple opportunities to use simulation as part of their residency training, but not so the case with the older generation. Offering simulation sessions as part of our popular annual meeting helps physicians working in remote areas to access simulation facilities and expertise, offers senior physicians the possibility of assessing and refining their clinical skills, and recreates critical situations younger physicians have yet to face.

As CPD professionals, we are accountable for offering suitable programs to address the needs of our learners. Adding simulation sessions as part of their annual congress allows CPD providers to improve their “educational intervention toolbox.” Some of the benefits noticed for our organization include the ability to

1. address care gaps that could have been difficult to undertake without simulations,
2. develop new and long-term partnerships with simulation professionals,
3. conceive interdisciplinary simulations tailored to the needs of our members and their teams, and
4. offer a revitalized program for our annual congress.

CONCLUSION

Integrating simulation sessions as part of a major annual meeting is feasible for specialist physicians. For the first time, we were able to centralize the simulation offerings of four medical schools and two major hospitals in Montreal that previously worked in silos to meet the needs of Québec medical specialists.

We believe that our approach is valid for other CPD providers. Proposing simulation sessions allowed our organization to establish long-term partnerships with local experts and to expend our “educational toolbox” to address skill gaps not usually addressed during traditional annual meetings.

Lessons for Practice

- Integrating interdisciplinary simulation sessions as part of a major annual meeting is feasible and very much appreciated by medical specialists.
- Partnering with local simulation experts could enhance CPD providers acumen, allowing them to design simulation sessions and integrate them in their annual meeting.
- Proposing simulation sessions during an annual meeting allows CPD providers to address care gaps that could have been difficult to undertake without simulations.

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